# SU15 Sanitary Pressure Transmitter

# Outline

This sanitary pressure Transmitter uses a stainless steel diaphragm and semiconductor strain gauge for the sensing part. It has been designed/produced to be especially hygienic, so it can be used in a wide variety of fields, such as food products, medical supplies, cosmetics and even bio-related products.

# Features

- Excellent durability high vibration-proof and impact resistance to dynamic pressure with the pressure sensor uses a semiconductor strain gauge.
- Stainless steel diaphragm for corrosion resistance, can be used for a wide variety of purposes.
- Stainless steel case makes it easy to wash and drain for sanitary process.
- Possible to select a high pressure proof type for homogenizers.



# **Specifications**

#### Fluid:

Air or liquid

## Operating condition:

Normal conditions (No flammable liquids or explosive gaseous atmospheres)

## Connection type:

Ferrule type, Nut type, Male type, Union thread type, and Homogenizer type

#### Electric cable:

Shielded cable (2 m)

#### Connection size:

Homogenizer type, 1S, 1½S, 2S, 2½S, 3S, G1½B (Union thread type only)

#### Wetted parts material:

Diaphragm SUS316L

Joint SUS316 or SUS316L

#### Pressure range:

0 to  $0.3 \rightarrow 0$  to 50MPa

-0.1 to  $0.2 \rightarrow -0.1$  to 2MPa

#### Proof pressure of receiving parts:

2 to 100MPa (Refer to the pressure range chart)

#### Max. allowable pressure:

Whichever is smaller, the pressure resistance of the receiving part or the double pressure of the positive pressure range.

(However, it's only 1.5 times for the 35, 50 MPa range)

#### Operating temperature:

-5 to 70°C (Ambient or fittings)

\* However, it can be used under temperature up to 135°C for periods of 20 minutes with the ambient temperature is 30°C or lower.

#### Power source:

24V DC±10%

#### Output:

4 to 20mA DC (2-wire) or 1 to 5V DC (3-wire)

#### Load resistance:

 $500\Omega$  max. (For current output)

 $10k\Omega$  min. (For voltage output)

#### Transmission system:

2-wire or 3-wire

#### Accuracy:

 $\pm 1.0\%$  F.S. at 23°C (However, the 50MPa range is  $\pm 1.5\%$  F.S. for ranges of 0.3MPa and lower.)

#### Temperature coefficient:

±0.1%F.S./°C (zero)

±0.1%F.S./°C (span)

(However, the 50MPa range is  $\pm 0.15\%$  F.S. for ranges of 0.3MPa and lower.)

#### Filled liquid:

Propylene glycol (Compound: Silicone oil)

## Case materials:

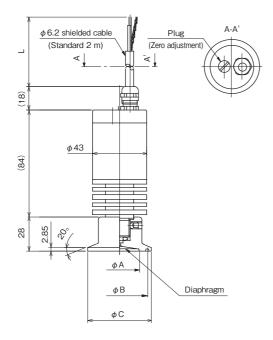
SUS316

#### Case construction:

Equivalent to IP55 (Except the cable end)

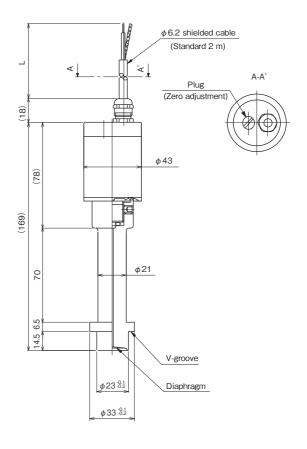
# Sanitary Pressure Transmitter

# Dimensions

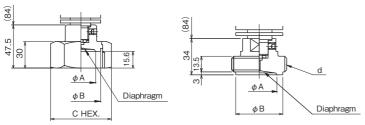


# Ferrule type

Ferrule size	А	В	О
1S, 1½S	32	43.5	50.5
28	47	56.5	64

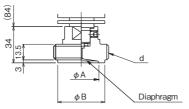


Homogenizer type



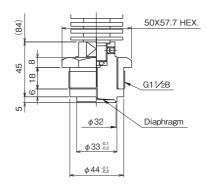
## Nut type

Nut size	А	В	С
1½S	32	42.7	56x64.7 HEX.
2S	47	56.2	71x82 HEX.

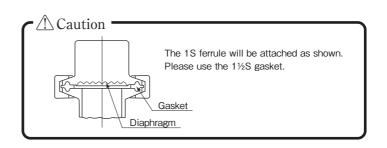


# Male type

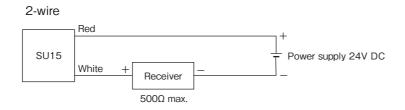
Thread size d	А	В
1½S	32	42.7
28	47	56.2

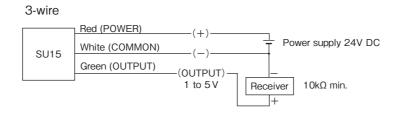


Union thread type



# Wiring





# Pressure range chart

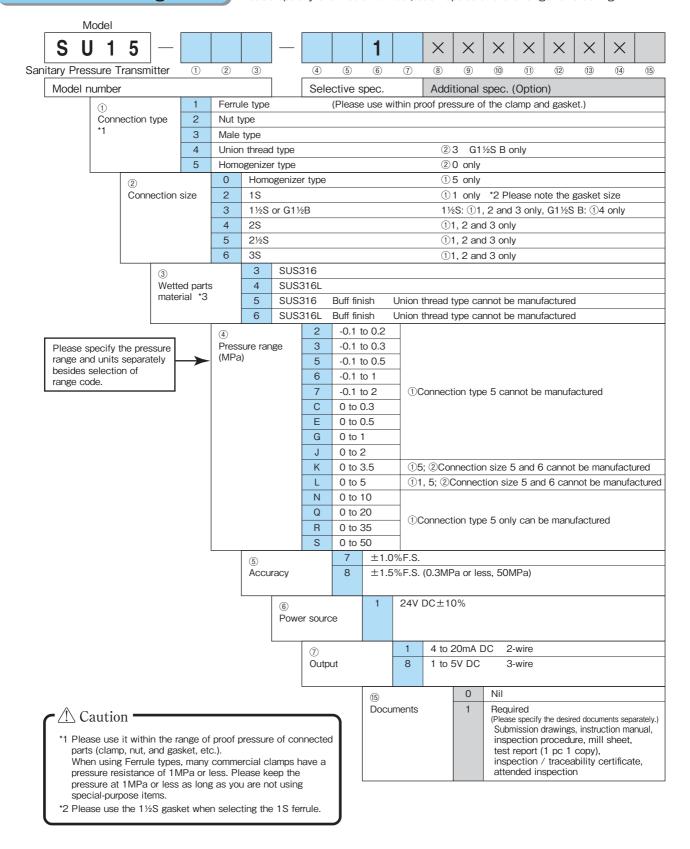
		Pressure range (MPa)				Proof pressure	
Connection type	Size	-0.1~0.2 -0.1~1 ~0.3 ~2 ~0.5	0~0.3 0~2 ~0.5 ~1	0~3.5	0~5	0~10 0~50 ~20 ~35	of wetted parts (MPa)
1 Ferrule type	1S	0	0	0	_	_	3.5
	1¹∕₂S	0	0	0	_	_	
	2S	0	0	0	_	_	
	21/2S	0	0	_	_	_	- 2
	3S	0	0	_	_	_	] -
2 Nut type	1½S	0	0	0	0	_	10
	2S	0	0	0	0	_	7
	21/2S	0	0	_	_	_	- 5
	3S	0	0	_	_	_	] 5
	1¹∕₂S	0	0	0	0	_	10
3 Male type	2S	0	0	0	0	_	7
	21/2S	0	0	_	_	_	- 5
	3S	0	0	_	_	_	5
Union thread type	G11⁄2B	0	0	0	0	_	10
5 Homogenizer type	Homogenizer type	_	_	_	_	0	100

# **SU15**

# Sanitary Pressure Transmitter

# Model number configuration ) F

Please specify the model number, each specs and the range for ordering.



[Manufacturing range]

- · Filled liquid: Propylene glycol
  - Compound: Silicone oil
- · Wetted parts: Diaphragm; SUS316L, Joint; SUS316 or SUS316L
- \*3 Please contact us for electrolytic polishing wetted parts specifications.
- \* Parts required for installation, such as clamps, nuts, gaskets, etc., are to be prepared by the user.
- \* Specify "X" if there is no specification item.