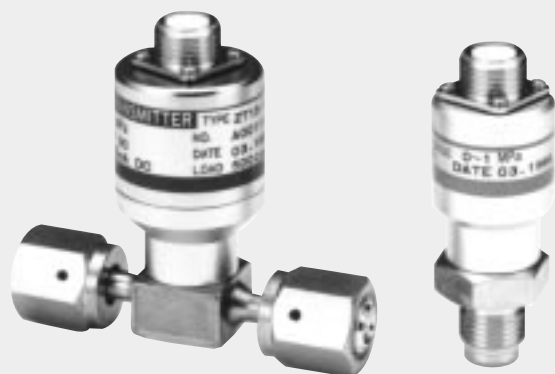


# For Semiconductor Industry Ba Grade ZT17 Pressure Transducer ZT15 Pressure Transmitters



## ONLINE

These are pressure transducers and pressure transmitters developed for semiconductor industry, in which pressures are converted into electric signals and transmitted by the sensing portion equipped with an evaporation type semiconductor strain gauge and a built-in electronic circuit. Without deteriorating corrosion resistance and hermetic properties, these pressure transducers and pressure transmitters comply with lowering costs regarding gas piping, and are economical.

## FEATURE

- The high corrosion resistant pressure sensor made of Co-Ni alloy is directly welded to the 316Lst.st. coupling portion, demonstrating excellent corrosion resistance and hermetic properties.
- The measuring gas contacting surface finish is approximately 2.5  $\mu\text{m}$  R max. The surface is cleaned by removing grease.
- These pressure transducers and pressure transmitters have been assembled, adjusted, inspected and packaged in a clean room, paying special attention for maintaining cleanliness.
- Available to supply the CE marking conformity products. (EMC standard: EN55011, EN50082-2)

## SPECIFICATION

### Fluid:

Various kinds of process gases

### Operating condition:

Under the normal condition, where there is no inflammable gas  
And liquid which cause the ignition or explosion.

### Configuration:



### Connection:

1/4"

(UJR fitting, VCR fitting, JSK fitting)

### Pressure sensor seal method:

Welding type

### Gas contact parts:

Fitting 316Lst.st.  
Pressure sensor Co-Ni alloy

### Pressure range:

0 ~ 0.3 → 0 ~ 20MPa (0 ~ 3 → 0 ~ 200kgf/cm<sup>2</sup>)  
-0.1 ~ 0.3 → -0.1 ~ 2MPa (-1 ~ 3 → -1 ~ 20kgf/cm<sup>2</sup>)

### Max. allowable pressure:

200% of rated pressure

### Operating temperature:

-20 ~ 70 °C

### Storage temperature:

-30 ~ 80 °C

### Accuracy:

±1.0%F.S. or ±0.5%F.S. (More than 0.5MPa range)

### Temperature coefficient:

±0.1%F.S./°C (Zero) [Accuracy ±1.0%F.S.]  
±0.1%F.S./°C (Span) [Accuracy ±1.0%F.S.]  
or  
±0.05%F.S./°C (Zero) [Accuracy ±0.5%F.S.]  
±0.05%F.S./°C (Span) [Accuracy ±0.5%F.S.]

### Electrical characteristics:

Pressure transducer (ZT17)

Power source 5VDC

Input and output Impedance 3.5k $\Omega$  (typ.)

\* Transducers are always used with digital indicators or ZT amplifier.

Pressure transmitter (ZT15)

Transmission system: 2wire system

Power source 24VDC ±10%

Transmission system: 3 wire system

Power source 24VDC ±10%  
or 12VDC ±10%

Output 4 ~ 20mA DC

Load resistance 500 $\Omega$  max.

Output 1 ~ 5V DC

Load resistance 10 $\Omega$  min.

### Construction:

Indoor use

### Inner surface:

2.5  $\mu\text{m}$  Rmax.

### Leakage: (Helium leak rate)

$5.07 \times 10^{-12}$  Pa · m<sup>3</sup>/s or less ( $5 \times 10^{-11}$  atm · cc/s or less)

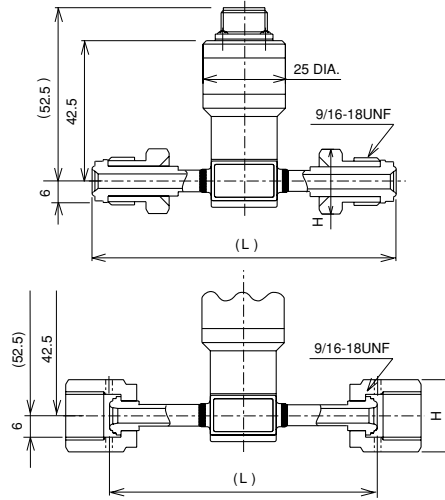
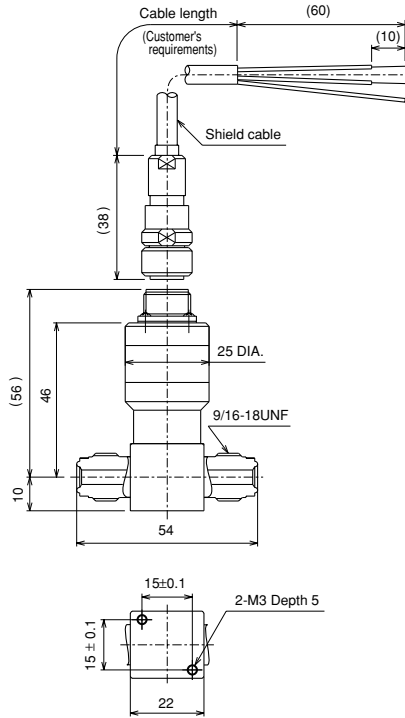
### Washing:

Degrease

# DIMENSIONS 1

## ZT17 Pressure Transducer

### Type T

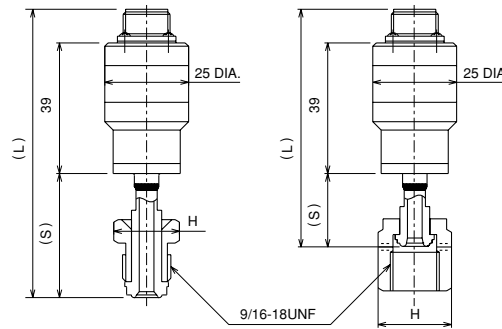
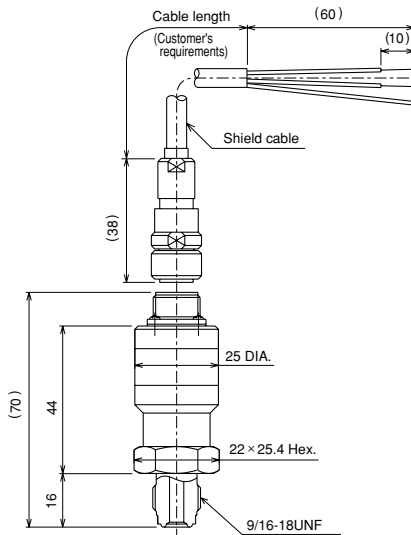


Model No.	Connection of fitting	Piping DIA.	Size M
ZT17-13N	Compatible with VCR Male	1/4"	9/16-18UNF

Model No.	Connection of fitting	Piping DIA.	Size M	Dimensions	
				H	S
ZT17-1EN	Male nut (TOM JOINT) *1	1/4"	9/16-18UNF	16×18.5 Hex.	90
ZT17-1GN	Female nut (TOM JOINT) *1	1/4"	9/16-18UNF	19×21.9 Hex.	79
ZT17-1JN	VCR Male nut	1/4"	9/16-18UNF	16×18.5 Hex.	86
ZT17-1LN	VCR Female nut *2	1/4"	9/16-18UNF	19×21.9 Hex.	80.8
ZT17-1NN	UJR Male nut	1/4"	9/16-18UNF	17×19.6 Hex.	92
ZT17-1QN	UJR Female nut (Without pure ring)	1/4"	9/16-18UNF	19×21.9 Hex.	81

\* 1 Compatible with VCR  
\* 2 Bearings are not included.

### Type S



Model No.	Connection of fitting	Piping DIA.	Size M
ZT17-23N	Compatible with VCR Male	1/4"	9/16-18UNF

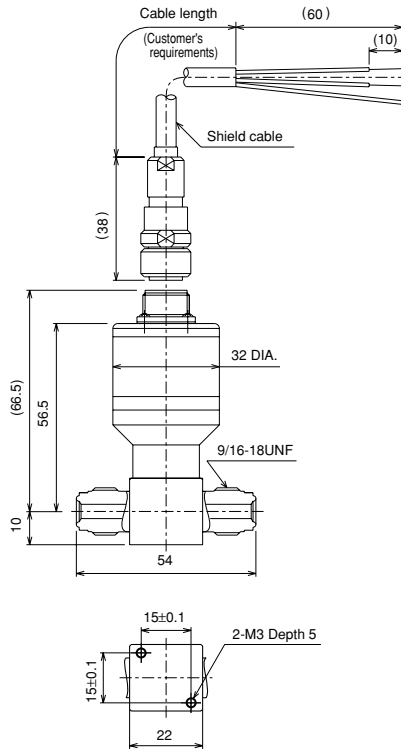
Model No.	Connection of fitting	Piping DIA.	Size M	Dimensions		
				L	H	S
ZT17-2EN	Male nut (TOM JOINT) *1	1/4"	9/16-18UNF	79.5	16×18.5 Hex.	30.5
ZT17-2GN	Female nut (TOM JOINT) *1	1/4"	9/16-18UNF	79.5	19×21.9 Hex.	30.5
ZT17-2JN	VCR Male nut	1/4"	9/16-18UNF	83	16×18.5 Hex.	34
ZT17-2LN	VCR Female nut *2	1/4"	9/16-18UNF	70.8	19×21.9 Hex.	21.8
ZT17-2NN	UJR Male nut	1/4"	9/16-18UNF	86	17×19.6 Hex.	37
ZT17-2QN	UJR Female nut (Without pure ring)	1/4"	9/16-18UNF	70.7	19×21.9 Hex.	21.7

\* 1 Compatible with VCR  
\* 2 Bearings are not included.

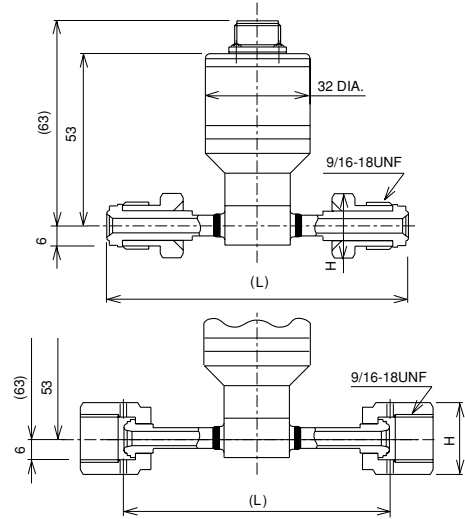
## DIMENSIONS 2

### ZT15 Pressure Transmitter

#### Type T



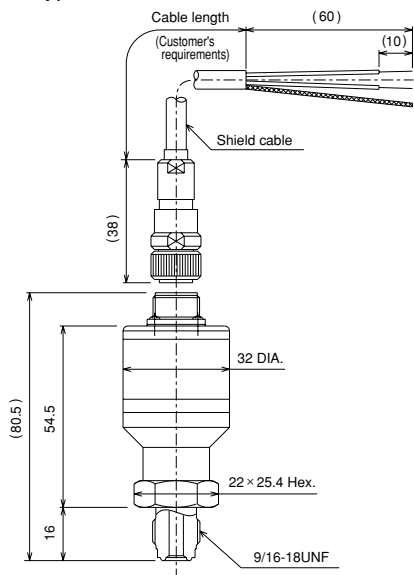
Model No.	Connection of fitting	Piping DIA.	Size M
ZT15-13N	Compatible with VCR Male	1 / 4 "	9/16-18UNF



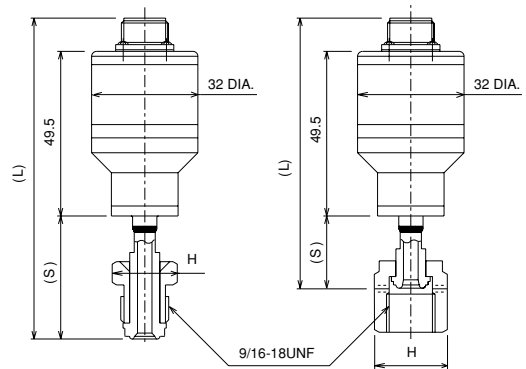
Model No.	Connection of fitting	Piping DIA.	Size M	Dimensions	
				H	S
ZT15-1EN	Male nut (TOM JOINT) *1	1 / 4 "	9/16-18UNF	16 × 18.5 Hex.	90
ZT15-1GN	Female nut (TOM JOINT) *1	1 / 4 "	9/16-18UNF	19 × 21.9 Hex.	79
ZT15-1JN	VCR Male nut	1 / 4 "	9/16-18UNF	16 × 18.5 Hex.	86
ZT15-1LN	VCR Female nut *2	1 / 4 "	9/16-18UNF	19 × 21.9 Hex.	80.8
ZT15-1NN	UJR Male nut	1 / 4 "	9/16-18UNF	17 × 19.6 Hex.	92
ZT15-1QN	UJR Female nut (Without pure ring)	1 / 4 "	9/16-18UNF	19 × 21.9 Hex.	81

\* 1 Compatible with VCR  
\* 2 Bearings are not included.

#### Type S



Model No.	Connection of fitting	Piping DIA.	Size M
ZT15-23N	Compatible with VCR Male	1 / 4 "	9/16-18UNF

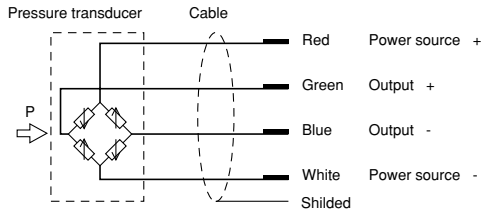


Model No.	Connection of fitting	Piping DIA.	Size M	Dimensions		
				L	H	S
ZT15-2EN	Male nut (TOM JOINT) *1	1 / 4 "	9/16-18UNF	90	16 × 18.5 Hex.	30.5
ZT15-2GN	Female nut (TOM JOINT) *1	1 / 4 "	9/16-18UNF	90	19 × 21.9 Hex.	30.5
ZT15-2JN	VCR Male nut	1 / 4 "	9/16-18UNF	93.5	16 × 18.5 Hex.	34
ZT15-2LN	VCR Female nut *2	1 / 4 "	9/16-18UNF	81.3	19 × 21.9 Hex.	21.8
ZT15-2NN	UJR Male nut	1 / 4 "	9/16-18UNF	96.5	17 × 19.6 Hex.	37
ZT15-2QN	UJR Female nut (Without pure ring)	1 / 4 "	9/16-18UNF	81.2	19 × 21.9 Hex.	21.7

\* 1 Compatible with VCR  
\* 2 Bearings are not included.

# WIRING

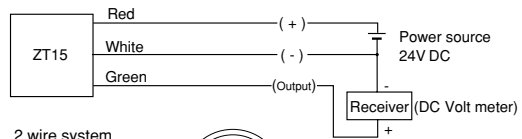
## ZT17 Pressure transducer



Note: Output stability is directly determined by the power supply stability. Use a power supply which is properly stabilized.

## ZT15 Pressure transmitter

### 3 wire system

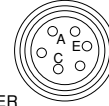


### 2 wire system

A (red) +  
C (white) -

### 3 wire system

A (red) POWER  
C (white) COMMON  
E (green) OUTPUT



## Type No. constitution

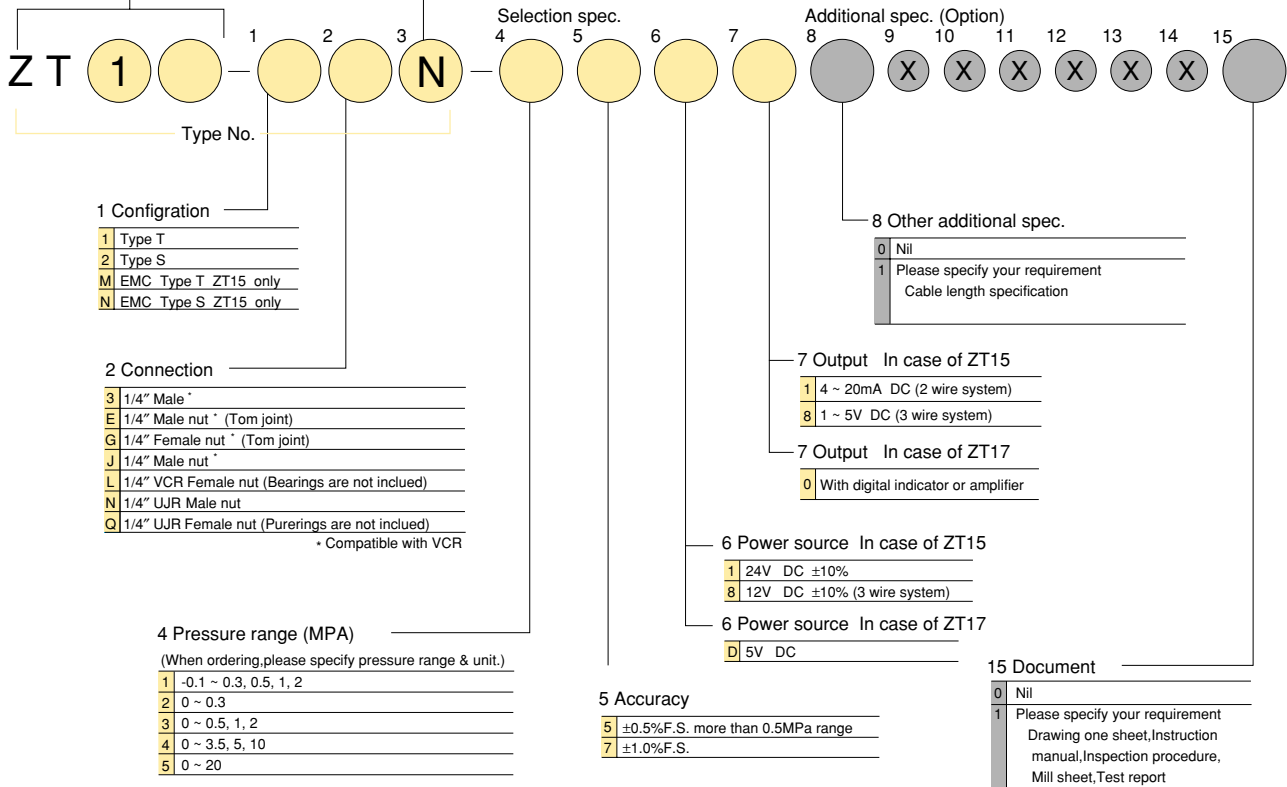
Please specify Type No., each specification and range, when ordering.

Note: For this Model, there is no applicable item for the figures X, but please specify X when ordering.

Z	T	1	5	Pressure transmitter	BA grade
Z	T	1	7	Pressure transducer	BA grade

### 3 Grade • Gas contact parts

N CoNi - Alloy



The contents in the catalogue are subject to change without notice.

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