



Piezoelectric Level Transmitter LT100



BONT[®]

Bont Technologies GmbH

Feature & Function

LT-100 Series inputting type static pressure hydraulic press, using corrosion resistance stainless steel or ceramic membrane, the probe measuring the weight of liquid pressure, according to the density of the fluid, indirectly measured the height of the liquid, translated into standard voltage, current signal and output.

1. LT-101, LT-102, LT-103 the diaphragm measure direct liquid pressure, high precision (*maximum 80 C*)
2. LT-104, LT-105, LT-106 Diaphragm is not in contact with liquid, not affected by temperature and the impurity
3. Multiple materials, multiple structure, can adapt to various working conditions

Specification

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	0.2% 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 ₂ O) 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 I
Approvals	CE, UR (22ET, 26ET Intrinsically safe)
Weight	Approx. 100 grams (additional cable; 75g/m)

Individual Specifications

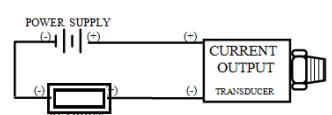
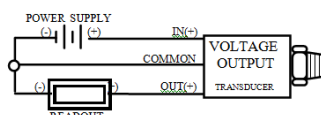
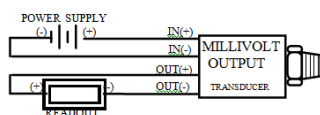
MILIVOLT OUTPUT UNITS	
Output	100mV (10mv/v)
Supply Voltage (Vs)	10Vdc (15Vdc max.) Regulated
Bridge resistance	2600-6000 ohms
VOLTAGE OUTPUT UNITS	
Output	See ordering chart
Supply Voltage (Vs)	1.5Vdc above span to 35Vdc@ 6mA
Supply Voltage Sensitivity	0.01% FS/Volt
Min. load resistance current consumption	9FS output/2) Kohms approx 6mA at 7.5V output
CURRENT OUTPUT UNITS	
Output	4-20mA (2 wire)
Supply Voltage (Vs)	12.5-36Vdc
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-1 GHz, 1 kHz mod Maximum recorded output error was $<\pm 1\%$
- ENV50204 Radiated RF Susceptibility to Mobile Telephones. 10V/m, 900MHz. Maximum recorded output error was $<\pm 1\%$
- EN61000-4-4 Fast Burst Transient. 2kV, 5/50ns, 50 kHz for 1 minute. Unit survived
- ENV50141 Conducted RF Susceptibility. 10Vms, 1 kHz mod, 150kHz-80MHz. Maximum recorded output error was $<\pm 1\%$



Ordering Code

LT-10

Level Transmitter

Type

1	Directly out of the line type
2	The cabling standard junction box type
3	Pole type standard junction box
4	Capillary gas collecting type standard junction box type
5	Pole type and gas collection standard junction box
6	Rubber hose gas collecting type standard junction box (LT101/102 cannot use flame-proof)

Measure Range

XXX with unit (example : M10)

Cable Length

XXX with unit (example : M15)

Output

A	4-20mA Two wires
B	0-5V Three wires
C	0-10V Three wires
D	4-20mA Two wires with Hart
X	Others

Connection

E	Screw
F	Flange
X	Others

Wetted Material

G	SUS304
H	SUS316L
I	PTFE
J	PP
X	Others

