

Sanitary Pressure Transmitter Type SA-11

Datasheet SA-11

Special features

- Compliant with 3A sanitary criteria
- 1.5" and 2" Tri-Clamp® connections
- Pressure ranges include vacuum, compound and gauge ranges as low as 100 inches water column
- 4-20 mA 2-wire output signal, others available
- Designed for media temperature up to 150°C (300°F)
- Wetted surface finish $R_a < 16\mu$ inch

Description

WIKA SA-11 pressure transmitters meet 3A and EHEDG sanitary criteria for pressure and level measurement in the food, pharmaceutical, cosmetic and beverage industries. They feature 0.25% accuracy, rugged 316L SS wetted construction and a wide operating temperature range.

The SA-11 features an integral cooling extension between the Tri-Clamp® connection and transmitter body. This design increases the maximum permissible media temperature to 150°C (300°F).

The 316L SS flush diaphragm ensures a crevice free seal between the process connection and the pressure measuring diaphragm. The permanently sealed sensing system includes food grade (FDA approved) liquid fill and is designed for "clean in place" (CIP) and "sterilize in place" (SIP) maintenance procedures. The transmitters are available with industry standard 1.5" or 2" Tri-Clamp® connections. They can be ordered with an optional NEMA 6P (IP 68) cable assembly for additional protection in wash down areas.

STANDARD RANGES

RANGE	MAXIMUM*	BURST**
0-100 InWC	30 psi	30 psi
0-150 InWC	30 psi	30 psi
0-250 InWC	60 psi	60 psi
0-400 InWC	70 psi	70 psi
0-25 psi	145 psi	145 psi
0-50 psi	250 psi	250 psi
0-100 psi	500 psi	500 psi

Additional ranges are available

Notes:

* Pressure applied up to the maximum rating will cause no permanent change in specifications

** Exceeding the burst pressure may result in destruction of the transmitter and loss of media.

NOTE: Standard items shown in **bold print**. (Subject to prior sale)



Type SA-11



Type SA-11 with optional
IP 68 cable

Tri-Clamp® is a registered trademark of Tri-Clover Inc.

PART NUMBERS

Pressure conn.	1½" or 2" Tri-Clamp® connections	
Power supply	10-30 VDC	
Signal output	4-20 mA 2-wire	
Elec. conn.	DIN 43 650 with plug connector	
Gauge ranges		
	1.5" Tri-Clamp®	2" Tri-Clamp®
0-100 InWC	4361853	4361861
0-150 InWC		4373576
0-250 InWC	4361887	4361879
0-400 InWC		50362305
0-25 psi		4209986
0-50 psi	4200104	4200113
0-100 psi	4394866	50006495

Other ranges to 400 psi are available

Specifications	Units	Type SA-11 Sanitary
Sensing principle Pressure ranges Pressure reference		piezoresistive standard ranges as listed {custom ranges available} 100 InWC up to 300 psi relative pressure {absolute and compound are available}
Pressure connection		1.5" or 2" Tri-Clamp® connection {other connections available}
Material: -wetted parts -case -internal transmitting liquid		1.4435 (316L SS) 1.4571 (316 Ti SS) Synthetic oil KN 77, FDA approved

Supply voltage U_B +	DC Volts	10 - 30 (14 - 30 for 0 - 10 V output signal)
Output and load limitations: Output signal and maximum load		4-20 mA 2-wire system R _A [Ohm] < (U _B [V] -10V) / 0.02 A {0-20 mA 3-wire system} R _A [Ohm] < (U-1 pt [V] -10V) / 0.02 A {0-5 V 3-wire system} R _A > 5 kOhm (min) {0-10 V 3-wire system} R _A > 10 kOhm (min) {other signal outputs available}
Response time (10...90%) zero and span adjustment	ms % of span	≤ 10 Approximately ±5

Accuracy (non-linearity, including hysteresis and non-repeatability)	% of span	<0.25% (B.F.S.L.) (Calibrated in vertical mounting position with process connection down)
1 year stability	% of span	< 0.2 (under reference conditions)

Temperature Media Ambient Storage Compensated range		-4°F to +302°F (-20°C to +150°C) -4°F to +176°F (-20°C to +80°C) -40°F to +212°F (-40°C to +100°C) +32°F to +176°F (0°C to +80°C)
Temperature error (reference 70°F) on zero per 18°F (10°C) on span per 18°F (10°C)	% of span /10°C % of span /10°C	<0.25 for 0-150 InWC; <0.40% for 0-100 InWC:<0.20% for >150 InWC <0.2

CE conformity		Interference emission and immunity per EN 61 326
Electrical connection		4 pin L-plug per DIN 43 650 with solderless screw terminal and PG 13 fitting {4 pin L-plug with 1/2" female conduit opening} {5 foot vented flying lead} {4 or 6 pin MIL plug}
Weight Dimensions	lbs.	approximately 1.1 (0.5 Kg) see drawing
Electrical protection		protected against reverse polarity, short circuit and overvoltage
Environmental protection		IP 65 (NEMA 5) with 4 pin L-plug, MIL plugs {IP 67 (NEMA 4) with 5 foot flying lead} {IP 68 (NEMA 6P) with vented cable and non-accessible zero and span}

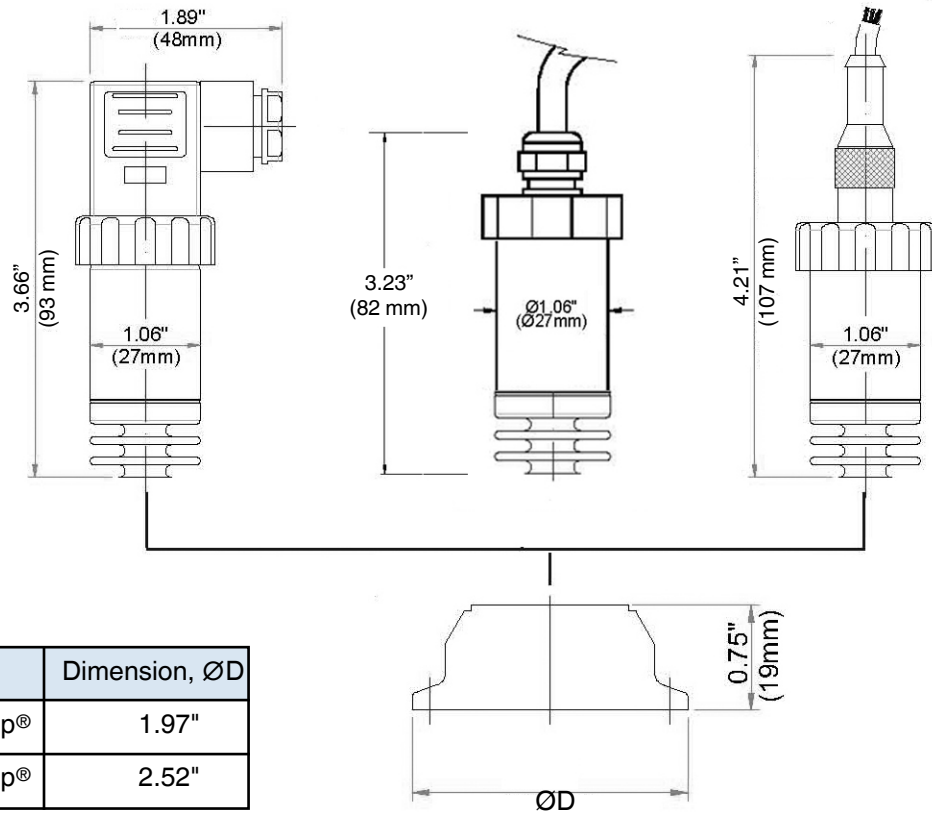
Note: Items in curved brackets { } are available as special order options

Dimensions





4 pin L-plug
DIN43 650

SA-11A with
NEMA 4 cable option

4 or 6 pin MIL plug
(mating connector not included)



Electrical connections

				
Type	DIN 43 650 plug	Adjustable LCD Display	Vented cable with free ends	MIL plug
Protection	IP 65 / NEMA 5	IP 65 / NEMA 5	IP 67 / NEMA 4	IP 65 / NEMA 5
Description and part numbers	PG9 cable gland (standard) Part #1006711 1/2" NPT female conduit opening Part #1632159	Loop powered programmable 4-20 mA 3.5 digit Part #7082534	5 foot - #9744479 10 foot - #9838915 20 foot - #4239904 30 foot - #4239921 50 foot - #4293348	4 pin PT02E-8-4P Part #8990935 6 pin PT02E-10-6P Part #9744460

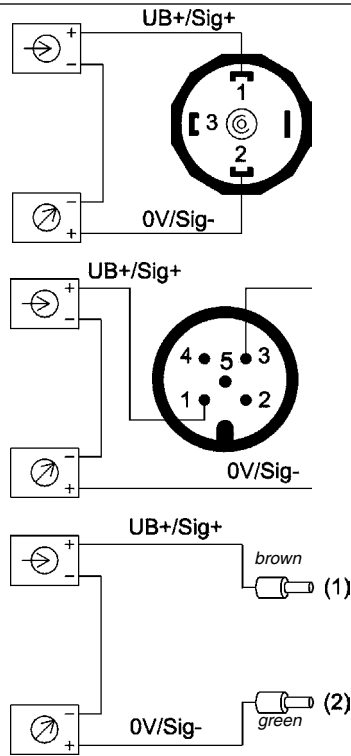
Wiring

L-Connector,
DIN EN 175301-803, Form A
(DIN 43 650)

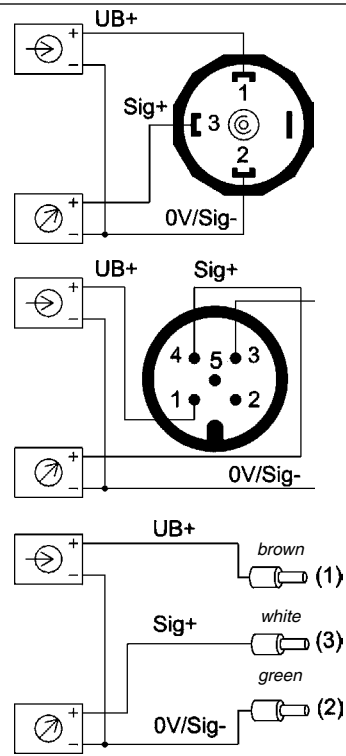
M12x1 Circular connector
5 pin

Vented cable with free ends

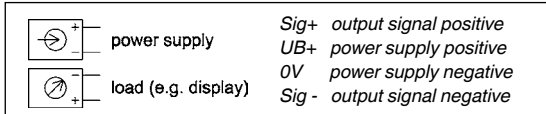
2-wire system



3-wire system



Legend:



Ordering information

Pressure gauge model / Nominal size / Scale range /

Size and location of connection / Optional extras required

Specifications and dimensions given in this data sheet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.