



### 3A Sanitary Pressure Transmitters

Type S-10.3A - Vacuum to 1000 PSI  
Type S-10.3A.C - with integral cooling extension  
(Previous model numbers 891.13.500-3A, 891.23.510-3A)

#### Tronic

- Meet 3A sanitary criteria for food and pharmaceutical applications
- Available with 1.5" or 2" Tri-Clamp® connections
- Standard ranges available from stock
- 4-20 mA 2-wire output signal, others available
- Available with an integral cooling extension for high temperature applications
- Stainless steel case and wetted parts



WIKAI S-10-3A pressure transmitters meet 3A sanitary criteria for pressure and level measurement in the food, pharmaceutical, cosmetic, and beverage industries. They feature 0.25% accuracy, rugged stainless steel construction, and a wide operating temperature range.

The 316 stainless steel flush diaphragm minimizes product buildup. The all welded chemical seal system includes food grade 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. The S-10.3A.C is designed for use with media temperatures to 350°F (177°C).

Each transmitter undergoes extensive quality control testing and calibration. The printed circuit boards use state-of-the-art surface mount technology and are potted in silicone gel for protection against mechanical shock, vibration, and moisture. Each transmitter is temperature compensated to assure accuracy and long term stability when exposed to severe ambient temperature variations.



S-10.3A



S-10.3A.C

#### STANDARD RANGES <sup>1</sup>

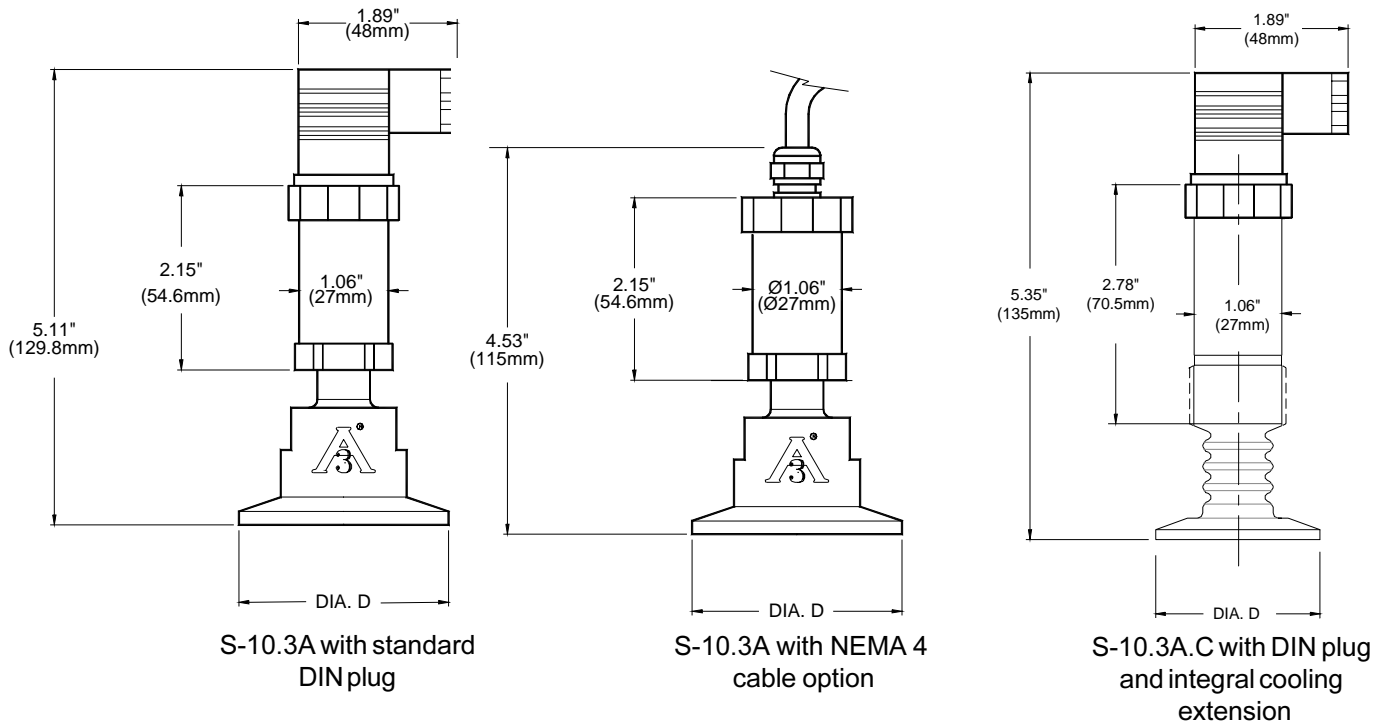
RANGE	1.5" Tri-Clamp Part #	2.0" Tri-Clamp Part #
30"-0 HgVac	9766329	9744770
30"-0-30 PSI	8997395	4204042
30"-0-60 PSI	9799732	4224167
30"-0-100 PSI	4204387	4300840
0-15 PSI	9748202	9748210
0-30 PSI	9748075	4225007
0-50 PSI	4215789	4215771
0-60 PSI	9744703	9748199
0-100 PSI	9748237	9747931
0-160 PSI	9748245	9748253
0-200 PSI	9749408	4213246
0-250 PSI	9776227	4268831
0-300 PSI	8990985	4253877
0-500 PSI	4205081	9745828
0-1000 PSI	8993470	4281737

<sup>1</sup> Standard part numbers listed above include a 4-20 mA two wire output signal and a DIN 43650 electrical connector.

Specifications	Units	Type S-10.3A / S-10.3A.C
Sensing principle Pressure ranges Pressure reference	PSI	piezoresistive up to 300 PSI, thin film $\geq$ 400 PSI standard ranges as listed {custom ranges available} relative pressure {absolute pressure reference available}
<b>Pressure connection</b> Diaphragm surface finish  <b>Material:</b> -wetted parts -case -internal transmitting liquid	Ra	1.5" or 2" Tri-Clamp connection {others available} $\leq$ 20 micro inches ( $\leq$ 15 micro inches with electropolish option)  1.4571 (316 ss) stainless steel {others available} 1.4301 (304 ss) stainless steel KN 13 Vegetable oil {others available}
<b>Supply voltage</b> $U_B$  <b>Output and load limitations:</b> Output signal and maximum load  Response time (10...90%) zero and span adjustment	DC Volts   milliseconds %	10 - 30 (14 - 30 for 0 - 10 V output signal)  4-20 mA 2-wire system $R_A[\text{Ohm}] \leq (U_B[\text{V}]-10\text{V}) / 0.02 \text{ A}$ {0-20 mA 3-wire system} $R_A[\text{Ohm}] \leq (U_B[\text{V}]-10\text{V}) / 0.02 \text{ A}$ {0-5 V 3-wire system} $R_A > 5 \text{ kOhm (min)}$ {0-10 V 3-wire system} $R_A > 10 \text{ kOhm (min)}$ {other signal outputs available}  $\leq 10$ Approximately $\pm 10$
<b>Accuracy</b> ( linearity, including hysteresis and repeatability )  Repeatability Hysteresis  1 year stability	% of span  % of span  % of span	$\leq 0.25\%$ (B.F.S.L.) (Calibrated in vertical mounting position with process connection down)  $\leq 0.05$ $\leq 0.1$  $\leq 0.2$ (under reference conditions)
<b>Temperature</b> Media: S-10.3A S-10.3A.C Ambient Storage Compensated range  Temperature error: (reference 70°F) on zero point on span	       % of span % of span	-22°F to +248°F (-30°C to +120°C) -22°F to +350°F (-30°C to +177°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)  $\leq 0.2$ per 18°F (10°C) change $\leq 0.2$ per 18°F (10°C) change
<b>CE</b> conformity		Interference emission per EN 50 081-1 (March 1993) and EN50 081-2 (March 1994), Interference immunity per EN 50 082-2 (March 1995)
Electrical connection  Weight Dimensions  Electrical protection  Environmental protection	  lb	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}  approximately 1.0 (0.5 Kg) see drawing  protected against reverse polarity, short circuit, and overvoltage  IP 65 (NEMA 5) with 4 pin L-plug, {MIL plugs} {IP 67 (NEMA 4) with 5 foot flying lead}






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

## Dimensions



Key	Description	Dimension
D	1.5" Tri-Clamp	1.97" dia.
	2.0" Tri-Clamp	2.52" dia.

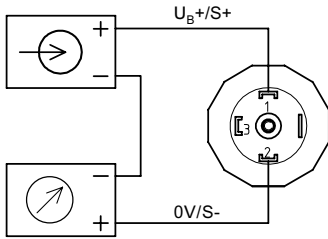
## Electrical connections

					
<b>Type</b>	DIN 43 650 plug	Attachable LCD Display	Vented cable with free ends	Snap Cap™ with terminal block	MIL plug
<b>Protection</b>	IP 65 / NEMA 5	IP 65 / NEMA 5	IP 67 / NEMA 4	IP 67 / NEMA 4	IP 65 / NEMA 5
<b>Description and part numbers</b>	PG9 cable gland (standard) Part # 1006711 1/2" NPT female conduit opening Part # 1632159	Loop powered programmable 4-20 mA 3.5 digit Part # 4210069	5 foot - #9744479 10 foot - #9838915 20 foot - #4239904 30 foot - #4239921 50 foot - #4293348	PG 11 cable gland, 4-20 mA Part # 2130017 1/2 NPT female conduit, 4-20 mA Part # 4260261	4 - pin PT02E-8-4P Part # 8990935  6 - pin PT02E-10-6P Part # 9744460

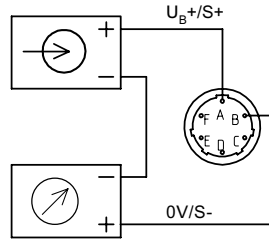
## Wiring

### 2-wire system

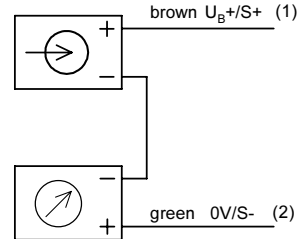
DIN 43 650 plug



MIL-plug PT 02 E-10-6P

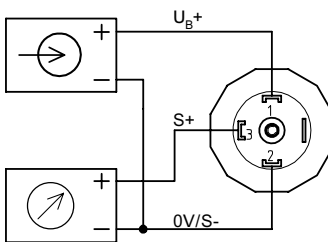


flying lead

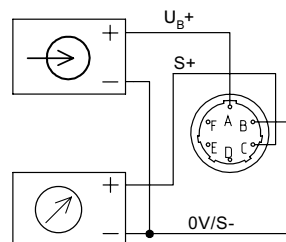


### 3-wire system

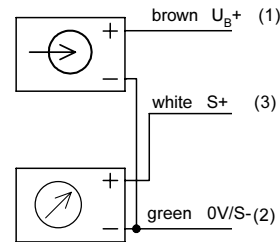
DIN 43 650 plug



MIL-plug PT 02 E-10-6P



flying lead



### 2-wire system

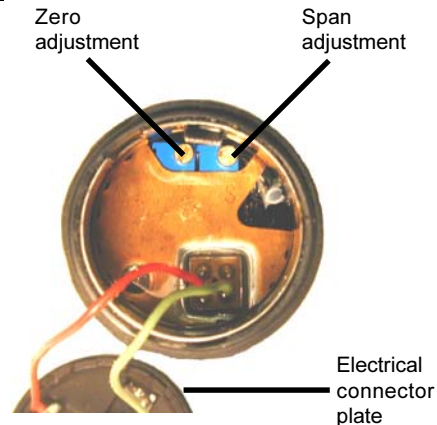
Wire	Coding	DIN Plug	Wire Color
Supply +	$U_B+ / S+$	pin 1	brown
Signal -	$0V / S-$	pin 2	green

### 3-wire system

Wire	Coding	DIN Plug	Wire Color
Supply +	$U_B+$	pin 1	brown
Supply - Signal -	$0V / S-$	pin 2	green
Signal +	$S+$	pin 3	white

## Calibration

Remove the external electrical connection and retaining ring. Carefully pull the connector plate from the transmitter body. Attach a meter and power supply to the electrical connector. For gauge ranges the zero potentiometer can be adjusted to produce a null output when no pressure is applied. Span adjustment requires the use of a reference pressure source. Compound and absolute ranges require a vacuum and pressure source. When calibrated, reassemble connector, taking care not to pinch the wires between the case and connector plate.



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**Total Performance™**

### Ordering Information:

State computer part number (if available) / type number / size / range / connection size and location / options required.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice

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