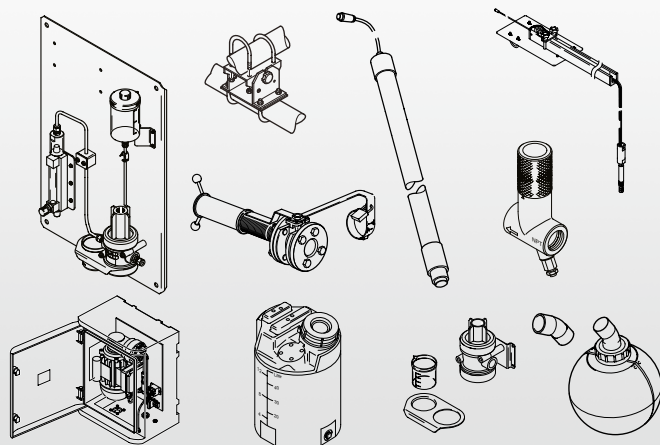


# Sensor accessories

pH/ORP, turbidity, dissolved oxygen



Illustrated parts list

Measurement made easy

—  
Accessories for the 100,  
500 and 700 series,  
turbidity, and DO sensors

## Introduction

This publication details the accessories available for the following ABB pH/Redox (ORP), turbidity, and dissolved oxygen (DO) sensors:

- 100 GP
- 100 GP-D
- 100 ULTRA
- 100 ULTRA-D
- 500 PRO
- 500 PRO-D
- 700 ULTRA
- 700 ULTRA-D
- ADS420
- ATS430

## For more information

Publications for the associated sensors are available for free download from:

[www.abb.com/measurement](http://www.abb.com/measurement)

or by scanning this code:



Search for or click on:

Operating instruction –  
100 GP, 100 ULTRA, 500 PRO  
¾ in pH/Redox (ORP) sensors

[OI/100/500](#)

Operating instruction –  
700 ULTRA  
12 mm pH/Redox (ORP) sensor

[OI/700](#)

Operating instruction –  
ADS420  
Optical dissolved oxygen sensor

[OI/ADS420](#)

Operating instruction –  
EZClean  
Compressed air supply unit

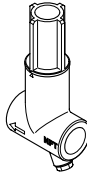
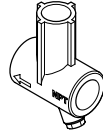
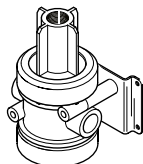
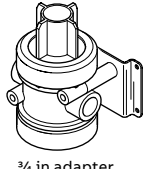
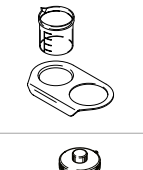
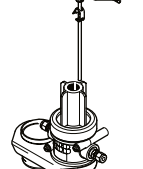

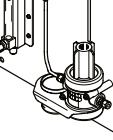

[OI/EZCLEAN](#)

Operating instruction –  
ATS430  
Turbidity sensor

[OI/ATS430](#)

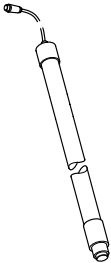
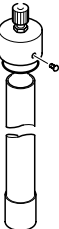
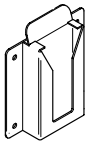
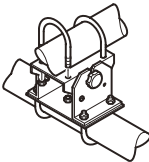

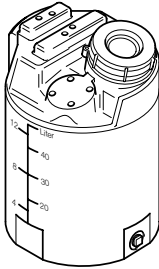

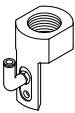
pH/ORP

Mounting type	Part number	Description	Material	Compatible sensor	Dimensions mm (in)
T-pieces	3KXA163000L0002	1 in BSP bayonet T-piece (polycarbonate)	30 % GF polypropylene 316 stainless steel adapter and blanking nut	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	90.0 L × 75.0 W × 45.0 H (3.5 L × 3.0 W × 1.8 H)
	3KXA163000L0004	1 in NPT bayonet T-piece (polycarbonate)	30 % GF polypropylene 316 stainless steel adapter and blanking nut	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	90.0 L × 75.0 W × 45.0 H (3.5 L × 3.0 W × 1.8 H)
	3KXA163000L0006	1 in BSP screw T-piece (polycarbonate)	30 % GF polypropylene 316 stainless steel adapter and blanking nut	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	93.1 L × 75.0 W × 45.0 H (3.7 L × 3.0 W × 1.8 H)
	3KXA163000L0008	1 in NPT screw T-piece (polycarbonate)	30 % GF polypropylene 316 stainless steel adapter and blanking nut	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	93.1 L × 75.0 W × 45.0 H (3.7 L × 3.0 W × 1.8 H)
Flowcells	3KXA163000L0012	½ NPT polycarbonate flow chamber and ¾ in adapter	30 % GF polypropylene ABS nitrile	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	434.5 L × 156.0 W × 126.8 H (17.1 L × 6.1 W × 5.1 H)
	3KXA163000L0011	½ NPT stainless steel flow chamber + ¾ in adapter	316 stainless steel 30 % GF polypropylene nitrile	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	434.5 L × 156.0 W × 126.8 H (17.1 L × 6.1 W × 5.1 H)
	3KXA163000L0014	½ NPT polycarbonate flow chamber + PG13.5 adapter	30 % GF polypropylene ABS nitrile	700 ULTRA series	434.5 L × 156.0 W × 126.8 H (17.1 L × 6.1 W × 5.1 H)
	3KXA163000L0013	½ NPT stainless steel flow chamber + PG13.5 adapter	316 stainless steel 30 % GF polypropylene nitrile	700 ULTRA series	434.5 L × 156.0 W × 126.8 H (17.1 L × 6.1 W × 5.1 H)
	3KXA163000L0120	Calibration kit (includes calibration beaker and holder)	316 stainless steel polypropylene	100 GP/ 100 ULTRA/ 500 PRO/ 700 ULTRA series	70.0 L × 174.0 W × 94.0 H (2.8 L × 6.9 W × 3.7 H)
	3KXA163700L0006	½ in NPT polycarbonate flow chamber+ PG13.5 adapter + reservoir + calibration kit	30 % GF polypropylene ABS nitrile	700 ULTRA series	See 3KXA163700L0002 (below) for maximum panel dimensions
	3KXA163700L0005	½ in NPT 316 stainless steel flow chamber + PG13.5 adapter + reservoir + calibration kit	316 stainless steel 30 % GF polypropylene nitrile	700 ULTRA series	See 3KXA163700L0002 (below) for maximum panel dimensions
	3KXA163700L0002	700 ULTRA panel assembly	316 stainless steel panel and tubing	700 ULTRA series	600.0 L × 400.0 W × 107.5 H (23.62 L × 15.75 W × 4.23 H)

Installation	Temp. specification	Pressure specification	Drawing	Document number
For connecting to the process inline	Maximum: 100 °C (212 °F)	Maximum: 6 bar (87 psi)		<a href="#">IN/ANAINST/035</a>
For connecting to the process inline	Maximum: 100 °C (212 °F)	Maximum: 6 bar (87 psi)		<a href="#">IN/ANAINST/035</a>
For connecting to the process inline	Maximum: 100 °C (212 °F)	Maximum: 6 bar (87 psi)		<a href="#">IN/ANAINST/036</a>
For connecting to the process inline	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">IN/ANAINST/040</a>
For connecting to the process inline	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)	PG13.5 adapter 	<a href="#">IN/ANAINST/040</a>
For connecting to the process inline	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)	¾ in adapter 	<a href="#">IN/ANAINST/040</a>
Optional, attached to flow chamber	N/A	N/A		<a href="#">IN/ANAINST/040</a>
For connecting to the process inline	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">OI/700</a>
For connecting to the process inline	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">OI/700</a>
Internally, inline	Maximum system installation/ambient: 56 °C (131 °F)	Refer to <a href="#">IN/ANAINST/041</a> for individual component pressure limits		<a href="#">IN/ANAINST/041</a>


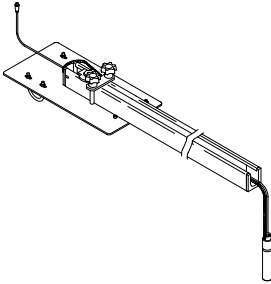
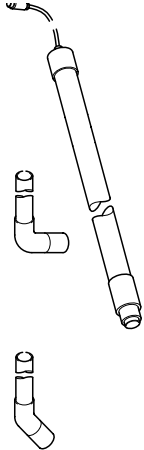
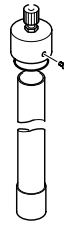
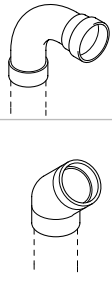
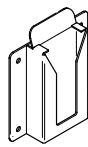
## ...pH/ORP

Mounting type	Part number	Description	Material	Compatible sensor	Dimensions mm (in)
Dip-mounts	3KXA163000L0021	Dip pole – 2.5 m	Lower mounting adapter, end cap and dip pole: ABS O-ring: nitrile gland nut: nylon screw: stainless steel	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	2500 L × 1¼ NB
	3KXA163000L0022	Dip pole – 1 m	Lower mounting adapter, end cap and dip pole: ABS O-ring: nitrile gland nut: nylon screw: stainless steel	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	1000 L × 1¼ NB
	3KXA163000L0023	Dip pole kit (customer-supplied 1¼ in NB tube)	Lower mounting adapter, end cap: ABS O-ring: nitrile Gland nut: nylon Screw: stainless steel Pole: customer-supplied	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	Customer-supplied
	ATS4000700	Wall-mounting accessory	316 Stainless steel	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	Bracket-dependent
	ATS4000760	Handrail-mounting kit for 40 mm or 1¼ in dia. dip pole, suitable for 42 or 51 mm (1.7 or 2.0 in) dia. handrail (tilt only)	316 Stainless steel	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	120 L × 100 W × 180 H (4.72 L × 3.94 W × 7.10 H)
	3KXA163000L0024	Protective shroud for ¾ in body	Polypropylene	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	80 L × 32 W (3.15 L × 1.26 W)
Cleaning	3KXA163000L0025	Automatic cleaning system (liquid)	Tank: polyethylene (PE) Cleaning adaptor and blanking nut: 316 stainless steel	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	420.0 W × 740.0 H (16.50 W × 29.0 H)
	3KXA163000L0026	Add T-piece cleaning adaptor	316 stainless steel	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	51.5 W × 14 A/F (2.03 W)
	3KXA494400L0009	Cleaning adapter (floating ball, chain)	PVC	100 GP/100 ULTRA/ 500 PRO series (¾ in style bodies)	75 mm H Dia.: 40 mm

Installation	Temp specification	Pressure specification	Drawing	Document number
Mounting bracket (optional dip pole tilt and wall-mounting kits available – see associated document)	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">IN/ANAINST/038</a>
Mounting bracket (optional dip pole tilt and wall-mounting kits available – see associated document)	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">IN/ANAINST/038</a>
Mounting bracket (optional dip pole tilt and wall-mounting kits available – see associated document)	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">IN/ANAINST/038</a>
For wall-mounting	N/A	N/A		<a href="#">INS/ANAINST/004</a>
For mounting dip -pole to handrail	N/A	N/A		<a href="#">INS/ANAINST/004</a>
Connects to end of sensor body	Maximum operating process temperature: 100 °C (212 °F)	Maximum operating process pressure: atmospheric pressure, 6 bar (87 psi)		<a href="#">OI/100/500</a>
Flat, secure surface (refer to Installation manual)	Maximum: -20 to 60 °C (-4 to 140 °F)	Maximum: 6.9 bar (100 psi)		<a href="#">IN/ANAINST/042</a>
Attaches to T-piece	Maximum: 100 °C (212 °F)	Maximum: 6.9 bar (100 psi)		<a href="#">OI/100/500</a>
Sensor mounted	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">OI/100/500</a>

## Turbidity

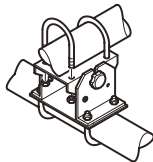
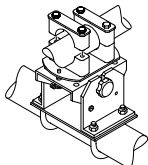

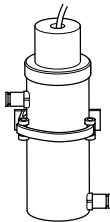
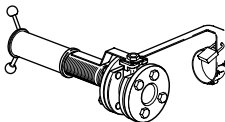
Mounting type	Part number	Description	Material	Compatible sensor	Dimensions mm (in)
Chain mounts	ATS4000720	Chain mounting kit	316 Stainless steel	ATS430	1000 L × 20 OD (39.37 L × 0.78 [OD])
	ATS4000768	Open channel mounting kit	316 Stainless steel	ATS430	1000 L × 200 W × 3 H (39.37 L × 7.87 W × 0.1 H)
Dip-mounts	ATS4000750	Dip pole 2.5 m (8.2 ft) straight	Lower mounting adapter, end cap and dip pole: ABS O-ring: nitrile gland nut: nylon screw: stainless steel	ATS430	2500 L × 1¼ in NB (98.42 L)
	ATS4000716	Dip pole 2.5 m (8.2 ft) 90° bend	Lower mounting adapter, end cap and dip pole: ABS O-ring: nitrile gland nut: nylon screw: stainless steel	ATS430	2500 L × 1¼ in NB (98.42 L)
	ATS4000719	Dip pole 2.5 m (8.2 ft) 45° bend	Lower mounting adapter, end cap and dip pole: ABS O-ring: nitrile gland nut: nylon screw: stainless steel	ATS430	2500 L × 1¼ in NB (98.42 L)
	ATS4000751	Dip-mount kit – straight pole (customer-supplied 40 mm dia. or 1¼ in NB pole)	Lower mounting adapter, end cap: ABS O-ring: nitrile gland nut: nylon screw: stainless steel	ATS430	Customer-supplied
	ATS4000710	Dip-mount kit – 90° bend (customer-supplied 1¼ in NB pole)	Lower mounting adapter, end cap: ABS O-ring: nitrile Gland nut: nylon Screw: stainless steel Pole: customer-supplied	ATS430	150 H (5.90 H) max. at bend
	ATS4000714	Dip-mount kit – 90° bend (customer-supplied 40 mm OD pole)			
	ATS4000711	Dip-mount kit – 45° bend (customer-supplied 1¼ in NB pole)			85 H (3.35 H) max. at bend
	ATS4000715	Dip-mount kit – 45° bend (customer-supplied 40 mm OD pole)			
	ATS4000700	Wall-mounting accessory	316 stainless steel	ATS430 100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies)	230 L × 110 W × 310 H (9.05 L × 4.33 W × 12.20 H)

Installation	Temp specification	Pressure specification	Drawing	Document number
Wall-/ panel-mounted	N/A	N/A		-
Ground/top of wall using fixings or to a handrail using U-bolts (fixings not supplied)	N/A	N/A		<a href="#">INS/ANAINST/003</a>
For mounting to handrail	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">INS/ANAINST/004</a>
For mounting to handrail	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		
For mounting to handrail	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		
For mounting to handrail	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">INS/ANAINST/004</a>
Attach to dip pole	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 60 °C (140 °F)		<a href="#">INS/ANAINST/004</a>
Attach to dip pole	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 60 °C (140 °F)		
For wall-mounting	N/A	N/A		<a href="#">INS/ANAINST/004</a>

## ...Turbidity

Mounting type	Part number	Description	Material	Compatible sensor	Dimensions mm (in)
...Dip-mounts	ATS4000760	Rail mounting kit for 40 mm or 1½ in dia. dip pole, suitable for 42 or 51 mm (1.7 or 2.0 in) dia. handrail (tilt only)	316 stainless steel	100 GP/ 100 ULTRA/ 500 PRO series (¾ in style bodies) ATS430	120 L × 100 W × 180 H (4.72 L × 3.94 W × 7.10 H)
	ATS4000762	Handrail mounting bracket (swivel/tilt) for 1½ in NB dip pole, suitable for 42 or 51 mm (1.7 or 2.0 in) dia. handrail	316 stainless steel	ATS430	120 L × 100 W × 200 H (4.72 L × 3.94 W × 7.87 H) approx.
	ATS4000763	Handrail mounting bracket (swivel/tilt) for 40 mm. NB dip pole, suitable for 42 or 51 mm (1.7 or 2.0 in) dia. handrail	316 stainless steel	ATS430	
	ATS4000725	Wiper arm protective shroud assembly	PVC	ATS430	To fit ATS430 turbidity sensor: 40 L (1.57 L) dia.
Flowcell	ATS4000765	Flowcell pipeline mount kit suitable for wall/surface mounting (includes wall mounting clip)	ABS	ATS430	78.0 L × 104.0 W × 235.0 H (3.07 L × 4.09 W × 9.25 H)
Process insertion	ATS4000780	Retractable insertion assembly for mounting on user-supplied flange: BS EN 1092-1, Type 01B, DN50, PN16, stainless steel 316L or similar	Body/ball: 1.4408 fully austenitic chromium nickel molybdenum steel – see associated document for full breakdown	ATS430	440 L × 208 W × 318 H (17.32 L × 8.19 W × 12.51 H)

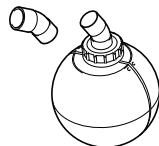
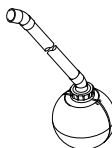
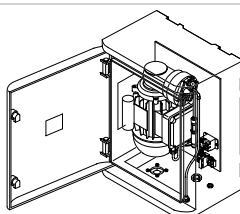
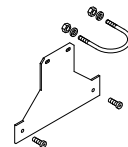
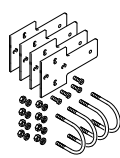
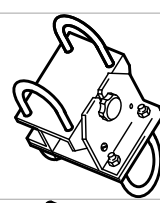
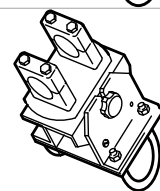
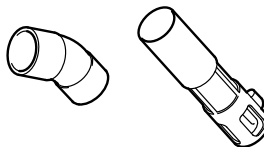



Installation	Temp specification	Pressure specification	Drawing	Document number
For mounting to handrail	N/A	N/A		
For mounting to handrail	N/A	N/A		<a href="#">INS/ANAINST/004</a>
For mounting to handrail	N/A	N/A		
Sensor end of AT5430 turbidity sensor	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">INS/ANAINST/020</a>
Wall-/ panel-mounted/ inline	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">INS/ANAINST/002</a>
Inline, on a vertical pipe or on the side of a horizontal pipe	As sensor – maximum 60 °C (140 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/033</a>

## Dissolved oxygen (DO)

Mounting type	Part number	Description	Material	Compatible sensor	Dimensions mm (in)
Floating ball assemblies	3KXA494400L0001	Floating ball kit	HDPE	ADS420	Ball dia. 270 × 3350 L (10.63 dia. × 132 L) max. pole length
	3KXA494400L0002	Floating ball assembly (2.5 m)		ADS420	Ball dia. 270 × 3350 L (10.63 dia. × 132 L) max. pole length
Cleaning	3KXA494400L0043	EZClean compressor (230 V)	Enclosure: polypropylene	ADS420	205 L × 330 W × 395 H (8.1 L × 13.0 W × 15.5 H)
	3KXA494400L0044	EZClean compressor (115 V)		ADS420	
	3KXA494400L0017	Compressor pole- mounting kit	304 stainless steel	ADS420	240 L × 150 W × 4 H (9.45 L × 5.91 × 0.16)
	3KXA494400L0018	Compressor handrail- mounting kit		ADS420	90 L × 180 W × 4 H (3.54 × 7.09 × 0.16)
Handrail mount for floating ball and dip-mount installations	3KXA494400L0007	Handrail mounting bracket – tilt (1¼ in NB pole)	316 stainless steel	ADS420	120 L × 100 W × 180 H (4.72 L × 3.94 W × 7.10 H)
	3KXA494400L0008	Handrail mounting bracket – swivel/tilt (1¼ in NB pole)		ADS420	120 L × 100 W × 200 H (4.72 L × 3.94 W × 7.87 H) approx.
Dip pole, plate mounting adapter and dip-mount flange	3KXA494400L0003	Dip pole with bayonet kit	ABS	ADS420	Customer-supplied (1¼ NB or 40 mm OD)
	3KXA494400L0004	Dip pole with bayonet assembly (2.5 m)		ADS420	2500 L × 1¼ in NB (98.42 L)

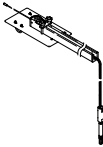

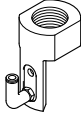
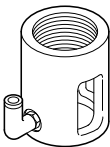
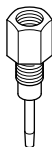


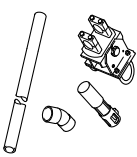
For ADS430 accessories, refer to the product documentation.

Installation	Temp. specification	Pressure specification	Drawing	Document number
Attached to elbow union assembly/boom	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/047</a>
Mounted on handrail mounting brackets	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		
Mounted to handrail/wall	Maximum operating temperature 50 °C (122 °F)	Pressure relief valve set to vent to atmosphere if pressure exceeds 1.38 bar (20 psi)		<a href="#">OI/EZCLEAN</a>
Mounted to pole	N/A	N/A		<a href="#">OI/EZCLEAN</a>
For 42 mm (1.7 in) handrail	N/A	N/A		<a href="#">IN/ANAINST/046</a>
For 42 mm (1.7 in) handrail	N/A	N/A		<a href="#">IN/ANAINST/046</a>
For 42 mm (1.7 in) handrail	N/A	N/A		
Mounted on bracket/plate	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/046</a>
For mounting on user-supplied plate	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/046</a>

...Dissolved oxygen (DO)

Mounting type	Part number	Description	Material	Compatible sensor	Dimensions mm (in)
Chain mount	3KXA494400L0005	¾ in chain mount assembly	316 stainless steel	ADS420	Chain: 3 m Dia.: 36 mm
	3KXA494400L0006	¾ in chain mount kit		ADS420	Chain: 3 m Dia.: 36 mm
	3KXA494400L0009	Cleaning adapter (floating ball, chain)	PVC	ADS420	75 mm H Dia.: 40 mm
	3KXA494400L0010	Cleaning adapter (dip)		ADS420	65 mm H Dia.: 50 mm
	3KXA494400L0011	Cleaning adapter (T-piece)	316 stainless steel	ADS420	50 mm L, 14.0 A/F
	3KXA494400L0012	1 in NPT bayonet polycarbonate T-piece	30 % GF polypropylene 316 stainless steel adapter and blanking nut	ADS420	75 mm W × 175 mm H 1 in NPT connections
	3KXA494400L0045	1 in BSP bayonet polycarbonate T-piece		ADS420	
	3KXA494400L0013	Floating ball mounting kit	PVC	ADS420	N/A
	3KXA494400L0014	Dip pole mounting kit	PVC	ADS420	N/A

For ADS430 accessories, refer to the product documentation.

Installation	Temp. specification	Pressure specification	Drawing	Document number
Grounding/top of wall using fixings or to a handrail using U-bolts (fixings are not supplied)	N/A	N/A		<a href="#">IN/ANAINST/049</a>
Wall/panel mounted	N/A	N/A		<a href="#">IN/ANAINST/049</a>
Sensor mounted	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/047</a>
Dip pole mounted	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/046</a>
Install in the T-piece	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/048</a>
1 in NPT process connections  1 in BSP process connections	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/048</a>
Rail mounted, 42 or 50 mm rail	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/047</a>
Rail mounted, 42 or 50 mm rail	As sensor – maximum 50 °C (122 °F)	As sensor – maximum 10 bar (145 psi)		<a href="#">IN/ANAINST/046</a>

## Notes

## Notes

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