LKS

SUBMERSIBLE LEVEL TRANSMITTER	
Industrial/ Marine Application	Model: LT10M

- Gauge, Absolute, Vacuum and Compound Pressure Models Available
- Submersible, General Purpose and Wash down Enclosures
- High Stability Achieved by CVD Sensing Element
- Millivolt, Voltage and Current Output Models

The LT series features stability and accuracy in a variety of enclosure options. The LT series extends the packaging options via an all welded stainless steel back end for demanding submersible and industrial applications. The LT feature had proven CVD sensing technology, an ASIC (amplified units), and modular packaging to provide a sensor line that can accommodate specials while not sacrificing high performance.

Specifications

Input	
Pressure Range	Vacuum to 400 bar (6000psi)
Proof Pressure	2 x full Scale(FS)(1.5 x Fs for 400bar, >=5000psi
Burst Pressure	>35 x Fs<=6bar (100psi); >20 x Fs<=60bar (1000psi); >5 x Fs<=400bar (6000psi);
Fatigue Life	Designed for more than 100 million FS cycles
Performance	
Long Term Drift	0.2% FS/year (non-cumulative)
Accuracy	0.25% FS typical (optional 0.15% FS)
Thermal Error	1.5% FS typical (optional 1% FS)
Compensated Temperatures	-20° to 80°C (-5° to 180°F)
Operating Temperatures	-40°to125°C(-22°to260°F)for elec. Codes A,B,C,1 -20° to 80°C(-5° to 180°F)for elec. Codes 2,D,G,3 -20° to 50°C(-5° to 125°F) for elec. Codes F,M,P Amplified units >100°C maximum 24 Vdc supply
Zero Tolerance	1% of Span
Span Tolerance	1% of span
Response Time	0.5ms
Mechanical Configuration	
Pressure port	See ordering chart
Wetted Parts	17-4 PH Stainless Steel
Electrical Connection	See ordering chart
Enclosure	316ss, 17-4 PH ss IP65 for elec, codes A,B,C,D,G,1,2,3 IP67 for elec, codes F IP68 for elec, codes M,P(max depth 200mt H_2O) IP65 for elec, codes "3" with flying leads
Vibration	70g, peak to peak sinusoidal, 5 to 2000 Hz (Random Vibration: 20 to 2000 Hz @=20g peak per MIL-STD.-180E Method 514.4)
Acceleration	100g steady acceleration in any direction 0.032% FS/g for 1bar(15psi) range decreasing logarithmically to 0.0007% FS/g for 400 bar (6000psi) range
Shock	20g, 11ms, per MIL-STD.-810E Method 516.4 Procedure 1
Approvals	CE, UR (22ET, 26ET Intrinsically safe)
Weight	Approx. 100 grams (additional cable; 75g/m)

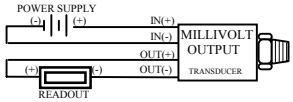
Individual Specifications

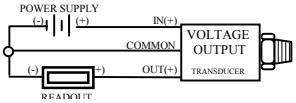
Millivolt Output units	
Output	100mV (10mv/v)
Supply Voltage (Vs)	10Vdc (15Vdc max.) Regulated
Bridge resistance	2600-6000 ohms
Voltage Output units	
Output	See ordering chart
Supply Voltage (Vs)	1.5Vdc above span to 35Vdc@ 6mA
Supply Voltage Sensitivity	0.01% FS/Volt
Min. load resistance current consumption	9FS output/2) Kohms approx 6mA at 7.5V output
Current Output units	
Output	4-20mA (2 wire)
Supply Voltage (Vs)	24Vdc, (7-35Vdc)
Supply Voltage Sensitivity	0.01% FS/Volt
Max. loop resistance	(Vs-70 x 50 ohms

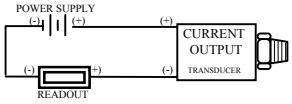
Electromagnetic Capability

Meets the requirement for CE marking of EN50081-2 for emissions and EN50082-2 for susceptibility.
Test Data :

- EN61000-4-2 electrostatic Discharge, 8kV air discharge, 4kV contact discharge. Unit survived.
- ENV50140 Radiated RF Susceptibility. 10V/m, 80MHz-1GHz, 1kHz mod Maximum recorded output error was <±1%
- ENV50204 Radiated RF Susceptibility to Mobile Telephones. 10V/m, 900MHz. Maximum recorded output error was <±1%
- EN61000-4-4 Fast Burst Transient. 2kV, 5/50ns, 50kHz for 1 minute. Unit survived
- ENV50141 Conducted RF Susceptibility. 10Vms, 1kHz mod, 150kHz-80MHz. Maximum recorded output error was <±1%







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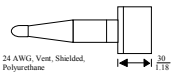
Connection Code	mV units				Voltage units				Current units (4-20mA)		
	IN+	OUT+	OUT-	IN-	IN+	COM	OUT+	EARTH	(+)	(-)	EARTH
A,B,G - DIN (PIN)	1	2	3	E	1	2	3	4	1	2	4
C - 10-6 Bayonet (PIN)	A	B	C	D	A	C	B	E	A	B	E
D - Cable	R	Y	BL	G	R	BK	W	DRAIN	R	BK	DRAIN
F - IP67 Cable	R	Y	BL	G	R	W	Y	DRAIN	R	BL	DRAIN
M,P - Immersible	R	Y	BL	W	R	W	Y	DRAIN	R	BL	DRAIN
1 - 8-4 Bayonet (PIN)	A	B	C	D	A	C	B	D	A	B	D
2 - Cable	R	W	G	BK	R	BK	W	DRAIN	R	BK	DRAIN
3 - Conduit & Cable	R	W	G	BK	R	BK	W	DRAIN	R	BK	DRAIN

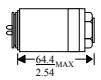
Cable Legend:
R : Red
BL : Blue
BK : Black
W : White
Y : Yellow

DIMENSIONS

Moulded, Immersible Cable>150M

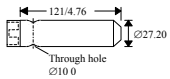


Amplified Absolute



Nose Cone – Black Acetal

Nose Cone Sink Weight



Ordering Information

Level Transmitter

Output
A – 100mA B – 4~20mA C – 1~6V D – 1~11V H – 1~5V
J – 0.5~5.5V R – 0~5V S – 0~10V G – 0.2~10.2V F – 0.1~5.1V

Pressure Datum
A* - Absolute (*Max absolute range is 25bar.([300psi)) G - Gauge

Pressure Range – psi (See Notes)

F15 – 0~15	F30 – 0~30	F60 - 0~60	G10 – 0~100
G15 – 0~150	G20 – 0~200	G30 – 0~300	G50 – 0~500
G60 – 0~600	H10 – 0~1.000	H15 – 0~1.500	H20 – 0~2.000
H30 – 0~3.000	H40 – 0~4.000	H50 – 0~5.000	H60 – 0~6.000
Vac = -15psi	*1F5 – Vac-0*	*3F0 – Vac-15*	*6F0 – Vac-45*
1G0 – Vac-85	*1G5 – Vac-135*	*2G0 – Vac-185*	*3G0 – Vac-285*

Pressure Range – Bar

A10 – 0~1	A16 – 0~1.6	A25 – 0~2.5	A40 – 0~4
A60 – 0~6	B10 – 0~10	B16 – 0~16	B25 – 0~25
B40 – 0~40	B60 – 0~60	C10 – 0~100	C16 – 0~160
C25 – 0~250	C40 – 0~400		
Vac = -1 bar	*1A0 – Vac-0*	*1A6 – Vac-0.6*	*2A5 – Vac-1.5*
4A0 – Vac-3	*6A0 – Vac-5*	*1B0 – Vac-9*	*1B6 – Vac-15*
2B5 – Vac-24	*4B0 – Vac-39*		

Pressure Port
08 – 1/8-27 NPT External 02 – ¼-18 NPT External
0J – ¼ NPT External w/snubber 0E – ¼ NPT Internal
0H – ½-14 NPT External 04 – 7/16-20 External(SAE#4,J514)
1P–9/16-18external(SAE#6,J1926-2) IJ-7/16-20external(SAE#4,J1926-2)

Submersible (LT)
19 – Plastic Nose Cone 29 – Sink weight Nose Cone European Threads
09 – G 1/8 Internal 01 – G ¼ External 0A – R ¼ External

PT - B - G - A60 - 01

Notes: 1. When electrical connection is cable please select a cable length from Table1.
When electrical connection is DIN or plug style "U" must be specified.
2. Where electrical connection –3 and cable length –U occur in part number, the unit will be flying leads (IP30)
3. Additional Pressure Ranges are available. Please consult factory.
4. Intrinsically safe transducers are available with amplified outputs only.
(ETL, entity approved for Class 1, Division 1, Groups C & D, hazardous areas).

Distributor:

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