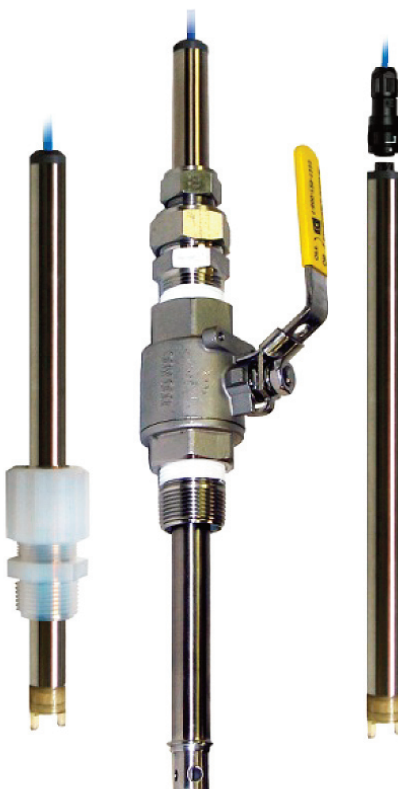




JLS

Liquid Sensor for JLT



APPLICATION

- Produced water
- Refinery effluent
- Offshore platform
- Waste Water Treatment Plant

BENEFITS

- Digital communication
- Intelligent sensor
- Submersible and retractable type
- Long life electrode cartridges

FEATURES

- Pre-calibrated sensors
- Replacable sensor cartridges
- Different sensor material



TECHNICAL DATA

MODEL

Description	JLS smart liquid sensor for use with JLT universal liquid transmitter
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MEASUREMENT

Measurements	–1...15 pH, –1,500...1,500 mV ORP, 0.1...999.9 ppm pION, 0.1...999.9 ppm DO 0.055 µS...2.00 S conductivity, 0.001...20 meg-ohms resistivity, 0...4,000 NTU turbidity, –30°...140 °C (–22°...284°F) temperature
Accuracy	see table "measurement ranges"

OPERATION

Ambient temperature	–20°...70 °C* (–4°...158 °F)* * temperature may be different depending on the measurement ⇒ see measurement ranges
Sample pressure requirement	see table "measurement ranges"

CONSTRUCTION

Dimensions (W x H x D)	3/4" x lenght (10", 17", 30", 36", or others on request)
Weight	1...2.65 kg (5.8 lbs) depending on configuration
Probe Glands	3/4" SS316, Ti, Hastelloy®, PVDF, PP or 1" PVDF, PP
Process connection	3/4" MNPT, 1" NPT; others on request
Housing material	316SS, optional: titanium, Hastelloy® C-22, PVDF, Polypropylene
Retraction valve	1" SS316, Ti, Hastelloy®, PVDF
T-handle	no handle, T-handle with lanyard (std. for valve retraction)
O-ring materials	Viton® (VIT) optional: ethylene propylene (EPR) / VITON® 75 (VIT75) / Kalrez® (KLZ) / CV75 (CV)
Cable lenght	standard: 10 ft; optional: lengths in 10 ft increments / optional cable connection
Protection class	IP68
Area classification	safe zone
Approvals	CE

MEASUREMENT RANGES

Dimensions	3/4" O.D. x 10" and 17"		
Body material	SS316, PVDF, Titanium, Hastelloy®, PP		
Material of Construction	PVC, PVDF or 316SS, PP, Titanium, Hastelloy®, Viton®, EPR, Kalrez®, CV75		
Detectable cable connector	optional		
Cable length	10 ft standard, in 10 ft increments optional		
pH measurement	range: 0 to 14 pH temperature: 0° to 100 °C (32° to 212 °F), optional: 0° to 150 °C (32° to 302 °F) pressure range: 0 – 100 psig at 90 °C (194 °F) temp. comp.: auto 0 – 100 °C (32° to 212 °F), accuracy ± 0.2 °C (0.36 °F)		
ORP & specific ion	range: –2000 mV to +2000 mV, plon: sensor specific, ppb, ppm & ppt temperature: ORP 0° to 90 °C (32° to 194 °F), plon sensor specific pressure range: 0 – 100 psig at 90 °C (194 °F) temp. comp.: auto 0 – 100 °C (32° to 212 °F), accuracy ± 0.2 °C (0.36 °F)		
Dissolved oxygen	range: 0 – 20 ppm, 0 – 250 % SAT temperature: 0° to 90 °C (32° to 194 °F) pressure range: 0 – 50 psig at 80 °C (176 °F) temp. comp.: auto 0 – 100 °C (32° to 212 °F), accuracy ± 0.2 °C (0.36 °F), 100 K termistor		
Conductivity & resistivity	range: 0.5 µS – 50 mS resistivity: 0 – 20 MΩ temperature: –5° to 100 °C (23° to 212 °F), optional: –5° to 150 °C (23° to 302 °F) pressure range: 0 – 100 psig temp. comp.: auto 0 – 100 °C (32° to 212 °F), accuracy ± 0.2 °C (0.36 °F), 100 K termistor		
Inductive conductivity	range: 0.5 µS – 1,000 mS temperature: –5° to 100 °C (23° to 212 °F) pressure range: 0 – 100 psig temp. comp.: auto 0 – 100 °C (32° to 212 °F), accuracy ± 0.2 °C (0.36 °F), 100 K termistor body material: KYNAR (PVDF)		
High temperature conductivity	range: 1.0 µS – 50 mS temperature: 0° to 200 °C (32° to 392 °F) pressure range: 0 – 250 psig (400 psig at 100 °C/212 °F) temp. comp.: auto 0 – 100 °C (32° to 212 °F), accuracy ± 0.2 °C (0.36 °F), 10 K Ω platinum RTD wetted material: 316SS and PEEK shipping weight: 1.2 kg (2.5 lbs) for 10", 1.25 kg (2.75 lbs) for 17", 2.65 kg (5.8 lbs) for VSS		
	Measurement	Range	pH Range Required
	Ammonium	0.05 to 18,000 ppm	2 to 10 pH
	Bromide	1 to 80,000 ppm	2 to 12 pH
	Cadmium	0.1 to 11,200 ppm	3 to 9 pH
	Calcium	0.1 to 40,000 ppm	2.5 to 10 pH
	Chloride	2 to 35,000 ppm	2 to 12 pH
	Cyanide	0.1 to 260 ppm	11 to 13 pH
	Cupric	0.1 to 6,300 ppm	2 to 6 pH
	Fluoride	0.02 to 2,000 ppm	5 to 8 pH
	Lead	2 to 20,700 ppm	4 to 8 pH
	Nitrate	0.1 to 1,000 ppm	2 to 12 pH
	Nitrite	0.5 to 500 ppm	4.5 to 8 pH
	Potassium	0.1 to 40,000 ppm	2 to 12 pH
	Sodium	0.2 to 23,000 ppm	2 to 14 pH
	Sulfide	0.01 to 32,000 ppm	11 to 14 pH
	Silver	0.1 to 107,000 ppm	2 to 14 pH

ORDER CODES

Available Features

A Measurement type	(mV) S80 Digital sensor, pH, ORP, pION measurement	0			
	(DO) S80 Digital sensor, dissolved oxygen measurement	1			
	(CR) S80 Digital sensor, contacting conductivity, 1 µS to 50 mS	2			
	(CT) S80 Digital sensor, induct. conduct., 1 mS to 1000 mS (Kynar only)	3			
	(SGTC) S80 Sensor, no digital preamp, pH or conductivity	4			
	(MVD) Diagnostic S80 digital sensor, pH, ORP, pION measurement	5			
	(DO PPB) S80 Digital sensor, PPB dissolved oxygen measurement	6			
	(RES) S80 Digital sensor, resistivity, 0.00 – 50 MΩ	7			
B Sensor style	(I) Insertion style		0		
	(V) Valve retractable style with flanged blow out protector		1		
C Housing material and housing length	(X10) 316 SST – 10" length, ¾" O.D. (standard – insertion)				00
	(X17) 316 SST – 17" length, ¾" O.D. (standard – valve retractable)				01
	(X24) 316 SST – 24" length, ¾" O.D.				02
	(X30) 316 SST – 30" length, ¾" O.D.				03
	(X36) 316 SST – 36" length, ¾" O.D.				04
	(TX10) Titanium – 10" length, ¾" O.D.				10
	(TX17) Titanium – 17" length, ¾" O.D.				11
	(TX24) Titanium – 24" length, ¾" O.D.				12
	(TX30) Titanium – 30" length, ¾" O.D.				13
	(TX36) Titanium – 36" length, ¾" O.D.				14
	(HX10) Hastelloy® – 10" length, ¾" O.D.				20
	(HX17) Hastelloy® – 17" length, ¾" O.D.				21
	(HX24) Hastelloy® – 24" length, ¾" O.D.				22
	(HX30) Hastelloy® – 30" length, ¾" O.D.				23
	(HX36) Hastelloy® – 36" length, ¾" O.D.				24
	(KX10) KYNAR (PVDF) – 10" length, ¾" O.D. (inductive conductivity only)				40
	(KX17) KYNAR (PVDF) – 17" length, ¾" O.D. (inductive conductivity only)				41
	(PX10) Polypropylene – 10" length, 1" O.D. (SS solution ground)				50
	(PX17) Polypropylene – 17" length, 1" O.D. (SS solution ground)				51
	(PX24) Polypropylene – 24" length, 1" O.D. (SS solution ground)				52
	(PX30) Polypropylene – 30" length, 1" O.D. (SS solution ground)				53
	(PX36) Polypropylene – 36" length, 1" O.D. (SS solution ground)				54
	(K1X10) KYNAR (PVDF) – 10" length, 1" O.D. (mV, DO or ind. conduct.)				60
	(PVC1X10) PVC – 10" length, 1" O.D. (SS solution ground)				70
	(K1X10NSG) KYNAR (PVDF) – 10" length, 1" O.D. no metal, solution ground), (requires diag electrode)				80
	For other materials/lengths consult factory				XX
D Process Connection	<u>Threaded fittings (no o-rings required)</u>				
	(75) ¾" MNPT, 316 SS gland fitting, nylon ferrule				00
	(75HT) ¾" MNPT, 316 SS gland fitting, Teflon ferrule				01
	(75SF) ¾" MNPT, 316 SS gland fitting, SS ferrule				02
	(75HC) ¾" MNPT, Hastelloy® gland fitting, Teflon ferrule				03
	(75TT) ¾" MNPT, titanium gland fitting, Teflon ferrule				04
	(75PP) ¾" MNPT, all polypropylene gland fitting				05
	(75K) ¾" MNPT, all Kynar gland fitting				06
	(75TFE) ¾" MNPT, all teflon gland fitting				07
	(75V) ¾" MNPT fitting set for 1" ball valve				08
	(100N) 1" MNPT, all nylon gland fitting				09
	(100P) 1" MNPT, all polypropylene gland fitting				10
	(100K) 1" MNPT, all KYNAR gland fitting				12
	(100HT) 1" MNPT, 316 SS gland fitting, nylon ferrule for ¾" sensor				14
	(100HTF) 1" gland fitting, SS w/ Teflon ferrule for ¾" sensor (70.92000086)				15
	(175) 1" fitting x ¾" tube, SS w/ nylon ferrule (70.92000085.HT2)				16
	(75KV) ¾" fitting, Kynar for ball valve (70.92000147)				17
	(100KV75) 1" x ¾" fitting, Kynar ball valve (70.92000146)				18
	For other fittings consult factory				29
	<u>Valve assemblies (includes "T"-handle)</u>				
	(VSS)* 1" NPT 316 SS valve retraction assembly, nylon ferrule				30
	(VSSHT)* 1" NPT 316 SS valve retraction assembly, Teflon ferrule				31
	(VSSE)* 1" NPT 316 SS valve retr. assemb. f. induc. cond. sensors				32
	(VHC)* 1" NPT Hastelloy® valve retraction assembly				33
	(VTT)* 1" NPT Titanium valve retraction assembly				34
	(VKY)* 1" NPT All Kynar valve retraction assembly				40
	(VKYE) 1" Valve assembly Kynar for ¾" inductive sensor (70.92000742.EXT)				41
	(VPP)* 1" NPT All polypropylene valve retraction assembly				42
	(VPPE) 1" Valve assembly PP for ¾" inductive sensor (70.92000743.EXT)				43
	(VKYE2) 1½" Kynar valve assembly 1" inductive sensor (70.92001749.1EXT)				47
	(KY) 1½" Ftg to 1" for 1" inductive sensor (70.92000182)				48
	For other valve assemblies consult factory				59
	(SSFC) SS flange – flow cell				65
	(PVCFC) PVC flange – flow cell				66

* 30–48 Valve retraction assemblies supplied with "T"-handle and lanyards

ORDER CODES

DIMENSIONS

Order code	JLS.	A	B	C	D	E	F	G	H	I
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ORDER CODES

70.00110	JLS Liquid sensor
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