



# IQSN Product Details

PROCESS INSTRUMENTATION  
FOR WASTEWATER, DRINKING WATER AND MORE

1/2020  
*Subject to change!*



**YSI, a Xylem Brand**  
1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

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Dissolved Oxygen	10
pH/ORP	16
Conductivity	21
Turbidity/Suspended Solids	26
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## by Order No.

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000103	PB 25 S	89
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000434	Schlauch/25 S	89
000443	EF/1/25	89
000444	EF/0,5/25	89
000449	EW/25/0,5	89
000670	PF 105	87
102274	TFK 150	75
102280	TFK 325	75
102282	TFK 325-3	75
102287	TFK 325-EST-3,0	75
105412	SensoLyt® Pt	75
107040	VARiON®Plus 700 IQ	32, 53
107042	VARiON® Ref	32, 33
107044	VARiON®Plus NH4	32
107045	VARiON®Plus NO3	32, 33
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107050	VARiON®/ES-1	32
107052	VARiON®/ES-2	32, 33
107056	VARiON® 700 IQ-SK	33
107057	VARiON®/Epack	33
107060	VARiON®Plus A comp SET NH4	32, 53
107062	VARiON®Plus N comp SET NO3	32, 53
107066	VARiON®Plus AN/A comp SET NH4 & NO3	32, 53
107068	VARiON®Plus AN/N comp SET NH4 & NO3	32, 53
107070	AmmoLyt® Plus 700 IQ	32, 53
107072	AmmoLyt® Plus SET/Comp	32, 53
107080	NitraLyt®Plus 700 IQ	33, 53
107082	NitraLyt®Plus SET/Comp	32, 53
108060	D 530	101
108073	D 300/pH	101
108153	AK-CI 298	83, 116
108154	AK-USB 298	74, 117
108455	VP 6-19/10	75
108461	K 5 S	75
108507	AS 9-HI-6,0	75
108532	MZ WIS 40 IC 44	76
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108700	TEP 4	18, 76
108702	TEP 7	18, 76
108703	TEP 10 Trace	18, 76, 117
109100	SensoLyt® SE	75
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109103	SensoLyt® DW	75
109114	SensoLyt® TFA	New 17, 52, 75

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109115EX	SensoLyt® SEA EX	84
109117	SensoLyt® ECA	17, 52, 75
109117EX	SensoLyt® ECA EX	84
109118	SensoLyt® SEA-HP	17, 52, 75
109118EX	SensoLyt® SEA-HP EX	84
109119	SensoLyt® DWA	17, 52, 75
109119EX	SensoLyt® DWA EX	85
109125	SensoLyt® PtA	17, 52, 75
109125EX	SensoLyt® PtA EX	85
109170	SensoLyt® 700 IQ	18, 52
109171	SensoLyt® 700 IQ SW	18, 52
109173	SensoLyt® 700 IQ/SET	18, 52
109174	SensoLyt® 700 IQ/SET1	18, 52
109177	SensoLyt® 700 IQ F	18, 72
109180	SensoLyt® 690-7	111
109181V	SensoLyt® 690-SO	* 111
109191	SensoLyt® 700-7	112
109193V	SensoLyt® 700-SO	* 112
109194	SensoLyt® 700-SK	18, 75
109195	SensoLyt® 650-7	75
109195EX	SensoLyt® 650-7 EX	85
109232	GWA	93
109233	PL 80-120pH	75
109234	PL 80-225pH	75
109236	PL 81-225pHT VP	75
109237	CHEMtrac 830 M	76
109239	PL 82-225pHT VP	75
109260	UA 55	90
109261	UA 130	90
109263V	UA-SO Armatur	** 90
109265	UA/DS	90
109267EX	UA EX	85
109270	EH/P 170	93
109270EX	EH/P 170 EX	85
109271	EH/R 170	93
109272	EH/F 170-1,5	93, 99
109272EX	EH/F 170-1,5 EX	85
109273	EH/F 170-2,5	93
109273EX	EH/F 170-2,5 EX	85
109274	EH/W 170	93
109274EX	EH/W 170 EX	85
109275EX	BE/M 170-D EX	85
109276	BE/M 170	93
109278	BE/R 170	93
109278EX	BE/R 170 EX	85
109279	BE/R 170-D	93
109279EX	BE/R 170-D EX	85
109280	BE/ST 170	93
109280EX	BE/ST 170 EX	85
109281	BE/ST 170-R	93
109281EX	BE/ST 170-R EX	85
109283	BE/ST 170-M	93
109283EX	BE/ST 170-M EX	85
109284	SD/K 170	59, 93

\* Sensor variation with different cable length (L<sub>0</sub>-SO<sup>0</sup>): Additional costs depending on cable length.  
 \*\* UA-SO Sensor extension assembly with user-defined length: Additional costs depending on length.



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109286	MR/SD 170	59, 93
109288	MS/SD 170	93
109289	MS/RKH 170	93
109289EX	MS/RKH 170 EX	85
109290	MS/KK 170	93
109290EX	MS/KK 170 EX	85
109295	SSH/IQ	59, 93
109304	IN/SET1	93
109305	IN/SET2	93
109306	IN/SET3	93
109317	EH/SW	90, 99
109320	EH/U 170	90, 99
109320EX	EH/U 170 EX	85
109323	EH2/U 170	90
109323EX	EH2/U 170 EX	85
109325	EH3/U 170	90
109351EX	ZU 0274	85
109353EX	ZU 0738	85
109355EX	ZU 0737	85
109360	EH/W 171	99
109361	EH/W 172	99
109362	EH/WB	99
109363	EH/WT-D30	99
109365	EH/W 173	99
109366	EH/W RM	99
109367	EH/WB-40	99
109444EX	Stratos Pro A 201 X pH-0	84
109445EX	Stratos Pro A 201 X pH-1	84
109446EX	WG 21 A7	84
109447EX	WG 21 A7 Opt. 336	84
109448EX	WG 21 A7 Opt. 470	84
109449EX	WG 21 A7 Opt. 336, 470	84
109740	RH 28	18, 76, 117
180102	ZBK/NH500/TC	34
191230	pH 298 NTC	74
191232	pH 298 Pt100	74
191234	pH 298 Pt1000	74, 116
201187	FCML 412 N	83, 116
201192	TCML N	83, 116
201640	TriOxmatic® 700 IQ	12, 52
201641	TriOxmatic® 700 IQ SW	12, 52
201643	TriOxmatic® 700 IQ F	12, 72
201644	TriOxmatic® 701 IQ	12, 52
201646	TriOxmatic® 702 IQ	12, 52
201650	FDO 700 IQ	11, 52
201652	FDO® 700 IQ SW	11, 52
201653	FDO 701 IQ SW	11, 52
201654	SC-FDO® 700	12
201655	SC-FDO® 701	12
201656	FDO® 700 IQ F	11, 72
201658	FDO® 701 IQ F	11, 72
201660	FDO 701 IQ	11, 52
201670	TriOxmatic® 700-7	112
201672	TriOxmatic® 700-15	112
201674V	TriOxmatic® 700-SO*	* 112
201678	TriOxmatic® 701-7	78
201680	TriOxmatic® 701-15	78
201682V	TriOxmatic® 701-SO	* 78
201690	TriOxmatic® 690-7	78
201692	TriOxmatic® 690-15	78

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201693V	TriOxmatic® 690-SO*	* 78
202620	ZBK 600	12
202621	ZBK 25i	12
202850	WP 600/2	12
202852	WP 25i/2	12
203680	SF 300	12
203745	D 700/N	101
203747	D 702/N	101
203749	DMS/N	101
203751	EBS 700-DU/N	101
203753	EBST 700-DU/N	101
203754	EBST 700-DU/ND	101
203755	ESS 700 VA/N	85, 101
203757	ESS 700 VA/10	85, 101
203761	ADA-DF 1	101
203767	ADA-DF 4	105
203771	ADA-DF 6	105
203773	ADA-DF 7	105
203777	ADA-DF 9	105
203779	ADA-DF 10	85, 105
203781	ADA-DF 11	105
203787	ADA-DF 14	105
203789	ADA-DF 15	105
205200	RL-AG/Oxi	12
205212	ELYA	12
205245	ZBK-TCML N	83, 116
205246	ZBK-FCML 412 N	83, 116
205249	ZBK-TCML	83, 116
205253	MSK FDO	12
205254	MSK FDO® CS	12
291230	Oxi 298 NTC	74
300944EX	Stratos Pro A 201 X Cond-0	84
300945EX	Stratos Pro A 201 X Cond-1	84
301252	TetraCon® DU/T	80
301960	TetraCon® 325	80
301961	LR 325/01	80
301962	LR 325/001	80
301963	KKDU 325	80
301970	TetraCon® 325-3	80
301971	TetraCon® 325-6	80
301972	TetraCon® 325-10	80
301973	TetraCon® 325-15	80
301974	TetraCon® 325-20	80
302220	LRD 01-1,5	80
302222	LRD 01-7	80
302225	LRD 325-1,5	80
302229	LRD 325-7	80
302314EX	TetraCon® 700-1,5 EX	85
302316	TetraCon® 700-7	112
302316EX	TetraCon® 700-7 EX	85
302318	TetraCon® 700-15	112
302318EX	TetraCon® 700-15 EX	85
302319V	TetraCon® 700-SO	* 112
302500	TetraCon® 700 IQ	23, 53
302501	TetraCon® 700 IQ SW	23, 53
302507	TetraCon® 700 IQ F	23, 72
303202	ADA-G 1"	80
303203	ADA-LF-DN 20	80
303209	EST-LRD	80

\* Sensor variation with different cable length (,-SO\*); Additional costs depending on cable length.



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Order No.	Model	Pricelist page
303212	ADA/AMPH-LAB-LF	90
303215	ADA/AMPH-LF	80
303216	ADA/LAB-LF	80
391230	LF 298 NTC	74
470020	MIQ/TC 2020 3G	59
470022	MIQ/TC 2020 3G-CR3	59
470024	MIQ/TC 2020 3G-C6	59
470026	MIQ/TC 2020 3G-EF	59
471020	MIQ/MC3	59
471022	MIQ/MC3-MOD	59
471023	MIQ/MC3-PR	59
471026	MIQ/3-MOD	59
471027	MIQ/3-PR	59
472005	DIQ/JB	67, 72
472007	DIQ/CHV	33, 34, 43, 67, 72, 108
472100	DIQ/S 181	72
472101	DIQ/S 181/24V	72
472110	DIQ/S 282-CR3	67
472111	DIQ/S 282-PR	67
472112	DIQ/S 282-MOD	67
472113	DIQ/S 282-CR3-E	67
472114	DIQ/S 282-EF	67
472120	DIQ/S 282-CR3/24V	67
472121	DIQ/S 282-PR/24V	67
472122	DIQ/S 282-MOD/24V	67
472123	DIQ/S 282-CR3-E/24V	67
472124	DIQ/S 282-EF/24V	67
472130	DIQ/S 284-CR6	67
472131	DIQ/S 284-PR	67
472132	DIQ/S 284-MOD	67
472133	DIQ/S 284-CR6-E	67
472134	DIQ/S 284-EF	67
472140	DIQ/S 284-CR6/24V	67
472141	DIQ/S 284-PR/24V	67
472142	DIQ/S 284-MOD/24V	67
472143	DIQ/S 284-CR6-E/24V	67
472144	DIQ/S 284-EF/24V	67
480004	MIQ/PS	59, 67
480006	MIQ/24V	59, 67
480008	MIQ/JB	59, 67
480010	MIQ/JBR	59
480013	MIQ/R6	59, 67
480014	MIQ/CR3	59, 68
480015	MIQ/C6	59, 68
480016	MIQ/IC2	59, 68
480017	Cleaning Air Box - 115 VAC	33, 34, 43, 108
480018	MIQ/CHV PLUS	33, 34, 43, 59, 68, 108
480019	Cleaning Air Box - 230 VAC	33, 34, 43, 108
480023	MIQ/WL PS	59, 68
480025	MIQ/WL PS SET	59, 68
480026	AF/Cleaning Air Box	108
480027	RM/Cleaning Air Box	108
480040	SACIQ-1,5	12, 18, 23, 27, 33, 34, 43, 49, 55
480041V	SACIQ-SO	*** 12, 18, 23, 27, 33, 34, 43, 49, 55
480042	SACIQ-7,0	12, 18, 23, 27, 33, 34, 43, 49, 55

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480044	SACIQ-15,0	12, 18, 23, 27, 33, 34, 43, 49, 55
480045	SACIQ-20,0 SW	12, 18, 23, 27, 55
480046	SNCIQ	59, 68, 72
480047	SNCIQ/UG	60, 68, 72
480048	PMS/IQ	60, 93
480050	THS/IQ	60, 93
480051	EW/1	59
480052	WMS/IQ	60, 93
480060	SACIQ-50,0 SW	13, 18, 23, 27, 55
480064V	SACIQ-SO SW	*** 12, 18, 23, 27, 55
480065	SACIQ-Plug	13, 18, 23, 28, 33, 34, 43, 49, 55
480066	SACIQ-25,0 SW	13, 18, 23, 28, 55
480068	SNCIQ-100	60, 68, 72
480069	SNCIQ-200	60, 68, 72
480070	SNCIQ-250	60, 68, 72
480072	SNCIQ-500	60
480075	SNCIQ/UG-250	60, 68, 72
480080	VIS FT-1	34, 43, 99
480081	VIS FT-1/RS	34, 43, 99
480100	WA 700/10	107
480100EX	WA 700/10 EX	85
480102	WA 700/2	107
480102EX	WA 700/2 EX	85
480104	ESS-WA 700/ST	85, 107
480106	ESS-WA 700/VA	85, 107
480108	ADA-WA 1	107
480112	ADA-WA 3	85, 107
480114	ADA-WA 4	107
480116	WA/BV	107
480118	WA/Epac	107
481034	UV 701 IQ NOx	33, 54
481035	UV 705 IQ NOx	33, 54
481036	UV 701 IQ SAC	42, 55
481038	UV 705 IQ SAC	42, 55
481044	NitraVis 701 IQ	33, 53
481045	NitraVis 701 IQ TS	33, 53
481046	NitraVis 705 IQ	33, 54
481047	NitraVis 705 IQ TS	33, 54
481048	CarboVis 701 IQ	42, 54
481049	CarboVis 701 IQ TS	42, 54
481050	CarboVis 705 IQ	42, 54
481051	CarboVis 705 IQ TS	43, 54
481052	NiCaVis 705 IQ	33, 43, 54
481053	NiCaVis 705 IQ TS	34, 43, 54, 55
481054	NiCaVis 701 IQ NI	34, 43, 54, 55
481055	NiCaVis 705 IQ NI	34, 43, 54, 55
481056	NitraVis 701 IQ NI	34, 54
481057	NitraVis 705 IQ NI	34, 54
481058	NiCaVis 705 IQ SF	34, 43
481059	NiCaVis® 705 IQ NI SF	34, 43
481071	VIS/CT	34, 43
481073	VIS Set/EH	99
481074	VIS/CV	34, 43
481075	SET/AP	34, 43
481077	ST-1	34, 43
481078	ST-2	34, 43
481079	VIS/CS	34, 43
481080	VIS Set-F	99
481200	IFL 700 IQ	49, 55

\*\*\* Sensor variation with different cable length („-SO“): Additional costs depending on cable length.  
 \*\*\*\* Chain per meter: Additional costs depending on chain length.



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Order No.	Model		Pricelist page
481206	IFLE		49, 99
481207	IFLRM		49, 99
503200	PB-W/230V	New	89
503201	PB-W/115V	New	89
503250	PB-M-S/1	New	89
503280	PB-M-L/R24	New	89
503304	1/PB-M-L	New	89
503311	13/PB	New	89
503314	25/PB	New	89
503337	Schlauch/10mm/PB/1	New	89
503339	SR/180mm/PB	New	89
503343	SK/10mm/PB	New	89
503363	USB/PB	New	89
503370	LG/44/PB-M	New	89
503371	LG/66/PB-M	New	89
503372	EA/7,5/PB-M	New	89
503375	LKEA/PB-M	New	89
503389	KFS/PB-W	New	89
503420	MK/10m/PB	New	89
505123	S/CH		85, 93
505124	CH/SO	****	85, 93
505544	KI/pH-MIQ/S		90
505570	KI/LF-0,9/MIQ		90
505571	KI/LF-0,7/MIQ		90
505572	KI/LF-0,4/MIQ		90
505573	KI/LF-0,1/MIQ		90
600007	VisoTurb® 700 IQ F		27, 72
600010	VisoTurb® 700 IQ		27, 53
600011	VisoTurb® 700 IQ SW		27, 53
600012	ViSolid® 700 IQ		27, 53
600013	ViSolid® 700 IQ SW		27, 53
600014	Standard 1000 FNU		28
600015	Standard 4000 FNU		28
801254	CI 298 Pt1000		74, 116
810000	PurCon®/230		87
810002	SET1/PurCon®		87
810005	AF/PurCon®		87
810008	PurCon®/115		87
810015	AF-N/PurCon		87
810065	PCIS-PL5/H		87
810066	PCIS-PL10/H		87
810067	PCIS-PL20/H		87
810117	SW/P102		87
820004	OP 210/ MB 1		110
820005	OP 210/ MB 2		110
820006	OP 210/ MB 3		110
820007	ON 210		35
820008	OA 110		34
820009	ON 510		36
820010	OS 210		35
820011	OP 510		110
820065	FT/PC		87
820066	LSet/PC		87
820067	SU/SET/PC		87
820068	FT/PCIS-2		87
820069	SLSset/PCIS		87
821004	TC/ÜB 1		111
821017	BEH/T 1,5		35, 36, 110
821019	BEH/T 10		35, 36, 110
821025	MWSet/A111		35

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821055	BSet/A111		35
821057	BSet/ N511		36
821058	BSet/P211		110
821059	BSet/P511		110
821068	KB/P511		110
821071	R/ ADD/ TC		110
821075	R/ A111		35, 36, 110
821085	R/ N511		36
821091	R/ P211		110
821096	RD/P511		110
821097	RC/P511		110
821098	RB/P511		110
821099	RA/P511		110
821100	S/ AI - A111		35
821101	S/ AI - A111		35
821102	S/ BI - A111		35
821103	S/ BII - A111		35
821112	S/ AI - N 211		35
821113	SSet/ N211		35
821117	S/ B - N511		36
821121	S/ BI - P211		110
821122	S/ BII - P211		110
821123	S/ BIII - P211		110
821138	RSet/A111-1		35
821140	RSet/ A111-2		35
821143	RSet/ N211		35
821156	C/TCM1		35, 36, 110, 111
821160	C/ A111		35
821163	C/ N211		35
821165	C/N211/FE		35
821175	EL/ TC		36, 110, 111
821195	Wpack/ P211		110
821197	Wpack/ A111		35
821199	Wpack/ N211		35
821201	Wpack/P511		111
821203	Wpack/ N511		36
821210	NH500/TC		35
821212	MC/NH500/TC		35
821220	ELY/NH		35
821939	FM/PC	New	46
821940	Filter/PC		46, 111
821941	FM-Case/PC		46, 111
821954	RL 20		111
821955	RL 115-20		111
821957	SL 20		111
821959	SL 115-20		111
821960	SL 230-20		111
821964	RL 10		111
821965	RL 115-10		111
821966	RL 230-10		111
821968	FM-B		46, 111
821969	Filter-REP		45, 111
821970	ST-BT		111
821971	ST 0.0		111
821972	Filter		111
821974	RL 2		111
821975	RL 115-2		111
821976	RL 230-2		111
821977	SL 10		111
821978	SL 5		111



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821979	SL 115-10		111	825522	Alyza IQ PO4-122	New	45
821980	SL 230-10		111	827000	MPV-1	New	45
821981	SL 115-5		111	827101	TubingSet PO4	New	45
821982	SL 230-5		111	827170	Syringe Pump Set	New	45
821983	FM-Adapter		46, 111	827180	Overflow Vessel	New	47
821984	Filter-CL		46, 111	827185	Filtration Pump	New	47
821985	M-EXT 1.5		46, 111	827186	Check valve	New	47
821986	M 1.5		46, 111	827187	Waste Funnel Set	New	47
821987	FM		111	827190	Conversion kit PO4 MB1	New	47
821988	RM		46, 111	827191	Conversion kit PO4 MB2	New	47
821989	WM		46, 111	827520	R-PO4/1-1A	New	46
821990	LED		111	827521	R-PO4/1-1B	New	46
821991	SM		46, 111	827522	R-PO4/1-2A	New	46
821992B	T SET B		111	827523	R-PO4/1-2B	New	46
821993	PT		111	827526	S-PO4/1-0.0	New	46
821994	PM		111	827527	S-PO4/1-1.0	New	46
821995	ST 20.0		111	827528	S-PO4/1-10.0	New	46
821996	ST 8.0		111	827529	S-PO4/1-40.0	New	46
821997	ST 1.6		111	827533	C-PO4/1-1	New	46
821998	CL 1.0		111	827550	R-Set PO4/1-1	New	46
821999	RE 2.5		111	827551	R-Set PO4/1-2	New	46
822000	TM	New	47	827555	SC-Set PO4/1-1_0/1	New	46
822201	SH-5	New	46	827556	SC-Set PO4/1-1_0/10	New	46
822202	SH-10	New	46	827557	SC-Set PO4/1-2_10/40	New	46
822203	SH-15	New	46	830860	VB 105		87
822204	SH-20	New	46	850007	P 105		87
822211	SH 120-5	New	46	850008	FGT 626-2 = P101		87
822212	SH 120-10	New	46	850010	FGT 615-2 = P102/1		87
822213	SH 120-15	New	46	850018	PZ 30 Förderschlauch		87
822214	SH 120-20	New	46	850110	BS-P102		87
822221	SH 240-5	New	46	850115	ADA-PS		87
822222	SH 240-10	New	46	900107	CH		33, 108
822223	SH 240-15	New	46	900111	CH/Epäck		108
822224	SH 240-20	New	46	902888	ADA/D-SUB		59, 68
822228	RH-0.5	New	46	902890	ADA/E		68
822229	RH-1	New	46	BA43108d	BA/TC/d		111
822230	RH-2	New	46	BA43108e	BA/TC/e		111
822231	RH-5	New	46	BA43109d	BA/P211/d		110, 111
822232	RH-10	New	46	BA43109e	BA/P211/e		110, 111
822233	RH-15	New	46	BA43110d	BA/N211/d		35
822234	RH-20	New	46	BA43110e	BA/N211/e		35
822238	RH 120-0.5	New	46	BA43111d	BA/A111/d		35
822239	RH 120-1	New	46	BA43111e	BA/A111/e		35
822240	RH 120-2	New	46	BA43112d	BA/N511/d		36
822241	RH 120-5	New	46	BA43112e	BA/N511/e		36
822242	RH 120-10	New	46	BA43120d	BA/S211/d		35
822243	RH 120-15	New	46	BA43120e	BA/S211/e		35
822244	RH 120-20	New	46	BA43121d	BA/511/d		111
822248	RH 240-0.5	New	46	BA43121e	BA/511/e		111
822249	RH 240-1	New	46				
822250	RH 240-2	New	46				
822251	RH 240-5	New	46				
822252	RH 240-10	New	46				
822253	RH 240-15	New	46				
822254	RH 240-20	New	46				
825510	Alyza IQ PO4-110	New	45				
825511	Alyza IQ PO4-111	New	45				
825512	Alyza IQ PO4-112	New	45				
825520	Alyza IQ PO4-120	New	45				
825521	Alyza IQ PO4-121	New	45				



# IQ SENSOR NET - all measurement parameters at a glance

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	SensoLyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0 <sup>*</sup>	8.0 <sup>*</sup>	8.0 <sup>*</sup>	8.0 <sup>*</sup>	8.0 <sup>*</sup>	8.0 <sup>*</sup>	8.0 <sup>*</sup>	5.5	**
Parameter																		
<b>Temperature</b>																		
<b>Dissolved Oxygen</b> (electrochemical)																		
<b>Dissolved Oxygen</b> (optical)																		
<b>pH</b>																		
<b>ORP</b>																		
<b>Conductivity</b>																		
<b>Salinity</b>																		
<b>TDS</b>																		
<b>Turbidity</b> (optical)																		
<b>TSS</b> (optical)																		
<b>Ammonium</b> (ion-selective)																		
<b>Nitrate</b> (ion-selective)																		
<b>Nitrate</b> (optical/spectral)																	†	
<b>Nitrite</b> (optical/spectral)																		
<b>Potassium</b> (ion-selective)																		
<b>Chloride</b> (ion-selective)																		
<b>COD</b> (optical/spectral)																		
<b>BOD</b> (optical/spectral)																		
<b>TOC</b> (optical/spectral)																		
<b>DOC</b> (optical/spectral)																		
<b>SAC</b> (optical/spectral)																		
<b>UVT</b> (optical/spectral)																		
<b>Sludge Level</b>																		
<b>Ortho-Phosphate</b> (optical/wet chemical)																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W

Only relevant for the respective sensor with fixed cable.

NO<sub>2</sub>-N is included in the measurement result



# Dissolved Oxygen

Parameter	Sensors																		
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	SensoLyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>	
Usable with Systems 2020 and 282/284																			
Usable with System 181																			
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	**	
Parameter																			
<b>Temperature</b>																			
<b>Dissolved Oxygen</b> (electrochemical)																			
<b>Dissolved Oxygen</b> (optical)																			

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W.  
Only relevant for the respective sensor with fixed cable.



Analog Devices can be found in chapters Analog measurement.

Model	Description	Order No.
<b>Optical D.O. Sensor FDO® 700 IQ</b>		
<b>FDO 700 IQ</b>	Digital calibration free optical D.O. sensor (universal use). Optimized for monitoring/controlling the O <sub>2</sub> input in wastewater treatment plants, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 700, without connection cable (SACIQ order separately)	201650
<b>FDO® 700 IQ SW</b>	Digital calibration free optical D.O. sensor (universal use). Optimized for measuring and controlling the O <sub>2</sub> input in seawater applications, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 700 and protective cap MSK FDO®, without connection cable (SACIQ order separately).	201652
<b>FDO 701 IQ SW</b>	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for measuring/controlling the O <sub>2</sub> input in seawater applications, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 701 and protective cap MSK FDO®, without connection cable (SACIQ order separately)	201653
<b>FDO® 700 IQ F</b>	Digital calibration free optical D.O. sensor (universal use). Optimized for monitoring/controlling the O <sub>2</sub> input in wastewater treatment plants, for use with DIQ/S 181(/24 V). Factory calibrated system composed of sensor FDO® 700 IQ F and membrane cap SC-FDO® 700, with fixed cable. Connection of a SACIQ-cable is not possible.	201656
<b>FDO® 701 IQ F</b>	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for monitoring/controlling the O <sub>2</sub> input in wastewater treatment plants, for use with DIQ/S 181(/24 V). Factory calibrated system composed of sensor FDO® 700 IQ F and membrane cap SC-FDO® 700, with fixed cable. Connection of a SACIQ-cable is not possible.	201658
<b>FDO 701 IQ</b>	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for monitoring/controlling the O <sub>2</sub> input in waste water treatment plants, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 701, without connection cable (SACIQ order separately).	201660



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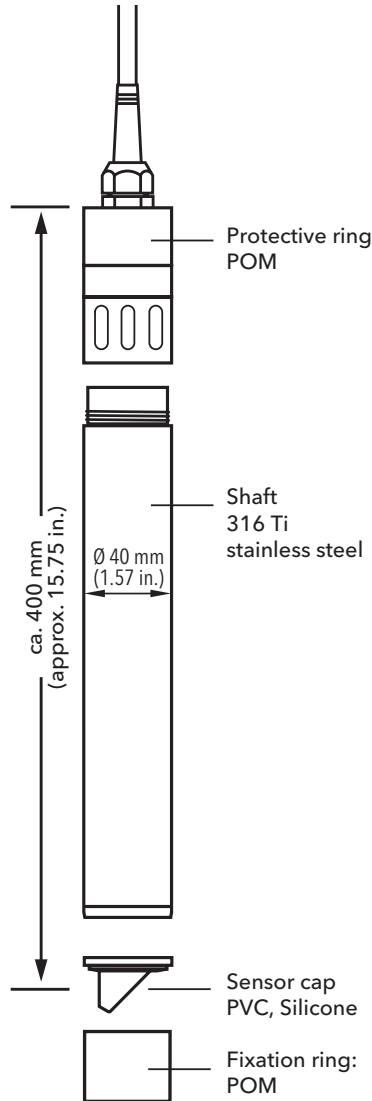
Model	Description	Order No.
<b>Accessories for FDO® 700 IQ</b>		
<b>SC-FDO® 700</b>	Universal sensor cap for FDO® 700 IQ/700 IQ SW	201654
<b>SC-FDO® 701</b>	Fast response time sensor cap for FDO® IQ 701/IQ 701 SW	201655
<b>MSK FDO</b>	Membrane protective cap, provides protection against fishes and rock slide etc. for FDO® 70X IQ and FDO® 70X IQ SW series.	205253
<b>MSK FDO® CS</b>	Cleaning set for FDO® 70X IQ SW and FDO® 70X IQ in combination with MSK FDO®	205254
<b>SACIQ-SO SW</b>	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480064V
<b>Electrochemical D.O. Sensor TriOxmatic® Series</b>		
<b>TriOxmatic® 700 IQ</b>	Universal digital D.O. sensor for monitoring/controlling O2 input in wastewater treatment plants for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201640
<b>TriOxmatic® 700 IQ SW</b>	Universal digital D.O. sensor for monitoring/controlling the O2 input, in sea water design, for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1 x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201641
<b>TriOxmatic® 700 IQ F</b>	Universal digital D.O. sensor for monitoring/controlling O2 input in wastewater treatment plants for use with DIQ/S 181/(24 V). Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), with fixed cable. Connection of a SACIQ-cable is not possible.	201643
<b>TriOxmatic® 701 IQ</b>	Fast response time digital D.O. sensor for use in wastewater treatment plants, e.g. denitrification, for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201644
<b>TriOxmatic® 702 IQ</b>	Digital D.O. sensor for trace level measurements in the ppb range, e.g. ultrapure water/boiler feed water, for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201646
<b>Accessories for TriOxmatic® Sensors</b>		
<b>ZBK 600</b>	Accessory kit for D.O. sensors TriOxmatic® 600/690/700/700 IQ/700 IN series, complete set for regeneration of D.O. electrode. Included: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300)	202620
<b>ZBK 25i</b>	Accessory kit for D.O. sensors TriOxmatic® 601/701(IQ)/702 (IQ) series, complete set for regeneration of D.O. electrode. Included: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300)	202621
<b>WP 600/2</b>	Exchange membrane heads (2 pcs) for D.O. sensor TriOxmatic® 600/690/ 700 (IQ/IN) series	202850
<b>WP 25i/2</b>	Exchange membrane heads (2 pcs) for D.O. sensor TriOxmatic® 601/701 (IQ)/702 (IQ) series	202852
<b>SF 300</b>	Cathode cleaner (abrasive foil) for WTW oxygen sensors of TriOxmatic® and CellOx® series	203680
<b>RL-AG/Oxi</b>	Cleaning solution for the silver anode of DO sensors of TriOxmatic® series, 1 bottle with 50 ml.	205200
<b>ELY/A</b>	Electrolyte for D.O. sensors series TriOxmatic® 600/601/690/700 (IQ)/701 (IQ)/702 (IQ) Included: 1 bottle with 50 ml	205212
<b>SACIQ-SO SW</b>	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480064V
<b>Cables digital IQ oxygen sensors</b>		
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042

\*\*\* Sensor variation with different cable length („-SO“). Additional costs depending on cable length.

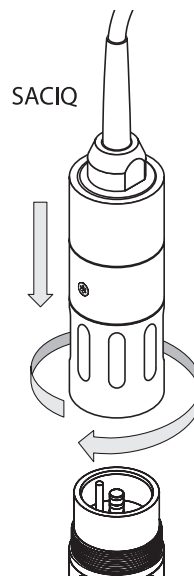


Model	Description	Order No.
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-20,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480045
<b>SACIQ-50,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480060
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>SACIQ-25,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480066

### FDO 700 IQ



### IQ sensor connection



The SACIQ cable cannot be used with the IQ sensors FDO 70X IQ F and TriOxmatic® 700 IQ F.





Configuration Guide Digital D.O. Measurement		
	1. Measuring range 2. Response time $t_{90}$ 3. SensCheck Function	<b>IQ SENSOR NET</b> <b>Systems 2020 and 282/284</b>
<b>TriOxmatic® 700 IQ</b> D.O. sensor for water/wastewater	1.: 0.0 ... 60.0 mg/l 0 ... 600% 2.: < 180 s 3.: SensLeck SensReg	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
<b>TriOxmatic® 700 IQ SW*</b> D.O. sensor for water/wastewater	1.: 0.0 ... 60.0 mg/l 0 ... 600% 2.: < 180 s 3.: SensReg	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> <li>• Seawater</li> </ul>
<b>TriOxmatic® 701 IQ</b> D.O. sensor for water/wastewater	1.: 0.00 ... 20.00 mg/l 0.0 ... 60.0 mg/l 0.0 ... 200.0% 0 ... 600% 2.: < 30 s 3.: SensLeck SensReg	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Residual D.O.</li> </ul>
<b>TriOxmatic® 702 IQ</b> Trace Level D.O. sensor	1.: 0 ... 2000 µg/l 0.00 ... 10.00 mg/l 0 ... 110% 2.: < 30 s 3.: SensReg	<ul style="list-style-type: none"> <li>• ppb measuring range</li> <li>• Ultrapure water</li> <li>• Boiler feedwater</li> </ul>
<b>FDO 700 IQ</b> D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 150 s 3.: SensCheck	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
<b>FDO 700 IQ SW*</b> D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 150 s 3.: SensCheck	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Seawater</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
<b>FDO 701 IQ</b> D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 60 s 3.: SensCheck	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
<b>FDO 701 IQ SW*</b> D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 60 s 3.: SensCheck	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Seawater</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
	1. Measuring range 2. Response time $t_{90}$ 3. SensCheck Function	<b>IQ SENSOR NET</b> <b>Systems 181</b>
<b>TriOxmatic® 700 IQ F**</b> D.O. sensor for water/wastewater	1.: 0.0 ... 60.0 mg/l 0 ... 600% 2.: < 180 s 3.: SensLeck SensReg	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
<b>FDO 700 IQ F**</b> D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 150 s 3.: SensCheck	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>
<b>FDO 701 IQ F**</b> D.O. sensor for water/wastewater	1.: 0.0 ... 20.0 mg/l 0 ... 200% 2.: < 60 s 3.: SensCheck	<ul style="list-style-type: none"> <li>• Water/wastewater</li> <li>• Oxygenation</li> <li>• Fishfarming</li> <li>• Water monitoring</li> </ul>

\* SW: Sensor in sea water design (with plastic armouring (POM))

\*\* F: Sensor with fixed cable connection



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylyanalytics.com/en](http://www.xylyanalytics.com/en) under Customer Support/Downloads/Datasheets.



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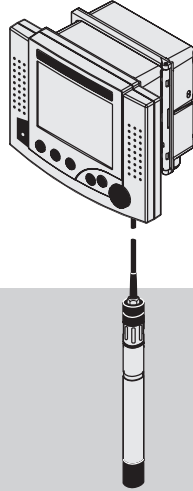
[YSI.com/IQSN](http://YSI.com/IQSN)

# System Configurations Digital Systems IQ SENSOR NET System 2020

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

### Example 1 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensor	user selected

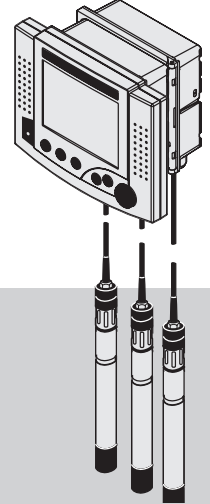


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x relays)
  - MIQ/PS (power supply)
- additionally:
- 1 SACIQ (sensor cable)
  - 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

### Example 2 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensors	user selected

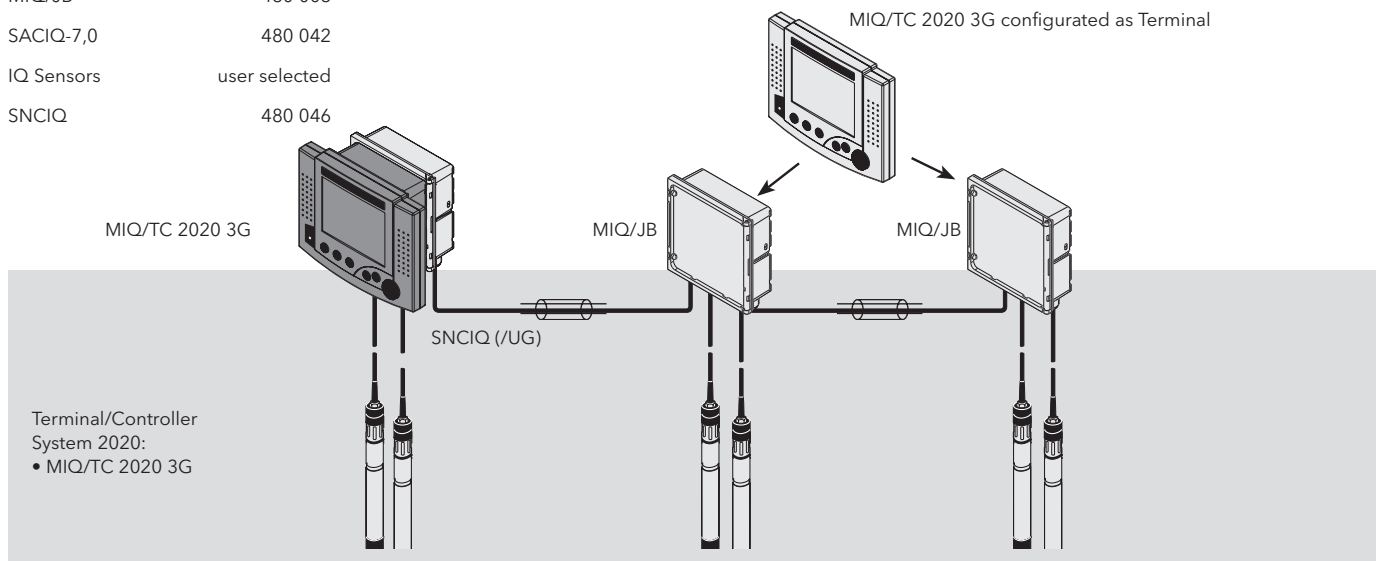


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x Relays)
  - MIQ/PS (power supply)
- additionally:
- 3 SACIQ (sensor cable)
  - 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

### Example 3 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G	470 020
MIQ/PS	480 004
MIQ/C6	480 015
MIQ/JB	480 008
SACIQ-7,0	480 042
IQ Sensors	user selected
SNCIQ	480 046



Branched system 2020 for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 3G terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

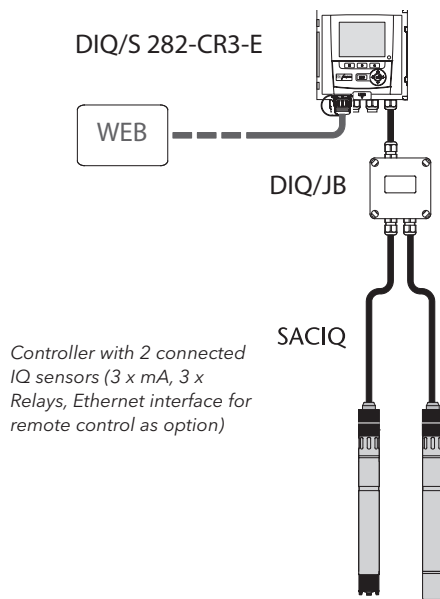


# System Configurations Digital Systems

## IQ SENSOR NET System 282/284

### Example 1

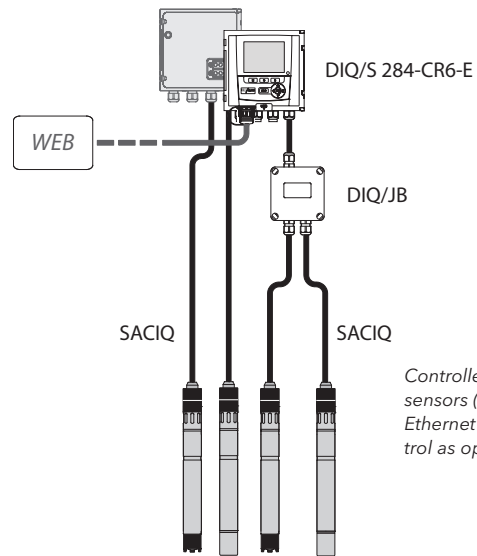
Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113
2 x SACIQ-7,0	480 042
DIQ/JB	472 005
2 x IQ sensors	user selected



Controller with 2 connected IQ sensors (3 x mA, 3 x Relays, Ethernet interface for remote control as option)

### Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133
4 x SACIQ-7,0	480 042
DIQ/JB	472 005
4 x IQ sensors	user selected



Controller with 4 connected IQ sensors (6 x mA, 6 x Relays, Ethernet interface for remote control as option)

Controller is also available with PR- or MOD-interface.



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## pH/ORP

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	Sensolyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	**
Parameter																		
Temperature																		
pH																		
ORP																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W.  
Only relevant for the respective sensor with fixed cable.



Analog Devices can be found in chapters Analog measurement.



Information on pH devices for hazardous areas (EX-zone) can be found in the chapter ATEX.

Model	Description	Order No.
<b>pH/ORP Combination Electrodes</b>		
<b>Sensolyt® TFA</b>	<i>New</i> pH combination electrode especially suited for industrial or not typical municipal wastewater, with armouring for use in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 14 pH	109114
<b>Sensolyt® SEA</b>	pH combination electrode especially suited for measurements in heavily polluted wastewater, with armouring for use in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109115
<b>Sensolyt® ECA</b>	pH combination electrode esp. suited for normally polluted wastewater (e.g. municipal wastewater) with armouring for use in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109117
<b>Sensolyt® SEA-HP</b>	pH combination electrode with optimized armouring for use under high pressure/temperature conditions, for installation in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range 4 ... 12 pH	109118
<b>Sensolyt® DWA</b>	pH combination electrode especially for drinking water applications, for installation in sensors of Sensolyt® 650/690/700 (IQ) series. With watertight S7 plug head (IP 67); measuring range 0 ... 14 pH	109119
<b>Sensolyt® PtA</b>	ORP combination electrode especially suited for measurements in heavily polluted wastewater, for installation in Sensolyt® sensors. With watertight S7 plug head (IP 67); measuring range - 2000 ... + 2000 mV	109125



Model	Description	Order No.
<b>pH/ORP Sensors</b>		
<b>SensoLyt® 700 IQ</b>	Robust digital pH/ORP sensor for pH/ORP electrodes SensoLyt® SEA/DWA/ECA/PtA for use with the IQ SENSOR NET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109170
<b>SensoLyt® 700 IQ SW</b>	Robust digital pH/ORP sensor for SensoLyt® SEA/ DWA/ECA/PtA pH/ORP electrodes, in sea water design, for use with the IQ SENSOR NET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109171
<b>SensoLyt® 700 IQ/SET</b>	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including pH electrode (SensoLyt® SEA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109173
<b>SensoLyt® 700 IQ/SET1</b>	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including ORP electrode (SensoLyt® PtA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109174
<b>SensoLyt® 700 IQ F</b>	Robust digital pH/ORP sensor for pH/ORP electrodes SensoLyt® SEA/SEA-HP/DWA/ECA/PtA for use with the DIQ/S 181/(24 V). With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, with fixed cable. Connection of a SACIQ-cable is not possible.	109177
<b>SensoLyt® 700-SK</b>	Protecting cage (protection against strikes/ solids) for SensoLyt® pH/ORP electrodes within SensoLyt® sensors	109194
<b>Accessories pH/ORP</b>		
<b>TEP 4</b>	Technical buffer solution, 1 bottle with 1 l: pH 4.01	108700
<b>TEP 7</b>	Technical buffer solution, 1 bottle with 1 l: pH 7.00	108702
<b>TEP 10 Trace</b>	Technical buffer solution, 1 bottle with 1 l: pH 10.01	108703
<b>RH 28</b>	ORP buffer solution pH 7, UH = 427 mV (CH), 1 bottle with 250 ml.	109740
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-20,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480045
<b>SACIQ-50,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480060
<b>SACIQ-SO SW</b>	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480064V
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>SACIQ-25,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480066



<b>Configuration Guide Digital pH/ORP Measurement</b>			
<b>Digital</b>			<b>IQ SENSOR NET</b> <b>Systems 2020 and 282/284</b>
	<b>SensoLyt® 700 IQ</b> with integrated pre-amplifier, integrated temperature measurement 32 ... 140 °F (0 ... 60 °C), SensorCheck and calibration value storage	Compatible electrodes: SEA, SEA-HP, DWA, ECA, PtA Temp.: 32 ... 140 °F (0 ... +60 °C) Measuring range when using armature: 4 ... 12 pH	<ul style="list-style-type: none"> <li>• Digital signal transmission</li> <li>• SensCheck</li> <li>• pH/ORP measurement in highly polluted wastewater (municipal/industrial) Type SEA</li> <li>• pH measurement in normally polluted wastewater (municipal/industrial) Type ECA</li> <li>• pH measurement in drinking water (DWA)</li> <li>• ORP measurement in highly polluted wastewater (municipal/industrial) Type PtA</li> <li>• Inline installation (SEA or SEA-HP)</li> </ul>
	<b>SensoLyt® 700 IQ SW*</b> with integrated pre-amplifier, integrated temperature measurement 32 ... 140 °F (0 ... 60 °C), SensorCheck and calibration value storage	Compatible electrodes: SEA, SEA-HP, DWA, ECA, PtA Temp.: 32 ... 140 °F (0 ... +60 °C) Measuring range when using armature: 4 ... 12 pH	<ul style="list-style-type: none"> <li>• Digital signal transmission</li> <li>• SensCheck</li> <li>• pH/ORP measurement in highly polluted wastewater (municipal/industrial) Type SEA</li> <li>• pH measurement in normally polluted wastewater (municipal/industrial) Type ECA</li> <li>• pH measurement in drinking water (DWA)</li> <li>• ORP measurement in highly polluted wastewater (municipal/industrial) Type PtA</li> <li>• Inline installation (SEA or SEA-HP)</li> </ul>
			<b>IQ SENSOR NET</b> <b>System 181</b>
	<b>SensoLyt® 700 IQ F**</b> with integrated pre-amplifier, integrated temperature measurement 32 ... 140 °F (0 ... 60 °C), SensorCheck and calibration value storage	Compatible electrodes: SEA, SEA-HP, DWA, ECA, PtA Temp.: 32 ... 140 °F (0 ... +60 °C) Measuring range when using armature: 4 ... 12 pH	<ul style="list-style-type: none"> <li>• Digital signal transmission</li> <li>• SensCheck</li> <li>• pH/ORP measurement in highly polluted wastewater (municipal/industrial) Type SEA</li> <li>• pH measurement in normally polluted wastewater (municipal/industrial) Type ECA</li> <li>• pH measurement in drinking water (DWA)</li> <li>• ORP measurement in highly polluted wastewater (municipal/industrial) Type PtA</li> <li>• Inline installation (SEA or SEA-HP)</li> </ul>
<b>Configuration Guide Analog pH/ORP Measurement with IQ SENSOR NET</b> (connection via junction box KI/pH-MIQ/S to Systems 282/284 & 2020)			
<b>Analog</b>	<b>CHEMtrac 830 M</b> pH/ORP retractable housing with flushing chamber for maintenance and calibration, stainless steel 1.4404/316L, operating conditions: 16 bar, 284 °F (140 °C)	Applicable electrodes: PL 80-225pH: 0 ... 14 pH, 32 ... 266 °F (0 ... 130 °C) PL 89-225pt: -2000 ... +2000 mV, 32 ... 266 °F (0 ... 130 °C)	KI/pH-MIQ/S (505 544) K 5 S cable (108 461) AS 9 HI-6,0 cable (108 507)

\* SW: Sensor in sea water design (with plastic armouring (POM))

\*\* F: sensor with fixed cable connection



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylyanalytics.com/en](http://www.xylyanalytics.com/en) under Customer Support/Downloads/Datasheets.



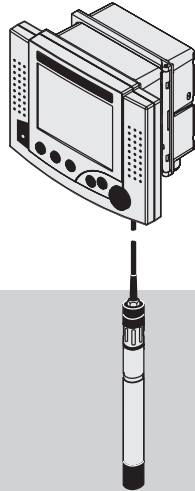
# System Configurations Digital Systems

## IQ SENSOR NET System 2020

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

### Example 1 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensor	user selected

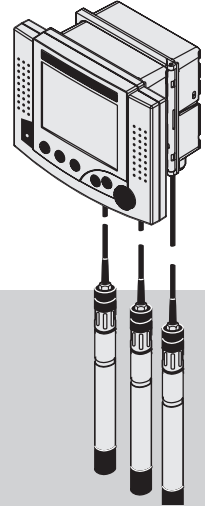


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x relays)
  - MIQ/PS (power supply)
- additionally:
- 1 SACIQ (sensor cable)
  - 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

### Example 2 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensors	user selected

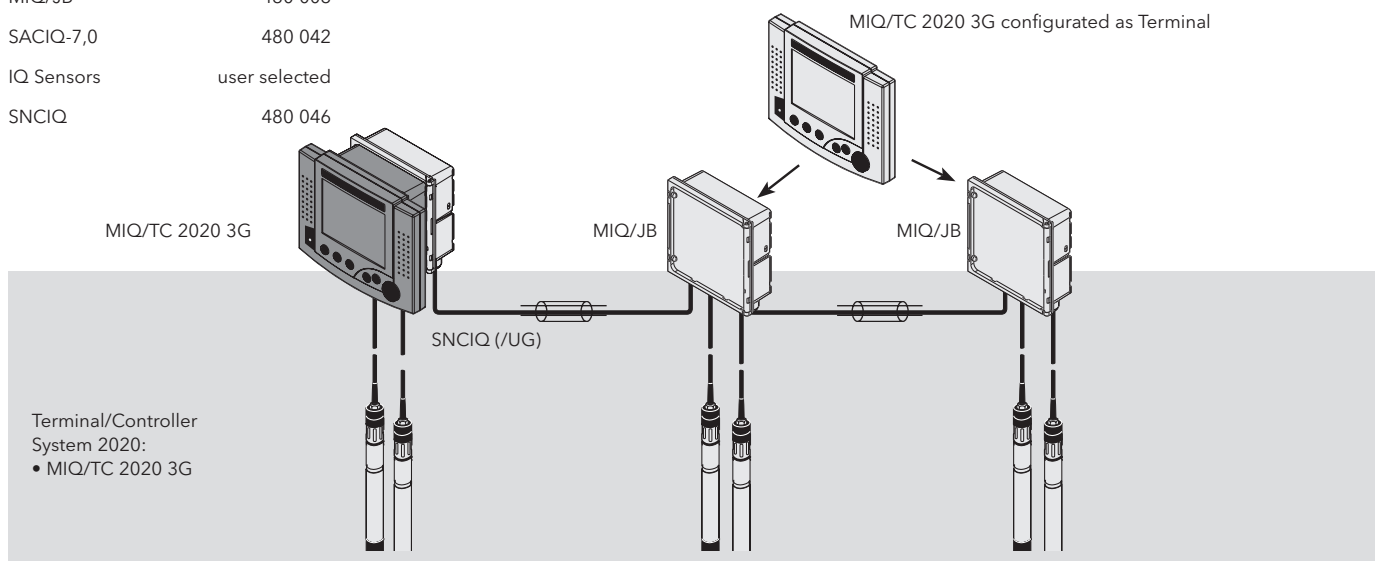


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x Relays)
  - MIQ/PS (power supply)
- additionally:
- 3 SACIQ (sensor cable)
  - 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

### Example 3 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G	470 020
MIQ/PS	480 004
MIQ/C6	480 015
MIQ/JB	480 008
SACIQ-7,0	480 042
IQ Sensors	user selected
SNCIQ	480 046



Branched system 2020 for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 3G terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

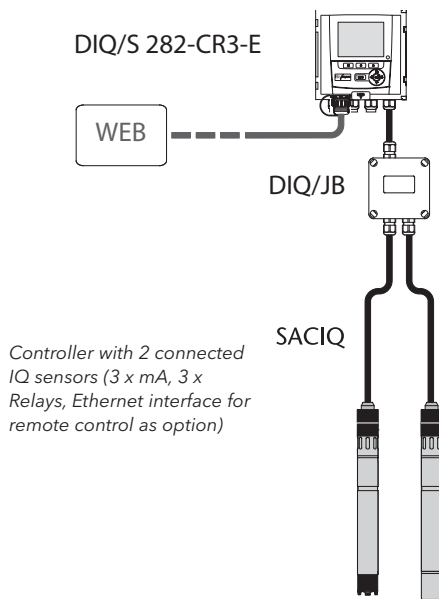


# System Configurations Digital Systems

## IQ SENSOR NET System 282/284

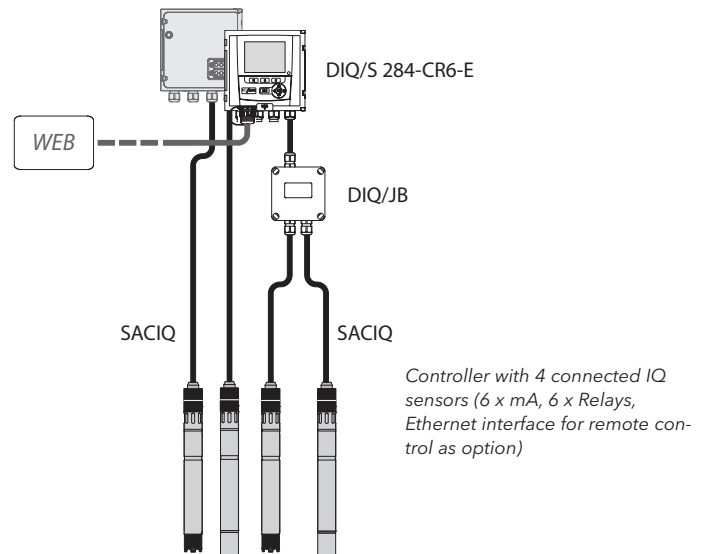
### Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113
2 x SACIQ-7,0	480 042
DIQ/JB	472 005
2 x IQ sensors	user selected



### Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133
4 x SACIQ-7,0	480 042
DIQ/JB	472 005
4 x IQ sensors	user selected



Controller is also available with PR- or MOD-interface.



# Conductivity

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	SensoLyt® 700 IQ (F)	<b>TetraCon® 700 IQ (F)</b>	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181										*	*	*	*	*	*	*	*	**
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	**
Parameter																		
Temperature																		
Conductivity																		
Salinity																		
TDS																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W.

Only relevant for the respective sensor with fixed cable.



Analog Devices can be found in chapters Analog measurement.

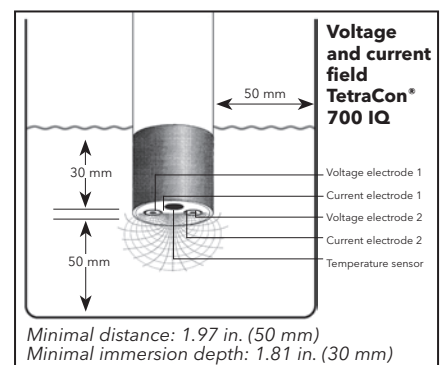
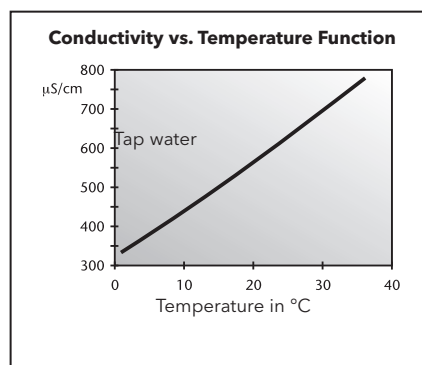
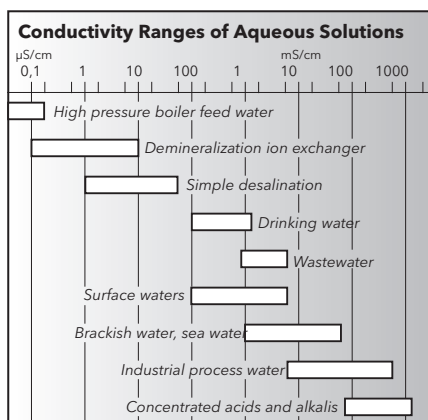


Information on conductivity devices for hazardous areas (EX-zone) can be found in the chapter ATEX.



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylyanalytics.com/en](http://www.xylyanalytics.com/en) under Customer Support/Downloads/Datasheets.

## Conductivity Measurement with TetraCon® 700 IQ



Model	Description	Order No.
<b>Conductivity Cells</b>		
<b>TetraCon® 700 IQ</b>	Digital 4 electrode conductivity cell, especially for heavily polluted wastewater, for use with the IQ SENSOR NET System. With integrated temperature sensor, without cable (Please order SACIQ separately)	302500
<b>TetraCon® 700 IQ SW</b>	Digital 4 electrode conductivity cell, in seawater design, suited for heavily polluted water, for use with the IQ SENSOR NET. With integrated temperature sensor, without cable (Please order SACIQ separately)	302501
<b>TetraCon® 700 IQ F</b>	Digital 4 electrode conductivity cell, especially for heavily polluted wastewater, for use with the DIQ/S 181/(24 V). With integrated temperature sensor, with fixed cable. Connection of a SACIQ-cable is not possible.	302507
<b>Accessories Conductivity</b>		
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-20,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480045
<b>SACIQ-50,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480060
<b>SACIQ-SO SW</b>	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480064V
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>SACIQ-25,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480066

\*\*\* Sensor variation with different cable length („-SO“); Additional costs depending on cable length.



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YSI.com/IQSN

Configuration Guide Digital Conductivity Measurement				
		1. Measuring range 2. Cell constant 3. Probe type 4. Temperature compensation	5. Temperature range 6. Pressure range 7. Protection rating	<b>IQ SENSOR NET</b>  <b>Systems 2020 and 282/284</b>
<b>Digital</b>	<b>TetraCon® 700 IQ</b>	1.: 10 µS/cm ... 500 mS/cm 2.: K=0.917 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: 0 ... 60 °C (32 ... 140 °F) 6.: 10 bar 7.: IP 68 (electrode)	Water/Wastewater; Usable Measuring Range: 0.00 ... 20.00 µS/cm 0.0 ... 200.0 µS/cm 0.000 ... 2.000 mS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 500 mS/cm
	<b>TetraCon® 700 IQ SW*</b>	1.: 10 µS/cm ... 500 mS/cm 2.: K=0.917 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: 0 ... 60 °C (32 ... 140 °F) 6.: 10 bar 7.: IP 68 (electrode)	Water/Wastewater; Usable Measuring Range: 0.00 ... 20.00 µS/cm 0.0 ... 200.0 µS/cm 0.000 ... 2.000 mS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 500 mS/cm
		1. Measuring range 2. Cell constant 3. Probe type 4. Temperature compensation	5. Temperature range 6. Pressure range 7. Protection rating	<b>IQ SENSOR NET</b>  <b>System 181</b>
	<b>TetraCon® 700 IQ F**</b>	1.: 10 µS/cm ... 500 mS/cm 2.: K=0.917 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: 0 ... 60 °C (32 ... 140 °F) 6.: 10 bar 7.: IP 68 (electrode)	Water/Wastewater; Usable Measuring Range: 0.00 ... 20.00 µS/cm 0.0 ... 200.0 µS/cm 0.000 ... 2.000 mS/cm 0.00 ... 20.00 mS/cm 0.0 ... 200.0 mS/cm 0 ... 500 mS/cm

Configuration Guide Analog Conductivity Measurement with IQ SENSOR NET (connection via junction box KI/LF-0,9/MIQ to Systems 282/284 & 2020)				
<b>Analog</b>	<b>TetraCon® 700</b>	1.: 10 µS/cm ... 1000 mS/cm 2.: K=0.917 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: 0 ... 50 °C (23 ... 122 °F) 6.: 10 bar 7.: IP 68 (electrode)	KI/LF-0,9/MIQ 505 570
	<b>LRD 01</b>	1.: 0,01 ... 200 µS/cm 2.: K=0.1 cm <sup>-1</sup> 3.: 2-electrode cell 4.: NTC	5.: -5 ... 130 °C (23 ... 266 °F) 6.: 14 bar (20 °C/68 °F) 7.: IP 68 (electrode)	KI/LF-0,1 MIQ 505 573
	<b>LRD 325</b>	1.: 1 µS/cm ... 2 S/cm 2.: K=0.475 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: -5 ... 100 °C (23 ... 212 °F) 6.: 10 bar 7.: IP 68 (electrode)	KI/LF-0,4/MIQ 505 572
	<b>LR 325/01</b>	1.: 0.001 ... 300 µS/cm 2.: K=0.1 cm <sup>-1</sup> 3.: 2-electrode cell 4.: NTC	5.: -5 ... 100 °C (23 ... 212 °F) 6.: 2 bar 7.: IP 68 (electrode)	KI/LF-0,1 MIQ 505 573 + ADA/AMPH-LAB-LF 303 212
	<b>LR 325/001</b>	1.: 0.0001 ... 30 µS/cm 2.: K=0.01 cm <sup>-1</sup> 3.: 2-electrode cell 4.: NTC	5.: -5 ... 100 °C (23 ... 212 °F) 6.: 2 bar 7.: IP 68 (electrode)	KI/LF-0,01 MIQ 505 574 + ADA/AMPH-LAB-LF 303 212
	<b>TetraCon® 325</b>	1.: 1 µS/cm ... 2 S/cm 2.: K=0.475 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: -5 ... 100 °C (23 ... 212 °F) 6.: 2 bar 7.: IP 68 (electrode)	KI/LF-0,4/MIQ 505 572 + ADA/AMPH-LAB-LF 303 212
	<b>TetraCon® DU/T</b>	1.: 1 µS/cm ... 2 S/cm 2.: K=0.778 cm <sup>-1</sup> 3.: 4-electrode cell 4.: NTC	5.: 0 ... 60 °C (32 ... 140 °F) 6.: 2 bar 7.: IP 65	KI/LF-0,7/MIQ 505 571 + ADA/AMPH-LAB-LF 303 212 + KKDU 325 301 963

\* SW: Sensor in sea water design (with plastic armouring (POM))

\*\* F: sensor with fixed cable connection



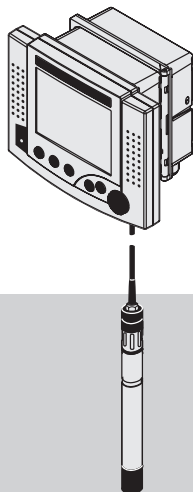
# System Configurations Digital Systems

## IQ SENSOR NET System 2020

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

### Example 1 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensor	user selected

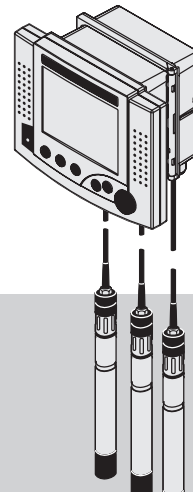


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x relays)
  - MIQ/PS (power supply)
- additionally:
- 1 SACIQ (sensor cable)
  - 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

### Example 2 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensors	user selected

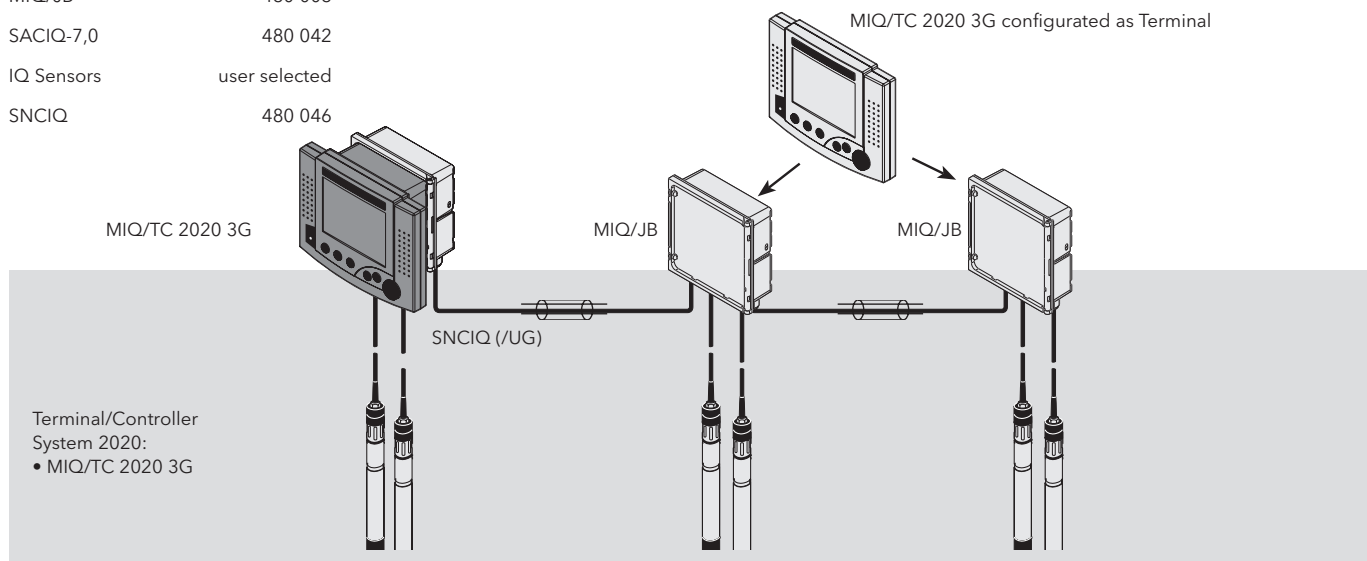


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x Relays)
  - MIQ/PS (power supply)
- additionally:
- 3 SACIQ (sensor cable)
  - 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

### Example 3 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G	470 020
MIQ/PS	480 004
MIQ/C6	480 015
MIQ/JB	480 008
SACIQ-7,0	480 042
IQ Sensors	user selected
SNCIQ	480 046



Branched system 2020 for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 3G terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

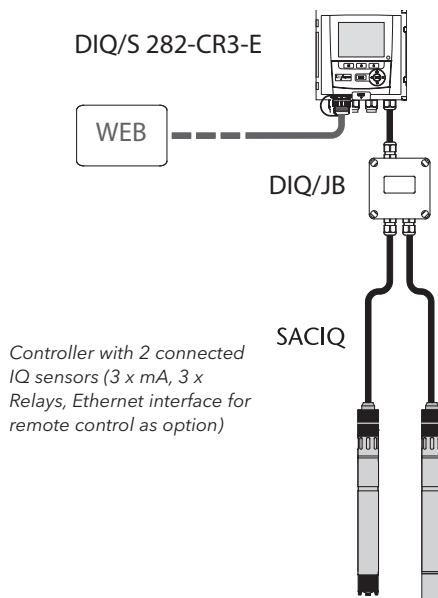


# System Configurations Digital Systems

## IQ SENSOR NET System 282/284

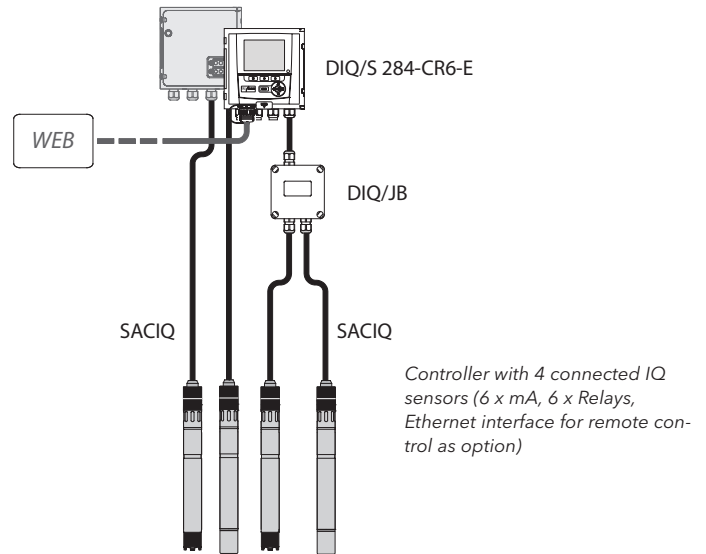
### Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113
2 x SACIQ-7,0	480 042
DIQ/JB	472 005
2 x IQ sensors	user selected



### Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133
4 x SACIQ-7,0	480 042
DIQ/JB	472 005
4 x IQ sensors	user selected



Controller is also available with PR- or MOD-interface.



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# Turbidity/Suspended Solids

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	Sensolyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	
Parameter																		
<b>Turbidity</b> (optical)																		
<b>TSS</b> (optical)																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W  
Only relevant for the respective sensor with fixed cable.

\*\*\* Sensor variation with different cable length (-SO\*); Additional costs depending on cable length.

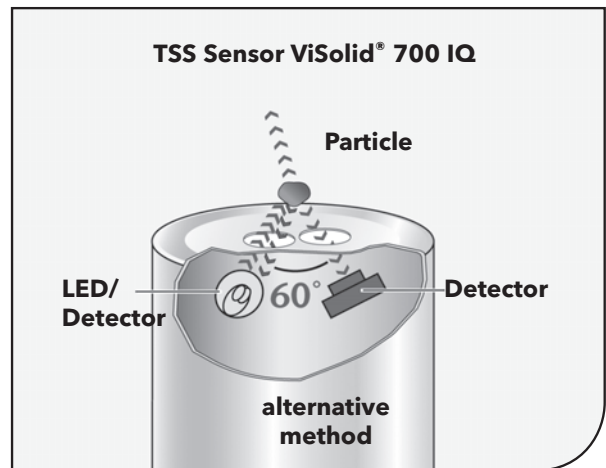
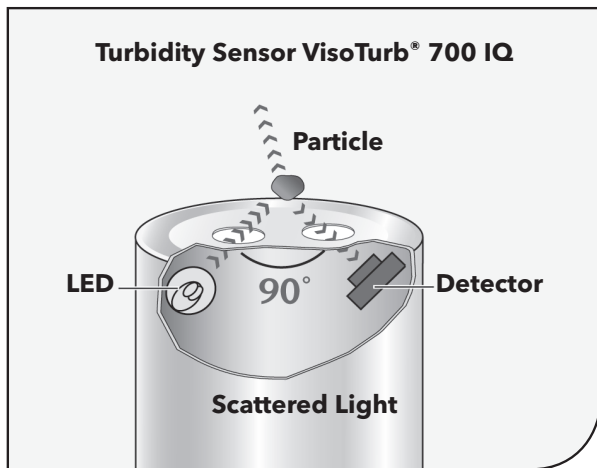
Model	Description	Order No.
<b>Turbidity/Suspended Solids Sensors</b>		
<b>VisoTurb® 700 IQ F</b>	Digital turbidity sensor for drinking water/water and wastewater (ultrasonic cleaning) for use with the DIQ/S 181/(24 V), with fixed cable. Connection of a SACIQ-cable is not possible.	600007
<b>VisoTurb® 700 IQ</b>	Digital turbidity sensor for drinking water/water and wastewater (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable SACIQ separately.	600010
<b>VisoTurb® 700 IQ SW</b>	Digital turbidity sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable separately.	600011
<b>ViSolid® 700 IQ</b>	Digital suspended solids sensor for water/wastewater/sludge (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable SACIQ separately.	600012
<b>ViSolid® 700 IQ SW</b>	Digital suspended solids sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable separately.	600013
<b>Turbidity/Suspended Solids Accessories</b>		
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-20,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480045
<b>SACIQ-50,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480060
<b>SACIQ-SO SW</b>	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480064V



Model	Description	Order No.
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>SACIQ-25,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480066
<b>Standard 1000 FNU</b>	Standard with 1000 FNU for VisoTurb® 700 IQ.	600014
<b>Standard 4000 FNU</b>	Standard with 4000 FNU for ViSolid® 700 IQ.	600015



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylyanalytics.com/en](http://www.xylyanalytics.com/en) under Customer Support/Downloads/Datasheets.



a xylem brand

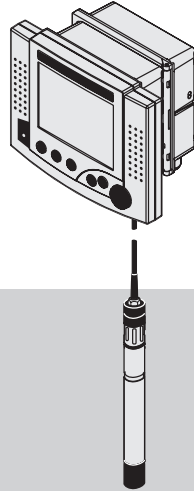
# System Configurations Digital Systems

## IQ SENSOR NET System 2020

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

### Example 1 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensor	user selected



Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:

- MIQ/TC 2020 3G (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x relays)
- MIQ/PS (power supply)

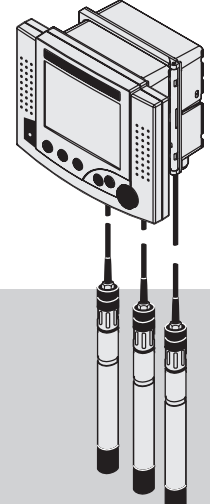
additionally:

- 1 SACIQ (sensor cable)
- 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

### Example 2 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensors	user selected



Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:

- MIQ/TC 2020 3G (Terminal/Controller)
- MIQ/CR3 (3 x mA, 3 x Relays)
- MIQ/PS (power supply)

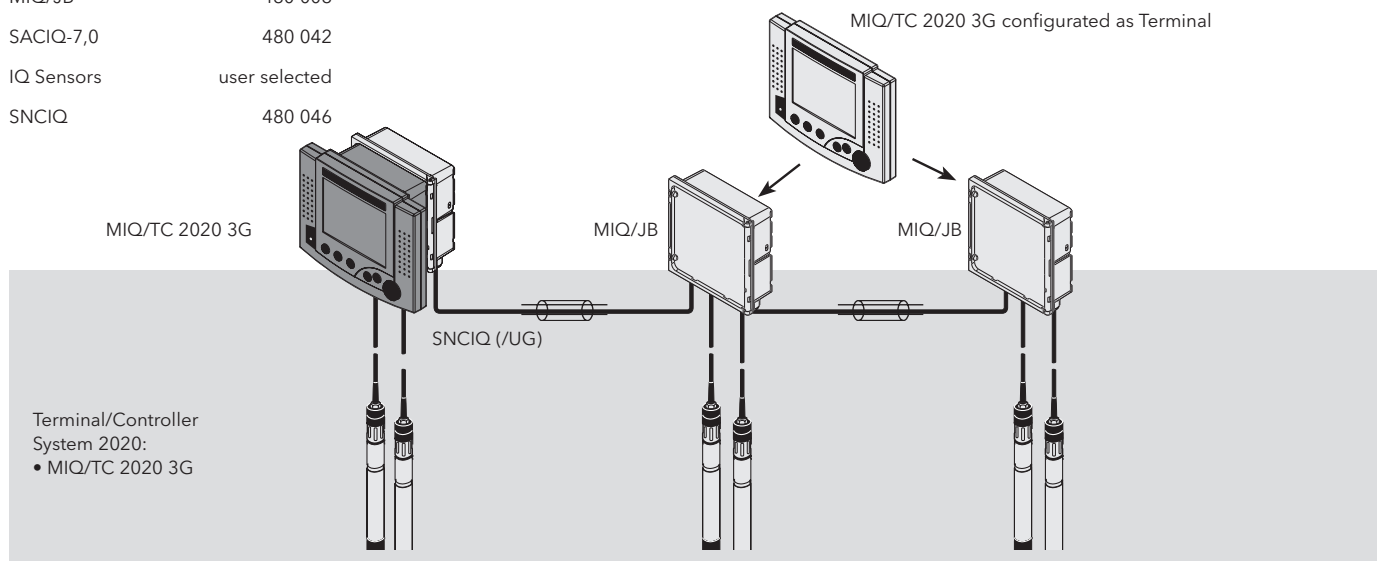
additionally:

- 3 SACIQ (sensor cable)
- 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

### Example 3 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G	470 020
MIQ/PS	480 004
MIQ/C6	480 015
MIQ/JB	480 008
SACIQ-7,0	480 042
IQ Sensors	user selected
SNCIQ	480 046



Branched system 2020 for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 3G terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.



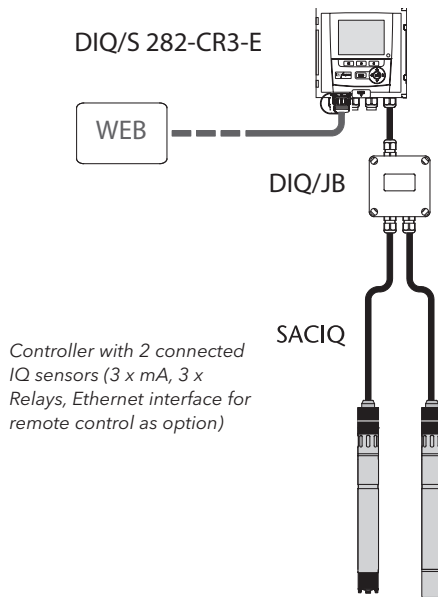


# System Configurations Digital Systems

## IQ SENSOR NET System 282/284

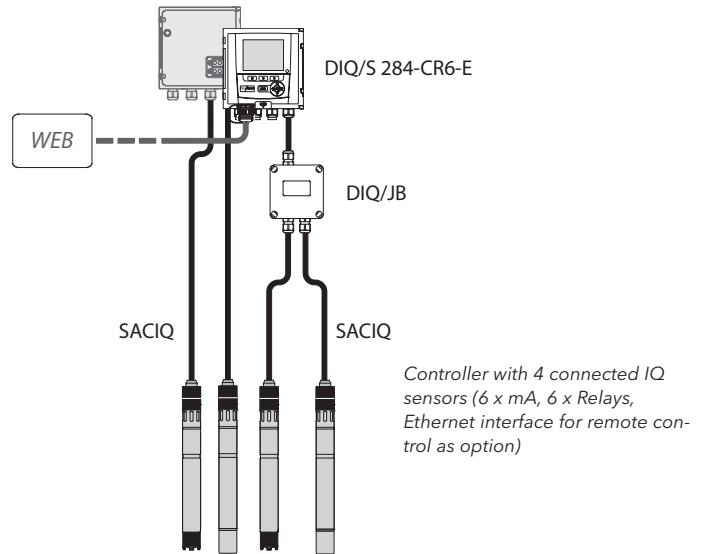
### Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113
2 x SACIQ-7,0	480 042
DIQ/JB	472 005
2 x IQ sensors	user selected



### Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133
4 x SACIQ-7,0	480 042
DIQ/JB	472 005
4 x IQ sensors	user selected



Controller is also available with PR- or MOD-interface.



a xylem brand

YSI, a Xylem brand  
1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

YSI.com/IQSN

# Nitrogen

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	Sensolyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	Ammolyt® 700 IQ	Nitralyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	
Parameter																		
Temperature																		
TSS (optical)																		
Ammonium (ion-selective)																		
Nitrate (ion-selective)																		
Nitrate (optical/spectral)																	+	
Nitrite (optical/spectral)																		
Potassium (ion-selective)																		
Chloride (ion-selective)																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W.

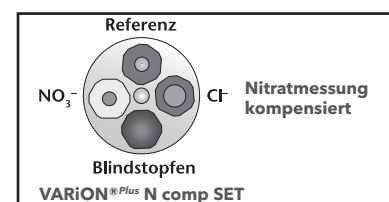
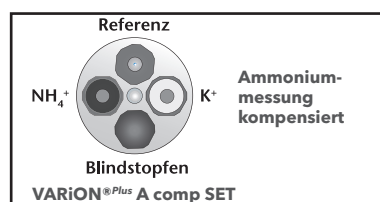
Only relevant for the respective sensor with fixed cable.  
NO<sub>2</sub>-N is included in the measurement result



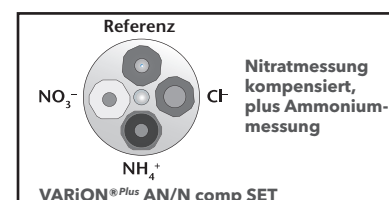
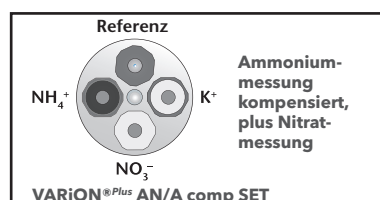
Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylymanalytics.com/en](http://www.xylymanalytics.com/en) under Customer Support/Downloads/Datasheets.

## VARiON® 700 IQ Bestückungsvarianten:

$NH_4^+$  oder  $NO_3^-$



## Doppelsensoren $NH_4^+$ & $NO_3^-$



YSI, a Xylem Brand  
1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

YSI.com/IQSN

Model	Description	Order No.
<b>Combination sensor for ammonium and nitrate ISE</b>		
<b>VARiON®Plus sets and standard solution</b>		
<b>VARiON®Plus A comp SET NH4</b>	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, ammonium electrode VARiON®Plus NH4 and compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107060
<b>VARiON®Plus N comp SET NO3</b>	Robust digital Sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, nitrate electrode VARiON®Plus NO3 and compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107062
<b>VARiON®Plus AN/A comp SET NH4 &amp; NO3</b>	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107066
<b>VARiON®Plus AN/N comp SET NH4 &amp; NO3</b>	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107068
<b>VARiON®/ES-1</b>	Multiple standard solution 1 (low concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107050
<b>VARiON®/ES-2</b>	Multiple standard solution 2 (high concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107052
<b>VARiON®Plus separate deliveries</b>		
<b>VARiON®Plus 700 IQ</b>	Robust digital sensor for the ion-selective measurement (in-situ) of ammonium and nitrate, for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ with 4 blind plugs, protective device and calibration vessel. Please order electrodes separately.	107040
<b>VARiON® Ref</b>	Reference electrode for mounting into sensors VARiON®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus	107042
<b>VARiON®Plus NH4</b>	Ammonium electrode for VARiON®Plus 700 IQ and AmmoLyt® Plus/AmmoLyt®, measuring range: 0.1 - 2.000 mg/l NH4-N	107044
<b>VARiON®Plus NO3</b>	Nitrate electrode for VARiON®Plus 700 IQ and NitraLyt®Plus/ NitraLyt®, Measuring range: 0.1 - 1000 mg/l NO3-N	107045
<b>VARiON®Plus K</b>	Potassium electrode for VARiON®Plus 700 IQ and for AmmoLyt®Plus, measuring range: 1 - 1000 mg/l K+	107046
<b>VARiON®Plus Cl</b>	Chloride electrode for VARiON®Plus 700 IQ and for NitraLyt® Plus, measuring range: 1-1000 mg/l Cl-	107047
<b>Ammonium ISE</b>		
<b>AmmoLyt®Plus sets and standard solutions</b>		
<b>AmmoLyt® Plus SET/Comp</b>	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system, delivered with VARiON® Ref, VARiON®Plus NH4 and VARiON®Plus K electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107072
<b>VARiON®/ES-1</b>	Multiple standard solution 1 (low concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107050
<b>VARiON®/ES-2</b>	Multiple standard solution 2 (high concentration) for VARiON®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107052
<b>AmmoLyt®Plus 700 IQ separate deliveries</b>		
<b>VARiON® Ref</b>	Reference electrode for mounting into sensors VARiON®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus	107042
<b>VARiON®Plus NH4</b>	Ammonium electrode for VARiON®Plus 700 IQ and AmmoLyt® Plus/AmmoLyt®, measuring range: 0.1 - 2.000 mg/l NH4-N	107044
<b>VARiON®Plus K</b>	Potassium electrode for VARiON®Plus 700 IQ and for AmmoLyt®Plus, measuring range: 1 - 1000 mg/l K+	107046
<b>AmmoLyt® Plus 700 IQ</b>	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARiON® Ref, VARiON®Plus NH4, VARiON®Plus K and SACIQ connection cable (Please order separately).	107070
<b>Nitrate ISE</b>		
<b>NitraLyt®Plus sets und standard solutions</b>		



Model	Description	Order No.
<b>NitraLyt®Plus SET/Comp</b>	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system, delivered with VARION® Ref, VARION®Plus NO3 and VARION®Plus Cl electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107082
<b>VARION®/ES-1</b>	Multiple standard solution 1 (low concentration) for VARION®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107050
<b>VARION®/ES-2</b>	Multiple standard solution 2 (high concentration) for VARION®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ; Volume: 1000 ml	107052
<b>NitraLyt®Plus 700 IQ separate deliveries</b>		
<b>VARION® Ref</b>	Reference electrode for mounting into sensors VARION®Plus 700 IQ, NitraLyt® Plus, AmmoLyt® Plus	107042
<b>VARION®Plus NO3</b>	Nitrate electrode for VARION®Plus 700 IQ and NitraLyt®Plus/ NitraLyt®, Measuring range: 0.1 - 1000 mg/l NO3-N	107045
<b>VARION®Plus Cl</b>	Chloride electrode for VARION®Plus 700 IQ and for NitraLyt® Plus, measuring range: 1-1000 mg/l Cl-	107047
<b>NitraLyt®Plus 700 IQ</b>	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARION® Ref, VARION®Plus NO3, VARION®Plus Cl and SACIQ connection cable (Please order separately).	107080
<b>Accessories ISE</b>		
<b>VARION® 700 IQ-SK</b>	Protection device for ISE electrodes, mountable on VARION®Plus 700 IQ/ AmmoLyt®Plus 700 IQ/NitraLyt®Plus 700 IQ	107056
<b>VARION®/Epack</b>	Spare part set for VARION®Plus 700 IQ. Consisting of 1 special box spanner for mounting and dismounting of electrodes, 1 blind plug, 3 spare O-ring seals for electrodes and 1 vessel for wet storage of electrodes.	107057
<b>DIQ/CHV</b>	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472007
<b>Cleaning Air Box - 115 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480017
<b>MIQ/CHV PLUS</b>	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSOR NET (relay and compressed air supply external)	480018
<b>Cleaning Air Box - 230 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480019
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>CH</b>	Cleaning head for on-line sensors with 40 mm diameter. Supplied with 15 m (49 ft) compressed air tube.	900107
<b>NOx Sensor</b>		
<b>UV 701 IQ NOx</b>	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately)	481034
<b>UV 705 IQ NOx</b>	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481035
<b>Nitrate/Nitrite Spectral Sensors</b>		
<b>NitraVis 701 IQ</b>	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in inlet/BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481044
<b>NitraVis 701 IQ TS</b>	Spectral nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for in-situ measurement in inlet/ BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481045

\*\*\* Sensor variation with different cable length (,-SO\*); Additional costs depending on cable length.



Model	Description	Order No.
<b>NitraVis 705 IQ</b>	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481046
<b>NitraVis 705 IQ TS</b>	Optical nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481047
<b>NiCaVis 705 IQ</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481052
<b>NiCaVis 705 IQ TS</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, UVT254 and TSS, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481053
<b>NiCaVis 701 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481054
<b>NiCaVis 705 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481055
<b>NitraVis 701 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481056
<b>NitraVis 705 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481057
<b>Nitrate/Nitrite Spectral Sensors Surface Water</b>		
<b>NiCaVis 705 IQ SF</b>	Spectral UV-VIS sensor (60 mm) for the measurement of Nitrate, COD, TOC, BOD, DOC, SAC, UVT254 and TS in surface water bodies with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481058
<b>NiCaVis® 705 IQ NI SF</b>	Spectral UV-VIS sensor (60 mm) for the measurement of Nitrate, Nitrite, COD, TOC, BOD, DOC, SAC and UVT254 in surface water bodies with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481059
<b>Accessories Spectral Sensors (Nitrogen)</b>		
<b>DIQ/CHV</b>	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472007
<b>Cleaning Air Box - 115 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480017
<b>MIQ/CHV PLUS</b>	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSOR NET (relay and compressed air supply external)	480018
<b>Cleaning Air Box - 230 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480019
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>VIS FT-1</b>	Flow-through measuring cell for spectral UV and UV-VIS sensors, for operation with automatic compressed air cleaning	480080

\*\*\* Sensor variation with different cable length (,-SO"): Additional costs depending on cable length.



Model	Description	Order No.
<b>VIS FT-1/RS</b>	Spare part set for flow-thru measuring cell VIS FT-1	480081
<b>VIS/CT</b>	Universal cleaning tool for spectral sensors.	481071
<b>VIS/CV</b>	Multifunctional slide for spectral sensors.	481074
<b>SET/AP</b>	Air pressure cleaning set for spectral sensors: Supplied with 15 m (49 ft) tubing, fittings, without further modules and components.	481075
<b>ST-1</b>	Standard with low concentration for 5 mm spectral sensors.	481077
<b>ST-2</b>	Standard with high concentration for 1 mm spectral sensors.	481078
<b>VIS/CS</b>	Universal cleaning tool set for cleaning of measuring windows of spectral sensors with cleaning solutions.	481079
<b>Accessories and Replacement parts TresCon® Ammonia</b>		
<b>ZBK/NH500/TC</b>	Accessory kit for on-line ammoni sensor NH 500/TC for TresCon® and TresCon® Uno included: 3 membrane caps and 50 ml electrolyte	180102
<b>OA 110</b>	Separate TresCon® analyzer module for on-line measurement of ammonium, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 4 month operation, ammonium electrode (NH500/TC), annual need tubing (Epack/P211), overflow vessel (TC/ÜB1), 10 l container (BEH/T10) for preparation of reagent	820008
<b>BEH/ T 1,5</b>	1.5 l wide-necked bottle (with screw cap and labels).	821017
<b>BEH/ T 10</b>	10 l container (with screw cap and labels).	821019
<b>MWSet/A111</b>	Container set for ammonium seawater chemicals. Supplied with 10 l container, 2 x 1,5 l bottles incl. Screw caps and seawater labels.	821025
<b>BSet/A111</b>	Container set for ammonium module OA 110, TresCon® A111 and TresCon® Uno TCU/A111.	821055
<b>R/ A111</b>	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821075
<b>S/ AI - A111</b>	Standard solution A-I (1 mg/l NH4-N), 1.5 l.	821100
<b>S/ AII - A111</b>	Standard solution A-II (5 mg/l NH4-N), 1.5 l.	821101
<b>S/ BI - A111</b>	Standard solution B-I (10 mg/l NH4-N), 1.5 l.	821102
<b>S/ BII - A111</b>	Standard solution B-II (50 mg/l NH4-N), 1.5 l.	821103
<b>RSet/A111-1</b>	Reagent set for ammonium analyzer module OA 110 resp. TresCon® A111 and TresCon® Uno TCU/A111, 120 days operation: standards (1 mg/l, 10 mg/l)/ reagents/ cleaning agents.	821138
<b>RSet/ A111-2</b>	Reagent set for ammonium analyzer module OA 110 resp. TresCon® A111 and TresCon® Uno TCU/A111, 120 days operation: standards (5 mg/l, 50 mg/l)/ reagents/ cleaning agents.	821140
<b>C/TCM1</b>	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/ N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821156
<b>C/ A111</b>	1.5 l cleaning solution for ammonium analyzer module OA 110, TresCon® A111 and TresCon® Uno /A111; 10% citric acid.	821160
<b>Wpack/ A111</b>	Set of maintenance kit (fittings and spare tubes) for TresCon® ammonium analyzer module OA 110, TresCon® A111 and TresCon® Uno/A111.	821197
<b>NH500/TC</b>	Ammonium electrode, incl. 3 exchange membrane heads and 50 ml electrolyte solution for module OA 110.	821210
<b>MC/NH500/TC</b>	Exchange membrane heads for ammonium electrode, included: 3 exchange membrane caps.	821212
<b>ELY/NH</b>	Electrolyte solution for Ammonium electrode, 50 ml.	821220
<b>BA/A111/d</b>	Instruction manual TresCon® A111/German.	BA43111d
<b>BA/A111/e</b>	Instruction manual TresCon® A111/English.	BA43111e
<b>Accessories and Replacement parts TresCon® Nitrate/SAC</b>		
<b>ON 210</b>	Separate TresCon® analyzer module for on-line measurement of nitrate, for extension of a TresCon® system, incl. manual. Supplied with reagents for 3 month operation, (1.5 l standard A-I (S/AI-N211) (zero standard H2O dest.) and 1.5 l cleaning solution (C/ N211), overflow vessel (TC/ÜB 1) and annual need tubing (Wpack/N211).	820007
<b>OS 210</b>	Separate TresCon® analyzer module for on-line measurement of nitrate/SAC, for extension of a TresCon® system, incl. manual. Supplied with reagents for 3 month operation, (1.5 l standard A-I (S/AI-N211) (zero standard H2O dest.) and 1.5 l cleaning solution (C/ N211), overflow vessel (TC/ÜB 1) and annual need tubing (Epack/N211).	820010
<b>BEH/ T 1,5</b>	1.5 l wide-necked bottle (with screw cap and labels).	821017
<b>BEH/ T 10</b>	10 l container (with screw cap and labels).	821019



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
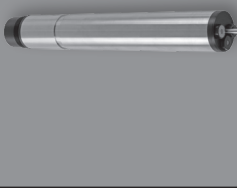

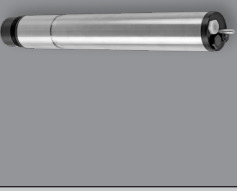

1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

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Model	Description	Order No.
<b>R/ A111</b>	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821075
<b>S/ AI - N 211</b>	Standard solution A-I (zero standard NO3-N), 10 l.	821112
<b>SSet/ N211</b>	Set of standard solution (NO3-N) 4x 1.5 l for nitrate analyzer modules TresCon® ON 210 and OS 210, TresCon® N211/S211, TCU/N211 and S211.	821113
<b>RSet/ N211</b>	Reagent set for nitrate (SAC), for 120 days operation: standard/cleaning agent for TresCon® modules ON/OS 210, TresCon® N/S211, TCU/N211/S211.	821143
<b>C/TCM1</b>	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/ N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821156
<b>C/ N211</b>	1.5 l cleaning solution for analyzer module nitrate TresCon® ON 210 and OS 210, TresCon® N211 /S 211 and TCU/ N211 /S 211, 0.4 % salt acid.	821163
<b>C/N211/FE</b>	1.5 l cleaning solution nitrite for ferrous waste water for analyzer module TresCon® ON 210 and OS 210, TresCon® N211/S211 and TCU/N211 u. S211.	821165
<b>Wpack/ N211</b>	Set of maintenance kit (fittings/spare tubes) for TresCon® nitrate and nitrate/SAC analyzer module ON/OS 210, TresCon® N/S 211/TCU Uno/S 211.	821199
<b>BA/N211/d</b>	Instruction manual TresCon® N211/German.	BA43110d
<b>BA/N211/e</b>	Instruction manual TresCon® N211/English.	BA43110e
<b>BA/S211/d</b>	Instruction manual TresCon® S211/German.	BA43120d
<b>BA/S211/e</b>	Instruction manual TresCon® S211/English.	BA43120e
<b>Accessories and Replacement parts TresCon® Nitrite</b>		
<b>ON 510</b>	Separate TresCon® analyzer module for on-line measurement of nitrite, for extension of a TresCon® system, incl. Manual. Supplied with reagents for 3 month operation (R/ N511, S/B-N511, R/A111), annual need tubing (Epack/ N211), overflow vessel (TC/ ÜB1), 10 l container (BEH/T10) and 2x 1.5 l container ( BEH/T1,5).	820009
<b>BEH/ T 1,5</b>	1.5 l wide-necked bottle (with screw cap and labels).	821017
<b>BEH/ T 10</b>	10 l container (with screw cap and labels).	821019
<b>BSet/ N511</b>	Container set for nitrite TresCon® module ON 510, TresCon® N511 and TresCon® Uno N511. Supplied with 2 x 1 l square bottle, incl. screw caps and labels.	821057
<b>R/ A111</b>	Pack of 390 g Na2-EDTA powder (for 10 l) and 400 g NaOH concentrate (pellets), for ammonium, nitrate, nitrite and orthophosphate TresCon® module.	821075
<b>R/ N511</b>	1 l reagent solution for nitrite analyzer module TresCon® ON 510 (resp. TresCon® N511 and TresCon® Uno TCU/N511), 13% phosphoric acid.	821085
<b>S/ B - N511</b>	1.5 l standard solution B (0.4 mg/l NO2-N) for TresCon® module ON 510 (resp. TresCon® N 511 and TresCon® Uno TCU/N511).	821117
<b>C/TCM1</b>	1.5 l cleaning solution for nitrate/SAC, nitrite, orthophosphate, total phosphorus for analyzer module TresCon® ON 210 and OS 210, TresCon® ON 510, TresCon® OP 210, TresCon® OP 510, and analyzers TresCon® N211/S211/N511/P211/P511 and TCU/ N211/S211/N511/P211. Suitable as reagent solution for ammonium for analyzer module TresCon® OA110 and analyzers TresCon® A111 and TCU/A111	821156
<b>EL/ TC</b>	Spare lamp for photometer block.	821175
<b>Wpack/ N511</b>	Set of maintenance kit (fittings and spare tubes) for TresCon® nitrite analyzer module, TresCon® N511 and TCU/N511.	821203
<b>BA/N511/d</b>	Instruction manual TresCon® N511/German.	BA43112d
<b>BA/N511/e</b>	Instruction manual TresCon® N511/English.	BA43112e





<b>WTW Measuring Systems for Nitrogen</b>			
recommended by WTW  suitable conditionally applicable		*Measurement in aeration basin	
	<b>Ammonium</b>	<b>Ammonium and Nitrate</b>	<b>Nitrate</b>
<b>System</b>	 <b>IQ SENSOR NET</b> AmmonoLyt® Plus 700 IQ	 <b>IQ SENSOR NET</b> VARIION® Plus 700 IQ	 <b>IQ SENSOR NET</b> NitrateLyt® Plus 700 IQ
<b>Sensor/Module</b>			 <b>IQ SENSOR NET</b> NitrateLyt® Plus 700 IQ NOx <b>IQ SENSOR NET</b> NitrateLyt® Plus 700 IQ NOx <b>IQ SENSOR NET</b> NitrateLyt® Plus 700 IQ NOx
<b>Measured Variable</b>	<b>NH<sub>4</sub></b>	<b>NH<sub>4</sub> and NO<sub>3</sub></b>	<b>NO<sub>3</sub></b>
<b>Inlet</b> (determination of load)	●	●	●
<b>Aeration</b> (regulation and control)	●	●	●
<b>Effluent</b> (monitoring)	m	m	m
<b>Autom. Cleaning Cycles</b>	compressed air	compressed air	compressed air
<b>Measuring</b>	variable in-situ	variable in-situ	variable in-situ
<b>Sample Preparation</b>	none	none	none
<b>Measuring Interval</b>	continuous	continuous	continuous
<b>Response Time</b>	quick	quick	quick
<b>Measuring Method</b>	ISE (ion-selective)	ISE (ion-selective)	single wavelengths absorption measurement
<b>Accuracy</b>	good	good	high
<b>Cross Sensitivity</b>	yes/potassium, compensable	yes, automatic compensation	autom. compensated (spectrum)
<b>Calibration</b>	factory calibration	factory calibration	not necessary
<b>Investment Costs</b>	low	low	medium
<b>Additional Costs</b>	—	—	—
<b>Operational Costs</b>	low	low	none
<b>Consumables</b>	electrodes	electrodes	none

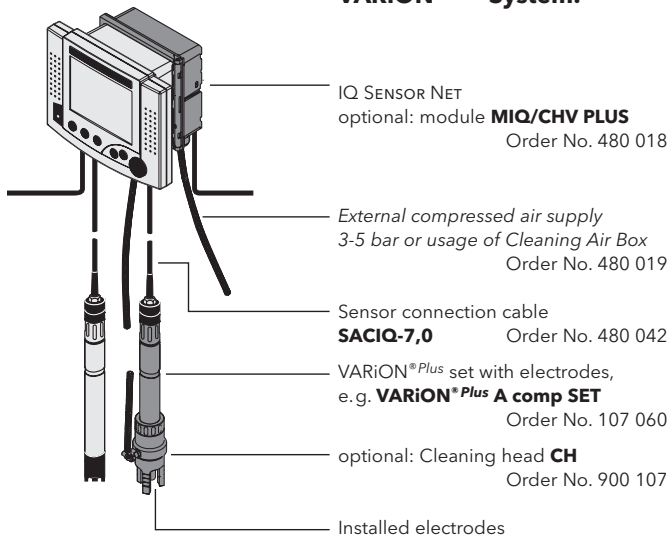




# Measuring Point Configurations ISE (ion-selective) measuring techniques

## VARiON®Plus

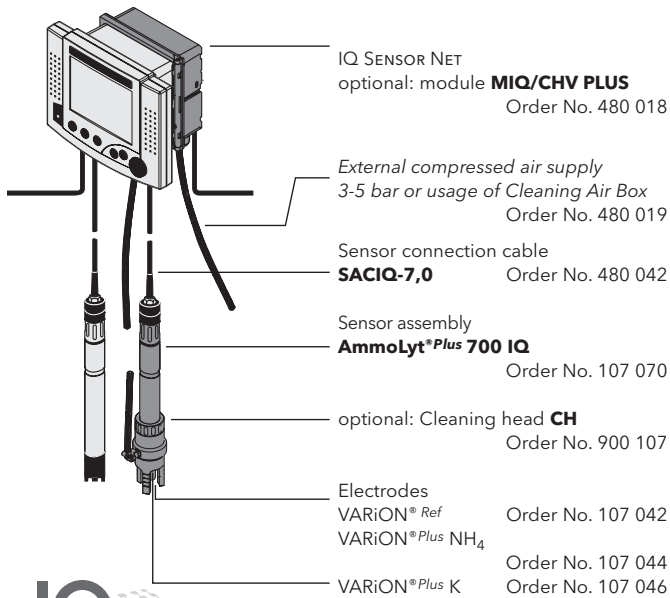
### VARiON®Plus System:



*required components per measuring place: dark shaded*

## AmmoLyt®Plus

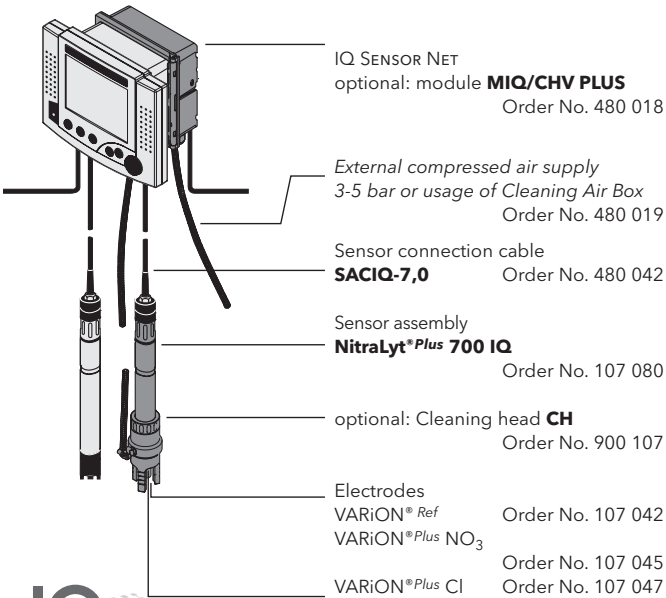
### AmmoLyt®Plus System:



*required components per measuring place: dark shaded*

## NitraLyt®Plus

### NitraLyt®Plus System:

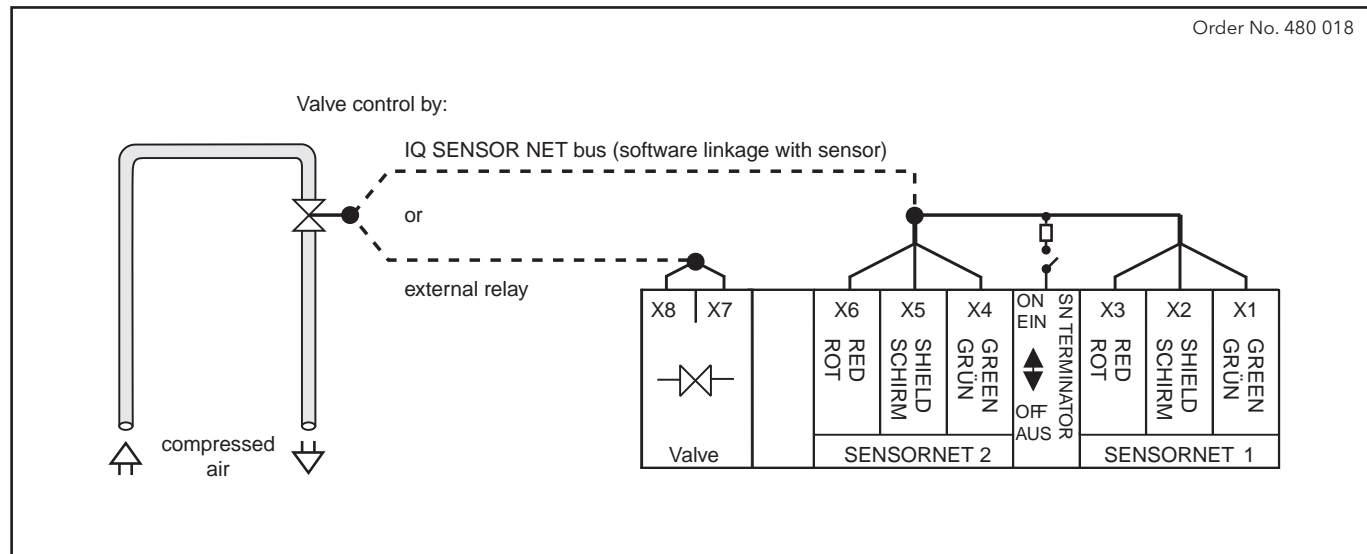


*required components per measuring place: dark shaded*



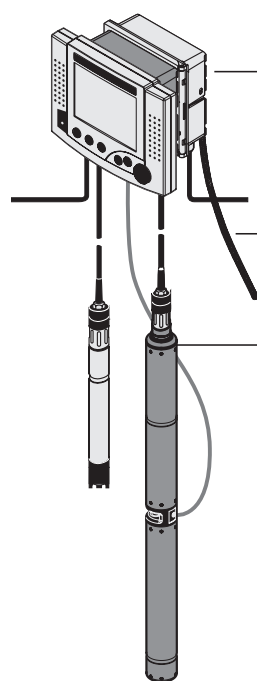
## Electrical connections MIQ/CHV PLUS

Order No. 480 018



## Measuring Point Configuration

### NitraVis® (TS/NI) / NiCaVis® (NI) / UV 700 IQ NO<sub>x</sub>



#### NitraVis® (TS/NI)- / NiCaVis® (NI)- / UV 700 IQ NO<sub>x</sub>-System

IQ SENSOR NET

Optional air pressure cleaning:  
MIQ/CHV PLUS Order No. 480 018  
with external compressed air supply 3-5 bar or usage of Cleaning Air Box Order No. 480 019

For both options please order  
air pressure cleaning set SET/AP  
Order No. 481075

#### Optical Sensor:

- NitraVis 701/705 IQ  
Order No. 481 044/481 046
- NitraVis® 701/705 IQ NI  
Order No. 481 056/481 057
- NitraVis 701/705 IQ TS  
Order No. 481 045/481 047
- NiCaVis 705 IQ  
Order No. 481 052
- NiCaVis 701/705 IQ NI  
Order No. 481 054/481 055
- UV 701/705 IQ NO<sub>x</sub>  
Bestell-Nr. 481 034/ 481 035



required components per measuring  
place: dark shaded



a xylem brand

YSI, a Xylem Brand  
1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

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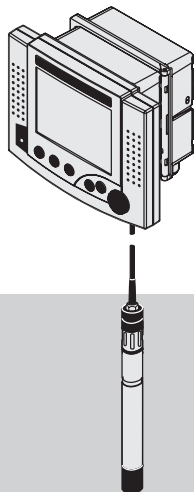
# System Configurations Digital Systems

## IQ SENSOR NET System 2020

Due to the diversity of system versions, only a small selection of representative configurations can be shown here by way of example.

### Example 1 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensor	user selected

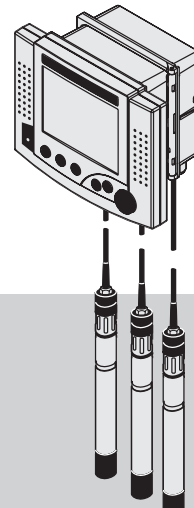


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x relays)
  - MIQ/PS (power supply)
- additionally:
- 1 SACIQ (sensor cable)
  - 1 IQ sensor

Monitor with 3 analog outputs and 3 relays, universally employable for all parameters

### Example 2 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G-CR3	470 022
SACIQ-7,0	480 042
IQ Sensors	user selected

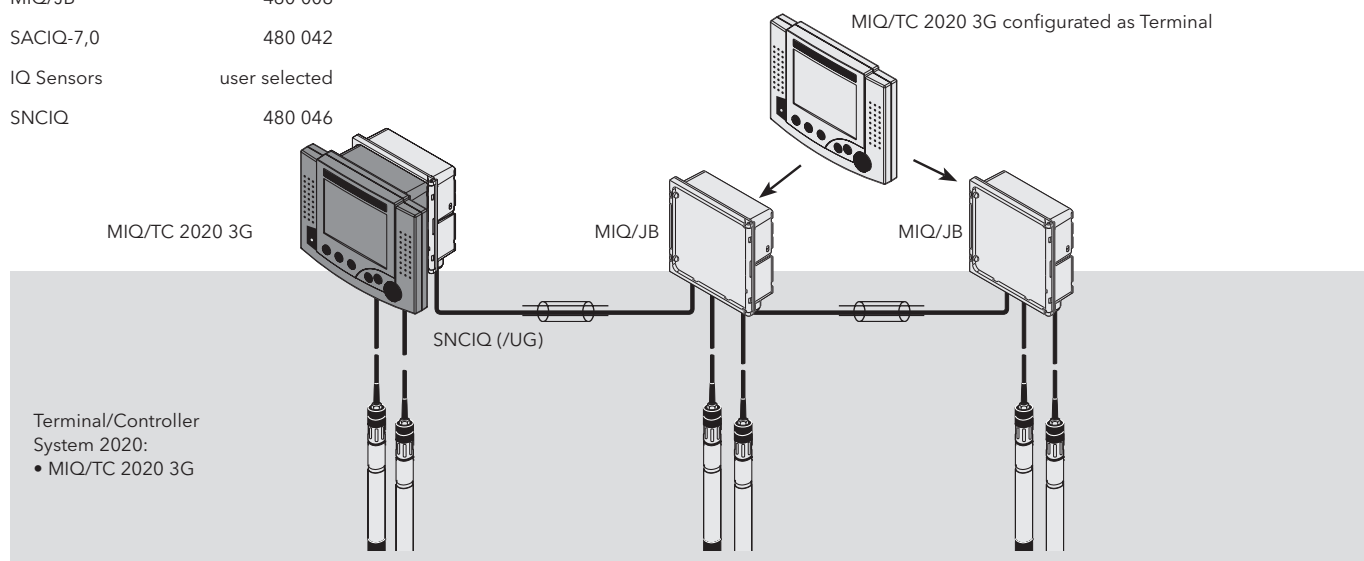


- Starter Set  
MIQ/TC 2020 3G-CR3  
consisting of:
- MIQ/TC 2020 3G (Terminal/Controller)
  - MIQ/CR3 (3 x mA, 3 x Relays)
  - MIQ/PS (power supply)
- additionally:
- 3 SACIQ (sensor cable)
  - 3 IQ sensors

Multi-parameter monitor for any 3 parameters, with 3 analog outputs and 3 relays

### Example 3 System 2020

Configuration Example	Order No.
MIQ/TC 2020 3G	470 020
MIQ/PS	480 004
MIQ/C6	480 015
MIQ/JB	480 008
SACIQ-7,0	480 042
IQ Sensors	user selected
SNCIQ	480 046



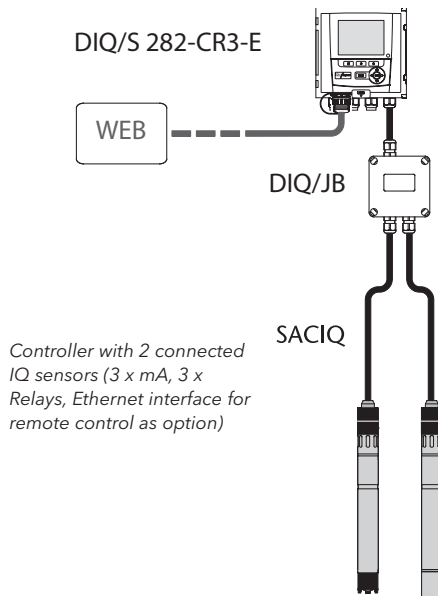
Branched system 2020 for up to any 20 parameters. System with 6 analog outputs; measuring locations 2 and 3 are at a large distance from controller. Extendable by the mobile MIQ/TC 2020 3G terminal that serves as an additional display unit for easy on-site calibration with redundant controller function.

# System Configurations Digital Systems

## IQ SENSOR NET System 282/284

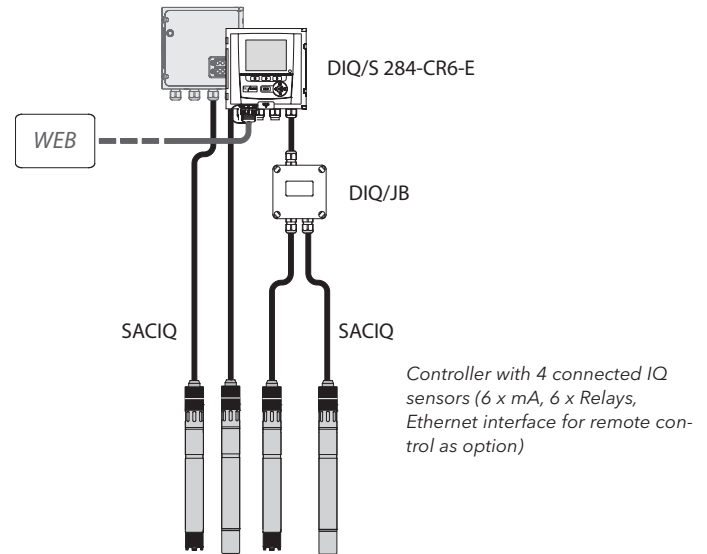
### Example 1

Example with 2 IQ sensors	Order no.
DIQ/S 282-CR3-E	472 113
2 x SACIQ-7,0	480 042
DIQ/JB	472 005
2 x IQ sensors	user selected



### Example 2

Example with 4 IQ sensors	Order no.
DIQ/S 284-CR6-E	472 133
4 x SACIQ-7,0	480 042
DIQ/JB	472 005
4 x IQ sensors	user selected



Controller is also available with PR- or MOD-interface.



## Carbon: COD/BOD/TOC/DOC/SAC/UVT

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	Sensolyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	
Parameter																		
TSS (optical)																		
Nitrate (ion-selective)																		
Nitrate (optical/spectral)																		
Nitrite (optical/spectral)																		
COD (optical/spectral)																		
BOD (optical/spectral)																		
TOC (optical/spectral)																		
DOC (optical/spectral)																		
SAC (optical/spectral)																		
UVT (optical/spectral)																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W  
Only relevant for the respective sensor with fixed cable.  
NO<sub>2</sub>-N is included in the measurement result

Model	Description	Order No.
<b>SAC/UVT Sensor</b>		
<b>UV 701 IQ SAC</b>	Optical SAC and UVT sensor (254 nm), for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481036
<b>UV 705 IQ SAC</b>	Optical SAC and UVT sensor (254 nm), for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481038
<b>Spectral Sensors Carbon</b>		
<b>CarboVis 701 IQ</b>	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/BNR part of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481048
<b>CarboVis 701 IQ TS</b>	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/aeration part of municipal wastewater treatment plants with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481049
<b>CarboVis 705 IQ</b>	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481050



Model	Description	Order No.
<b>CarboVis 705 IQ TS</b>	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481051
<b>NiCaVis 705 IQ</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481052
<b>NiCaVis 705 IQ TS</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, UVT254 and TSS, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481053
<b>NiCaVis 701 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481054
<b>NiCaVis 705 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481055
<b>Spectral Sensors Carbon Surface Water</b>		
<b>NiCaVis 705 IQ SF</b>	Spectral UV-VIS sensor (60 mm) for the measurement of Nitrate, COD, TOC, BOD, DOC, SAC, UVT254 and TS in surface water bodies with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481058
<b>NiCaVis® 705 IQ NI SF</b>	Spectral UV-VIS sensor (60 mm) for the measurement of Nitrate, Nitrite, COD, TOC, BOD, DOC, SAC and UVT254 in surface water bodies with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481059
<b>Accessories Spectral Sensors (Carbon)</b>		
<b>DIQ/CHV</b>	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472007
<b>Cleaning Air Box - 115 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480017
<b>MIQ/CHV PLUS</b>	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSOR NET (relay and compressed air supply external)	480018
<b>Cleaning Air Box - 230 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480019
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>VIS FT-1</b>	Flow-through measuring cell for spectral UV and UV-VIS sensors, for operation with automatic compressed air cleaning	480080
<b>VIS FT-1/RS</b>	Spare part set for flow-thru measuring cell VIS FT-1	480081
<b>VIS/CT</b>	Universal cleaning tool for spectral sensors.	481071
<b>VIS/CV</b>	Multifunctional slide for spectral sensors.	481074
<b>SET/AP</b>	Air pressure cleaning set for spectral sensors: Supplied with 15 m (49 ft) tubing, fittings, without further modules and components.	481075
<b>ST-1</b>	Standard with low concentration for 5 mm spectral sensors.	481077
<b>ST-2</b>	Standard with high concentration for 1 mm spectral sensors.	481078
<b>VIS/CS</b>	Universal cleaning tool set for cleaning of measuring windows of spectral sensors with cleaning solutions.	481079

\*\*\* Sensor variation with different cable length (L<sub>r-SO</sub>): Additional costs depending on cable length.



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylymanalytics.com/en](http://www.xylymanalytics.com/en) under Customer Support/Downloads/Datasheets.

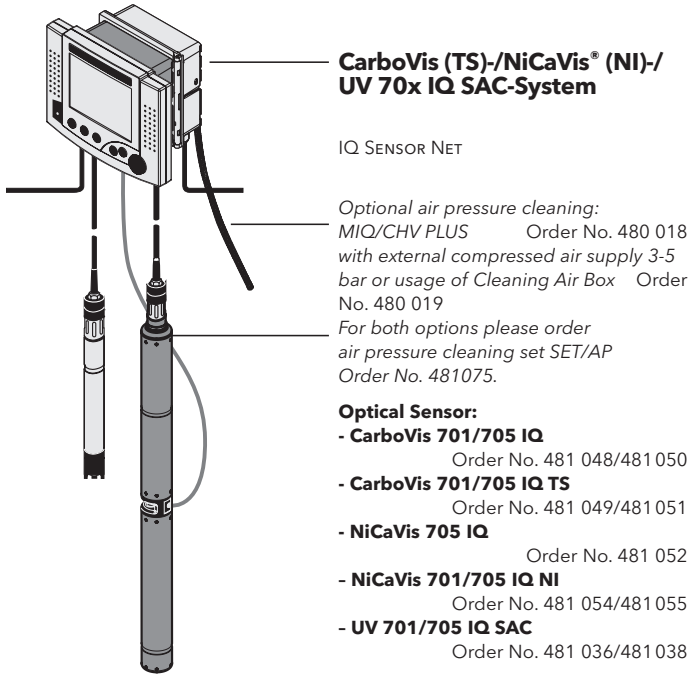


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# Measuring Point Configuration

## CarboVis® (TS)/NiCaVis® (NI)/UV 70x IQ SAC

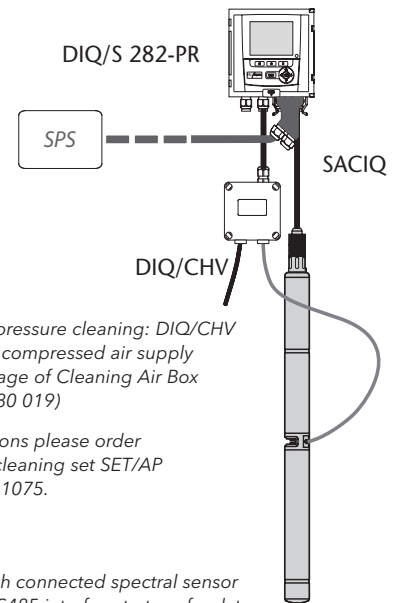


*required components per measuring place: dark shaded*

Carbon: COD/BOD/TOC/DOC/SAC/UVT

### Example 1

Spectral sensor and PROFIBUS	Order No.
DIQ/S 282-PR	472 111
1 x SACIQ-7,0	480 042
1 spectral sensor	user selected



*Optional air pressure cleaning: DIQ/CHV with external compressed air supply 3-5 bar or usage of Cleaning Air Box (Order No. 480 019)*

*For both options please order air pressure cleaning set SET/AP Order No. 481075.*

*Controller with connected spectral sensor (3 x Relays, RS485 interface to transfer data to a PLC via PROFIBUS)*

# Phosphate

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	Sensolyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	VISolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARiON® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5
Parameter																		
<b>Ortho-Phosphate</b> (optical/wet chemical)																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W  
Only relevant for the respective sensor with fixed cable.

Model	Description	Order No.
<b>Alyza IQ Orthophosphate</b>		
<b>Alyza IQ PO4-110</b>	New Orthophosphate analyzer Alyza IQ PO4 for the IQ Sensor Net, Measurement range 1, 1-channel w/o pump. Scope of delivery: Orthophosphate analyzer for indoor and outdoor use, spare parts for the first year, pre-installed 2 m SNCIQ and power cables (please order controller and reagents separately).	825510
<b>Alyza IQ PO4-111</b>	New Orthophosphate analyzer Alyza IQ PO4 for the IQ Sensor Net, Measurement range 1, 1-channel with pump. Scope of delivery: Orthophosphate analyzer for indoor and outdoor use, spare parts for the first year, pre-installed 2 m SNCIQ and power cables (please order controller and reagents separately).	825511
<b>Alyza IQ PO4-112</b>	New Orthophosphate analyzer Alyza IQ PO4 for the IQ Sensor Net, Measurement range 1, 2-channel with 2 pumps. Scope of delivery: Orthophosphate analyzer for indoor and outdoor use, spare parts for the first year, pre-installed 2 m SNCIQ and power cables (please order controller and reagents separately).	825512
<b>Alyza IQ PO4-120</b>	New Orthophosphate analyzer Alyza IQ PO4 for the IQ Sensor Net, Measurement range 2, 1-channel w/o pump. Scope of delivery: Orthophosphate analyzer for indoor and outdoor use, spare parts for the first year, pre-installed 2 m SNCIQ and power cables (please order controller and reagents separately).	825520
<b>Alyza IQ PO4-121</b>	New Orthophosphate analyzer Alyza IQ PO4 for the IQ Sensor Net, Measurement range 2, 1-channel with pump. Scope of delivery: Orthophosphate analyzer for indoor and outdoor use, spare parts for the first year, pre-installed 2 m SNCIQ and power cables (please order controller and reagents separately).	825521
<b>Alyza IQ PO4-122</b>	New Orthophosphate analyzer Alyza IQ PO4 for the IQ Sensor Net, Measurement range 2, 2-channel with 2 pumps. Scope of delivery: Orthophosphate analyzer for indoor and outdoor use, spare parts for the first year, pre-installed 2 m SNCIQ and power cables (please order controller and reagents separately).	825522
<b>Consumables Alyza IQ PO4</b>		
<b>Filter-REP</b>	Replacement air filter for fan of Alyza IQ and P 700 IQ	821969
<b>MPV-1</b>	New Multiport valve for Alyza IQ PO4	827000





Model	Description	Order No.
<b>TubingSet PO4</b>	New Set Tubings PO4 with sample contact	827101
<b>Syringe Pump Set</b>	New Spareparts syringe pump	827170
<b>R-PO4/1-1A</b>	New Reagent 1A for PO4 measurement range 1 (0.02 ... 15.00 mg/L PO4-P) Alyza IQ	827520
<b>R-PO4/1-1B</b>	New Reagent 1B for PO4 measurement range 1 (0.02 ... 15.00 mg/L PO4-P) Alyza IQ	827521
<b>R-PO4/1-2A</b>	New Reagent 2A for PO4 measurement range 2 (0.2 ... 50.0 mg/L PO4-P) Alyza IQ	827522
<b>R-PO4/1-2B</b>	New Reagent 2B for PO4 measurement range 2 (0.2 ... 50.0 mg/L PO4-P) Alyza IQ	827523
<b>S-PO4/1-0.0</b>	New Standard solution 0.0 mg/l PO4-P Alyza IQ	827526
<b>S-PO4/1-1.0</b>	New Standard solution 1.0 mg/l PO4-P Alyza IQ	827527
<b>S-PO4/1-10.0</b>	New Standard solution 10.0 mg/l PO4-P Alyza IQ	827528
<b>S-PO4/1-40.0</b>	New Standard solution 40.0 mg/l PO4-P Alyza IQ	827529
<b>C-PO4/1-1</b>	New Cleaning solution Alyza IQ PO4	827533
<b>R-Set PO4/1-1</b>	New Reagent set PO4 measurement range 1 (0.02 ... 15.00 mg/L PO4-P) consisting of reagent 1A, 1B for analyzer Alyza IQ	827550
<b>R-Set PO4/1-2</b>	New Reagent set for PO4 measurement range 2 (0.2 ... 50.0 mg/L PO4-P) consisting of reagent 2A, 2B for analyzer Alyza IQ	827551
<b>SC-Set PO4/1-1_0/1</b>	New Set consisting of cleaning solution and standard solutions 0.0/1.0 mg/l PO4-P for analyzer Alyza IQ PO4	827555
<b>SC-Set PO4/1-1_0/10</b>	New Set consisting of cleaning solution and standard solutions 0.0/10.0 mg/l PO4-P for analyzer Alyza IQ PO4	827556
<b>SC-Set PO4/1-2_10/40</b>	New Set consisting of cleaning solution and standard solutions 0.0/40.0 mg/l PO4-P for analyzer Alyza IQ PO4	827557
<b>Filtration Alyza IQ</b>		
<b>FM/PC</b>	New Filter membrane module FM-Case/PC with premounted membrane. Suitable for Alyza IQ and P 700 IQ	821939
<b>Filter/PC</b>	Filter module for housing FM-Case/PC. Suitable for Alyza IQ and P 700 IQ	821940
<b>FM-Case/PC</b>	Housing for filter module Filter/PC. Suitable for Alyza IQ and P 700 IQ	821941
<b>SH-5</b>	New Intake line with slide fo Alyza IQ, unheated, 5 m (16.4 ft)	822201
<b>SH-10</b>	New Intake line with slide fo Alyza IQ, unheated, 10 m (32.8 ft)	822202
<b>SH-15</b>	New Intake line with slide fo Alyza IQ, unheated, 15 m (49.2 ft)	822203
<b>SH-20</b>	New Intake line with slide fo Alyza IQ, unheated, 20 m (65.6 ft)	822204
<b>SH 120-5</b>	New Intake line with slide fo Alyza IQ, heated, 120 VAC, 5 m (16.4 ft)	822211
<b>SH 120-10</b>	New Intake line with slide fo Alyza IQ, heated, 120 VAC, 10 m (32.8 ft)	822212
<b>SH 120-15</b>	New Intake line with slide fo Alyza IQ, heated, 120 VAC, 15 m (49.2 ft)	822213
<b>SH 120-20</b>	New Intake line with slide fo Alyza IQ, heated, 120 VAC, 20 m (65.6 ft)	822214
<b>SH 240-5</b>	New Intake line with slide fo Alyza IQ, heated, 240 VAC, 5 m (16.4 ft)	822221
<b>SH 240-10</b>	New Intake line with slide fo Alyza IQ, heated, 240 VAC, 10 m (32.8 ft)	822222
<b>SH 240-15</b>	New Intake line with slide fo Alyza IQ, heated, 240 VAC, 15 m (49.2 ft)	822223
<b>SH 240-20</b>	New Intake line with slide fo Alyza IQ, heated, 240 VAC, 20 m (65.6 ft)	822224
<b>RH-0.5</b>	New Return line, unheated, 2 m (1.6 ft)	822228
<b>RH-1</b>	New Return line, unheated, 1 m (3.3 ft)	822229
<b>RH-2</b>	New Return line, unheated, 2 m (6.6 ft)	822230
<b>RH-5</b>	New Return line, unheated, 5 m (16.4 ft)	822231
<b>RH-10</b>	New Return line, unheated, 10 m (32.8 ft)	822232
<b>RH-15</b>	New Return line, unheated, 15 m (49.2 ft)	822233
<b>RH-20</b>	New Return line, unheated, 2 m (65.6 ft)	822234
<b>RH 120-0.5</b>	New Return line, heated, 120 VAC, 0.5 m (1.6 ft)	822238
<b>RH 120-1</b>	New Return line, heated, 120 VAC, 1 m (3.2 ft)	822239
<b>RH 120-2</b>	New Return line, heated, 120 VAC, 2 m (6.6 ft)	822240
<b>RH 120-5</b>	New Return line, heated, 120 VAC, 5 m (16.4 ft)	822241
<b>RH 120-10</b>	New Return line, heated, 120 VAC, 10 m (32.8 ft)	822242
<b>RH 120-15</b>	New Return line, heated, 120 VAC, 15 m (49.2 ft)	822243
<b>RH 120-20</b>	New Return line, heated, 120 VAC, 20 m (65.6 ft)	822244
<b>RH 240-0.5</b>	New Return line, heated, 240 VAC, 0.5 m (1.6 ft)	822248
<b>RH 240-1</b>	New Return line, heated, 240 VAC, 1 m (3,3 ft)	822249
<b>RH 240-2</b>	New Return line, heated, 240 VAC, 2 m (6.6 ft)	822250
<b>RH 240-5</b>	New Return line, heated, 240 VAC, 5 m (16.4 ft)	822251
<b>RH 240-10</b>	New Return line, heated, 240 VAC, 10 m (32.8 ft)	822252
<b>RH 240-15</b>	New Return line, heated, 240 VAC, 15 m (49.2 ft)	822253
<b>RH 240-20</b>	New Return line, heated, 240 VAC, 20 m (65.6 ft)	822254



Model		Description	Order No.
<b>Accessories Alyza IQ</b>			
<b>FM-B</b>		Cleaning brush for filter membrane module	821968
<b>FM-Adapter</b>		Adapter for horizontal mounting of filter membrane module FM	821983
<b>Filter-CL</b>		Cleaning case for filter membranes	821984
<b>M-EXT 1.5</b>		Extension for attachment M 1.5. Included: Extension 1.5 m, chain, bracket	821985
<b>M 1.5</b>		Attachment for filtration. Included: Rail 1.5 m (4.9 ft), chain, bracket	821986
<b>RM</b>		Rail mount for Alyza IQ and P 700 IQ	821988
<b>WM</b>		Wall mount for Alyza IQ and P 700 IQ	821989
<b>SM</b>		Stand mount for Alyza IQ and P 700 IQ	821991
<b>TM</b>	New	Accessory for mounting of IQ Sensor Net components on Alyza IQ	822000
<b>Overflow Vessel</b>	New	Overflow vessel incl. overflow tubing	827180
<b>Filtration Pump</b>	New	Filtration pump for Alyza IQ incl. connecting tube	827185
<b>Check valve</b>	New	Check valve Alyza IQ, for retrofitting at a head > 5 m	827186
<b>Waste Funnel Set</b>	New	Waste funnel set for the separate collection of reagent containing waste	827187
<b>Conversion kit PO4 MB1</b>	New	Conversion kit Alyza IQ PO4 MB2 to MB1	827190
<b>Conversion kit PO4 MB2</b>	New	Conversion kit Alyza IQ PO4 MB1 to MB2	827191



Accessories and consumables to measure orthophosphate with the P 700 IQ and TresCon® can be found in chapter „Additional Products“.

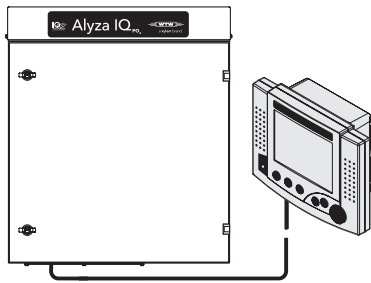


Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylymanalytics.com/en](http://www.xylymanalytics.com/en) under Customer Support/Downloads/Datasheets.





# Configuration examples Alyza IQ PO4 in the IQ SENSOR NET



## System 2020

### Example configuration

Alyza IQ PO4-112  
 Orthophosphate analyzer, 2-channel, measuring range 1  
 MIQ/TC 2020 3G  
 Controller  
 MIQ-/JB  
 Junction Box  
 SNCIQ  
 Connection cable, 2 m  
 Reagents see previous pages  
 Filtration see previous pages

### Order no.

825512  
 470020  
 480008

included in scope of delivery

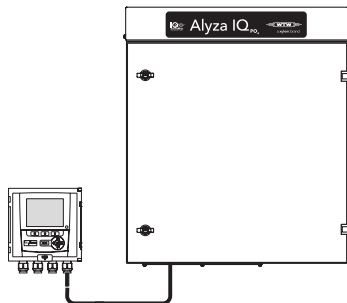
**i** Alyza IQ provides 10 W to the IQ SENSOR NET

### Options

Alyza IQ PO4-122 Orthophosphate analyzer, 2-channel, measuring range 2	Order no. 825522
Alyza IQ PO4-111 Orthophosphate analyzer, 1-channel, measuring range 1	Order no. 825511
Alyza IQ PO4-121 Orthophosphate analyzer, 1-channel, measuring range 2	Order no. 825521

The analyzers are optionally available without pump unit

Phosphate



## System 282/284

### Example configuration

Alyza IQ PO4-111  
 Orthophosphate analyzer, 1-channel, measuring range 1  
 DIQ/S 282-CR3  
 Controller  
 SNCIQ  
 Connection cable, 2 m  
 Reagents see previous pages  
 Filtration see previous pages

### Order no.

825511  
 472130

included in scope of delivery

**i** Alyza IQ provides 10 W to the IQ SENSOR NET

### Optionen

Alyza IQ PO4-121 Orthophosphate analyzer, 1-channel, measuring range 2	Order no. 825521
Alyza IQ PO4-112 Orthophosphate analyzer, 2-channel, measuring range 1	Order no. 825512
Alyza IQ PO4-122 Orthophosphate analyzer, 2-channel, measuring range 2	Order no. 825522

The analyzers are optionally available without pump unit



# Sludge Level

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	SensoLyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ (TS)	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ (TS)	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI)	UV 701/705 IQ SAC	UV 701/705 IQ NOx	<b>IFL 700 IQ</b>	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	
Parameter																		
<b>Sludge Level</b>																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284.

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W  
Only relevant for the respective sensor with fixed cable.



Detailed technical data can be found in the brochure "Data sheets process instrumentation" (999266US); also available on our homepage [www.xylenalytics.com/en](http://www.xylenalytics.com/en) under Customer Support/Downloads/Datasheets.

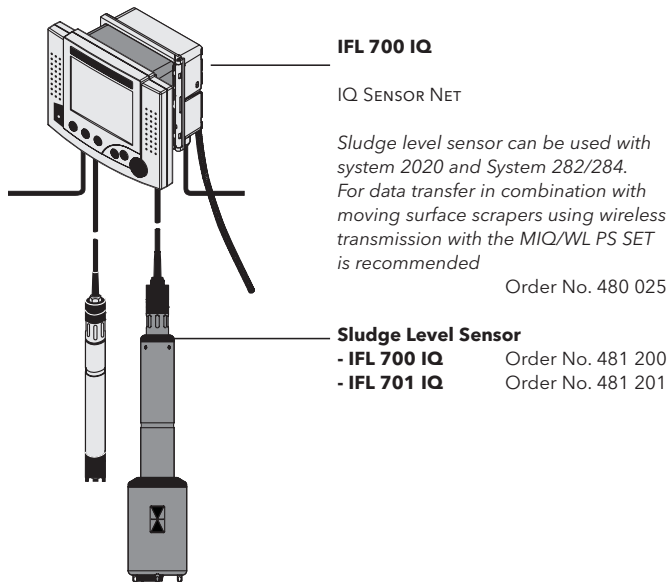
\*\*\* Sensor variation with different cable length (L<sub>c</sub>-SO\*); Additional costs depending on cable length.

Model	Description	Order No.
<b>Sludge Level Sensors</b>		
<b>IFL 700 IQ</b>	Digital ultrasonic sensor (60 mm) with automatic cleaning for interface level detection. Included: Sensor without sensor connection cable (please order SACIQ separately)	481200
<b>Accessories Sludge Level</b>		
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-SO</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>IFL-E</b>	Deflector armature for IFL 700 IQ and IFL 701 IQ for application with surface skimmers	481206
<b>IFL-RM</b>	Rail mount for interface level sensors IFL 700 IQ and IFL 701 IQ in combination with deflector armature IFL-E. (EH/WT-D30, IFL-E please order separately)	481207



# Measuring Point Configuration

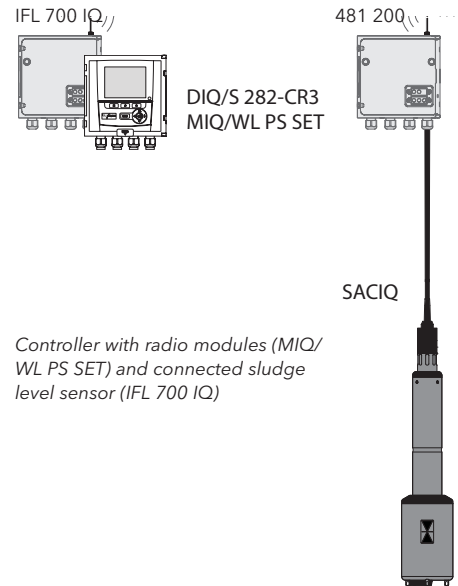
## Sludge Level



*required components per measuring place: dark shaded*

### Example 1

Sludge level measurement	Order No.
DIQ/S 282-CR3	472 110
1 x MIQ/WL PS SET	480 025
1 x SACIQ-7,0	472 042



Sludge Level

# IQ SENSOR NET

Parameter	Sensors																	
	TriOxmatic® 700 IQ (F)	FDO® 700/701 IQ (F)	Sensolyt® 700 IQ (F)	TetraCon® 700 IQ (F)	VisoTurb® 700 IQ (F)	ViSolid® 700 IQ	AmmoLyt® 700 IQ	NitraLyt® 700 IQ	VARION® 700 IQ	NitraVis® 701/705 IQ	NitraVis® 701/705 IQ NI	CarboVis® 701/705 IQ	NiCaVis® 705 IQ (TS/SF)	NiCaVis® 701/705 IQ (NI) SF	UV 701/705 IQ SAC	UV 701/705 IQ NOx	IFL 700 IQ	Alyza IQ PO <sub>4</sub>
Usable with Systems 2020 and 282/284																		
Usable with System 181																		
Power consumption [W]	0.2	0.7	0.2	0.2	1.5	1.5	0.2	0.2	0.2	8.0	8.0	8.0	8.0	8.0	8.0	8.0	5.5	
Parameter										x	x	x	x	x	x	x	x	xx
<b>Temperature</b>																		
<b>Dissolved Oxygen</b> (electrochemical)																		
<b>Dissolved Oxygen</b> (optical)																		
<b>pH</b>																		
<b>ORP</b>																		
<b>Conductivity</b>																		
<b>Salinity</b>																		
<b>TDS</b>																		
<b>Turbidity</b> (optical)																		
<b>TSS</b> (optical)																		
<b>Ammonium</b> (ion-selective)																		
<b>Nitrate</b> (ion-selective)																		
<b>Nitrate</b> (optical/spectral)																		
<b>Nitrite</b> (optical/spectral)																		†
<b>Potassium</b> (ion-selective)																		
<b>Chloride</b> (ion-selective)																		
<b>COD</b> (optical/spectral)																		
<b>BOD</b> (optical/spectral)																		
<b>TOC</b> (optical/spectral)																		
<b>DOC</b> (optical/spectral)																		
<b>SAC</b> (optical/spectral)																		
<b>UVT</b> (optical/spectral)																		
<b>Sludge Level</b>																		
<b>Ortho-Phosphate</b> (optical/wet chemical)																		

\* When operating with System 282/284, the average power consumption can be used. Details see operating manual System 282/284

\*\* Power supply: Alyza IQ PO<sub>4</sub> provides 10 W  
Only relevant for the respective sensor with fixed cable.  
NO<sub>2</sub>-N is included in the measurement result

To connect analog sensors, use special junction boxes (see section accessories)



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YSI.com/IQSN

Model	Description	Order No.
<b>IQ Sensors for Systems 282/284 and 2020, Connection cables</b>		
<b>Dissolved Oxygen</b>		
<b>TriOxmatic® 700 IQ</b>	Universal digital D.O. sensor for monitoring/controlling O2 input in wastewater treatment plants for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201640
<b>TriOxmatic® 700 IQ SW</b>	Universal digital D.O. sensor for monitoring/controlling the O2 input, in sea water design, for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 600) comprising: 2 exchange membrane heads (WP 600/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1 x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201641
<b>TriOxmatic® 701 IQ</b>	Fast response time digital D.O. sensor for use in wastewater treatment plants, e.g. denitrification, for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201644
<b>TriOxmatic® 702 IQ</b>	Digital D.O. sensor for trace level measurements in the ppb range, e.g. ultrapure water/boiler feed water, for use with IQ SENSOR NET. Supplied with accessory kit (ZBK 25i) comprising: 2 exchange membrane heads (WP 25i/2), 50 ml electrolyte solution (ELY/A), 50 ml cleaning solution (RL-AG/Oxi), 1x cathode cleaner (SF 300), without connection cable (SACIQ order separately)	201646
<b>FDO 700 IQ</b>	Digital calibration free optical D.O. sensor (universal use). Optimized for monitoring/controlling the O2 input in wastewater treatment plants, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 700, without connection cable (SACIQ order separately)	201650
<b>FDO® 700 IQ SW</b>	Digital calibration free optical D.O. sensor (universal use). Optimized for measuring and controlling the O2 input in seawater applications, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 700 and protective cap MSK FDO®, without connection cable (SACIQ order separately).	201652
<b>FDO 701 IQ SW</b>	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for measuring/controlling the O2 input in seawater applications, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ SW, membrane cap SC-FDO® 701 and protective cap MSK FDO®, without connection cable (SACIQ order separately)	201653
<b>FDO 701 IQ</b>	Digital calibration free optical D.O. sensor with fast response time (universal use). Optimized for monitoring/controlling the O2 input in waste water treatment plants, for use with IQ SENSOR NET. Factory calibrated system composed of sensor FDO® 700 IQ and membrane cap SC-FDO® 701, without connection cable (SACIQ order separately).	201660
<b>pH/ORP</b>		
<b>SensoLyt® TFA</b>	New pH combination electrode especially suited for industrial or not typical municipal wastewater, with armouring for use in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 14 pH	109114
<b>SensoLyt® SEA</b>	pH combination electrode especially suited for measurements in heavily polluted wastewater, with armouring for use in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109115
<b>SensoLyt® ECA</b>	pH combination electrode esp. suited for normally polluted wastewater (e.g. municipal wastewater) with armouring for use in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 0 ... 12 pH	109117
<b>SensoLyt® SEA-HP</b>	pH combination electrode with optimized armouring for use under high pressure/temperature conditions, for installation in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range 4 ... 12 pH	109118
<b>SensoLyt® DWA</b>	pH combination electrode especially for drinking water applications, for installation in sensors of SensoLyt® 650/690/700 (IQ) series. With watertight S7 plug head (IP 67); measuring range 0 ... 14 pH	109119
<b>SensoLyt® PtA</b>	ORP combination electrode especially suited for measurements in heavily polluted wastewater, for installation in SensoLyt® sensors. With watertight S7 plug head (IP 67); measuring range - 2000 ... + 2000 mV	109125
<b>SensoLyt® 700 IQ</b>	Robust digital pH/ORP sensor for pH/ORP electrodes SensoLyt® SEA/DWA/ECA/PtA for use with the IQ SENSOR NET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109170
<b>SensoLyt® 700 IQ SW</b>	Robust digital pH/ORP sensor for SensoLyt® SEA/ DWA/ECA/PtA pH/ORP electrodes, in sea water design, for use with the IQ SENSOR NET. With built-in pre-amplifier and temperature sensor (NTC), with SensCheck function, without connection cable (please order SACIQ separately)	109171
<b>SensoLyt® 700 IQ/SET</b>	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including pH electrode (SensoLyt® SEA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109173
<b>SensoLyt® 700 IQ/SET1</b>	Robust digital pH/ORP sensor (SensoLyt® 700 IQ) including ORP electrode (SensoLyt® PtA) and 7 m (23 ft) sensor adapter cable (SACIQ-7,0)	109174



Model	Description	Order No.
<b>Conductivity</b>		
<b>TetraCon® 700 IQ</b>	Digital 4 electrode conductivity cell, especially for heavily polluted wastewater, for use with the IQ SENSOR NET System. With integrated temperature sensor, without cable (Please order SACIQ separately)	302500
<b>TetraCon® 700 IQ SW</b>	Digital 4 electrode conductivity cell, in seawater design, suited for heavily polluted water, for use with the IQ SENSOR NET. With integrated temperature sensor, without cable (Please order SACIQ separately)	302501
<b>Turbidity/Suspended Solids</b>		
<b>VisoTurb® 700 IQ</b>	Digital turbidity sensor for drinking water/water and wastewater (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable SACIQ separately.	600010
<b>VisoTurb® 700 IQ SW</b>	Digital turbidity sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable separately.	600011
<b>ViSolid® 700 IQ</b>	Digital suspended solids sensor for water/wastewater/sludge (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable SACIQ separately.	600012
<b>ViSolid® 700 IQ SW</b>	Digital suspended solids sensor for industrial and seawater applications (ultrasonic cleaning) for use with the IQ SENSOR NET system. Please order connection cable separately.	600013
<b>Combination sensor for ammonium and nitrate (ISE)</b>		
<b>VARiON®Plus 700 IQ</b>	Robust digital sensor for the ion-selective measurement (in-situ) of ammonium and nitrate, for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ with 4 blind plugs, protective device and calibration vessel. Please order electrodes separately.	107040
<b>VARiON®Plus A comp SET NH4</b>	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, ammonium electrode VARiON®Plus NH4 and compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107060
<b>VARiON®Plus N comp SET NO3</b>	Robust digital Sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, nitrate electrode VARiON®Plus NO3 and compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107062
<b>VARiON®Plus AN/A comp SET NH4 &amp; NO3</b>	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus K (potassium). Please order SACIQ cable separately.	107066
<b>VARiON®Plus AN/N comp SET NH4 &amp; NO3</b>	Robust digital sensor for ion-selective measurement of ammonium and nitrate (in-situ) for use with the IQ SENSOR NET system. Supplied with: Sensor VARiON®Plus 700 IQ, reference electrode VARiON® Ref, measuring electrodes VARiON®Plus NH4 and VARiON®Plus NO3, compensation electrode VARiON®Plus Cl (chloride). Please order SACIQ cable separately.	107068
<b>Ammonium (ISE)</b>		
<b>AmmoLyt® Plus 700 IQ</b>	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARiON® Ref, VARiON®Plus NH4, VARiON®Plus K and SACIQ connection cable (Please order separately).	107070
<b>AmmoLyt® Plus SET/Comp</b>	Robust digital ammonium sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system, delivered with VARiON® Ref, VARiON®Plus NH4 and VARiON®Plus K electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107072
<b>Nitrate (ISE)</b>		
<b>NitraLyt®Plus 700 IQ</b>	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: Electrodes VARiON® Ref, VARiON®Plus NO3, VARiON®Plus Cl and SACIQ connection cable (Please order separately).	107080
<b>NitraLyt®Plus SET/Comp</b>	Robust digital nitrate sensor for ion-selective electrodes (in-situ measuring), for use with the IQ SENSOR NET system, delivered with VARiON® Ref, VARiON®Plus NO3 and VARiON®Plus Cl electrodes. With built-in lightning protection, pre-amplifier and temperature sensor. Not included: SACIQ connection cable (Please order separately).	107082
<b>Nitrate/Nitrite (UV-VIS/UV)</b>		
<b>NitraVis 701 IQ</b>	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in inlet/BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481044
<b>NitraVis 701 IQ TS</b>	Spectral nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for in-situ measurement in inlet/BNR part of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481045





Model	Description	Order No.
<b>NitraVis 705 IQ</b>	Spectral nitrate sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481046
<b>NitraVis 705 IQ TS</b>	Optical nitrate/TSS sensor (60 mm) with spectral processing of UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481047
<b>NiCaVis 705 IQ</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481052
<b>NiCaVis 705 IQ TS</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, UVT254 and TSS, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481053
<b>NiCaVis 701 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481054
<b>NiCaVis 705 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481055
<b>NitraVis 701 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481056
<b>NitraVis 705 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite and Nitrate in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481057
<b>NOx (optical)</b>		
<b>UV 701 IQ NOx</b>	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481034
<b>UV 705 IQ NOx</b>	Optical Nitrate (NOx) sensor with single wavelength measurement, for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481035
<b>Carbon (UV-VIS/UV)</b>		
<b>CarboVis 701 IQ</b>	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/BNR part of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481048
<b>CarboVis 701 IQ TS</b>	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the inlet/effluent/aeration part of municipal wastewater treatment plants with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481049
<b>CarboVis 705 IQ</b>	Optical COD/TOC/DOC/BOD or SAC sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481050
<b>CarboVis 705 IQ TS</b>	Optical COD/TOC/DOC/BOD/SAC and TSS sensor (60 mm) with spectral processing of the UV-VIS range, for measurement in the effluent of municipal wastewater treatment plants, with integrated integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481051
<b>NiCaVis 705 IQ</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481052



Model	Description	Order No.
<b>NiCaVis 705 IQ TS</b>	Spectral UV-VIS sensor (60 mm) for measurement of Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, UVT254 and TSS, for measurement in the effluent of municipal wastewater treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481053
<b>NiCaVis 701 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SAC soluble, and UVT254 in the influent, biological tank and effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481054
<b>NiCaVis 705 IQ NI</b>	Spectral UV sensor (60 mm) for measurement of Nitrite, Nitrate, CODtotal, CODsoluble, TOC, BOD, DOC, SACtotal, SACsoluble, and UVT254 in the effluent of municipal waste water treatment plants, with integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately)	481055
<b>SAC/UVT (optical)</b>		
<b>UV 701 IQ SAC</b>	Optical SAC and UVT sensor (254 nm), for measurement of higher concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481036
<b>UV 705 IQ SAC</b>	Optical SAC and UVT sensor (254 nm), for measurement of lower concentrations in wastewater and surface water, with turbidity compensation and integrated ultrasonic cleaning. Supplied with multifunctional slide and Shock-Absorption-Rings, without connection cable (SACIQ order separately).	481038
<b>Sludge Level</b>		
<b>IFL 700 IQ</b>	Digital ultrasonic sensor (60 mm) with automatic cleaning for interface level detection. Included: Sensor without sensor connection cable (please order SACIQ separately)	481200
<b>Sensor Connection Cable</b>		
<b>SACIQ-1,5</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 1.5 m (4.9 ft)	480040
<b>SACIQ-50</b>	*** Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft)	480041V
<b>SACIQ-7,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 7 m (23 ft)	480042
<b>SACIQ-15,0</b>	Sensor adapter cable for all IQ sensors, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 15 m (49 ft)	480044
<b>SACIQ-20,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 20 m (65 ft), with screwable SACIQ-Plug	480045
<b>SACIQ-50,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 50 m (162 ft), with screwable SACIQ-Plug	480060
<b>SACIQ-50 SW</b>	*** Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Customized cable length up to 100 m (330 ft), with screwable SACIQ-Plug	480064V
<b>SACIQ-Plug</b>	Screwable plug for all SACIQ sensor adapter cables for IQ sensors	480065
<b>SACIQ-25,0 SW</b>	Sensor adapter cable for all IQ sensors, in seawater design, with IP 68 waterproof connection to the IQ SENSOR NET system. Cable length 25 m (82 ft), with screwable SACIQ-Plug	480066

\*\*\* Sensor variation with different cable length („-SO“); Additional costs depending on cable length.



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Systems 282/284 and 2020				
	System 282/284		System 2020	
Max. Number of connectable Sensors	2/4		20	
Max. number of parallel measured parameters	20**		20**	
Output Signals	<b>ANALOG:</b>	<b>DIGITAL:</b>	<b>ANALOG:</b>	<b>DIGITAL:</b>
	Analog outputs (0/4 - 20 mA), Relays	<ul style="list-style-type: none"> <li>• RS 485</li> </ul>	Analog outputs (0/4 - 20 mA), Relays	<ul style="list-style-type: none"> <li>• RS 485</li> </ul>
		<b>FIELDBUSES:</b> <ul style="list-style-type: none"> <li>• Profibus DP</li> <li>• Modbus RTU</li> <li>• EtherNet/IP™</li> <li>• Modbus TCP</li> <li>• PROFINET</li> </ul>		<b>FIELDBUSES:</b> <ul style="list-style-type: none"> <li>• Profibus DP</li> <li>• Modbus RTU</li> <li>• EtherNet/IP™</li> <li>• Modbus TCP</li> <li>• PROFINET</li> </ul>
(digital and fieldbus parallel to analog possible)				
Knowledge of Special Automation Technology Required	Basically no, in PROFIBUS/Modbus systems yes		Basically no, in PROFIBUS/Modbus systems yes	
<b>Additional Options</b>				
Additional Displays	No		Yes	
Redundant Controller	No		Yes	
Datalogger	Yes		Yes	
Modem-capable Interface (Fixed Line Telephone)	No		Yes Alarms and measured values - MIQ/TC 2020 3G: via SMS and web browser - MIQ/MC3 family: via e-mail and web browser	
Radio connection	Yes		Yes	

\* Here only the F-sensors can be connected: SensoLyt® 700 IQ F, FDO 700/701 IQ F, TriOxmatic® 700 IQ F, TetraCon® 700 IQ F and VisoTurb® 700 IQ F.

\*\* The sensors VARiON®Plus 700 IQ, NitraVis 701/705 IQ TS, CarboVis 701/705 IQ (TS), NiCaVis 705 IQ, NiCaVis 701/705 IQ NI measure at least 2 parameters. The sensors with fixed cable connection cannot be connected here.

The IQ SENSOR NET system consists of a variable number of system components with different functions.

The individual components and their primary functions are:		
Controller and terminal	Controller	Controls all communication within the system
	Terminal	Display of measurements, operation and system configuration ("Human Machine Interface")
Modules	Power supply modules	Power supply for system components
	Combined output module	Transmission of measured data or message/alarm functions (mA/relays)
	Branching modules	System branching and sensor connection
Sensors	IQ sensors and connection modules for passive sensors	Measurement of parameters
Cables	Sensor connection cable	Cables for connecting sensors to modules
	Module connection cable	Cables for connecting modules to remote measuring points
	Module connection cable, ground installation	Cables for connecting modules to remote measuring points, specifically for the ground installation.

## Systems in detail

Modules	MIQ/PS	MIQ/24V	MIQ/C6	MIQ/R6	MIQ/CR3	MIQ/IC2	MIQ/3-MOD	MIQ/3-PR	MIQ/JB	MIQ/JBR	MIQ/WL PS (SET) ***	MIQ/TC2020 3G	MIQ/MC3	MIQ/MC3-MOD	MIQ/MC3-PR	Cleaning Air Box - 230	Cleaning Air Box - 115	MIQ/CHV PLUS
Usable with System 2020																		
Usable with System 282/284																		
Available IQSN connectors	3	3	2	2	2	2	3	3	4	4	3	✗	2	2	2	✗	✗	2
Electrical current [W]	*	*	3.0	1.5	3.0	0.2	3.0	3.0	0.0	0.2	0.6	3.0	2.5	3.0	3.0	**	**	2.5
Module features																		
<b>Power supply</b>																		
100...240 V AC																		
24 V AC/DC																		
<b>Analog outputs/relays</b>																		
6 x 0/4...20 mA																		
6 x relays																		
3 x 0/4...20 mA																		
3 x relays																		
<b>Analog inputs</b>																		
2 x 0/4...20 mA																		
<b>Interfaces</b>																		
MODBUS																		
PROFIBUS																		
USB																		
Ethernet/LAN (Profinet, Ethernet/IP, Modbus TCP)																		
<b>Intra-system connectivity</b>																		
4 available IQSN connectors																		
4 available IQSN connectors, including signal amplification for large distances																		
Radio transmission																		
<b>Controller</b>																		
Controller/Terminal (with Display)																		
Controller in standard IQ module without display																		
<b>Compensation</b>																		
Air-pressure compensation for D.O. measurement																		
<b>Compressed air cleaning</b>																		
Air compressor 230 VAC																		
Air compressor 115 VAC																		
Valve for automatic cleaning																		

\* Power supply: MIQ/PS and MIQ/24V provide 18W

\*\* Integrated power supply

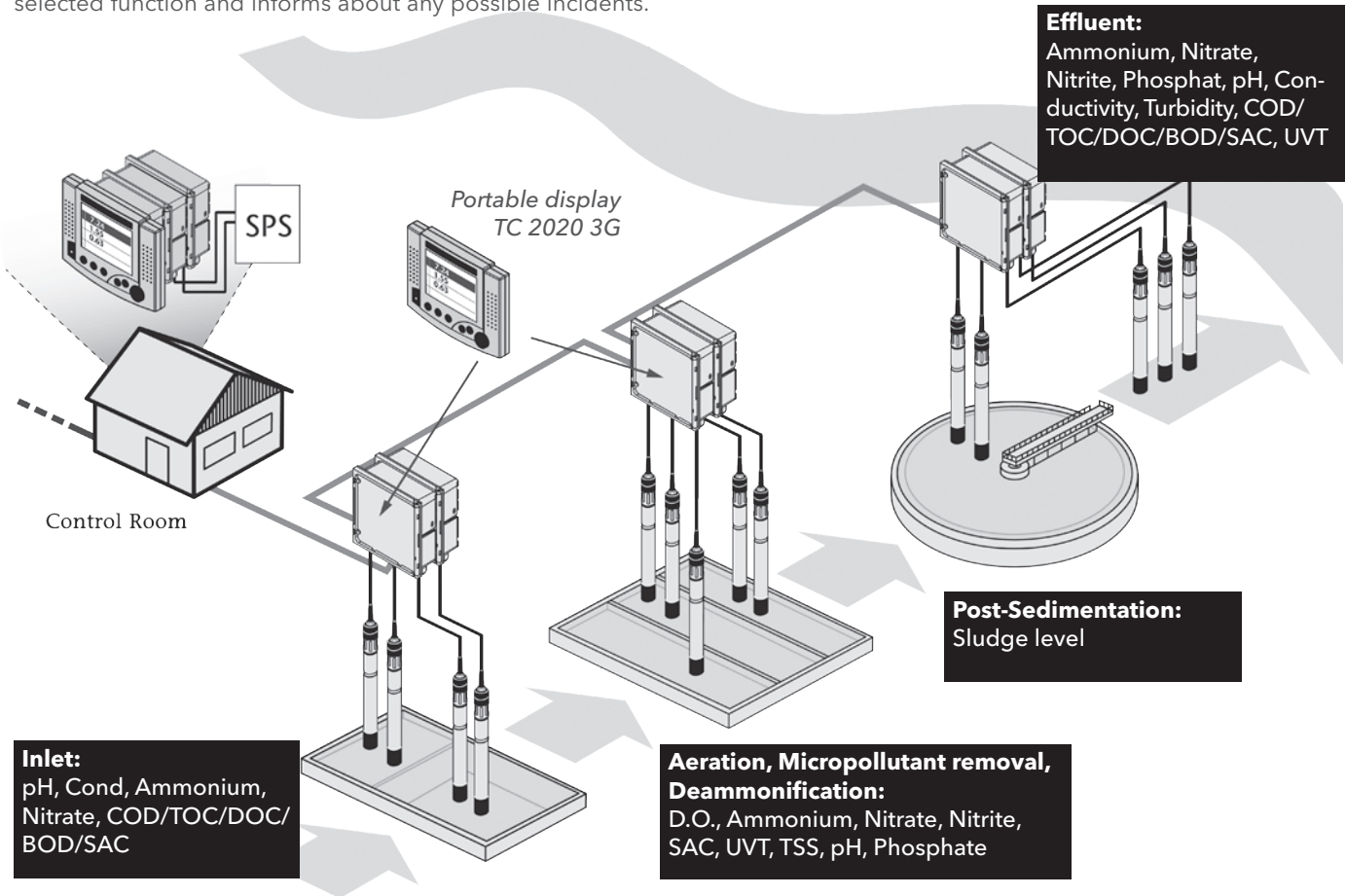
\*\*\* When used as power supply module: power supply 7 W; otherwise consumption of 0.6 W  
USB-interface only for software update



# The System 2020

## System architecture 2020

The terminal/controller **MIQ/TC 2020 3G** can be operated as either controller (permanently installed with the system) as also as mobile terminal. This function can be configured with the software by each user. The status LED indicates the selected function and informs about any possible incidents.



SLUDGE LEVEL

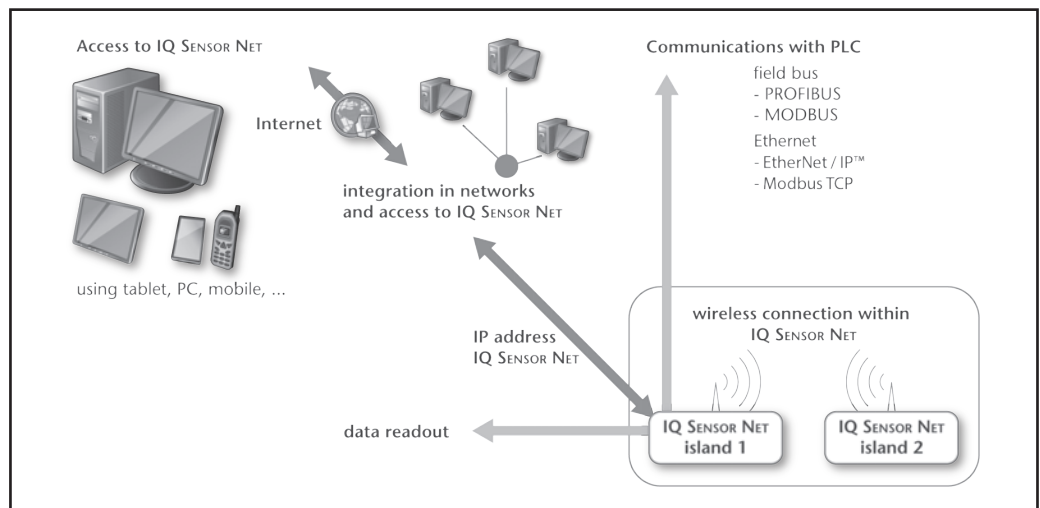
## Digital communication with the IQ Net

**MIQ/3-PR modul IQ**  
with PROFIBUS-DP connection

**MIQ/3-MOD modul IQ**  
with MODBUS RTU/RS 485 connection

**MIQ/WL PS**  
for wireless connection and linking with the IQ SENSOR NET System

Additional IQ SENSOR NET islands possible.



Model	Description	Order No.
<b>System 2020</b>		
<b>Terminal / Controller</b>		
<b>MIQ/TC 2020 3G</b>	Module IQ Terminal/Controller, configurable as controller (permanently installed) or as terminal with redundant controller function for system 2020, with USB interface, for coupling to any IQ SENSOR NET module	470020
<b>MIQ/TC 2020 3G-CR3</b>	Multi-parameter measuring converter, for connecting up to 20 IQ sensors. Scope of supply: MIQ/TC 2020 3G Terminal/Controller, MIQ/CR3 with 3 analog outputs (0/4-20 mA) and 3 relays, MIQ/PS wide-range power supply	470022
<b>MIQ/TC 2020 3G-C6</b>	Multi-parameter measuring converter, for connecting up to 20 IQ sensors. Scope of supply: MIQ/TC 2020 3G Terminal/Controller, MIQ/C6 with 6 analog outputs (0/4-20 mA), MIQ/PS wide-range power supply	470024
<b>MIQ/TC 2020 3G-EF</b>	Multi parameter Controller to connect up to 20 IQ sensors. Scope of delivery: MIQ/TC 2020 3G Terminal/Controller, MIQ/MC3 Controller with Ethernet interface (Modbus TCP, Ethernet/IP, PROFINET), MIQ/PS wide range power supply	470026
<b>Power Supply</b>		
<b>MIQ/PS</b>	Module IQ/Power Supply, wide-range power supply for system 2020 and 282/284, power output max. 18 W, 3 idle IQ SENSOR NET connections	480004
<b>MIQ/24V</b>	Module IQ/24V, power supply for 24 VAC / 24 VDC input voltage, for system 2020 and 282/284, power output max. 18 W, 3 idle IQ SENSOR NET connections	480006
<b>Outputs, Inputs and Communication</b>		
<b>MIQ/3-MOD</b>	Module IQ with MODBUS connection and automatic air pressure compensation (can be used only with MIQ/TC 2020 3G) (Please order separately D-SUB connection ADA/D-SUB 902888)	471026
<b>MIQ/3-PR</b>	Module IQ with PROFIBUS connection and automatic air pressure compensation (can be used only with MIQ/TC 2020 3G) (Please order separately D-SUB connection ADA/D-SUB 902888)	471027
<b>MIQ/R6</b>	Module IQ/Relais 6, for system 2020 and 282/284, with 6 relays (240 VAC/2 A)	480013
<b>MIQ/CR3</b>	Module IQ/Current Relais 3, for System 2020 and 282/284, with 3 analog (0/4-20 mA) and 3 relay outputs (250 VAC/5 A)	480014
<b>MIQ/C6</b>	Module IQ/Current 6, for system 2020 and 282/284, with 6 (0) 4 - 20 mA outputs	480015
<b>MIQ/IC2</b>	Module IQ/input current with 2 (0) 4 - 20 mA inputs, for system 2020 and 282/284	480016
<b>System Extension</b>		
<b>MIQ/JB</b>	Module IQ/Junction Box for system 2020 and 282/284, 4 idle IQ SENSOR NET connections	480008
<b>MIQ/JBR</b>	Module IQ/Junction Box Repeater for system 2020, with integrated bidirectional signal amplifier (repeater)	480010
<b>MIQ/WL PS</b>	Module IQ Wireless, for cable free communication within the IQ Sensor Net System 282/284 and System 2020. Extension module for starter set MIQ/WL PS SET (480025).	480023
<b>MIQ/WL PS SET</b>	Modul IQ/Wireless, for cable free communication within the IQ Sensor Net System 282/284 and System 2020. Starter set consists of 1 Master and 1 Slave. Extension with MIQ/WL PS (480023) possible.	480025
<b>Controller (no Terminal)</b>		
<b>MIQ/MC3</b>	Module IQ/microcontroller for system 2020, for up to 20 IQ sensors, in module housing, with automatic air pressure compensation, USB interface (IP66), Ethernet RJ45 interface (IP 66)	471020
<b>MIQ/MC3-MOD</b>	Module IQ/microcontroller for system 2020, for up to 20 IQ sensors, with MODBUS connection, automatic air pressure compensation as well as USB interface (IP 66) and Ethernet interface (IP 66) (Please order separately D-SUB connection ADA/D-SUB 902888)	471022
<b>MIQ/MC3-PR</b>	Module IQ/microcontroller for system 2020, for up to 20 IQ sensors, with PROFIBUS connection, automatic air pressure compensation as well as USB interface (IP 66) and Ethernet interface (IP 66) (Please order separately D-SUB connection ADA/D-SUB 902888)	471023
<b>Others</b>		
<b>MIQ/CHV PLUS</b>	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSOR NET (relay and compressed air supply external)	480018
<b>EW/1</b>	Set of 4 cable glands M20 required for cable sheaths with an outside diameter of more than 10 mm.	480051
<b>ADA/D-SUB</b>	D-SUB connection for Profibus and Modbus connections for the IQ 2020 and 282/284 systems.	902888
<b>Connection Cables and Mounting Material for Systems 2020 and 282/284</b>		
<b>SD/K 170</b>	Sun shield for outdoor installation of junction boxes (e.g. junction box KI/pH 170) or an IQ SENSOR NET module	109284
<b>MR/SD 170</b>	Mounting kit for attaching sun shields to pipes	109286
<b>SSH/IQ</b>	Sun shield for mounting of IQ SENSOR NET modules and series 171/170 monitors to mounting stands	109295



Model	Description	Order No.
<b>SNCIQ</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Please indicate cable length in m when ordering (unit: m)	480046
<b>SNCIQ/UG</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system, esp. for use in underground Please indicate cable length in m when ordering (unit: m)	480047
<b>PMS/IQ</b>	Kit for panel mounting of IQ SENSOR NET modules	480048
<b>THS/IQ</b>	Kit for top hat rail mounting of IQ SENSOR NET modules	480050
<b>WMS/IQ</b>	Kit for wall mounting of IQ SENSOR NET modules	480052
<b>SNCIQ-100</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 100 m (109 yds)	480068
<b>SNCIQ-200</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 200 m (119 yds)	480069
<b>SNCIQ-250</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 250 m (273 yds)	480070
<b>SNCIQ-500</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 500 m (547 yds).	480072
<b>SNCIQ/UG-250</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system, esp. for use in underground. Cable reel with 250 m (273 yds).	480075





<b>System components and functions</b>			
<b>Terminal/Controller</b>			
	<b>Model</b>	<b>Function</b>	<b>Order No.</b>
<b>Central Control Unit</b>	MIQ/TC 2020 3G (Operation in MODBUS: terminal/controller)*	Central terminal/controller unit: is required to be installed once at any point, remains in the system, cannot be removed. Operation mode is shown through LED.	470 020
	MIQ/TC 2020 3G-CR3	Multi-parameter measuring converter, consisting of the components MIQ/TC 2020 3G + MIQ/CR3 + MIQ/PS, 100 - 240 VAC main voltage, 3 analog outputs (0/4-20 mA) and 3 relay outputs, up to 20 free selectable IQ sensors can be connected	470 022
	MIQ/TC 2020 3G-C6	Multi-parameter measuring converter, consisting of the components MIQ/TC 2020 3G + MIQ/C6 + MIQ/PS, 100 - 240 VAC main voltage, 6 analog outputs (0/4-20 mA) up to 20 free selectable IQ sensors can be connected	470 024
	MIQ/TC 2020 3G-EF	Multi-parameter measuring converter, consisting of the components MIQ/TC 2020 3G + MIQ/MC3 + MIQ/PS; 100 - 240AC main voltage; Ethernet interface; Controller-Back-Up-Function; up to free selectable 20 IQ sensors can be connected	470 026
<b>Controller</b>			
	MIQ/MC3	Module IQ/Micro Controller; is required to be installed once at any point; with fully automatic air-pressure compensation and USB + LAN interface	471 020
	MIQ/MC3-MOD	Module IQ/Micro Controller with fully automatic air-pressure compensation and MODBUS RTU / RS 485 connection and USB + LAN interface	471 022
	MIQ/MC3-PR	Module IQ/Micro Controller with fully automatic air-pressure compensation and PROFIBUS-DP / RS 485 connection and USB + LAN interface	471 023
<b>MIQ Modules</b>			
	<b>Model</b>	<b>Function</b>	<b>Order No.</b>
<b>Power Supply</b>	MIQ/PS for 100 - 240 VAC	Depending on the power consumption up to 6 modules can be installed in the system.	480 004
	MIQ/24V for 24 VAC/24 VDC		480 006
<b>Output Modules (analog)</b>	MIQ/CR3 with 3 analog (0/4-20 mA) and 3 relay outputs	With any combination up to max. 48 output channels (sum of current outputs and relays)	480 014
	MIQ/C6 with 6 analog outputs (0/4-20 mA)		480 015
	MIQ/R6 with 6 relay outputs		480 013
<b>Output Modules (digital)</b>	MIQ/3-MOD	Module IQ with fully automatic air-pressure compensation and MODBUS RTU/RS 485 connection	471 026
	MIQ/3-PR	Module IQ with fully automatic air-pressure compensation and PROFIBUS-DP/RS 485 connection	471 027
<b>Magnetic valve module</b>	MIQ/CHV PLUS	Magnetic valve module for automatic controlled cleaning via compressed air	480 018
<b>Linking modules</b>	MIQ/JB	MIQ/JB with 4 connections (for IQ Net or IQ sensors)	480 008
	MIQ/JBR	MIQ/JBR, same as MIQ/JB additionally with amplifier signal for long cable distances (>1 km total length)	480 010
<b>Connecting module Power input</b>	MIQ/IC2	MIQ/IC2 with 2 inputs for 0/4-20 mA signals Enables the connection of separate measuring transmitters and analyzers to the IQ Net	480 016
<b>Radio communication module</b>	MIQ/WL PS	For wireless connection and linking within the IQ SENSOR NET system	480 023 (480 025)

\*Via the software adjustable by user.



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylyanalytics.com/en](http://www.xylyanalytics.com/en) under Customer Support/Downloads/Datasheets.



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Configuration and Performance Data				
IQ Sensors				
Type	Description		System 2020 Number min/max	Power Consumption/ Output / W
SensoLyt® 700 IQ (SW)	pH/ORP assembly		1 / 20***	0.2
TriOxmatic® 700 IQ (SW)	D.O. sensor			0.2
TriOxmatic® 701 IQ	D.O. sensor			0.2
TriOxmatic® 702 IQ	D.O. sensor			0.2
FDO 700 IQ (SW)	Optical D.O. sensor			0.7
TetraCon® 700 IQ (SW)	Conductivity sensor			0.2
VisoTurb® 700 IQ (SW)	Turbidity sensor			1.5
ViSolid® 700 IQ (SW)	Suspended solids sensor			1.5
VARIOn®Plus 700 IQ	Double sensor Ammonium and Nitrate (ISE)			0.2
AmmoLyt®Plus 700 IQ	Ammonium assembly (ISE)			0.2
NitraLyt®Plus 700 IQ	Nitrate assembly (ISE)			0.2
NitraVis 701/705 IQ (TS)	Spectral Nitrate sensor			8.0
NitraVis 701/705 IQ NI	Spectral sensor for the measurement of Nitrate and Nitrite			8.0
CarboVis 701/705 IQ (TS)	Spectral sensor for the measurement of COD/TOC/DOC/BOD/SAC/UVT <sub>254</sub>			8.0
NiCaVis 705 IQ	Spectral sensor for the measurement of Nitrate and COD/TOC/DOC/BOD/SAC/UVT <sub>254</sub>			8.0
NiCaVis 701/705 IQ NI	Spectral sensor for the measurement of Nitrate, Nitrite and COD/TOC/DOC/BOD/SAC/UVT <sub>254</sub>			8.0
UV 701/705 IQ SAC	Optical sensor for the measurement of SAC and UVT <sub>254</sub>			8.0
UV 701/705 IQ NOx	Optical sensor for the measurement of NOx			8.0
P 700 IQ	Orthophosphate analyzer			0.5
IFL 700 IQ	Sludge level sensor with integrated scraper			5.5
IFL 701 IQ	Sludge level sensor without scraper		3.0	
Alyza IQ PO <sub>4</sub>	Phosphate analyzer		10	
Output modules analog				
			with numbers ⊗ of IQ SENSOR NET terminal connections	
			In total there are 48 out-put channels/ system available	
	Each mA-output, each relais with one module is considered as 1 channel.		Number of occupied output channels	
MIQ/CR3	Module IQ / current relay 3 with 3 analog outputs and 3 relay outputs each	②	6	3.0
MIQ/C6	Module IQ / current 6 with 6 analog outputs	②	6	3.0
MIQ/R6	Module IQ/ Relais 6 with 6 relay outputs	②	6	1.5
MIQ/CHV PLUS	Module IQ/ Cleaning Head Valve for automatically controlled cleaning	②	1	2.5
Output modules digital				
MIQ/3-PR	Module IQ with PROFIBUS-DP connection	②		3.0
MIQ/3-MOD	Module IQ with MODBUS RTU / RS 485 connection	②		3.0
MIQ/WL PS (SET)	Modules IQ for wireless connection within the IQ SENSOR NET system	③	1 / 10	0.6
Power input connection module mA				
MIQ/IC2**	IQ / input current 2, module with 2 inputs for 0 / 4 - 20 mA signals	②	each occupied current input is counted as IQ sensor	0.2*
MIQ/JB	IQ / junction box module	④	0/25	0.0 (non-active module)
MIQ/JBR	IQ / junction box repeater module	④	0/2	0.2
Terminal-Controller				
MIQ/TC 2020 3G	Terminal / controller for system 2020		In total 3 units per system possible, whereby 1 is installed constantly to the station (terminal / controller function) and 2 are removable or replaceable (terminal function)	3.0
Controller				
MIQ/MC3	Module IQ/Micro Controller	②		2.5
MIQ/MC3-PR	Module IQ/Micro Controller with PROFIBUS-DP connection	②		3.0
MIQ/MC3-MOD	Module IQ/Micro Controller with MODBUS RTU / RS-485 connection	②		3.0
Power supply modules				
MIQ/PS	IQ / power supply module for input power with wide range power supply unit for 100 - 240 VAC input voltage	③	1 / 6	18
MIQ/24V	IQ / 24 V module for input power with 24 VAC or 24 VDC input voltage	③		18

Attention: Please consider power consumption of SNCIQ cable: 1 W per 100 m/109 yds (for cable lengths above 400 m/437 yds)

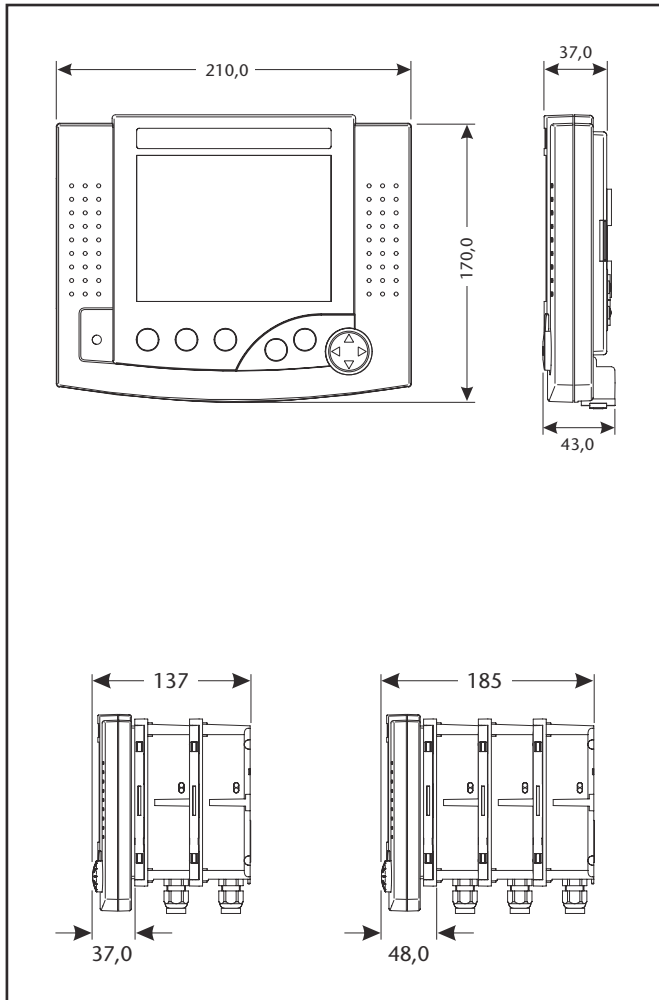
\* further power consumption by external devices is possible.

\*\* each occupied current input is counted as IQ sensor

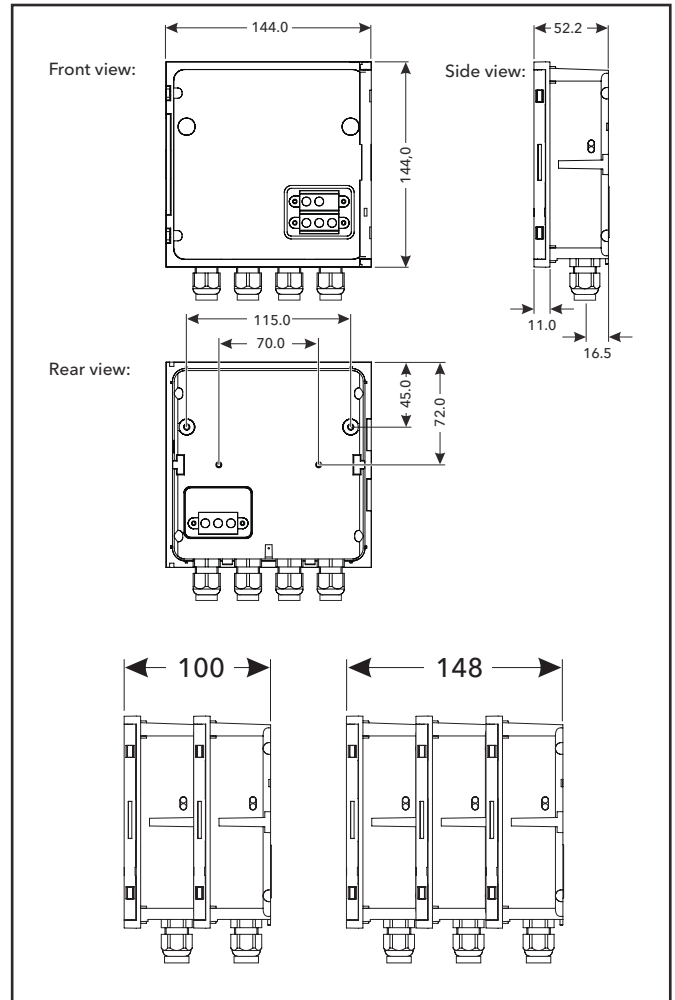


# Dimension Terminal/Controller Components for System 2020

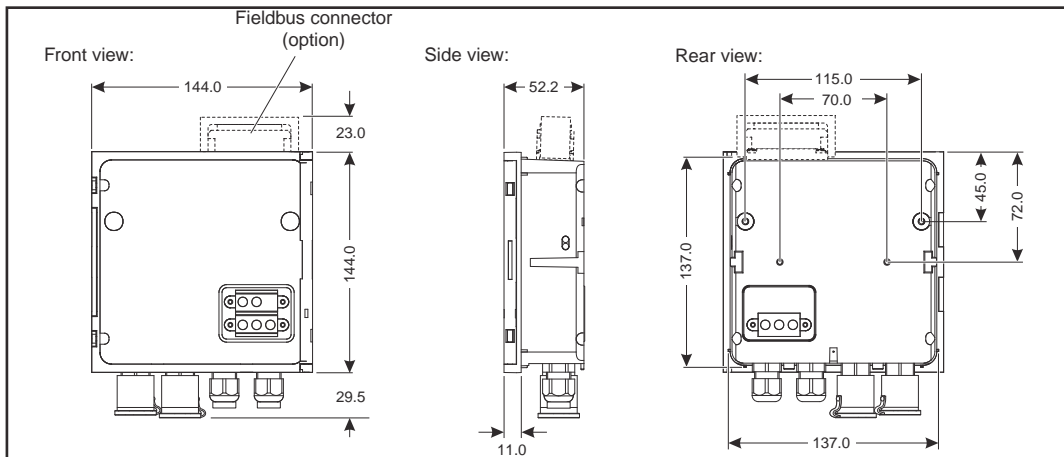
## MIQ/TC 2020 3G



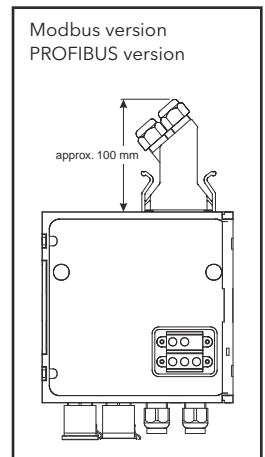
## MIQ-Modules



## MIQ/MC3

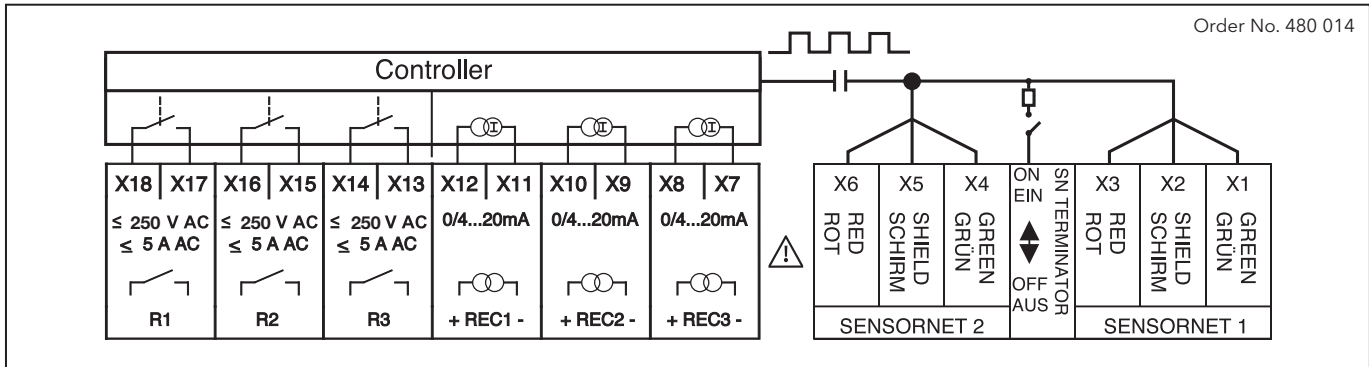


## Connection variants

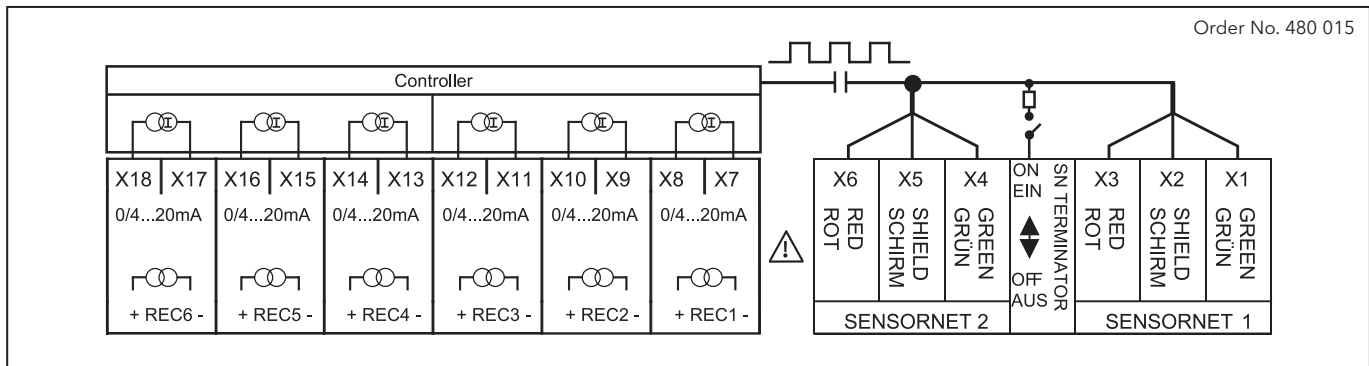


# Electrical Connections MIQ/Modules for System 2020

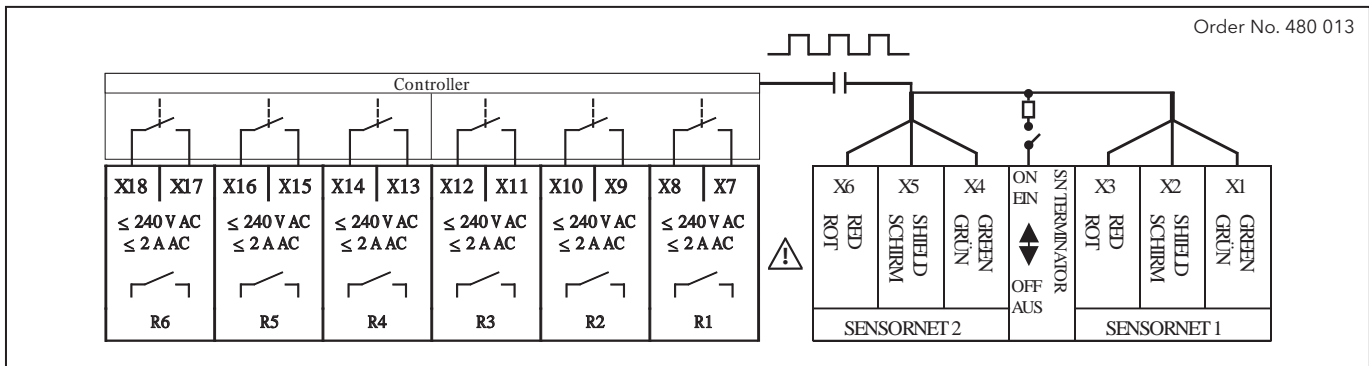
## MIQ/CR3



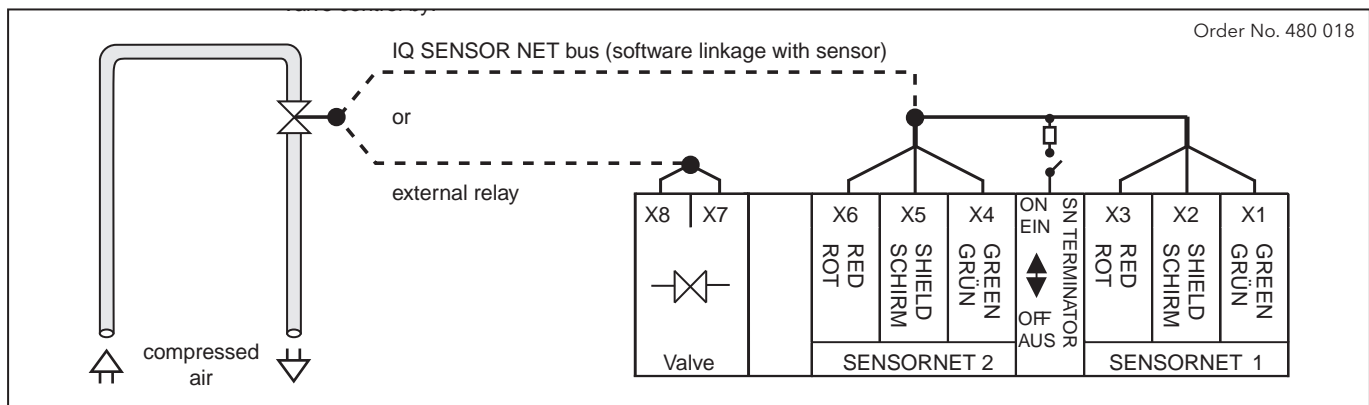
## MIQ/C6



## MIQ/R6

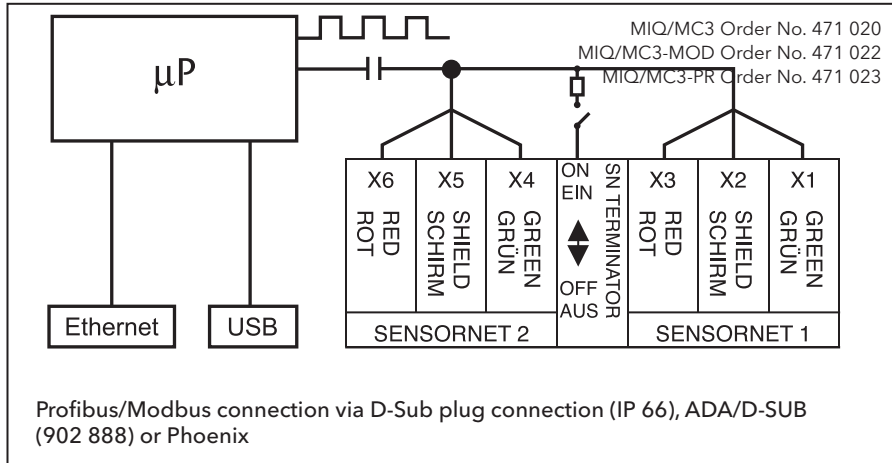


## MIQ/CHV PLUS

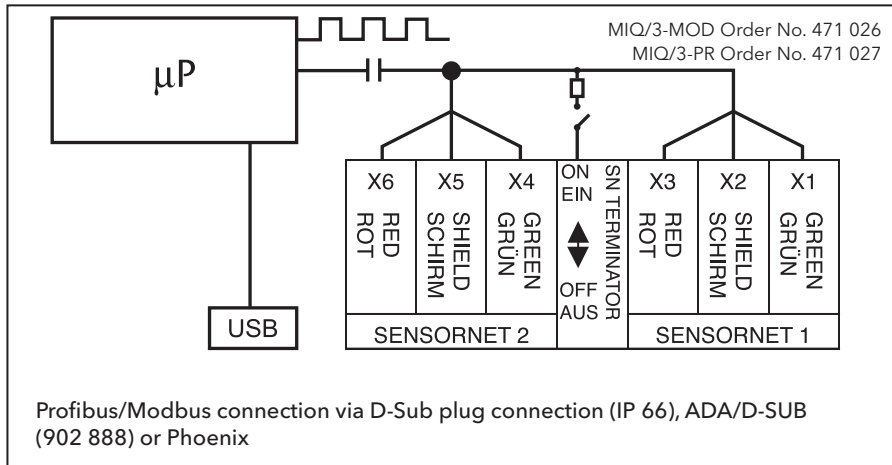


SLUDGE LEVEL

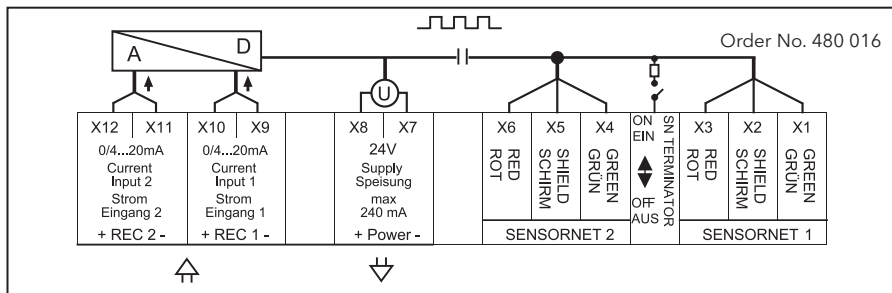
**MIQ/MC3, MIQ/MC3-PR and MIQ/MC3-MOD**



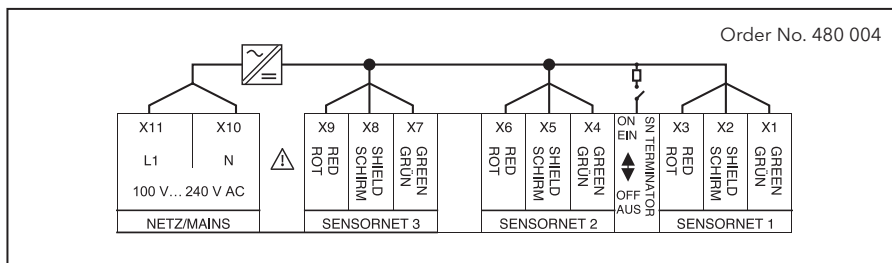
**MIQ/3-PR and MIQ/3-MOD**



**MIQ/IC2**



**MIQ/PS**



**Explanation**

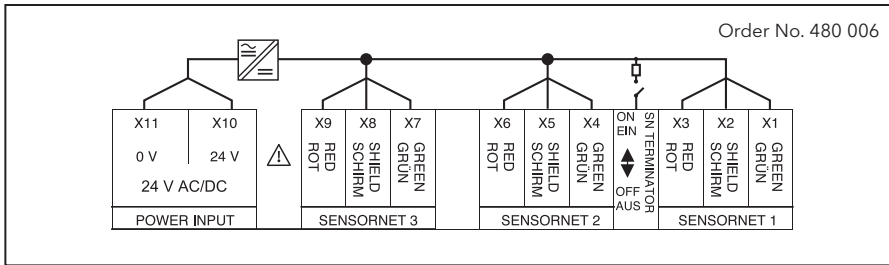
Signal amplification is bidirectional between Sections A and B. The weakened signals of Section A are amplified and transmitted to Section B and vice-versa. The power supply of both Sections A and B is electrically connected.

**Special characteristics**

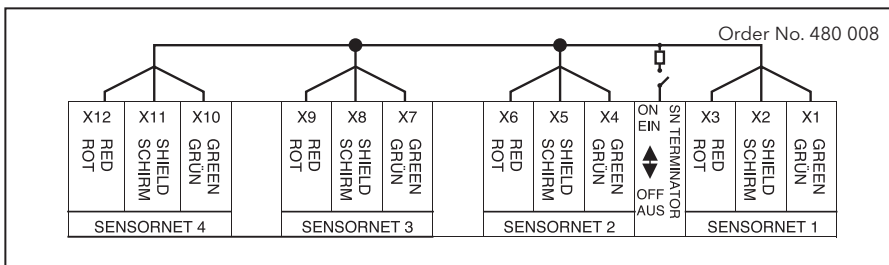
The MIQ module couplings at the front and back are connected with Section A for stack mounting (important for the ID function).



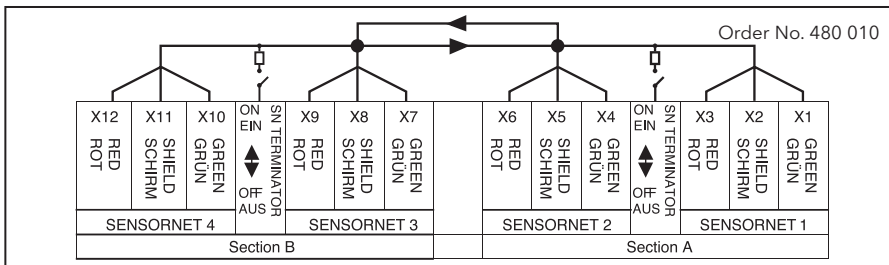
**MIQ/24V**



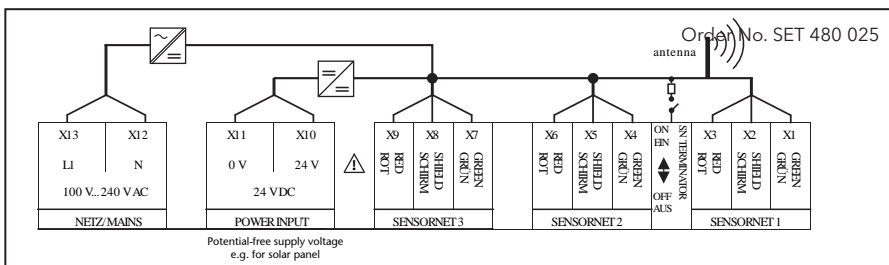
**MIQ/JB**



**MIQ/JBR**



**MIQ/WL PS SET**



SLUDGE LEVEL



# The System 282/284

Model	Description	Order No.
<b>System 282/284</b>		
<b>Monitors for up to 2 digital sensors</b>		
<b>DIQ/S 282-CR3</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays	472110
<b>DIQ/S 282-PR</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with PROFIBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472111
<b>DIQ/S 282-MOD</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with MODBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472112
<b>DIQ/S 282-CR3-E</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays, with RJ45 interface for internet connection and remote control	472113
<b>DIQ/S 282-EF</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays	472114
<b>DIQ/S 282-CR3/24V</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays, for 24 V AC/DC power supply	472120
<b>DIQ/S 282-PR/24V</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with PROFIBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472121
<b>DIQ/S 282-MOD/24V</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with MODBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472122
<b>DIQ/S 282-CR3-E/24V</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with 3 x 0(4) ... 20 mA, 3 x Relays, with RJ45 interface for internet connection and remote control, for 24 V AC/DC power supply	472123
<b>DIQ/S 282-EF/24V</b>	Universal Transmitter to operate up to 2 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays, for 24 V AC/DC power supply	472124
<b>Monitors for up to 4 digital sensors</b>		
<b>DIQ/S 284-CR6</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays	472130
<b>DIQ/S 284-PR</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with PROFIBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472131
<b>DIQ/S 284-MOD</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with MODBUS-connection, 3 x Relays (Please order separately D-SUB connection ADA/D-SUB 902 888)	472132
<b>DIQ/S 284-CR6-E</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays, with RJ45 interface for internet connection and remote control	472133
<b>DIQ/S 284-EF</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays	472134
<b>DIQ/S 284-CR6/24V</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays, for 24 V AC/DC power supply	472140
<b>DIQ/S 284-PR/24V</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with PROFIBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472141
<b>DIQ/S 284-MOD/24V</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with MODBUS-connection, 3 x Relays, for 24 V AC/DC power supply (Please order separately D-SUB connection ADA/D-SUB 902 888)	472142
<b>DIQ/S 284-CR6-E/24V</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with 6 x 0(4) ... 20 mA, 6 x Relays, with RJ45 interface for internet connection and remote control, for 24 V AC/DC power supply	472143
<b>DIQ/S 284-EF/24V</b>	Universal Transmitter to operate up to 4 digital IQ sensors, with Ethernet fieldbuses, internet connection and remote control, 3 x Relays, for 24 V AC/DC power supply	472144
<b>DIQ Module</b>		
<b>DIQ/JB</b>	Dual IQ/Junction box for connection of a second or an IQ sensor in bigger distance to the system 282/284	472005
<b>DIQ/CHV</b>	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472007
<b>MIQ Modules, Cables for System Supplement, Accessories</b>		
<b>MIQ/PS</b>	Module IQ/Power Supply, wide-range power supply for system 2020 and 282/284, power output max. 18 W, 3 idle IQ SENSOR NET connections	480004
<b>MIQ/24V</b>	Module IQ/24V, power supply for 24 VAC / 24 VDC input voltage, for system 2020 and 282/284, power output max. 18 W, 3 idle IQ SENSOR NET connections	480006
<b>MIQ/JB</b>	Module IQ/Junction Box for system 2020 and 282/284, 4 idle IQ SENSOR NET connections	480008
<b>MIQ/R6</b>	Module IQ/Relais 6, for system 2020 and 282/284, with 6 relays (240 VAC/2 A)	480013



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Model	Description	Order No.
<b>MIQ/CR3</b>	Module IQ/Current Relais 3, for System 2020 and 282/284, with 3 analog (0/4-20 mA) and 3 relay outputs (250 VAC/5 A)	480014
<b>MIQ/C6</b>	Module IQ/Current 6, for system 2020 and 282/284, with 6 (0) 4 - 20 mA outputs	480015
<b>MIQ/IC2</b>	Module IQ/input current with 2 (0) 4 - 20 mA inputs, for system 2020 and 282/284	480016
<b>MIQ/CHV PLUS</b>	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSOR NET (relay and compressed air supply external)	480018
<b>MIQ/WL PS</b>	Module IQ Wireless, for cable free communication within the IQ Sensor Net System 282/284 and System 2020. Extension module for starter set MIQ/WL PS SET (480025).	480023
<b>MIQ/WL PS SET</b>	Modul IQ/Wireless, for cable free communication within the IQ Sensor Net System 282/284 and System 2020. Starter set consists of 1 Master and 1 Slave. Extension with MIQ/WL PS (480023) possible.	480025
<b>SNCIQ</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Please indicate cable length in m when ordering (unit: m)	480046
<b>SNCIQ/UG</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system, esp. for use in underground Please indicate cable length in m when ordering (unit: m)	480047
<b>SNCIQ-100</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 100 m (109 yds)	480068
<b>SNCIQ-200</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 200 m (119 yds)	480069
<b>SNCIQ-250</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system. Cable reel with 250 m (273 yds)	480070
<b>SNCIQ/UG-250</b>	Specific two-wire IQ SENSOR NET cable with shield for safe power/information transfer within the IQ SENSOR NET system, esp. for use in underground. Cable reel with 250 m (273 yds).	480075
<b>ADA/D-SUB</b>	D-SUB connection for Profibus and Modbus connections for the IQ 2020 and 282/284 systems.	902888
<b>ADA/E</b>	Connector for the Ethernet interface (RJ45) on controllers of System 282/284. Ensures protection IP67 when Ethernet cable is connected outdoor.	902890



Module	DIQ/S 282	DIQ/S 284
Max. number of sensors	2	4
IQ SENSOR NET connections	DIQ/S 282-CR3(-E) (/24V) 1; all others 2	DIQ/S 284-CR6(-E) (/24V) 3; all others 2
Version with analog outputs	3 x (0) 4 ... 20 mA 3 x Relays (optional: Ethernet interface for remote control)	6 x (0) 4 ... 20 mA 6 x Relays (optional: Ethernet interface for remote control)
Ethernet Version	Connection for Ethernet fieldbus 3 x Relays	Connection for Ethernet fieldbus 3 x Relays
PROFIBUS Version	Connection for PROFIBUS 3 x Relays	Connection for PROFIBUS 3 x Relays
MODBUS Version	Connection for MODBUS 3 x Relays	Connection for MODBUS 3 x Relays

Configuration and Performance Data				
Type	Description	Systems 282/284 Number Min/Max	Power consumption [W]	
<b>IQ Sensors</b>				
SensoLyt® 700 IQ (SW)	pH/ORP assembly	DIQ/S 282	0.2	
TriOxmatic® 700 IQ (SW)	D.O. sensor	1/2	0.2	
TriOxmatic® 701 IQ	D.O. sensor		0.2	
TriOxmatic® 702 IQ	D.O. sensor	DIQ/S 284	0.2	
FDO® 700 IQ (SW)	Optical D.O. sensor	1/4	0.7	
FDO® 701 IQ (SW)	Optical D.O. sensor with faster response time		0.7	
TetraCon® 700 IQ (SW)	Conductivity sensor		0.2	
VisoTurb® 700 IQ (SW)	Turbidity sensor		1.5	
ViSolid® 700 IQ (SW)	Suspended solids sensor		1.5	
VARiON®Plus 700 IQ	Double sensor Ammonia and Nitrate (ISE)		0.2	
AmmoLyt®Plus 700 IQ	Ammonia assembly (ISE)		0.2	
NitraLyt®Plus 700 IQ	Nitrate assembly (ISE)		0.2	
NitraVis® 701/705 IQ (TS)	Spectral Nitrate sensor		8.0 ***	
NitraVis® 701/705 IQ NI	Spectral sensor for the measurement of Nitrate and Nitrite		8.0 ***	
CarboVis® 701/705 IQ (TS)	Spectral sensor for the measurement of COD/TOC/DOC/BOD/SAC/UVT <sub>254</sub>		8.0 ***	
NiCaVis® 705 IQ	Spectral sensor for the measurement of Nitrate and COD/TOC/DOC/BOD/SAC/ UVT <sub>254</sub>		8.0 ***	
NiCaVis® 701/705 IQ NI	Spectral sensor for the measurement of Nitrate, Nitrite and COD/TOC/DOC/BOD/ SAC/UVT <sub>254</sub>		8.0 ***	
UV 701/705 IQ SAC	Optical sensor for the measurement of SAC and UVT <sub>254</sub>		8.0 ***	
UV 701/705 IQ NOx	Optical sensor for the measurement of NOx		8.0 ***	
IFL 700 IQ	Sludge level sensor with automated cleaning		5.5 ***	
IFL 701 IQ	Sludge level sensor		3.0	
Alyza IQ PO <sub>4</sub>	Phosphate analyzer		10	
P 700 IQ	Orthophosphate analyzer		0.5	
<b>Output modules analog</b> with ⊗ number of IQ SENSOR NET terminal connections				
MIQ/CHV PLUS	Module IQ / Cleaning Head Valve for automatically controlled cleaning	②	1/2 and 1/4 respectively	2.5
MIQ/CR3	Module IQ / Current Relays 3, with 3 analog outputs and 3 relay outputs	②	1/2	3.0
DIQ/CR3	Module IQ / Current Relais 3, with 3 analog outputs and 3 relay outputs	②	1/2	3.0***
MIQ/C6	Module IQ / Current 6 with 6 analog outputs	②	1/2	3.0
MIQ/R6	Module IQ / Relays 6 with 6 relay outputs	②	1/2	1.5
<b>Output modules digital</b>				
MIQ/WL PS SET	Module IQ for wireless connection within the IQ SENSOR NET System	③	1/4	0.6
<b>Power input connection module mA</b>				
MIQ/IC2**	Module IQ / Input Current 2 with 2 inputs for 0(4) ... 20 mA signals	②	0/2	0.2 *
MIQ/JB	Module IQ / Junction Box	④	0/4	0.0 (passive module)
<b>Power supply modules</b>				
MIQ/PS	IQ / power supply module for input power with wide range power supply unit for 100 - 240 VAC input voltage	③	0/1	18
MIQ/24V	IQ / 24 V module for input power with 24 VAC or 24 VDC input voltage	③		18

\* further power consumption by external devices is possible.

\*\* each occupied current input is counted as IQ sensor

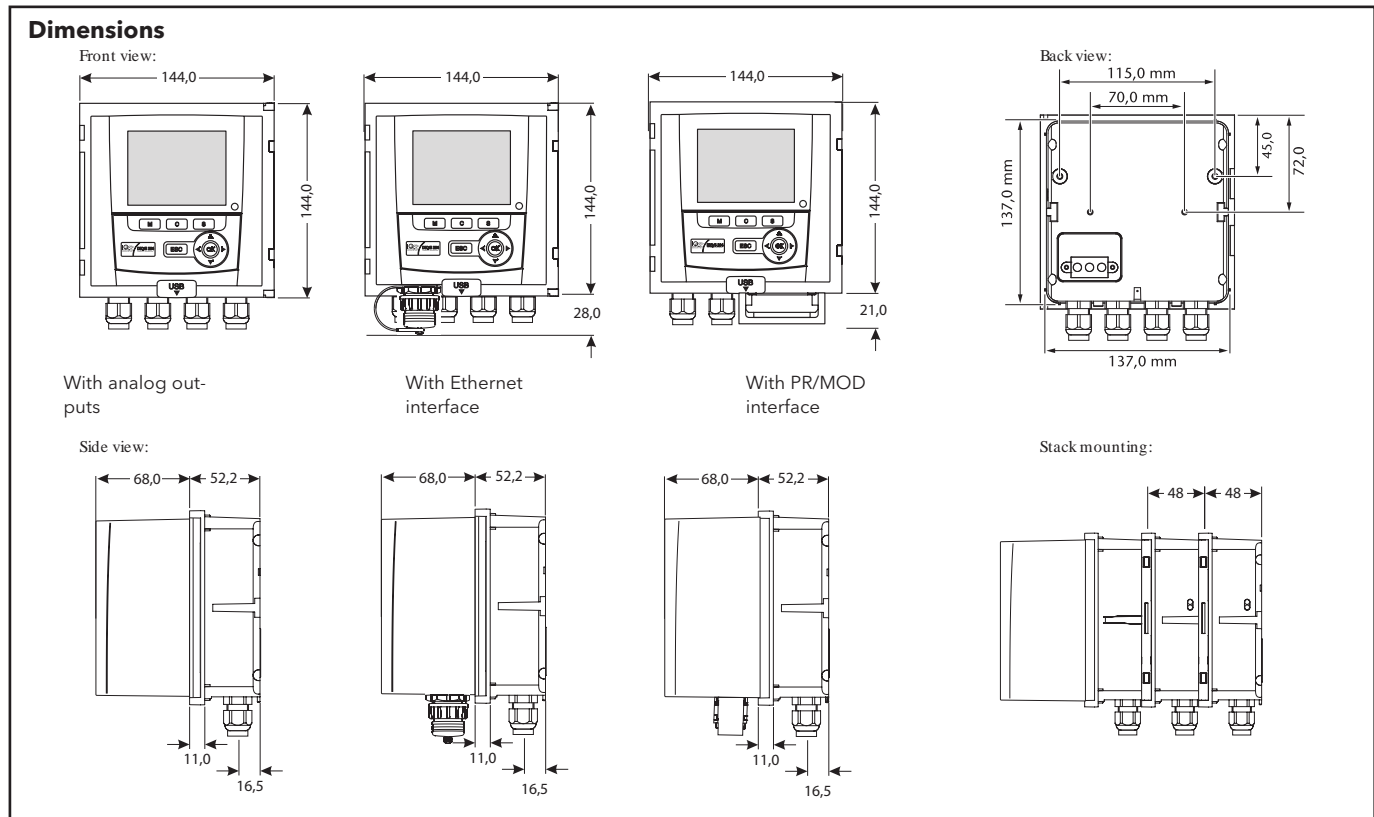
\*\*\* When operating with System 282/284, the average power consumption can be used.  
Details see operating manual System 282/284.





# Monitors System 282/284

## DIQ/S 282/284

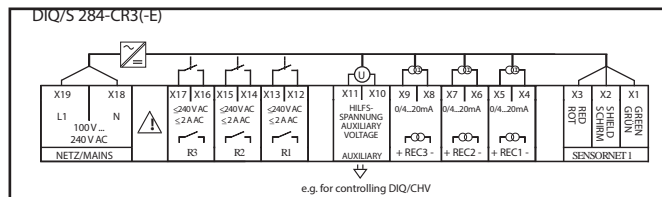


SLUDGE LEVEL

# Electrical Connections Monitors System 282/284

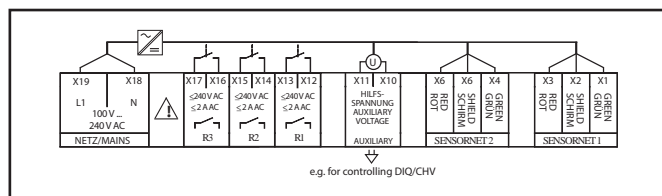
**DIQ/S 282-CR3**  
**DIQ/S 282-CR3-E**

Order No. 472 110  
Order No. 472 113



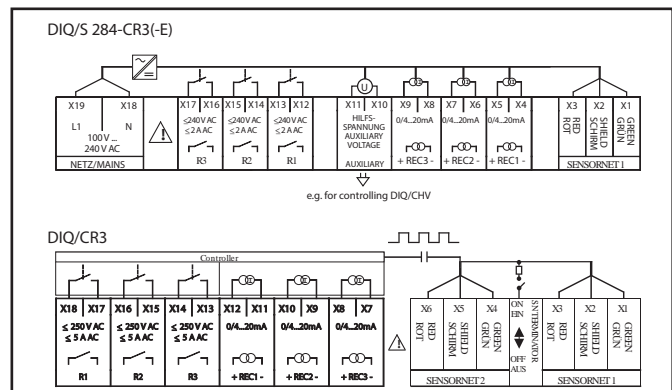
**DIQ/S 282-PR**  
**DIQ/S 282-MOD**  
**DIQ/S 282-EF**  
**DIQ/S 284-PR**  
**DIQ/S 284-MOD**  
**DIQ/S 284-EF**

Order No. 472 111  
Order No. 472 112  
Order No. 472 114  
Order No. 472 131  
Order No. 472 132  
Order No. 472 134



**DIQ/S 284-CR6**  
**DIQ/S 284-CR6-E**

Order No. 472 130  
Order No. 472 133



24V versions are identical, except connections X18 and X19



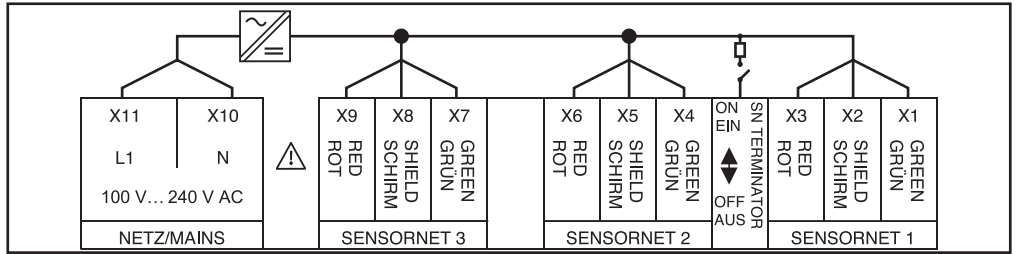
YSI, a Xylem brand  
1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

YSI.com/IQSN

# Electrical Connections MIQ/Modules for System Supplement

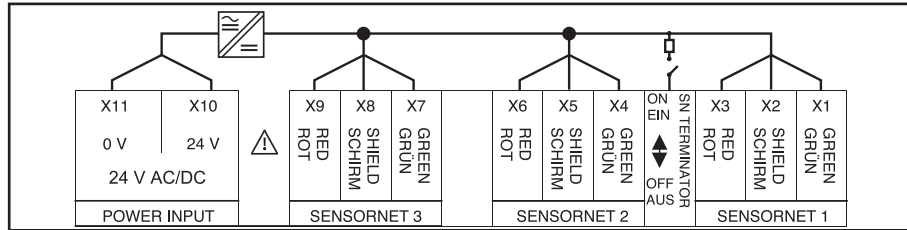
## MIQ/PS

Order No. 480 004



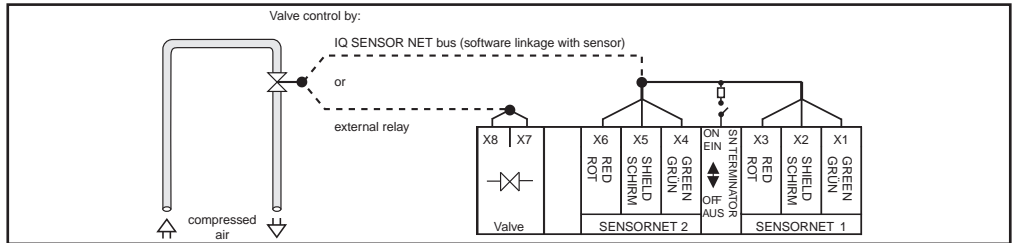
## MIQ/24V

Order No. 480 006



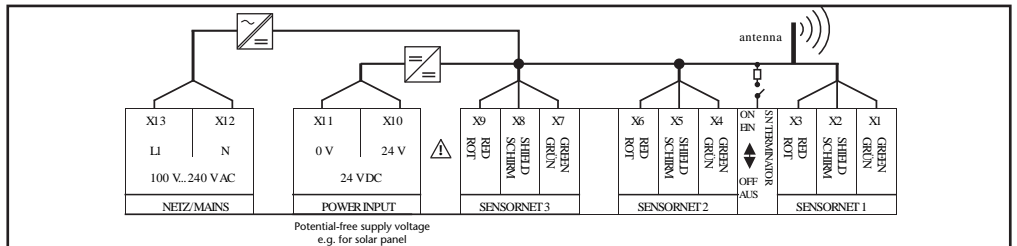
## MIQ/CHV PLUS

Order No. 480 018



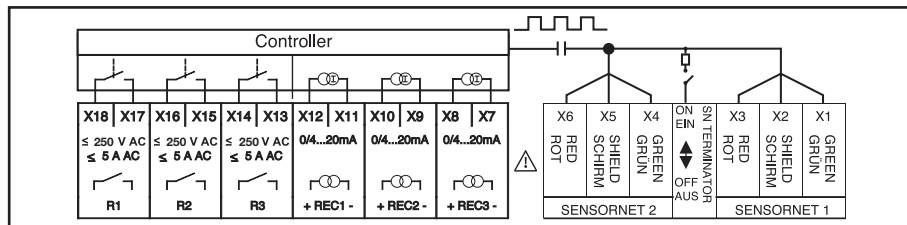
## MIQ/WL PS SET

Order No. 480 025



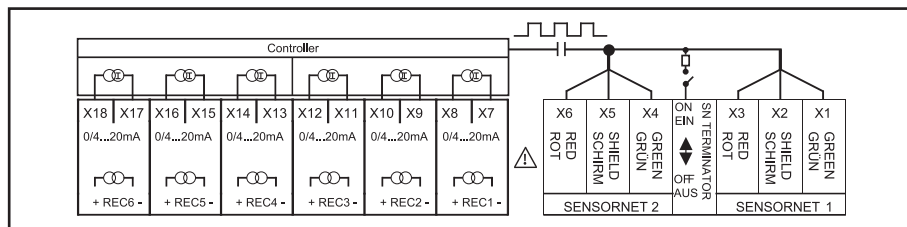
## MIQ/CR3

Order No. 480 014



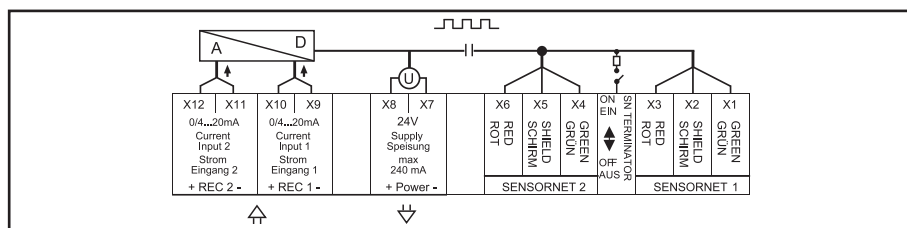
## MIQ/C6

Order No. 480 015



## MIQ/IC2

Order No. 480 016



# Sample Preparation

Model	Description	Order No.
<b>PurCon®</b>		
<b>PurCon®/230</b>	PurCon® sample preparation system, incl. instruction manual, 230VAC/50Hz. Supplied with: 1 m (3.3 ft) permeate tubing with adapter and 3 cable clamp for feed tubing.	810000
<b>PurCon®/115</b>	PurCon® sample preparation system, incl. instruction manual, 115VAC/60Hz. Supplied with: 1 m (3.3 ft) permeate tubing with adapter and 3 cable clamp for feed tubing.	810008
<b>Accessories PurCon®/PurCon® IS</b>		
<b>PF 105</b>	Sample bypass unit for direct supply of WTW analyzer with sample, completely mounted; not included: pumps	000670
<b>SET1/PurCon®</b>	Set of pump tubing for PurCon® permeate pump.	810002
<b>AF/PurCon®</b>	Spare air filter for PurCon® compressor LP-60HN.	810005
<b>AF-N/PurCon</b>	Spare air filter for PurCon® compressor AP-60(N).	810015
<b>PCIS-PL5/H</b>	Permeate line 5 m (16.2 ft) for PurCon® IS, with freeze protection.	810065
<b>PCIS-PL10/H</b>	Permeate line 10 m (33 ft) for PurCon® IS, with freeze protection.	810066
<b>PCIS-PL20/H</b>	Permeate line 20 m (65 ft) for PurCon® IS, with freeze protection.	810067
<b>SW/P102</b>	Exchange cutting unit for P102, P102/1 and FGT 615-2 top-and bottom part.	810117
<b>FT/PC</b>	Filter module set (4 pieces) for PurCon® and PurCon® IS.	820065
<b>LSet/PC</b>	Set air tubing for PurCon®.	820066
<b>SL/SET/PC</b>	Piping Set for PurCon®.	820067
<b>FT/PCIS-2</b>	Filter module set (2 pieces) for PurCon® IS.	820068
<b>SLSet/PCIS</b>	Kit of tubes for PurCon® IS (inside of filter modules / controller unit).	820069
<b>VB 105</b>	Overflow vessel with continuous sample flow for analyzer.	830860
<b>P 105</b>	Submersible pump without cutting blade for PurCon®, PF 105 or FPB.	850007
<b>FGT 626-2 = P101</b>	Medium-power submersible pump with cutting blade for supplying wastewater from the aeration stage of wastewater treatment plants.	850008
<b>FGT 615-2 = P102/1</b>	Low-power submersible pump with cutting blade for supplying wastewater from the aeration stage of wastewater treatment plants.	850010
<b>PZ 30 Förderschlauch</b>	30 m (98.4 ft) reinforced PVC fabric tubing for pump P 100 (I.D. 19 mm, s = 4 mm).	850018
<b>BS-P102</b>	Mounting set for submersible pumps P 101, P102/1 and P 105 (V4A stainless steel chain (length 5 m/16.2 ft) and 2 stainless steel shackle).	850110
<b>ADA-PS</b>	GEKA adapter for connecting pumps P105, P101 and P102/1 with hose PZ105.	850115



Detailed technical data can be found in the brochure "**Data sheets process instrumentation**" (999266US); also available on our homepage [www.xylyanalytics.com/en](http://www.xylyanalytics.com/en) under Customer Support/Downloads/Datasheets.

# Accessories

Model	Description	Order No.
<b>Sensor Extensions, Sensor Holders</b>		
<b>UA 55</b>	Universal extension assembly (incl. handle and set of seals) for mounting of sensors of series 650/690/70X and 70X IQ, length without sensor: 317 mm (12.48 in)	109260
<b>UA 130</b>	Universal extension assembly (incl. handle and set of seals) for mounting of sensors of series 650/690/70X and 70X IQ, length without sensor: 1067 mm (42.01 in)	109261
<b>UA-SO Armatur</b>	** Universal extension assembly (incl. handle and set of seals) for mounting of sensors of series 650/690/70X and 70X IQ, length without sensor: selectable between 240...2600 mm (9.45...102.36 in)	109263V
<b>UA/DS</b>	Spare set of O-ring seals for UA sensor extensions of all lengths	109265
<b>EH/SW</b>	Single electrode holder in seawater design for direct mounting of series 650/690/70X and 70X IQ (SW) sensors	109317
<b>EH/U 170</b>	Sensor holder for direct mounting of series 650/690/70X and 70X IQ sensors to a swing mounting assembly	109320
<b>EH2/U 170</b>	Twin sensor holder for WTW sensors of series 650, 690, 70X and 70X IQ	109323
<b>EH3/U 170</b>	Triple sensor holder for WTW sensors of series 650, 690, 70X and 70X IQ	109325

\*\* UA-SO Sensor extension assembly with user-defined length: AAdditional costs depending on chain length.



a xylem brand

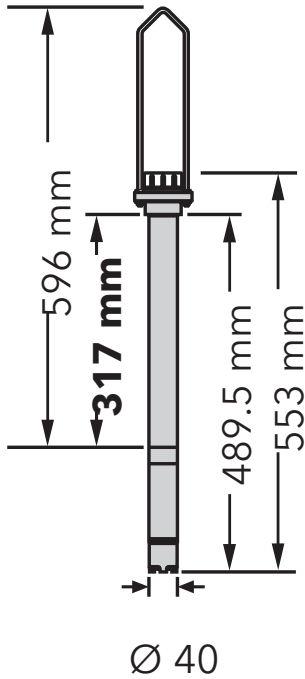
**YSI, a Xylem Brand**  
1725 Brannum Lane, Yellow Springs, OH 45387 Tel: +1 937 767 7241

[YSI.com/IQSN](http://YSI.com/IQSN)

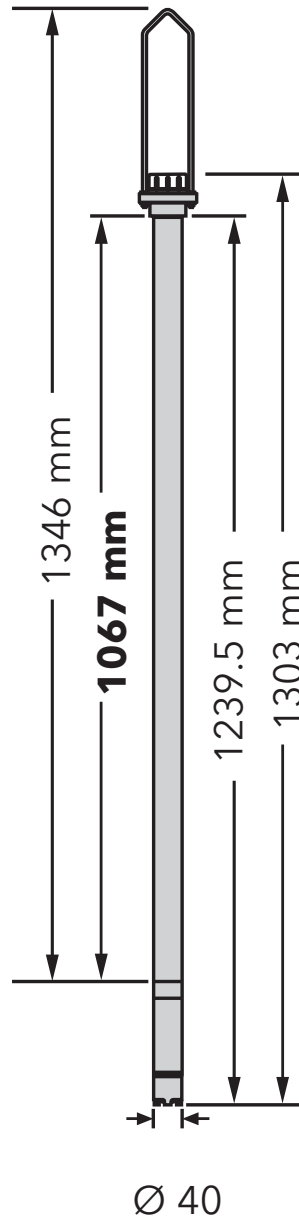
# Sensor Extensions

Sensors not included with assemblies.

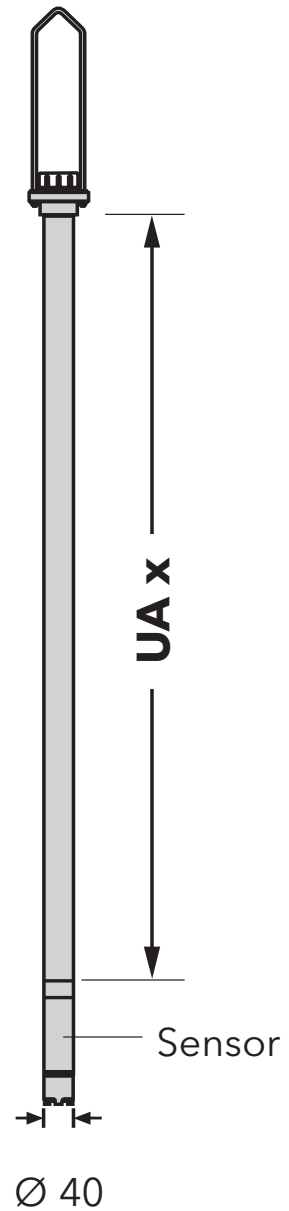
**UA 55**  
 Order No. 109 260  
 Equipped with  
 oxygen sensor  
 TriOxmatic® 700



**UA 130**  
 Order No. 109 261  
 Equipped with  
 oxygen sensor  
 TriOxmatic® 700



**UA-SO**  
 Order No. 109 263V\*\*  
 Equipped with  
 oxygen sensor  
 TriOxmatic® 700



\*\* UA-SO Sensor extension assembly with user-defined length: Additional costs depending on chain length.

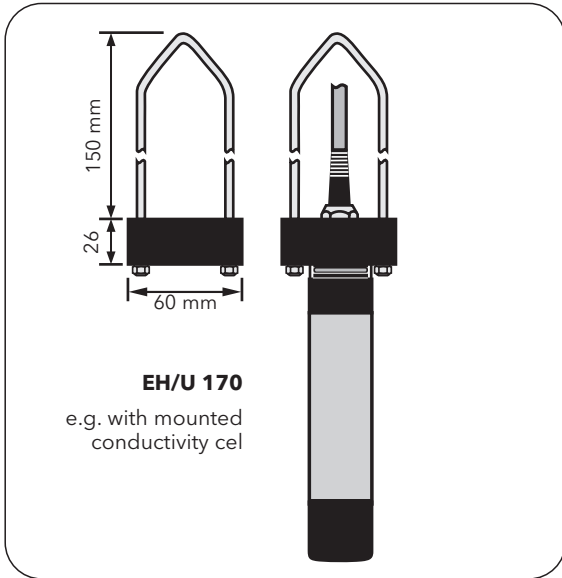


# Sensor Holders

## EH/U 170

Order No. 109 320

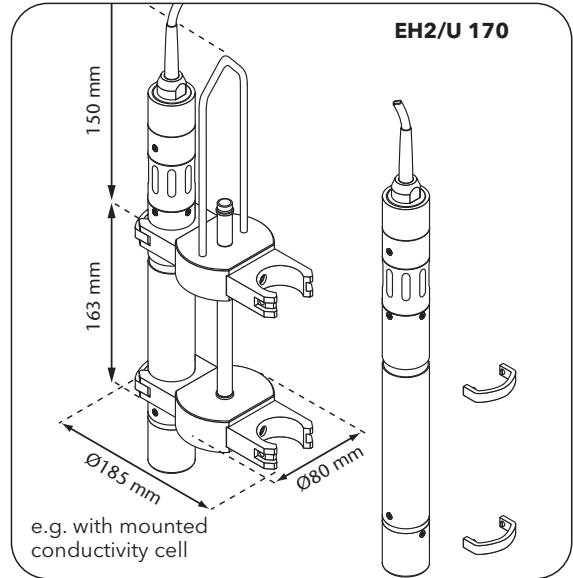
Single sensor holder  
Material: POM and stainless steel (1.4571)



## EH2/U 170

Order No. 109 323

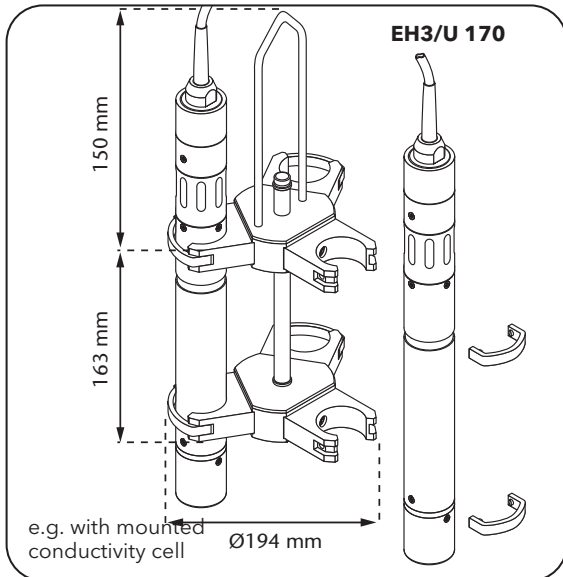
Twin sensor holder  
Material: POM and stainless steel (1.4571)



## EH3/U 170

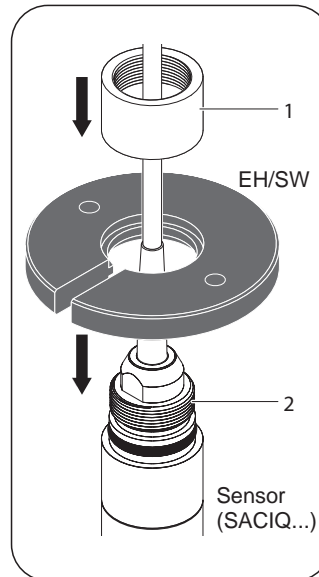
Order No. 109 325

Triple sensor holder  
Material: POM and stainless steel (1.4571)



## EH/SW

Order No. 109 317



## EH2/U 170, equipped with pH- and oxygen sensor





Model	Description	Order No.
<b>Mounting Hardware</b>		
<b>Floater</b>		
<b>S 200</b>	Float with pendulum mounting assembly for on-line sensors with 40 mm (1.57 in) shaft diameter with UA 55 extension assembly or for spectral sensors with supplement kit VIS Set/EH for horizontal mounting.	108540
<b>S 200/2</b>	Float with pendulum mounting assembly for 2 on-line sensors with 40 mm (1.57 in) shaft diameter with UA 55 extension assembly.	108542
<b>GWA</b>	Weight ring for S 200 float	109232
<b>Swing-, pendulum- and bracket holders</b>		
<b>EH/P 170</b>	SensoClean pendulum mounting assembly for installation of on-line sensors with 40 mm (1.57 in) shaft diameter and UA armatures. Supplied with adjustable boom (620 mm/24.4 in), pendulum mounting assembly (stainless steel 1.4301), movable counterweight for fine adjustment	109270
<b>EH/R 170</b>	Sensor holder for mounting of on-line sensors with 40 mm (1.57 in) shaft diameter, in a fixed distance to a rail. Supplied with pendulum head (POM) and 1580 mm (62.2 in) long outrigger pipe (stainless steel 1.4301). Without clamp set fixture (Please order BE/R 170 separately)	109271
<b>EH/F 170-1,5</b>	SensoClean swing mounting assembly for installation of on-line sensors with 40 mm shaft diameter and UA armatures. Supplied with plastic chain (4 m/13 ft) for use in wastewater and 1.5 m/4.9 ft boom (stainless steel 1.4301)	109272
<b>EH/F 170-2,5</b>	SensoClean swing mounting assembly for installation of on-line sensors with 40 mm shaft diameter and UA armatures. Supplied with plastic chain (5 m/16 ft) for use in wastewater and 2.5 m/8.1 ft boom (stainless steel 1.4301)	109273
<b>EH/W 170</b>	Sensor fixture assembly for direct wall mounting of UA armatures and sensors of series 650/690/70X and 70X IQ	109274
<b>Fixtures</b>		
<b>BE/M 170</b>	Masonry fixture installation of EH-F 170 swing or EH/P 170 pendulum mounting assembly directly on the basin edge or on top of a wall	109276
<b>BE/R 170</b>	Pipe fixture for installation of EH-F 170 swing or EH/P 170 pendulum mounting assembly directly to a pipe (e.g. basin railing)	109278
<b>BE/R 170-D</b>	Swivel/pivot clamp fixture for mounting of a swing or pendulum mounting assembly directly to a pipe (e.g. basin railing)	109279
<b>MS/RKH 170</b>	Pipe bracket for installation of a second sensor to a EH/P 170 pendulum mounting assembly (2 pieces required)	109289
<b>MS/KK 170</b>	Double junction clamp for mounting of additional EH/F 170 swing or EH/P 170 pendulum mounting assembly to a Vario mounting stand BE/ST 170-X	109290
<b>Stands</b>		
<b>BE/ST 170</b>	Robust Vario floor mounting stand for installation on a concrete base etc. Supplied with universal joint fixture to accommodate a swing or pendulum mounting assembly and 2 brackets for attaching a protective roof, incl. aluminium diecast base, wallplugs and screws	109280
<b>BE/ST 170-R</b>	Vario pipe mounting stand. Supplied with universal joint fixture to accommodate a swing or pendulum mounting assembly and 2 brackets for attaching a protective roof	109281
<b>BE/ST 170-M</b>	Vario wall mounting stand. Supplied with universal joint fixture to accommodate a swing or pendulum mounting assembly and 2 brackets for attaching a protective roof	109283
<b>Controller/Module mounting</b>		
<b>SD/K 170</b>	Sun shield for outdoor installation of junction boxes (e.g. junction box KI/pH 170) or an IQ SENSOR NET module	109284
<b>MR/SD 170</b>	Mounting kit for attaching sun shields to pipes	109286
<b>MS/SD 170</b>	Mounting kit for SSH/IQ sun shield to a mounting stand	109288
<b>SSH/IQ</b>	Sun shield for mounting of IQ SENSOR NET modules and series 171/170 monitors to mounting stands	109295
<b>PMS/IQ</b>	Kit for panel mounting of IQ SENSOR NET modules	480048
<b>THS/IQ</b>	Kit for top hat rail mounting of IQ SENSOR NET modules	480050
<b>WMS/IQ</b>	Kit for wall mounting of IQ SENSOR NET modules	480052
<b>Mounting sets</b>		
<b>IN/SET1</b>	Installation set for mounting of one on-line sensor. Supplied with: Single sensor holder EH/U 170; SensorClean swing mounting EH/F 170-1,5; Vario floor mounting stand BE/ST 170; Sun shield SSH/IQ	109304
<b>IN/SET2</b>	Installation set for mounting of up to two on-line sensors. Supplied with: Twin sensor holder EH2/U 170; SensorClean swing mounting EH/F 170-1,5; Vario floor mounting stand BE/ST 170; Sun shield SSH/IQ	109305
<b>IN/SET3</b>	Installation set for mounting of up to three on-line sensors. Supplied with: Tripple sensor holder EH3/U 170; SensorClean swing mounting EH/F 170-1,5; Vario floor mounting stand BE/ST 170; Sun shield SSH/IQ	109306
<b>Chain/Shackle</b>		
<b>S/CH</b>	Shackle for chain fitting	505123
<b>CH/SO</b>	**** Chain per meter. High tensile strength and UV-resistant.	505124

\*\*\*\* Chain per meter. Additional costs depending on chain length.

Accessories



## Fixtures

### BE/R 170

Order No.: 109 278

With the BE/R 170 clamp set, a swing or pendulum mounting assembly can be fixed directly to a pipe; e.g. a handrail.

<b>Material</b>	Stainless steel 1.4301/diecast Al/POM
-----------------	---------------------------------------

### BE/R 170-D

Order No.: 109 279

The swivel/pivot clamp fixture provides secure connection of a swing or pendulum mounting assembly to a horizontal pipe rail.

<b>Material</b>	Stainless steel 1.4301/diecast aluminum
-----------------	---

### MR/SD 170

Order No.: 109 286

Mounting kit for sun shields, suitable for horizontal or vertical pipe rails with diameters of 0.98 to 2.36 in. (25 - 60 mm). Sun shield not included.

<b>Material</b>	Stainless steel 1.4301
-----------------	------------------------

### BE/M 170

Order No.: 109 276

With the BE/M 170, a swing or pendulum mounting assembly can be inexpensively installed directly at the basin edge or on top of a wall. It consists of a flange clamp with a clamping lever and a bolt-on base plate.

<b>Material</b>	Stainless steel 1.4301/diecast Al/POM
-----------------	---------------------------------------

## Sun Shields

### SD/K 170

Order No.: 109 284

Sun shield for mounting a junction box or an IQ SENSOR NET module in the open air. Mounting kit MR/SD 170 is additionally required for attachment to vertical or horizontal pipes.

<b>Dimensions</b>	5.59 x 9.06 x 3.43 in. (142 x 230 x 87 mm) (H x W x D)
<b>Material</b>	Stainless steel, 1.4301

### SSH/IQ

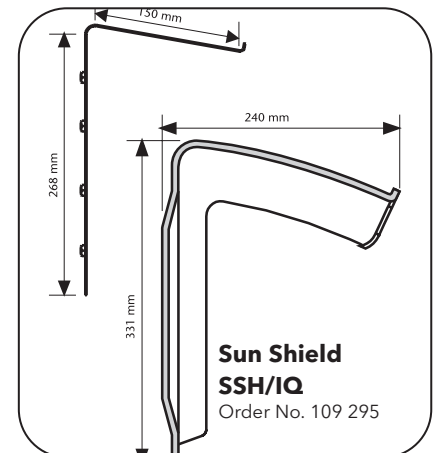
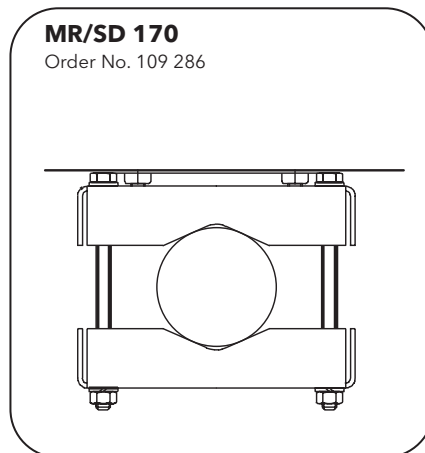
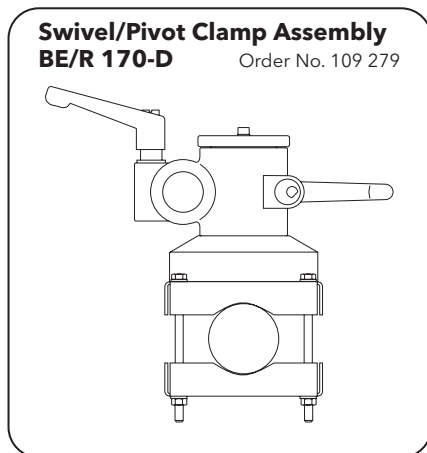
Order No.: 109 295

Sunshield for mounting series 171, 170 and IQ SENSOR NET monitors on a Vario Mounting Stand.

<b>Dimensions</b>	13.03 x 13.54 x 9.45 in. (331 x 344 x 240 mm) (H x W x D)
<b>Material</b>	ASA (Dust gray color)



*IQ SENSOR NET under sun shield SSH/IQ*



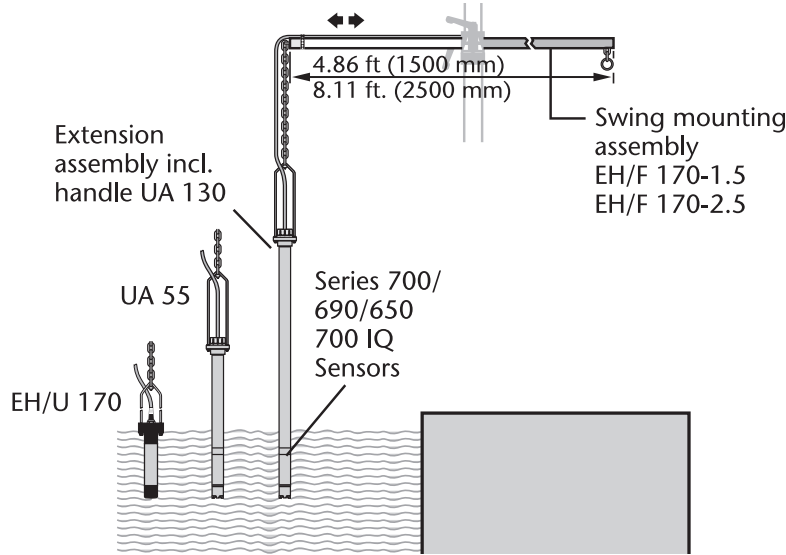


# Mounting Hardware Installation Flexibility

## Measurements in Basins

Recommended sensor holding device:

### Swing mounting assembly

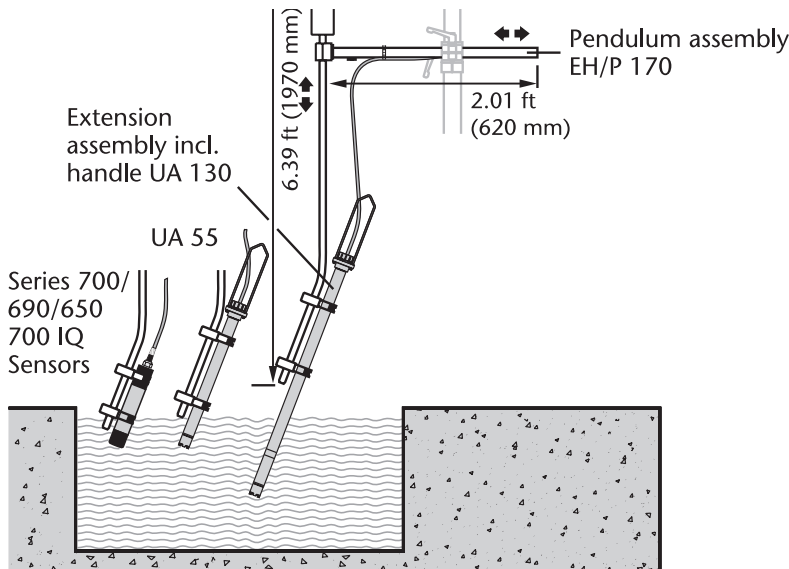


The WTW mounting hardware constitutes a flexible mechanical system in which the individual components are optimally matched. With the selection and combination of various sensor holders, mounting stands and fastening elements, tailor made solutions can be established for the appropriate configuration of the measuring stations; as the diagrams show.

## Measurements in Open Channels

Recommended sensor holding device:

### Pendulum assembly



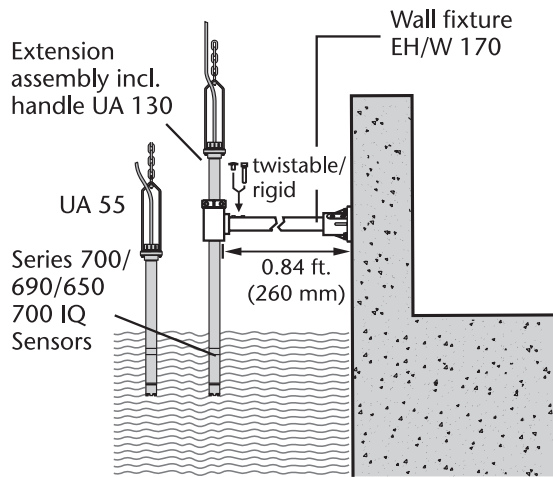
Pendulum rod shown 90 rotated



## Measurements in Basins or in Open Channels

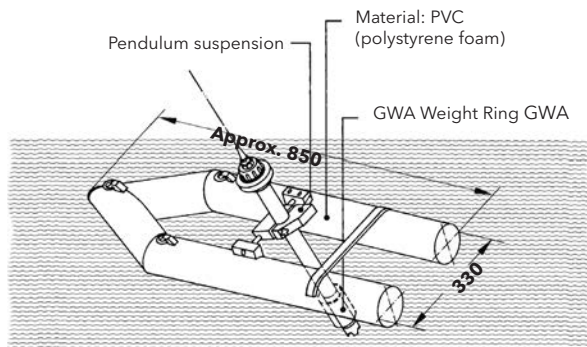
### Wall mounting

for universal extension assemblies UA 55/ UA 130

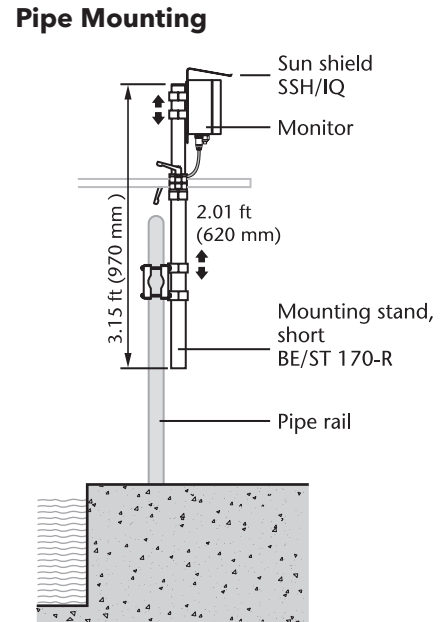
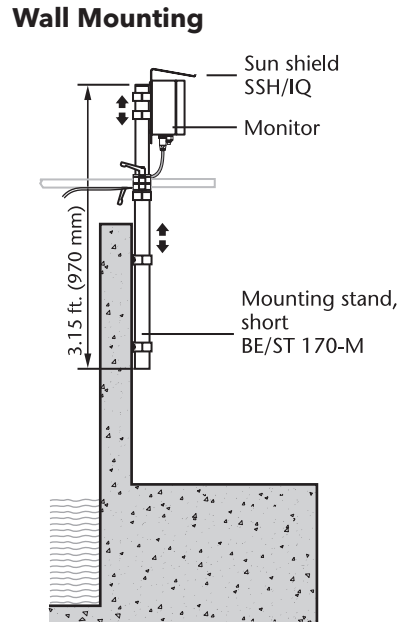
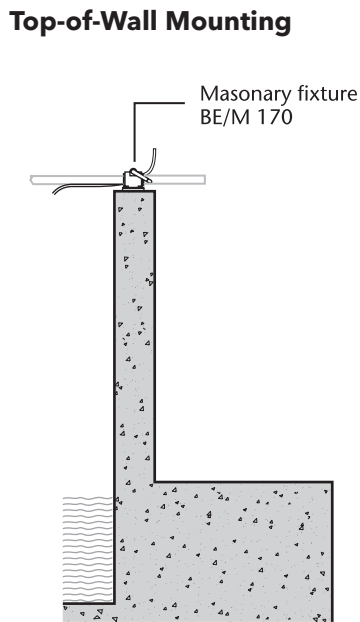
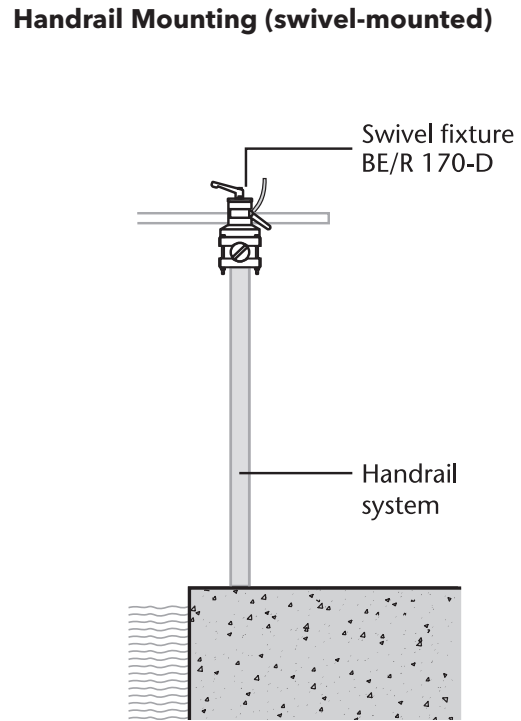
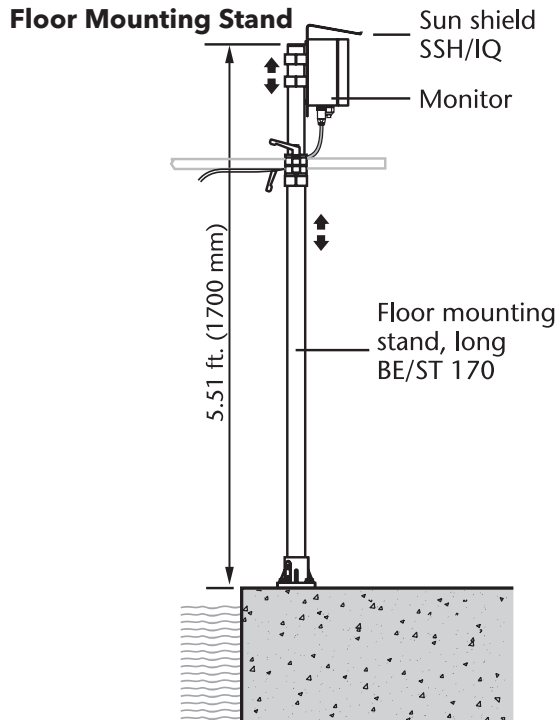


## Measurements in very variable water levels or in rivers, lakes, etc.

### Sensor Float S 200



# Mounting Stands and Fixtures



Accessories



## Sensor Holding Devices

### EH/F 170

Order No.: 109 272, 109 273

The SensoClean swing mounting assembly consists of a 4.86 ft. or 8.11 ft. (1.5 or 2.5 m) long boom and a 13 ft. (4 m) long plastic chain for height adjustment of the sensor. It may also hold sensor extension assemblies. Particularly in turbulent flows, the freely swinging suspension produces a self-cleaning effect of the sensor, making the swing mounting especially suitable for operation in basins; e.g. in the aeration tank of a wastewater treatment plant.

<b>Boom length</b>	4.86 ft. or 8.11 ft. (1.5 or 2.5 m)
<b>Material</b>	Stainless steel 1.4301
<b>Chain material</b>	Polyethylene

### EH/P 170

Order No.: 109 270

The SensoClean pendulum mounting assembly consists of a boom with a pendulum head and an angled pendulum rod. It is fitted at the top end with a movable counterweight for fine adjustment. The sensor or the extension assembly is fastened to the pendulum rod by two pipe clamps.

<b>Boom</b>	Length 2.01 ft. (620 mm), stainless steel 1.4301
<b>Pendulum rod</b>	Length 6.39 ft. (1970 mm), stainless steel 1.4301
<b>Pendulum head, clamp</b>	POM/Polyethylene

### EH/W 170

Order No.: 109 274

The EH/W 170 mounting assembly is designed for direct fastening to a wall of a basin. It can be set for pendulous or rigid operation, and it is suitable for extension assemblies. The immersion depth is adjusted by means of a fixing ring. Includes mounting plate with appropriate wall anchors and screws.

<b>Boom</b>	Length 0.84 ft. (260 mm), stainless steel 1.4301
<b>Pendulum head</b>	POM
<b>Mounting plate</b>	Diecast aluminum

### S 200

Order No.: 108 540

The float with pendulum mounting assembly is available for use in flowing water or where the water level fluctuates considerably. The fixture is designed for extension assembly UA 55. A GWA weight ring is also required.

<b>Dimensions</b>	2.76 x 1.07 ft. (850 x 330 mm) (L x W)
<b>Material</b>	PVC

### VIS Set-F

Order No.: 481 080

Supplemental kit for horizontal mounting of a UV(-VIS) sensor (NitraVis, CarboVis, NiCaVis). Particularly suitable for heavily fluctuating water levels in combination with the S 200 sensor float.

<b>Material</b>	PVC/POM
-----------------	---------

## Vario Mounting Stand

### BE/ST 170

Order No.: 109 280

Robust floor mounted stand made of stainless steel, with joint-locking fixture to accommodate a swing or pendulum mounting assembly and 2 pipe brackets for attaching a sun shield. With diecast aluminum baseplate, wall plugs and screws.

<b>Stand</b>	Length 5.51 ft. (1700 mm), diameter 1.97 in. (50 mm)
<b>Material</b>	Stainless steel 1.4301
<b>Brackets</b>	Polypropylene

### BE/ST 170-M

Order No.: 109 283

Mounting stand similar to model BE/ST 170, but shorter version for wall mounting. Wall mounting material is included instead of the baseplate.

<b>Stand</b>	Length 3.15 ft. (970 mm), diameter 1.97 in. (50 mm)
<b>Material</b>	Stainless steel 1.4301

### BE/ST 170-R

Order No.: 109 281

This stand is similar to model BE/ST 170, but with hardware for fastening of the stand to a vertical or horizontal pipe rail.

<b>Stand</b>	Length 3.15 ft. (970 mm), diameter 1.97 in. (50 mm)
<b>Material</b>	Stainless steel 1.4301



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Model	Description	Order No.
<b>Mounting Accessories 60 mm sensors (Spectral ; Sludge Level)</b>		
<b>S 200</b>	Float with pendulum mounting assembly for on-line sensors with 40 mm (1.57 in) shaft diameter with UA 55 extension assembly or for spectral sensors with supplement kit VIS Set/EH for horizontal mounting.	108540
<b>EH/F 170-1,5</b>	SensoClean swing mounting assembly for installation of on-line sensors with 40 mm shaft diameter and UA armatures. Supplied with plastic chain (4 m/13 ft) for use in wastewater and 1.5 m/4.9 ft boom (stainless steel 1.4301)	109272
<b>EH/SW</b>	Single electrode holder in seawater design for direct mounting of series 650/690/70X and 70X IQ (SW) sensors	109317
<b>EH/U 170</b>	Sensor holder for direct mounting of series 650/690/70X and 70X IQ sensors to a swing mounting assembly	109320
<b>EH/W 171</b>	Pivot wall mount with 42 cm side arm for IQ sensors to pipes with 30 mm (1.18 in) diameter (EH/WT-D30, EH/WB please order separately)	109360
<b>EH/W 172</b>	Fixed wall mount for IQ sensors to pipes with 30 mm (1.18 in) diameter (EH/WT-D30, EH/WB please order separately)	109361
<b>EH/WB</b>	Sensor holder for sensor with 60 mm (2.36 in) diameter for attachment to pipes with 30 mm (1.18 in) diameter	109362
<b>EH/WT-D30</b>	Pipe D30 x 2600 mm. Adaptable to EH/W 171, EH/W 172, IFL-RM, IFL-D	109363
<b>EH/W 173</b>	Fixed wall mount with side arm for IQ sensors to pipes with 30 mm (1.18 in) diameter in combination with deflector armature IFL-E or sensor holder EH/WB (EH/WT-D30, IFL-E or EH/WB please order separately)	109365
<b>EH/W RM</b>	Rail connection for wall mount EH/W 170 to EH/W 173	109366
<b>EH/WB-40</b>	Sensor holder for sensor with 60 mm (2.36 in) diameter for attachment to pipes with 40 mm (1.57 in) diameter	109367
<b>VIS FT-1</b>	Flow-through measuring cell for spectral UV and UV-VIS sensors, for operation with automatic compressed air cleaning	480080
<b>VIS FT-1/RS</b>	Spare part set for flow-thru measuring cell VIS FT-1	480081
<b>VIS Set/EH</b>	Supplement kit I for spectral sensors for horizontal mounting of a UV/VIS sensor, with the EH/F 170 swing mounting assembly for use in basins or open channels.	481073
<b>VIS Set-F</b>	Supplement kit for horizontal mounting of a UV-VIS/UV sensor. For use in variable water levels with the S 200 float.	481080
<b>IFL-E</b>	Deflector armature for IFL 700 IQ and IFL 701 IQ for application with surface skimmers	481206
<b>IFL-RM</b>	Rail mount for interface level sensors IFL 700 IQ and IFL 701 IQ in combination with deflector armature IFL-E. (EH/WT-D30, IFL-E please order separately)	481207

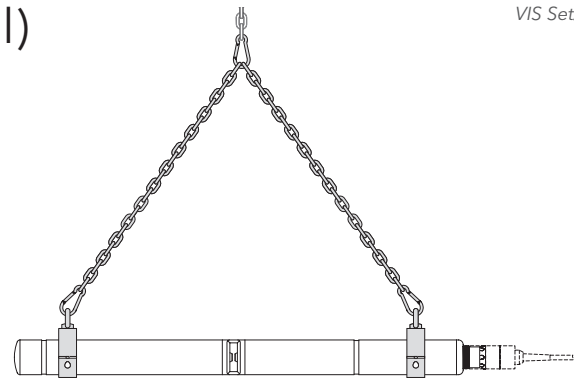
## Holder for 60 mm Sensors (Spectral)

VIS Set/EH

**VIS Set/EH** (shaded parts)

Order No. 481 073

Supplement kit I for horizontal mounting of UV(-VIS) sensors (NitraVis, CarboVis, NiCaVis, NiCaVis NI) with the EH/F 170 swing mounting assembly for use in basings or open channels.



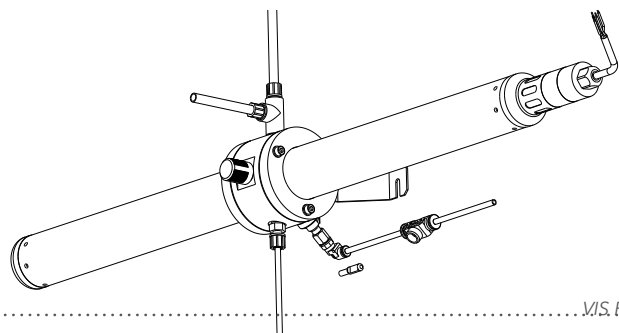
## Flow-thru Vessels for 60 mm Sensors (Spectral)

**UV-VIS sensors in flow-thru measurement**

**VIS FT-1**

Order No. 480 080

Flow-thru cell for UV/VIS sensors NitraVis/CarboVis (TS), NiCaVis 700 IQ and NiCaVis NI. The sensor can be cleaned automatically in mounted state by means of compressed air.



VIS FT-1.

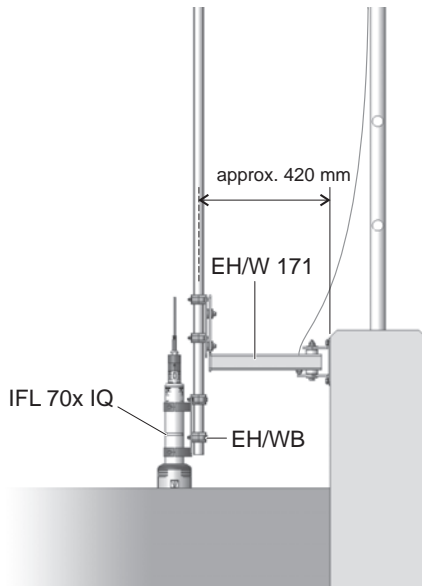


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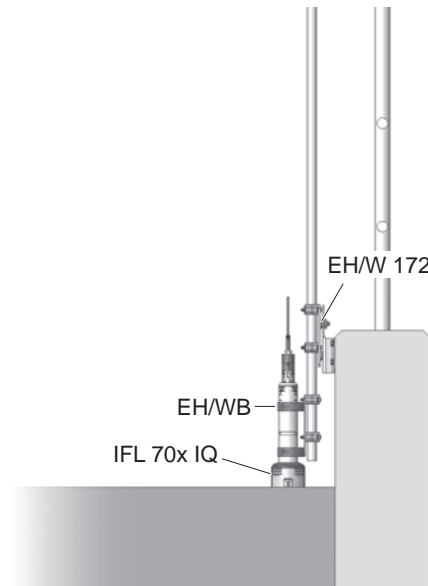
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## Mounting Systems for 60 mm Sensors (Spectral, UV 700 IQ SAC/NO<sub>x</sub>, Sludge Level)



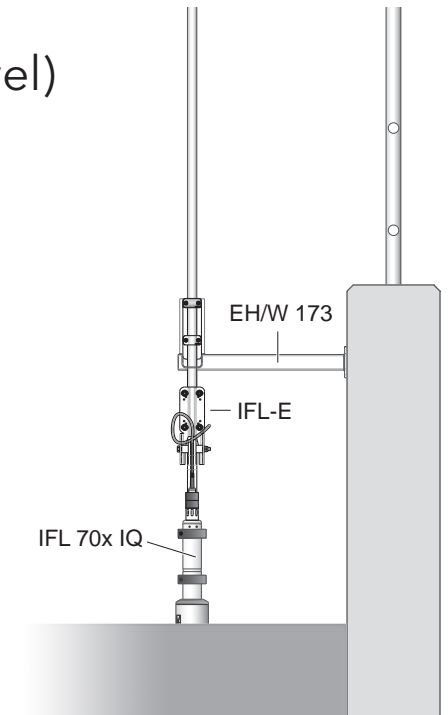
### Swing wall mount

**EH/W171** Order No. 109 360  
with side arm, usable in  
combination with  
EH/WB (Order No. 109 362)



### Wall mount

**EH/W 172** Order No. 109 361  
usable in combination with  
EH/WB (Order No. 109 362)



### Fixed wall mount

**EH/W173** Order No. 109 365  
with side arm,  
usable in combination with  
IFL-E (Order No. 481 206) oder  
EH/WB (Order No. 109 362)

Model	Description	Order No.
<b>Flow-through Assemblies</b>		
<b>EBS 700-DU/N</b>	Mounting set for measurements in pipelines, for all sensors of the 650/690/700(IQ)/701(IQ) series. Consisting of a bonded sleeve for standard 45° PVC T-piece (d 63 DN 50), O-ring seals and union nut. Please order suitable sensor adapter (ADA-XX) separately	203751
<b>EBST 700-DU/N</b>	Flow-through adapter for measurements in pipelines, for all sensors of the 650/690/700(IQ)/701(IQ) series. Consisting of a 45° PVC T-piece (d 63 DN 50) with bonded sleeve. O-ring seals and union nut. Please order suitable sensor adapter (ADA-XX) separately.	203753
<b>EBST 700-DU/ND</b>	Flow-thru adapter for measurements in pipelines with air pressure cleaning connection for use with sensors 70X, 70X IQ (pre-pressure max. 0.5 m water column) consisting of a PVC 45° T piece (d 63 DN 50) with bonded sleeve, O-ring seals and union nut, 2 x 180° shifted pressure cleaning injector with centric air-pressure connector 4/6 mm (max 6 bar). Please order suitable sensor adapter (ADA-XX) separately.	203754
<b>ESS 700 VA/N</b>	Stainless steel (1.4571) weld-in socket, for measurements in pipelines, for use with all sensors of 650/690/700(IQ)/701(IQ) series. Please order suitable sensor adapter (ADA-XX) separately.	203755
<b>ESS 700 VA/10</b>	Stainless steel weld-in socket, for measurements in pipelines with up to 10 bar pressure, useable for all series 650/690/700(IQ)/701(IQ) sensors. Please order suitable sensor adapter (ADA-XX) separately.	203757
<b>ADA-DF 1</b>	Adapter for mounting IQ sensors for measuring of pH/ORP, conductivity and D.O. in D 700/N or DMS/N flow-through vessels	203761
<b>Flow-through Vessels</b>		
<b>D 530</b>	Flow-through vessel for pH combination electrodes (shaft diameter 12 mm/0.47 in), temperature sensor TFK 150 and TFK 530 and for conductivity cells LTA 01 and LR 325/01.	108060
<b>D 300/pH</b>	Flow-thru vessel for pH/ORP and temperature measuring	108073
<b>D 700/N</b>	Flow-thru vessel for multiparameter measurements, for use with: TriOxmatic® 690/700(IQ)/701(IQ), SensoLyt® SE/DW/EC/Pt, TetraCon® 325 and TFK 325. Please order suitable sensor flange separately	203745
<b>D 702/N</b>	Flow-thru cell for continuous oxygen measurement, primarily for measurements in the ppb range with TriOxmatic® 702 (IQ). Also useable for TriOxmatic® 690/700/700 IN/701 (IQ). Please order suitable sensor flange separately	203747
<b>DMS/N</b>	Universal flow-thru vessel for multiparameter measurements with up to four sensors, e.g. for use in the discharge of a waste water treatment plant. Please order suitable sensor flange separately	203749

## Flow-thru Adapters

### EBST 700-DU/N and EBST 700-DU/ND

Order No.: 203 753  
Order No.: 203 754

Flow-thru adapter for measurements in pipelines, consisting of a 45° PVC T-piece (d 63 DN 50) with bonded sleeve, O-ring seals and union nut. The adapter must be completed by the selection of a suitable sensor flange from the table on page 114 and can then be used for measurement of pH, oxygen, temperature and conductivity with all current WTW sensors.

EBST 700-DU/ND additionally features a compressed-air connection for cleaning installed sensors. Selection of sensors acc. table on page 114.

<b>Max. pressure</b>	3 bar (EBST 700-DU/N) or 0.2 bar (EBST 700-DU/ND)
<b>Max. temperature</b>	122 °F (50 °C)
<b>Material</b>	PVC/POM

### EBS 700-DU/N

Order No.: 203 751

Mounting set for flow-thru measurements, consisting of a bonded sleeve for standard 45° PVC T-pieces (d 63 DN 50) or other suitable pipeline systems, one R 2" union nut and the necessary O-ring seals. Please select an adapter from the table on page 114.

<b>Max. pressure</b>	3 bar
<b>Max. temperature</b>	122 °F (50 °C)
<b>Material</b>	PVC/POM

**ESS 700 VA/N**

Order No.: 203 755

Stainless steel weld-in socket, for measurements in pipe-lines. Please select an adapter from the table "Flow-thru Adapters".

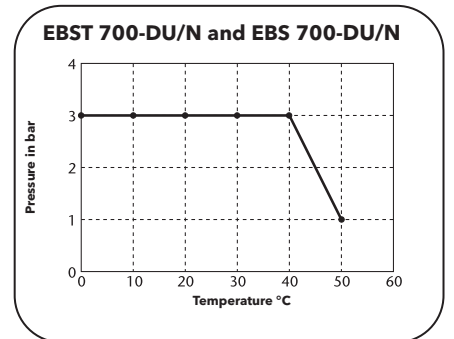
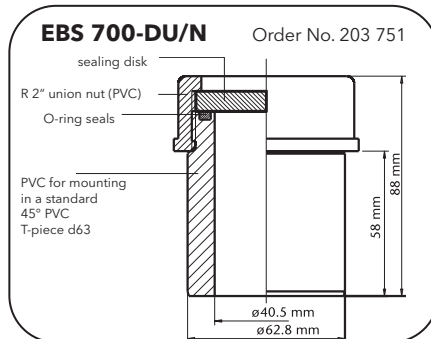
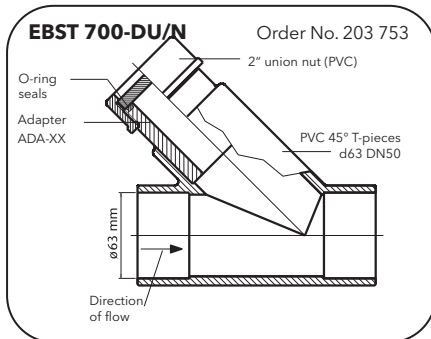
<b>Max. pressure</b>	3 bar
<b>Max. temperature</b>	122 °F (50 °C)
<b>Material</b>	
Weld-in socket	V4A stainless steel 1.4571
Union nut	PVC-U
<b>Total length</b>	5.59 in. (142 mm)
<b>Outside diameter</b>	2.36 in. (60 mm)

**ESS 700 VA/10**

Order No.: 203 757

Stainless steel weld-in socket, for measurements in pipe-lines. Please select an adapter from the table "Flow-thru Adapters".

<b>Max. pressure</b>	10 bar
<b>Max. temperature</b>	140 °F (60 °C)
<b>Material</b>	
Weld-in socket	V4A stainless steel 1.4571
Union nut	V4A stainless steel 1.4571
<b>Total length</b>	5.59 in. (142 mm)
<b>Outside diameter</b>	2.36 in. (60 mm)



Configuration of the adapter according to table "Flow-thru Adapters".

**Weld-in socket ESS 700 VA/X**

Order No. 203 755  
203 757

6.02 in. (153 mm)

5.59 in. (142 mm)

ø1.59/40.5

ø1.83/46.5

Sensor connection (sensor-specific adapter necessary)

Max. space requirements for sensor mounting (Sensolyt® 700 IQ):

approx. 1.9 in. (50 mm)

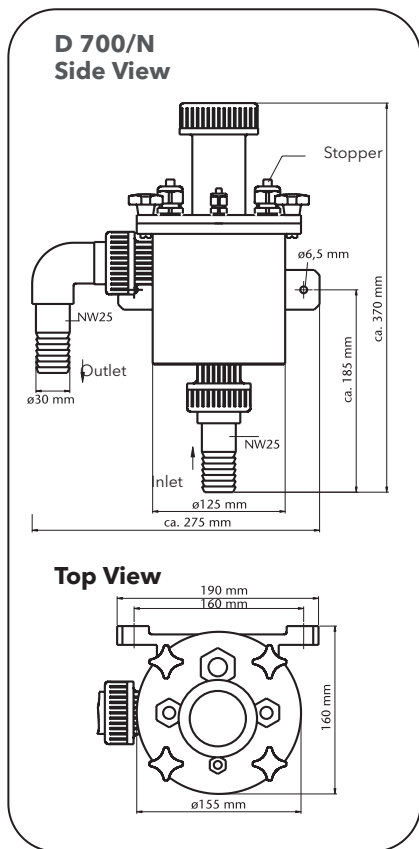


ESS 700 VA/10





## Multi-parameter Measurement



### D 700/N

Order No. 203 745

PVC flow-thru vessel for unpressurized measurements with various sensors.

The D 700/N can accommodate up to the following number of sensors: 1 D.O. sensor TriOxmatic® 690/700/701/ CellOx® 700 (IQ) (central bore; dia. 40,5 mm), pH/ORP electrodes type SensoLyt® SE/DW/EC/Pt (M20 x 1.5; clamping range 7-13 mm), 1 conductivity cell e.g. TetraCon® 325 (M25 x 1.5; clamping range 9-13 mm), 1 temperature sensor e.g. TFK 325 (M12 x 1.5; clamping range 3-7 mm). Instead of the TriOxmatic® sensor a conductivity sensor type TetraCon® 700 (IQ) can also be mounted.

Configuration of the adapter according to table: flow-thru adapters

Vessel volume:	Approx. 1100 ml
Min. flow rate:	2 - 7 l/min. (depending on sensor)
Max. flow rate:	30 l/min.
Max. pressure:	< 15 psi (< 1 bar)
Inlet/Outlet:	Hose connection; nominal dia. 1.18 in. (30 mm)
Material:	PVC
Dimensions:	14.57 x 10.83 x 6.30 in. (370 x 275 x 160 mm, H x W x D, incl. connectors)

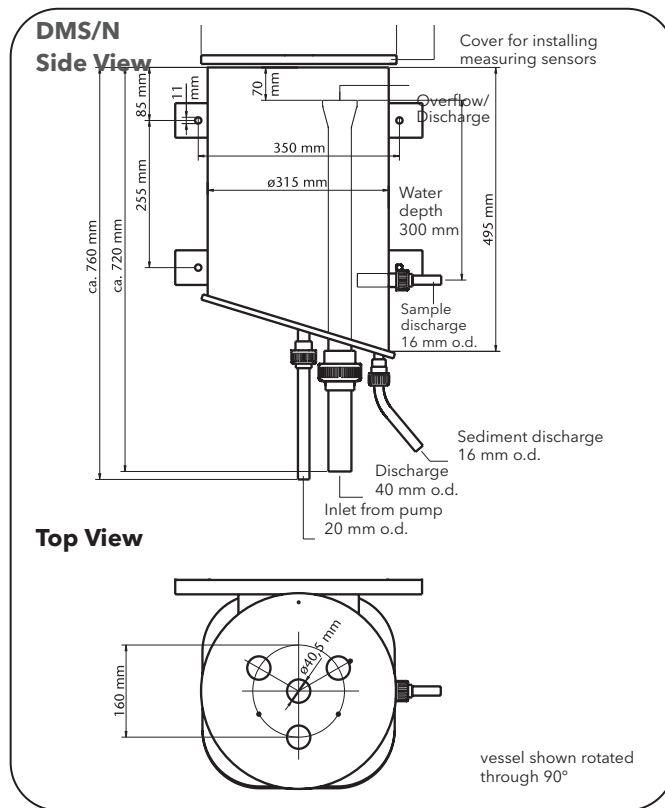
### DMS/N

Order No. 203 749

The DMS/N flow-thru vessel was designed specifically for use in monitoring stations. Up to 4 sensors, each with a diameter of 40 mm, can be mounted in the lid of the vessel for measurement of oxygen, pH/ORP, conductivity and/or turbidity. The sample flow is continuously supplied to the vessel by a small submersible pump (not included), and exits through an overflow. If in addition analyzers are installed in the station, they can be supplied with samples from the flow-thru vessel.

Vessel volume:	Approx. 27 l
Min. flow rate:	150 - 200 l/hr
Max. flow rate:	Approx. 1500 l/hr
Max. pressure:	< 15 psi (< 1 bar)
Inlet/outlet:	Hose connection Ø 0.79 resp. 1.57 in. (20 mm resp. 40 mm)
Material:	PVC
Dimensions:	Approx. 19.49 x 15.39 in. (495 x 340 mm, H x W, without connectors)

Configuration of the adapter according to table: flow-thru adapters



Model	Description	Order No.
<b>Flow-through Adapters</b>		
<b>ADA-DF 4</b>	Adapter for mounting D.O. sensors TriOxmatic® 702 and TriOxmatic® 702 IQ in D 702/N flow-thru vessel	203767
<b>ADA-DF 6</b>	Adapter for mounting D.O. sensor TriOxmatic® 702 IQ in flow-thru vessel D 702/N	203771
<b>ADA-DF 7</b>	Adapter for mounting turbidity sensor VisoTurb® 700 IQ in DMS/N flow-through vessel	203773
<b>ADA-DF 9</b>	Adapter for mounting IQ sensors for pH/ORP, D.O., conductivity, turbidity and suspended solids in flow-through vessels EBS(T)700-DU/N or ESS 700-VA/N	203777
<b>ADA-DF 10</b>	Adapter for mounting of pH/ORP armature SensoLyt® 690/700 in flow-thru vessels EBS(T)700-DU/N or ESS 700-VA/N	203779
<b>ADA-DF 11</b>	Adapter for mounting IQ sensors for pH/ORP, D.O., conductivity, turbidity and suspended solids in ESS 700 VA/10 weld-in socket	203781
<b>ADA-DF 14</b>	Adapter for mounting IQ sensor FDO®700 IQ in flow-thru vessel D 700/N	203787
<b>ADA-DF 15</b>	Adapter for mounting IQ sensor FDO®700 IQ in flow-thru vessels EBS 700-DU/N, EBST 700-DU/N and ESS 700 VA/N	203789



Flow-thru Adapters										
	Flow-thru Vessels									
	D 700/N Flow-thru vessel Order No.	D 702/N Flow-thru vessel Order No.	DMS/N Flow-thru vessel Order No.	EBS 700-DU/N Flow-thru adapter Order No.	EBST 700-DU/N Flow-thru adapter Order No.	EBST 700-DU/ ND Flow-thru adapter Order No.	ESS 700 VA/N Welding socket Order No.	ESS 700 VA/10 * Welding socket Order No.	WA 700/2 Retractable armature Order No.	WA 700/10 * Retractable armature Order No.
<b>VisoTurb® 700 IQ</b>			ADA-DF7 203 773	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF11 203 781	ESS-WA 700/X 480 10X ADA-WA1 480 108	ESS-WA 700/X 480 10X ADA-WA1 480 108
<b>ViSolid® 700 IQ</b>			ADA-DF7 203 773	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF11 203 781	ESS-WA 700/X 480 10X ADA-WA1 480 108	ESS-WA 700/X 480 10X ADA-WA1 480 108
<b>TetraCon® 700 IQ</b>	ADA-DF1 203 761		ADA-DF1 203 761	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF11 203 781	ESS-WA 700/X 480 10X ADA-WA1 480 108	ESS-WA 700/X 480 10X ADA-WA1 480 108
<b>SensoLyt® 700 IQ</b>	ADA-DF1 203 761		ADA-DF1 203 761	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF11* 203 781	ESS-WA 700/X 480 10X ADA-WA1 480 108	ESS-WA 700/X 480 10X ADA-WA1* 480 108
<b>TriOxmatic® 700 IQ/701 IQ</b>	ADA-DF1 203 761	ADA-DF4 203 767 and ADA-DF6 203 771	ADA-DF1 203 761	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF11 203 781	ESS-WA 700/X 480 10X ADA-WA1 480 108	ESS-WA 700/X 480 10X ADA-WA1 480 108
<b>TriOxmatic® 702 IQ</b>		ADA-DF4 203 767 and ADA-DF6 203 771		ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF11 203 781	ESS-WA 700/X 480 10X ADA-WA1 480 108	ESS-WA 700/X 480 10X ADA-WA1 480 108
<b>FDO 700 IQ/701 IQ</b>	ADA-DF14 203 787		ADA-DF1 203 761	ADA-DF15 203 789	ADA-DF15 203 789	ADA-DF15 203 789	ADA-DF15 203 789	ADA-DF11 203 781	ESS-WA 700/X 480 10X ADA-WA4 480 114	ESS-WA 700/X 480 10X ADA-WA4 480 114
<b>AmmoLyt® Plus 700 IQ</b>	ADA-DF1 203 761		ADA-DF1 203 761	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777	ADA-DF9 203 777			
<b>NitraLyt® Plus 700 IQ</b>	if < 0.2 bar is met		if < 0.2 bar is met	if < 0.2 bar is met	if < 0.2 bar is met	if < 0.2 bar is met	if < 0.2 bar is met			
<b>VARiON® Plus 700 IQ</b>										

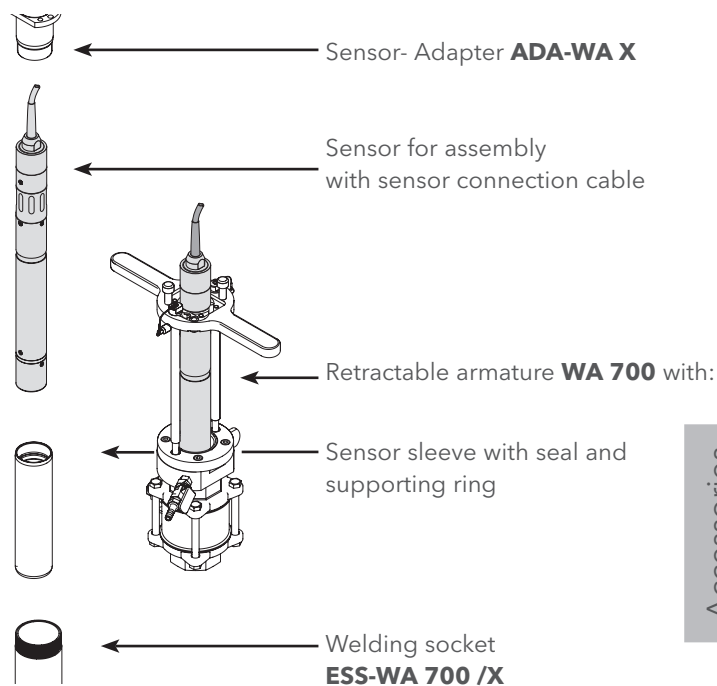
ADA-DFX	Configuration recommended
	Configuration possible (check sensor specs and application)
	Configuration not intended

\* with electrode SensoLyt® SEA-HP  
\*\* only for flow-thru vessel D 702/N

Accessories

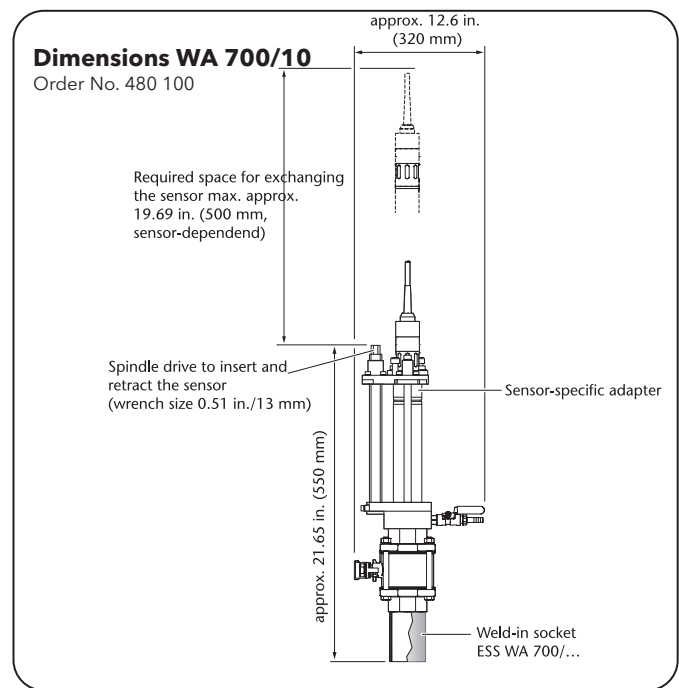
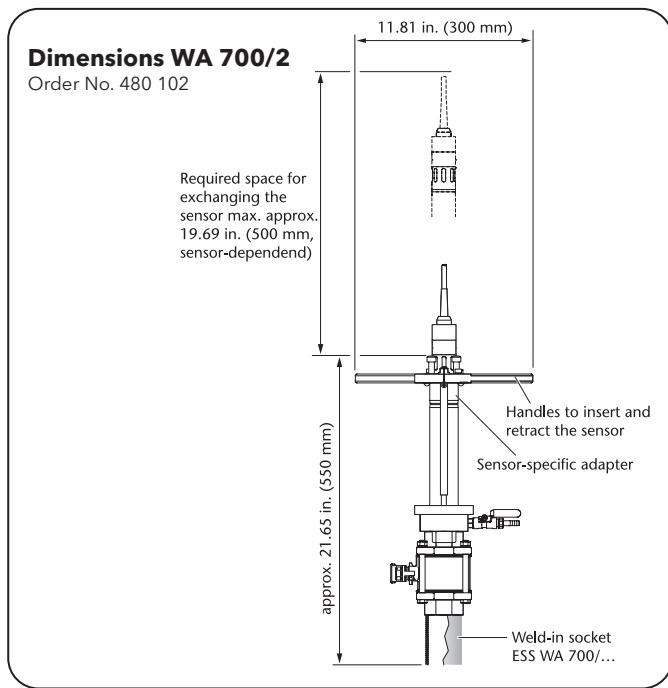
Model	Description	Order No.
<b>Retractable Armatures</b>		
<b>WA 700/10</b>	Retractable armature for measurements in pipelines, with up to 10 bar overpressure, for use with all series 650/ 690/700(IQ)/701(IQ) sensors. Consisting of a pre-assembled armature with ball valve, mounting aid up to 10 bar, rinsing connectors and a sensor sleeve with sealings and retainer rings. Please order suitable sensor adapter separately.	480100
<b>WA 700/2</b>	Retractable armature for measurements in pipelines, with up to 2 bar overpressure, for use with all series 650/ 690/700(IQ)/701(IQ) sensors. Consisting of a pre-assembled armature with ball valve, mounting aid up to 2 bar, rinsing connectors and a sensor sleeve with sealings and retainer rings. Please order suitable sensor adapter separately.	480102
<b>ESS-WA 700/ST</b>	Steel (St 33) weld-in socket for WA 700/2 und WA 700/10 retractable armatures	480104
<b>ESS-WA 700/VA</b>	Stainless steel (1.4571) weld-in socket for WA 700/2 und WA 700/10 retractable armatures	480106
<b>ADA-WA 1</b>	Adapter for mounting of IQ sensors for pH/ORP, conductivity, D.O., turbidity and TSS into WA 700/2 and WA 700/10 retractable armatures	480108
<b>ADA-WA 3</b>	Adapter for mounting of pH/ORP armature SensoLyt® 650/690/700 into WA 700/2 and WA 700/10 retractable armatures	480112
<b>ADA-WA 4</b>	Adapter for mounting of IQ sensor FDO®700 IQ into WA 700/2 and WA 700/10 retractable armatures	480114
<b>WA/BV</b>	Blind plug for weld-in socket fittings ESS-WA 700/ST and ESS-WA 700/VA	480116
<b>WA/EpacK</b>	Spare set of O-ring seals for retractable armatures WA 700/2 and WA 700/10	480118

## Retractable Armatures



Technical Data Retractable Armatures		
	WA 700/2	WA 700/10
<b>Max. Pressure</b>	2 bar (overpressure)	10 bar (overpressure)
<b>Max. Temperatur</b>	140 °F (60 °C)	
<b>Material</b>	Wetted parts: Stainless steel (1.4571 or 1.4408) O-rings: FPM (Viton) Seals ball valve: PTFE (Teflon)	
<b>Total Length</b>	21.26 in. (540 mm)	
<b>Outer Diameter</b>	Incl. mounting aid: 11.81/12.60 in. (300/320 mm)	





Model	Description	Order No.
<b>Cleaning System</b>		
<b>DIQ/CHV</b>	Dual IQ/Cleaning Head Valve for automatic air cleaning controlled by a relay, for system 282/284, (relay and compressed air supply external)	472007
<b>Cleaning Air Box - 115 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 115 VAC. No additional CHV PLUS needed.	480017
<b>MIQ/CHV PLUS</b>	Module IQ/Cleaning Head Valve, for automatic air cleaning controlled by a relay or the IQ SENSOR NET (relay and compressed air supply external)	480018
<b>Cleaning Air Box - 230 VAC</b>	Air pressure compressor for online sensors. For easy wall mounting, switchable by a relay to provide cleaning systems with air pressure. 230 VAC. No additional CHV PLUS needed.	480019
<b>AF/Cleaning Air Box</b>	Air intake filter for Cleaning Air Box. For the removal of particles to maintain the compressor.	480026
<b>RM/Cleaning Air Box</b>	Replacement membrane for compressor in Cleaning Air Box. The membrane should be replaced after 5000 h of operation time or after 5 years.	480027
<b>CH</b>	Cleaning head for on-line sensors with 40 mm diameter. Supplied with 15 m (49 ft) compressed air tube.	900107
<b>CH/Epac</b>	Spare part set for cleaning head	900111



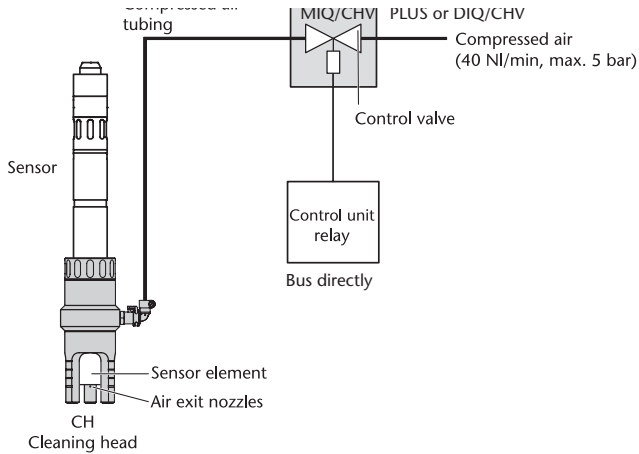
# Cleaning System

For a continuous compressed-air cleaning system there are two options:

## Option 1:

Compressed-air supply is provided at the plant. You require the following components

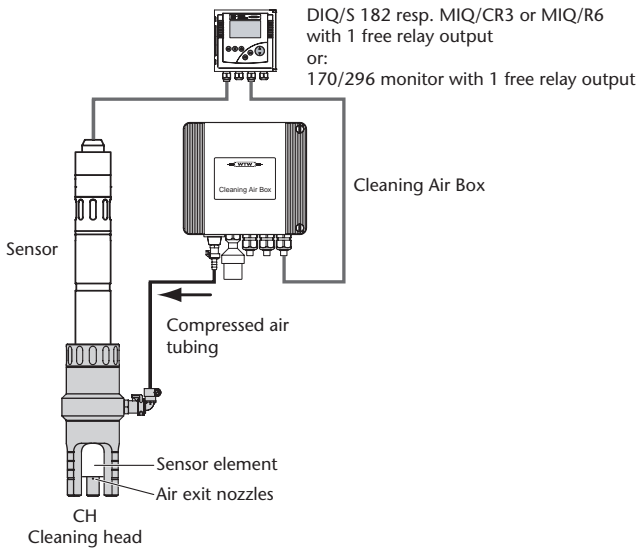
- Cleaning head CH
- Valve module (MIQ/CHV PLUS or DIQ/CHV)



## Option 2:

Compressed-air supply is not provided at the plant. You require the following components

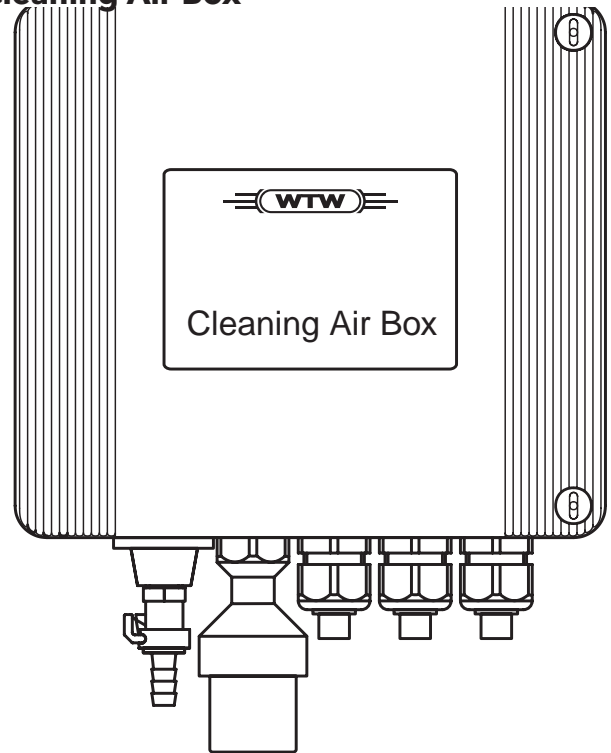
- Cleaning head CH
- Cleaning Air Box
- Monitor with relay output



## Efficient compressed air cleaning put into practice:



## Cleaning Air Box



# Additional Products

Model	Description	Order No.
<b>Filtration P 700 IQ</b>		
<b>Filter</b>	Set of 2 filter membranes for filter membrane module FM and module case FM-Case	821972
<b>SL 5</b>	Suction tube with slide, unheated, 5 m (16.2 ft)	821978
<b>FM</b>	Filter membrane module with premounted membrane	821987
<b>Filter/PC</b>	Filter module for housing FM-Case/PC. Suitable for Alyza IQ and P 700 IQ	821940
<b>FM-Case/PC</b>	Housing for filter module Filter/PC. Suitable for Alyza IQ and P 700 IQ	821941
<b>FM-B</b>	Cleaning brush for filter membrane module	821968
<b>FM-Adapter</b>	Adapter for horizontal mounting of filter membrane module FM	821983
<b>Filter-CL</b>	Cleaning case for filter membranes	821984
<b>M-EXT 1.5</b>	Extension for attachment M 1.5. Included: Extension 1.5 m, chain, bracket	821985
<b>M 1.5</b>	Attachment for filtration. Included: Rail 1.5 m (4.9 ft), chain, bracket	821986
<b>RL 20</b>	Permeate return line, unheated, 20 m (65 ft)	821954
<b>RL 115-20</b>	Permeate return line, heated, 115 VAC, 20 m (65 ft)	821955
<b>SL 20</b>	Suction tube with slide, unheated, 20 m (65 ft)	821957
<b>SL 115-20</b>	Suction tube with slide, heated, 115 VAC, 20 m (65 ft)	821959
<b>SL 230-20</b>	Suction tube with slide, heated, 230 VAC, 20 m (65 ft)	821960
<b>RL 10</b>	Permeate return line, unheated, 10 m (32 ft)	821964
<b>RL 115-10</b>	Permeate return line, heated, 115 VAC, 10 m (32 ft)	821965
<b>RL 230-10</b>	Permeate return line, heated, 230 VAC, 10 m (32 ft)	821966
<b>RL 2</b>	Permeate return line, unheated, 2 m (6.5 ft)	821974
<b>RL 115-2</b>	Permeate return line, heated, 115 VAC, 2 m (6.5 ft)	821975
<b>RL 230-2</b>	Permeate return line, heated, 230 VAC, 2 m (6.5 ft)	821976
<b>SL 10</b>	Suction tube with slide, unheated, 10 m (33 ft)	821977
<b>SL 115-10</b>	Suction tube with slide, heated 115 VAC, 10 m (33 ft)	821979
<b>SL 230-10</b>	Suction tube with slide, heated, 230 VAC, 10 m (33 ft)	821980
<b>SL 115-5</b>	Suction tube with slide, heated 115 VAC, 5 m (16.2 ft)	821981
<b>SL 230-5</b>	Suction tube with slide, heated, 230 VAC, 5 m (16.2 ft)	821982
<b>Accessories P 700 IQ</b>		
<b>Filter-REP</b>	Replacement air filter for fan of Alyza IQ and P 700 IQ	821969
<b>ST-BT</b>	Bottle top with tube	821970
<b>ST 0.0</b>	Standard solution 0.0 mg/l PO4-P (zeroing) for P 700 IQ (1.0l)	821971
<b>RM</b>	Rail mount for Alyza IQ and P 700 IQ	821988
<b>WM</b>	Wall mount for Alyza IQ and P 700 IQ	821989
<b>LED</b>	Replacement LED for photometer unit	821990
<b>SM</b>	Stand mount for Alyza IQ and P 700 IQ	821991
<b>T SET B</b>	Set of replacement parts (fittings and spare tubes)	821992B
<b>PT</b>	Replacement pump tube	821993
<b>PM</b>	Replacement pump motor for peristaltic pump	821994
<b>ST 20.0</b>	Standard solution 20.0 mg/l PO4-P for P 700 IQ (1.0 l)	821995
<b>ST 8.0</b>	Standard solution 8.0 mg/l PO4-P for P 700 IQ (1.0 l)	821996
<b>ST 1.6</b>	Standard solution 1.6 mg/l PO4-P for P 700 IQ (1.0 l)	821997
<b>CL 1.0</b>	Cleaning solution for P 700 IQ (1.0 l)	821998
<b>RE 2.5</b>	Reagent for P 700 IQ for orthophosphate measurement (2.5 l)	821999





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YSI, a Xylem Brand

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# General Terms and Conditions

January 2018. Changes reserved. Please find the latest version on our website: [www.wtw.com/en/terms-and-conditions.html](http://www.wtw.com/en/terms-and-conditions.html)

## 1. APPLICATION

Except as otherwise expressly agreed in writing, these conditions ("**General Conditions**") shall exclusively apply to all deliveries and services of XYLEM Analytics Germany Sales GmbH & Co. KG (in the following: Contract). Deviating conditions of the Purchaser shall not apply.

## 2. MINIMUM NET ORDER VALUE, VALIDITY OF QUOTATIONS, CUSTOM MADE PRODUCTS, EXCESS DELIVERIES AND CANCELLATION OF ORDERS, TRANSFER OF RISK

2.1 The minimum net order value amounts to EUR 100. For orders below this amount Supplier reserves the right to charge handling costs of EUR 20.

2.2 Quotations are valid for thirty (30) calendar days from the date of issuance unless otherwise agreed in writing by Supplier, subject to prior sale. Supplier reserves the right to cancel or withdraw the quotation at any time with or without notice or cause prior to acceptance by the Purchaser. Supplier nevertheless reserves its right to accept any contractual documents received from the Purchaser after this 30-day period.

2.3 The price for custom made products shall be separately agreed between the Parties.

2.4 Supplier shall have the right to deliver an excess quantity of up to 10% that has to be paid by Purchaser.

2.5 If the Purchaser fully or partly cancels an order for non-custom made products without justification Supplier shall be entitled, notwithstanding the right to assert a higher damage that has actually been incurred due to the cancellation, to demand 10% of the sales price for the cancelled order volume as compensation for the processing and minimum loss of profits unless Purchaser establishes proof of a lower damage. The cancellation or amendment of an order for custom made products shall not be possible.

## 3. PRODUCT INFORMATION

All information and data contained in general product documentation and price lists, whether in electronic or any other form, are binding only to the extent that they are by reference expressly included in the Contract.

## 4. DRAWINGS AND DESCRIPTIONS

4.1 All drawings and technical documents relating to the Product or its manufacture submitted by one party to the other, prior or subsequent to the formation of the Contract, shall remain the property of the submitting party.

4.2 Drawings, technical documents or other technical information received by one party shall not, without the consent of the other party, be used for any other purpose than that for which they were provided. They may not, without the consent of the submitting party, otherwise be used or copied, reproduced, transmitted or communicated to a third party.

4.3 Supplier shall, not later than at the date of delivery of Products, provide free of charge information and drawings which are necessary to permit the Purchaser to erect, commission, operate and maintain the Product. Such information and drawings shall be supplied in the number of copies agreed upon or at least one copy of each. Supplier shall not be obliged to provide manufacturing drawings for the Product or for spare parts.

## 5. INSPECTIONS AND TESTS

### 5.1 Inspections

5.1.1 If expressly agreed in the Contract, the Purchaser shall be entitled to have the quality of the materials used and the parts of the Product, both during manufacture and when completed, inspected and checked by its authorised representatives. Such inspection and checking shall be carried out at the place of manufacture during normal working hours after agreement with Supplier as to date and time, and at the Purchaser's expense.

### 5.2 Tests

5.2.1 Acceptance tests provided for in the Contract shall, unless otherwise agreed, be carried out at the place of manufacture during normal working hours.

5.2.2 If the Contract does not specify the technical requirements, the tests shall be carried out in accordance with the Supplier's standard practice.

5.2.3 If the Purchaser in due time has requested in writing, Supplier shall notify the Purchaser in writing of the acceptance tests in sufficient time to permit the Purchaser to be represented at the tests. If the Purchaser is not represented, the test report shall be sent to the Purchaser and shall be accepted as accurate. With regard to standard products (as defined by Supplier from time to time) only a "production card" will be delivered with the Product stating that the Product has passed the test procedure and thereby is approved. If requested by the Purchaser in writing and prior to the performance of the test, a test report will be sent to the Purchaser at an additional cost reasonably determined by Supplier.

5.2.4 If the acceptance tests show the Product not to be in accordance with the Contract, Supplier shall without delay remedy any deficiencies in order to ensure that the Product complies with the Contract. New tests shall then be carried out at the Purchaser's request, unless the deficiency in Supplier's sole opinion was insignificant.

5.2.5 Supplier shall bear all costs for acceptance tests carried out at the place of manufacture. The Purchaser shall however bear all costs and expenses for its representatives in connection with such tests. The Purchaser shall bear all costs for any optional tests requested by the Purchaser.

## 6. DELIVERY, PASSING OF RISK

6.1 Any agreed trade term shall be construed in accordance with INCOTERMS 2010. If no trade term is specifically agreed, the delivery ("**Delivery**") shall be DAP, Purchaser's address as set out in the Purchaser's purchase order accepted by Supplier. However, Supplier's costs for DAP delivery shall be paid by Purchaser as set out in Clause 9.6 below.

6.2 Partial shipments shall be permitted unless otherwise agreed.

## 7. TIME FOR DELIVERY

### 7.1 Time for Delivery

If the Parties, instead of specifying the date for Delivery, have specified a period of time on the expiry of which Delivery shall take place, such period shall start to run as soon as the Contract is entered into, all official formalities have been completed, payments due at the formation of the Contract have been made, any agreed securities have been given and any other preconditions have been fulfilled.



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## 7.2 Delay on part of Supplier

7.2.1 Any time periods specified by Supplier in the Contract for Delivery are to be treated as estimates whilst the Supplier shall make reasonable efforts to deliver on time. If Supplier anticipates that it will not be able to deliver the Product at the time for Delivery ("**Delay**"), Supplier shall inform the Purchaser thereof and, if possible, the time when Delivery can be expected.

7.2.2 If Delay is caused by any of the circumstances mentioned in Clause 14 or by an act or omission on the part of the Purchaser, including suspension under Clauses 9.4 or 14, the time for Delivery shall be extended by a period which is reasonable having regard to all the circumstances in the case. This provision applies regardless of whether the reason for the Delay occurs before or after the agreed time for Delivery.

7.2.3 In case of Delay, the Purchaser may in writing demand delivery within a final reasonable period which shall not be less than ninety (90) days from the Supplier's receipt of such demand. If Supplier does not deliver within such final period and this is not due to any circumstance for which the Purchaser is responsible or a Delay covered by Clauses 7.3 or 14, then the Purchaser may by notice in writing to Supplier terminate the Contract in respect of such part of the Product that cannot, in consequence of Supplier's failure to deliver, be used as intended by the Parties. **THE PURCHASER SHALL IN NO EVENT BE ENTITLED TO ANY LIQUIDATED DAMAGES IN THE CASE OF DELAY.**

7.2.4 If the Purchaser terminates the Contract due to Delay, it shall be entitled to compensation for the loss it has suffered as a result of Supplier's Delay. The total compensation shall not exceed, except in cases of intent or gross negligence, 10 percent of that part of the purchase price which is attributable to the part of the Product in respect of which the Contract is terminated.

## 7.3 Delay on part of the Purchaser

7.3.1 If the Purchaser anticipates that it will be unable to accept Delivery of the Product at the Delivery time, it shall forthwith notify Supplier in writing thereof, stating the reason and, if possible, the time when it will be able to accept Delivery.

7.3.2 If the Purchaser for any reason fails to accept Delivery at the Delivery time, it shall nevertheless pay any part of the purchase price which becomes due on Delivery, as if Delivery had taken place. Supplier shall arrange for storage of the Product at the risk and expense of the Purchaser. Any other direct and/or financial costs incurred as a result of such failure to accept Delivery shall be borne by the Purchaser. Supplier shall, if the Purchaser so requires in writing, insure the Product on behalf of the Purchaser and at the Purchaser's expense.

7.3.3 Unless the Purchaser's failure to accept Delivery is due to any such circumstance as mentioned in Clause 14, Supplier may by notice in writing require the Purchaser to accept Delivery within a final reasonable period.

7.3.4 If, for any reason for which Supplier is not responsible, the Purchaser fails to accept Delivery within such period, Supplier may by notice in writing terminate the Contract in whole or in part. Supplier shall then be entitled to compensation for the loss it has suffered by reason of the Purchaser's default. The compensation shall not exceed that part of the purchase price which is attributable to that part of the Product in respect of which the Contract is terminated.

## 8. ALTERATIONS AND CANCELLATION

8.1 If the Purchaser requests an alteration of the Contract, and Supplier accepts such alteration (which acceptance shall not be unreasonably withheld), the alteration will be deemed as a new Contract entitling Supplier to a restart of the Delivery time which will start to run on the date of the approval in writing by Supplier of the alteration.

8.2 All additional costs incurred as a result of the alteration will be charged to the Purchaser, in addition to the purchase price.

8.3 If the Purchaser cancels the Contract in whole or in part without cause, the Purchaser shall, unless otherwise agreed in writing, reimburse Supplier for (i) all costs and expenses incurred by Supplier under the Contract up until and including the date of cancellation, and (ii) any additional costs and expenses incurred as a result of the cancellation.

## 9. PRICES AND PAYMENT

9.1 The purchase price shall be the price for such Products set out in Supplier's price list as of the date for Delivery if not specifically set forth in the Contract. For domestic sales, payments shall be made within 30 days of the date of the invoice in the currency stipulated in the Contract, unless otherwise agreed in writing. For export sales, full payment in advance by telegraphic transfer is required in the currency stipulated in the Contract, unless otherwise agreed in writing.

9.2 Whatever the means of payment used, payment shall not be deemed to have been effected until Supplier's account has been fully and irrevocably credited.

9.3 If the Purchaser fails to pay by the stipulated date, Supplier shall be entitled to interest from the day on which payment was due. The statutory law interest rates shall apply.

9.4 In case of late payment, Supplier may suspend its performance of the Contract until payment is received.

9.5 Notwithstanding other rights to terminate the Contract under other clauses in these General Conditions, the Supplier shall, if the Purchaser has not paid the amount due within three (3) months, be entitled to terminate the Contract by notice in writing to the Purchaser and to claim compensation for the loss it has incurred.

9.6 Unless otherwise agreed to in writing, all prices are FCA Supplier's plant, and do not, even if Delivery is DAP in accordance with Clause 6.1 above, include transportation costs or charges relating to transportation. This means that in addition to the Product price, Purchaser shall compensate Supplier for all its transportation costs and charges, as set out in invoice from Supplier to Purchaser, despite that DAP delivery applies and such costs and charges shall thus be solely the responsibility of the Purchaser. Prices exclude special packing unless otherwise agreed to by Supplier in writing. All costs and taxes for packing shall be paid by the Purchaser as an additional charge. Such costs and charges are subject to change without notice.

9.7 The price for the Products does not include any applicable sales, use, excise, GST, VAT, or similar tax. The Purchaser shall have the responsibility for the payment of such taxes if applicable.

9.8 If, during the performance of the Contract, the financial condition of the Purchaser is such that Supplier in good faith and in application of usual banking standards deems a payment in time insecure, or if a material change in



the ownership of the Purchaser occurs, or if the Purchaser fails to make any payments in accordance with the terms of its Contract with Supplier, then, in any such event, Supplier is not obligated to continue performance under the Contract and may stop goods in transit and defer or decline to make delivery of goods, except upon receipt of satisfactory security or cash payments in advance.

9.9 If the Purchaser fails to make payments or fails to furnish security satisfactory to Supplier, then Supplier shall have the right to enforce payment to the full Contract price of the work completed and in process.

9.10 Upon default by the Purchaser in payment when due, the Purchaser shall immediately pay to Supplier the entire unpaid amounts for any and all shipments made to the Purchaser irrespective of the terms of said shipment and whether said shipments are made pursuant to this Contract or any other contract of sale between Supplier or any of its affiliates and the Purchaser, and Supplier may withhold all subsequent shipments until the full amount is settled. Acceptance by Supplier of less than full payment shall not be a waiver of any of its rights hereunder.

## **10. WARRANTY, PURCHASER'S DUTIES IN WARRANTY CASES, REIMBURSEMENT OF EXPENSES, LIABILITY**

10.1 Purchaser's warranty claims depend on his proper compliance with his statutory duties of examination and notification. Notifications have to include specific information on the alleged defect and shall be in writing. Notifications based on incomplete delivery or other obvious defects shall be notified to Supplier in writing without delay, but at the latest within 10 working days of the delivery arriving at its destination. Claims of Purchaser on account of a defectiveness or incompleteness are excluded if Purchaser fails to comply with this obligation.

10.2 In the case of product defects Supplier can elect to remove the defects or to provide a defect-free replacement. Only if this repeatedly fails or is unreasonable and the defect is not only insubstantial Purchaser is entitled to rescission or reduction of the purchase price in accordance with the statutory provisions. Sec. 445a BGB remains unaffected. Purchaser is entitled to claims for damages in accordance with Clause 10.5.

10.3 Concerning any replacement of products or removal of defects a warranty period of 3 months since delivery respectively the execution of service applies which runs, however, at least until the expiry of the warranty period of the original service (see Clause 10.7).

10.4 Purchaser has to inform Supplier immediately about each indication of product defects by his clients concerning Supplier's services. Should Purchaser not fulfil this obligation his claims for product defects against Supplier shall expire. Moreover, Purchaser has to safeguard proofs in adequate manner and to give Supplier the opportunity of examination at his request.

10.5 Supplier is liable without restriction under the Product Liability Act, in the event of an express assumption of a warranty or of a procurement risk or in the event of willful or grossly negligent violations of a duty. Supplier is also liable without restriction in the event of willful or negligent injury to life, physical well-being or health. In the event of Supplier's negligence (other than gross negligence) resulting in property or pecuniary damage, Supplier shall only be liable for a breach of essential contractual duties the fulfillment of which is inevitable for the proper performance of the contract and Purchaser can particularly rely on, however, limited to characteristic damages that were foreseeable at the time of signature.

10.6 No warranty is given for damages of all kind caused by improper treatment, change, installation and/or operation of the delivered product or by incorrect advice or instruction by Purchaser unless Supplier has caused those damages at least negligently.

10.7 Defect claims shall become time-barred after 12 months as of the statutory commencement of the limitation period. The same applies to legal defects. In the event of willful or grossly negligent breaches of a duty, claims arising from tortious acts, the absence of a warranted quality, the assumption of procurement risks or personal injury, the statutory time periods apply. Secs. 438 para. 3, 445b and 634a para. 3 BGB remain unaffected.

10.8 A further-reaching liability for damages than that provided in the paragraphs of this Clause 10. is excluded - without regard to the legal nature of the asserted claim.

10.9 The aforementioned restrictions of liability also apply, in terms of the reason and amount, in favour of Supplier's statutory representatives, employees and other vicarious agents.

## **11. ALLOCATION OF LIABILITY FOR DAMAGE CAUSED BY THE PRODUCT**

11.1 Supplier shall not be liable for any damage to property or the environment caused by the Product after it has been delivered to the Purchaser. Nor shall Supplier be liable for any damage to products manufactured by the Purchaser, or to products of which the Purchaser's products form a part.

11.2 The Purchaser shall indemnify, defend and hold Supplier harmless to the extent that the Supplier incurs liability towards any third party in respect of loss or damage for which the Supplier is not liable according to the preceding paragraph.

11.3 If a claim for damages as described in this Clause 11 is lodged by a third party against one of the Parties, the latter party shall forthwith inform the other party thereof in writing.

11.4 Supplier and Purchaser shall be mutually obliged to let themselves be summoned to the court or arbitral tribunal examining claims for damages lodged against one of them on the basis of damage allegedly caused by the Product.

## **12. CONFIDENTIALITY**

The Parties agree that any information received from the other party in connection with the Contract that evidently or by its nature should reasonably be understood to be confidential, shall not be disclosed by the recipient to any third party without the prior written approval of the disclosing party, except to the extent (i) this is necessary for the receiving party to exercise rights and perform duties pursuant to the Contract, (ii) the information is available to the general public or later becomes publicly available other than through a breach of the Contract, (iii) the information is actually known to the receiving party on the date that such information is disclosed as evidenced by written records in existence prior to the date of the receipt, (iv) the information is subsequently lawfully obtained by the receiving party from a third party or third parties, or (v) the information is independently developed by the receiving party prior to the disclosure.

## **13. FORCE MAJEURE**

13.1 Either party shall be entitled to suspend performance of its obligations under the Contract to the extent that such performance is impeded or made unreasonably onerous by any of the following circumstances: industrial disputes and any other circumstance beyond the control of the parties such as pandemic, fire, earthquake, natural disaster, acts of God, war, extensive military mobilization, insurrection, requisition, seizure, embargo, acts of governments, strikes, lockouts, restrictions in the use of power and defects or delays



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in deliveries by sub-contractors ("Force Majeure").

13.2 The party claiming to be affected by Force Majeure shall notify the other party in writing without delay on the intervention and on the cessation of such circumstance.

13.3 If Force Majeure prevents the Purchaser from fulfilling its obligations, it shall compensate Supplier for expenses incurred in securing and protecting the Product.

13.4 Regardless of what might otherwise follow from these General Conditions, either party shall be entitled to terminate the Contract by notice in writing to the other party if performance of the Contract is suspended under this Clause 13 for more than six (6) months.

13.5 If the Purchaser terminates the Contract due to Force Majeure, the Purchaser shall, unless otherwise agreed in writing, reimburse Supplier for (i) all costs and expenses incurred by Supplier under the Contract up until and including the date of the termination and (ii) any additional costs and expenses incurred as a result of the termination.

#### 14. ASSIGNMENT

The Purchaser shall not assign or transfer this Contract or any interest in it, or monies payable under it, without the prior written consent of Supplier and any assignment made without such consent shall be null and void. Supplier may assign its rights and/or delegate its duties in whole or in part to any affiliated company. Supplier shall notify Purchaser of any such assignment or delegation.

#### 15. INVALIDITY

If any provision of this Contract is held to be illegal, invalid, or unenforceable by any court of competent jurisdiction, such provision will be of no force and effect, but the illegality, invalidity, or unenforceability will have no effect upon and will not impair the enforceability of any other provision of this Contract. The illegal, invalid or unenforceable provision shall be deemed to be substituted by a suitable provision which, to the extent legally permissible, comes as close as possible to the intent and purpose of the illegal, invalid or unenforceable provision. The same shall apply if the parties have unintentionally failed to address a certain matter in this Contract.

#### 16. EXPORT REGULATIONS

The Purchaser has to comply with all legal provisions and administrative requirements as well as all other applicable laws, and in particular export regulations and the laws of the country in which the Purchaser operates. The Purchaser has to obtain all necessary approvals and licenses as well as all necessary permissions in good time, which are, according to all these applicable laws, required for the use or the export of the delivery item.

The Supplier is entitled to withhold his goods and services vis-à-vis the Purchaser if the Purchaser would violate those applicable laws or if not all necessary permissions are available and if this is not based on the Supplier's fault or responsibility.

The performance of the contract on the part of the Supplier is on condition that there are no opposing impediments due to national or international foreign trade legislation as well as embargos (and/or other sanctions).

The US Export Administration Regulations (EAR) are equally to be respected. Rights and duties of the Purchaser according to this clause endure after the expiration and premature termination of this Contract.

#### 17. PLACE OF PERFORMANCE

Place of performance shall be the Supplier's place of business.

#### 18. DISPUTES AND APPLICABLE LAW

18.1 All disputes arising out of or in connection with the Contract shall be finally settled by the competent courts of Weilheim, Germany, yet it is in the discretion of the Supplier to initiate court proceedings also at the

Purchaser's place of business or, in disputes regarding bills of exchange, at the place of payment of the bills of exchange.

18.2 The Contract shall be governed by the substantive law of Germany, excluding the application of the Convention on International Sales of Goods (CISG).







# Xylem ['zīləm]

- 1) The tissue in plants that brings water upward from the roots;
- 2) a leading global water technology company.

We're a global team unified in a common purpose: creating advanced technology solutions to the world's water challenges. Developing new technologies that will improve the way water is used, conserved, and re-used in the future is central to our work. Our products and services move, treat, analyze, monitor and return water to the environment, in public utility, industrial, residential and commercial building services settings. Xylem also provides a leading portfolio of smart metering, network technologies and advanced analytics solutions for water, electric and gas utilities. In more than 150 countries, we have strong, long-standing relationships with customers who know us for our powerful combination of leading product brands and applications expertise with a strong focus on developing comprehensive, sustainable solutions.

**For more information on how Xylem can help you, go to [www.xylem.com](http://www.xylem.com)**



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