Homogenizer Sanitary Pressure Transmitters





Meets 3A requirements for the food & beverage, dairy, pharmaceutical and biotechnology industries in addition to ASME BPE-2009 and CE compliant.

FEATURES

- Current or voltage output signals available to suit most applications
- Span and zero adjustments
- NEMA 4X, IP65 (IEC529)
- Sputtered thin film sensor for maximum stability and shock resistance
- Ranges from 1,000 psig to 15,000 psig
- High accuracy and long term stability
- Can be cleaned-in-place or steamed-in-place

21 SERIES

- High accuracy, heavy-duty transmitter designed for high pressure sanitary homogenizer applications
- Standard ranges from 1,000 psi to 15,000 psi
- · Span and zero adjustments
- · Sputtered thin film sensor for maximum stability, shock resistance and durability
- · Current or voltage output signals available to suit most applications
- NEMA 4X, IP65 (IEC529)
- 316L stainless steel housing is welded to the 1-1/8 "flanged process connection for greater strength and integrity
- 1-1/8 "flanged housing and diaphragm are constructed from 316L stainless steel with wetted surfaces electropolished to Ra25 or better
- · Can be cleaned-in-place (CIP) or steamed-in-place (SIP)
- · CE compliant to suppress RFI, EMI, and ESD

	SPECIFICATIONS
Output signals	4 mA to 20 mA 2-wire, 0 Vdc to 5 Vdc 3-wire, 1 Vdc to 5 Vdc 3-wire, 1 Vdc to 6 Vdc 3-wire, 0 Vdc to 10 Vdc, 3-wire, 1 Vdc to 11 Vdc 3-wire
Pressure ranges	Standard gauge ranges from 1,000 psig to 15,000 psig
Proof pressure	1.75 times full scale for ranges 0 psig to 300 psig through 0 psig to 10,000 psig 1.5 times full scale for ranges 0 psig to 15,000 psig
Burst pressure	4 times full scale for ranges 0 psig to 300 psig through 0 psig to 10,000 psig 3 times full scale for ranges 0 psig to 15,000 psig
Accuracy	±0.25% full scale (B.F.S.L.); ±0.125% full scale (optional)
Repeatability	≤ ±0.05% full scale
Hysteresis	≤ ±0.1% full scale
Stability	≤ ±0.2% full scale for 1 year, non-accumulating
Response time	≤ 1 ms (between 10% and 90% full scale)
Power supply*	10 Vdc to 30 Vdc (4 mA to 20 mA, 2-wire) 10 Vdc to 30 Vdc (0 Vdc to 5 Vdc, 3-wire) 10 Vdc to 30 Vdc (1 Vdc to 5 Vdc, 3-wire) 10 Vdc to 30 Vdc (1 Vdc to 6 Vdc, 3-wire) 14 Vdc to 30 Vdc (0 Vdc to 10 Vdc, 3-wire) 14 Vdc to 30 Vdc (1 Vdc to 11 Vdc, 3-wire)
Load limitations	≤ (Vpower supply -10)/0.020 Amp
Wetted materials	316 stainless steel for vacuum through 300 psi; 17-4PH stainless steel sensing diaphragm and 316 stainless steel process connection for higher ranges
Housing material	316 stainless steel
Adjustment	±10% full scale for zero and span
Pressure cycle limit	150 Hz
Durability	> 100,000,000 full scale cycles
Temperature ranges	Compensated 32 °F to 176 °F (0 °C to 80 °C) Effect ±0.017% full scale/ °F for zero and span Ambient -40 °F to 185 °F (-40 °C to 85 °C) Media -4 °F to 302 °F (-20 °C to 150 °C) Storage -40 °F to 212 °F (-40 °C to 100 °C)
Environmental rating	IP65, NEMA 4X according to EN 60529/IEC 529
Electromagnetic rating	2004/108/EEC, EN 61326 Emission (Group 1, Class B) and Immunity (Industrial locations)
Electrical protection	Reverse polarity, over-voltage and short circuit protection
Shock	1000 g's per IEC 770
Vibration	30 g's per IEC 770

* Unregulated power supplies

WIRING DIAGRAMS ELECTRICAL CONNECTIONS

ORDERING INFORMATION								
SERIES	210							
CLAMP SIZE	42	1-1/8" flange						
SEAL FILL FLUID	4	FFL77 White oil (Other fill fluid	s avai	lable — please consult factory)				
TRANSDUCER	615	615 Series transducer						
ACCURACIES	1	±0.25% full scale (BFSL)	2	±0.125% full scale (BFSL)				
PRESSURE	73	0 psig to 1,000 psig	79	0 psig to 2,000 psig	85	0 psig to 5,000 psig	91	0 psig to 10,000 psig
RANGES	76	0 psig to 1,500 psig	82	0 psig to 3,000 psig	88	0 psig to 6,000 psig	94	0 psig to 15,000 psig
OUTPUT SIGNALS	1	4 mA to 20 mA, 2-wire	3	1 Vdc to 5 Vdc, 3-wire	5	0 Vdc to 10 Vdc, 3-wire		
	2	0 Vdc to 5 Vdc, 3-wire	4	1 Vdc to 6 Vdc, 3-wire	6	1 Vdc to 11 Vdc, 3-wire		
ELECTRICAL		1 36" Cable attached to Hirschmann		14	4 Hirschmann connection with ISO 4400 1/2" NPT conduit			
CONNECTIONS	3	6-pin Bendix			25	M12 X 1 (4-pin)		
	8	Hirschmann (DIN EN 175301-803 F	orm A)	36	Integral 36" cable		

EXAMPLE	
Series	21
Clamp size	1-1/8" homogenizer flange
Seal fill fluid	White oil
Transducer	615 Series
Accuracy	±0.25% full scale
Pressure range	0 psig to 5,000 psig
Output signal	4 mA to 20 mA, 2-wire
Electrical connection	Hirschmann (DIN EN 175301-803 Form A)



(27 mm)

2-WIRE WIRING

1.69 " (43 mm)

1.32"

(33.5 mm)

2 WINE WINING						
	Hirschmann	Cable	M12	Bendix		
+ Supply	1	Red	1	А		
+ Output	2	Black	3	В		



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3-WIRE WIRING

	Hirschmann	Cable	M12	Bendix
+ Supply	1	Red	1	А
Common	2	Black	3	В
+ Output	3	White	4	С

(Custom flange dimensions to your specification — please consult factory)