PRESSURE

REMOTE MOUNTED DIFFERENTIAL PRESSURE TRANSMITTER
231RS SERIES

DESCRIPTION

The **Setra 231RS Series Multi-Range Differential Pressure Transmitter** is ideal for monitoring pumps and load differential pressures in HVAC systems and processes where local indication is needed.

Setra's **231RS Series** with remote sensors reduces labor, materials, and time. The sensors are installed directly into the pipe and electrical connection is made between the remote sensors and the **Model 231RS** via cables or conduit. This reduces labor cost by one-third and the cost of copper to connect the pressure transducer to the pipe. Startup time is reduced since purging air out of the lines is not necessary.

The Multi-Sense® **Model 231** wet-to-wet differential pressure transducer's all inclusive design provides users with field accessible ranging, choice of output and field zeroing.
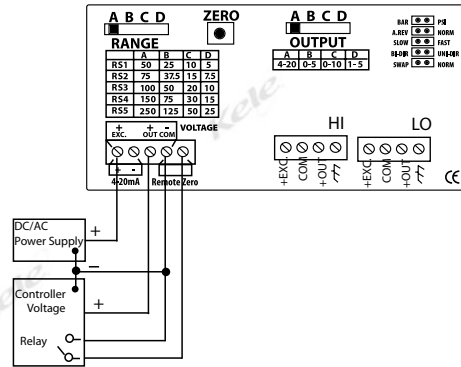
setra

Model 231RS

CE
☑ RoHS

FEATURES

- *Remote sensors*
- *Conduit and cable versions*
- *Field selectable output - 4 to 20 mA, 0 to 5, 1 to 5, and 0 to 10 VDC*
- *Field accessible push-button zero and remote zero*
- *Jumper selectable port swap*
- *Optional LCD display*
- *All cast aluminum, NEMA4 rated housing*

APPLICATION

- *Energy management systems*
- *Process control systems*
- *Flow measurement of various gases or liquids*
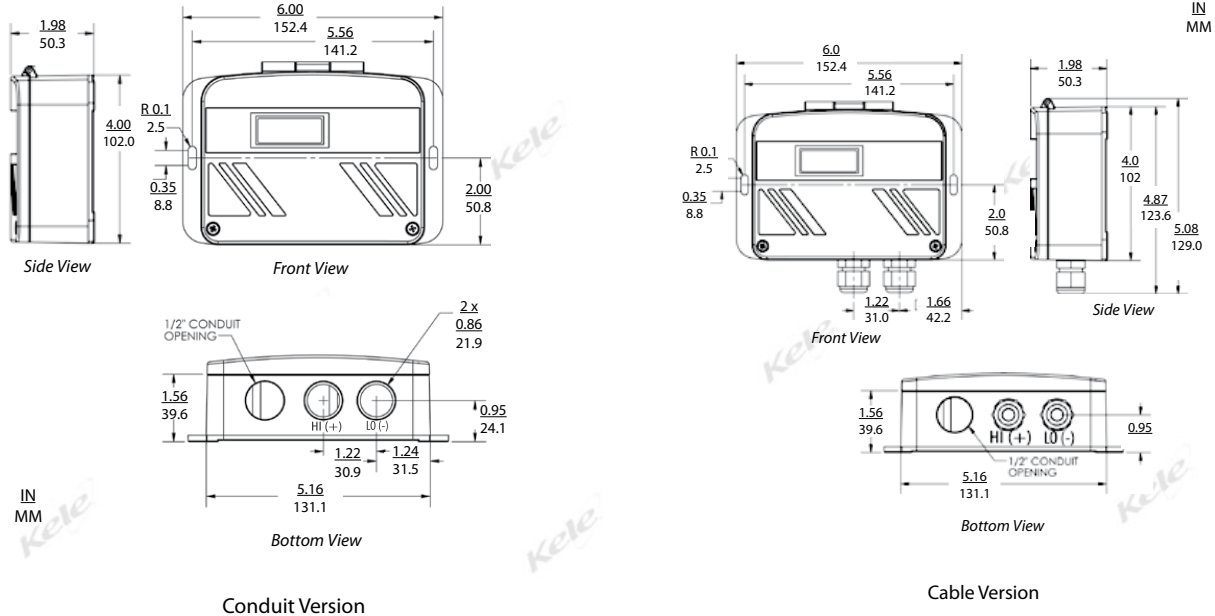- *Liquid level measurement of pressurized vessels*

WIRING

PRESSURE

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SPECIFICATIONS

Supply Voltage	
Current output	15-30 VDC @20mA
Voltage output	15-30 VDC @8 mA, 15 to 30 VAC @40mA
Signal Output (Volts,Current)	4-20mA loop, 0-10VDC or (0,1)-5VDC Selectable
Min Voltage Output Impedance	<\>>5KΩ
Max Current Output Impedance	<450Ω @24VDC
Accuracy	±1.0% Range A-C, ±2.0% Range D
Sensor Type	Piezoresistive
Adjustments (Z/S)	Push Button or remote contact Zero
Normal Measurement Range	±0 to 250 psid selectable with range (See ordering)
Display	Opt-LCD, 4 digits, 0.526" high, WC/kPa switch
Overpressure (Burst)	2 x Full Scale for RS(1-5)

Max Operating Pressure (Proof)	RS1=750 psid, RS2=750 psid, RS3=1000 psid RS4=1500 psid, RS5=2000 psid
Operating Temperature	-4° to 185°F (-20° to 85°C)
Compensated Temp Range	32° to +130°F (0° to 54°C)
Operating Humidity	10 to 95% Non-condensing
Wetted Parts	17-4 stainless steel
Media Compatibility	Liquid/Gasses compatible w/17-4 SS
Process Connection	1/4" 18 NPT
Wiring Terminations	Terminals- 3 signal, 8 sensor, 2 Remote zero
Mounting	Tabs with 2 , 0.156" holes for #6 screws
Enclosure Rating	Powder coated aluminum, NEMA 4, w/o display
Dimensions	5.1"W x 6.0"H x 2.0"D, (13 x 15.2 x 5.1 cm)
Weight	1.5 lbs (0.68kg)
Approvals	CE, RoHS
Warranty	1 year

DIMENSIONS

Side View   *Front View*

IN
MM

Bottom View

Conduit Version

IN
MM

Front View   *Side View*

Bottom View

Cable Version

OPERATION

Pressure range selection:
1. Examine the pressure application and determine the highest system line pressure.
2. Determine the differential pressure being measured.
3. Find the maximum line pressure in the table on the right that is higher than your highest system line pressure.
4. Verify that your DP falls within the selectable ranges in that row.
5. Follow that row to the left and select that range code.

Example:
Highest System Line Pressure: 125 psig
Differential Pressure Measured: 75 psid
"Max Line Pressure" Higher than System Line Pressure: 150 psid (75 psid DP falls within ranges in this row)
Select Range Code: RS4

ORDERING INFORMATION

MODEL	DESCRIPTION			
231	WET/WET DIFFERENTIAL REMOTE SENSING PRESSURE TRANSDUCER			
	PRESSURE RANGE CODE *			
RS1	5, 10, 25, 50 psid, ±5, ±10, ±25, ±50 psid			
RS2	7.5, 15, 37.5, 75 psid, ±7.5, ±15, ±37.5, ±75 psid			
RS3	10, 20, 50, 100 psid, ±10, ±20, ±50, ±100 psid			
RS4	15, 30, 75, 150 psid, ±15, ±30, ±75, ±150 psid			
RS5	25, 50, 125, 250 psid, ±25, ±50, ±125, ±250 psid			
	PRESSURE CONNECTION			
	3M	1/4-18 NPT Male Remote Sensor (Conduit Version)		
	4M	1/4-18 NPT Male Remote Sensor (Cable Version)		
		DISPLAY OPTION		
		N	No display	
		D	Display	
			CABLE LENGTH	
			10	Sensors cabling length 10 ft
			20	Sensors cabling length 20 ft
			30	Sensors cabling length 30 ft

Note: Line pressure determines selection of range code.

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