

RIL160 Hydrostatic level transmitter. Suitable for dirty water, waste water

The RIL160 level transmitter uses proven piezoresistive silicon measurement technology, in combination with Riels' most advanced microprocessor signal conditioning circuitry, to deliver maximum accuracy and reliability over a wide compensated temperature range.

It is perfectly suited for pump control applications that require transmitters with standard 2-wire (4÷20 mA current loop) or 3-wire (0÷10V) output. The RS485 interface allows users to scale the analog output with respect to any required range, including within the standard range of pressure variation.

In normal configuration, the RIL160 is held in suspension inside the liquid by a standard cable with PUR sheath (PE, PTFE required), which is self-supporting and is equipped with vent holes.

Upon request, Riels' enhanced lightning protection makes this transmitter ideal for installations in areas prone to chronic damage due to lightning-induced voltage transients.



Benefits

- Non-fouling diaphragm design
- Housing resist chemical attack (AISI 316SS)
- Digital interface RS485
- Rangeable analog output
- Increased reliability in lightning-prone regions

Applications

- Level measurement in wells
- Level measurement in tanks
- Level measurement of leachate plant biomass
- Level measurement in lakes and ponds
- Measurement and control level artificial lakes
- Level measurement of fuel tanks
- Check operation of pumps
- Level measurement of dark waters
- Level measurement fish tanks
- Check alert level manholes

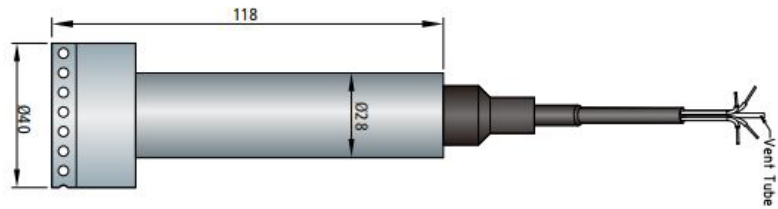
Performance Specifications

General	
Pressure Range	0-0.5,...,200 mH2O
Overpressure	1.5xFS
Environmental	
Operating Temp.Range	-20 to +70°C
Compensated Temp.Range	0 to 50°C
Vibration	10 g(20 to 2000Hz)
Shock	100 g(10ms)
Cycles	10x106 cycles
Electrical @25°C(77°F)	
Output Signal	0...20 mA, 4...20 mA, 0...5 VDC, 1...5 VDC, 1...10 VDC, 0.5...4.5 VDC, RS485, Hart protocol
Power Supply	5VDC, 9VDC, 12VDC, 24VDC, 12...36VDC
Load Resistance	<(Vs-12)/0.02A (For current output)
Insulation Resistance	100 MΩ@50VDC
Physical Specifications	
Housing	304 stainless steel, option 316SS
Diaphragm	316L stainless steel, option ceramic
Cable	PUR,PE,PTFE
Oil Filling	Silicone oil
Protection	IP68
Net Weight	Approx.400g
Performance	
Accuracy**	±0.25[typ.] % FSO
Temp. Coeff- Zero***	±0.75[typ.] % FSO
Temp. Coeff- Span***	±0.75[typ.] % FSO
Long-Term Stability	±0.3[typ.] % FSO

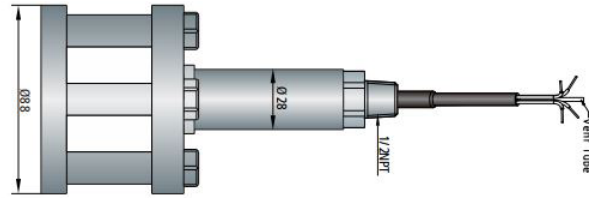
* All values measured at 25°C(77°F)** Including non-linearity, hysteresis and repeatability. ***0°C to 70°C(32°F to 158°F) with reference to 25°C(77°F).The listed specifications and dimensions are subject to change without prior notice

Dimensions

Type RIL I 60-A



Type RIL I 60-B



Ordering Information

RIL160	Model	
A	Type A (See the dimension drawing)	
B	Type B (See the dimension drawing)	
Pressure range		
N005	0.5mH2O	0005 5mH2O
0001	1mH2O	0006 6mH2O
0002	2mH2O	0008 8mH2O
0003	3mH2O	0010 10mH2O
0004	4mH2O	0015 15mH2O
9999	Customer	
Cable length		
[x]m	x=cable length	
Output Signal		
42	4 ... 20 mA (standard)	
05	0 ... 5 VDC	
15	1 ... 5 VDC	
10	0 ... 10 VDC	
45	0.5 ... 4.5 VDC (ratiometric)	
R4	RS485 Modbus RTU	
R5	RS485 Modbus RTU + 4 ... 20mA	
HR	4 ... 20 mA + HART communication	
Accuracy		
01	0.1 %FS	
02	0.25 %FS	
05	0.5 %FS (standard)	
99	Customer	
Electrical Connection		
1	PUR cable (standard)	
2	PE cable	
3	PTFE cable	
Housing		
0	304 Stainless steel	
1	316 Stainless steel	
2	316L Stainless steel	
3	Titanium alloy	
Diaphragm		
6	316 L Stainless steel	
C	Ceramic Al2O3 96%	
T	Titanium alloy	
A	Tantalum alloy	