

TPS20 Series(electric pressure transmitter) as high accuracy high reliable pressure transmitter using Stainless steel diaphragm, is able to measure whole scale, 0.2~350 Kg/cm²G and has absolute pressure, 0~30Kg/cm²Abs type.

Features

- Measuring for Air, Water, Oil, etc.
- A variety of model according to field application
 - Head type
 - Din connector type
 - Connector cable type
- Adoption of suitable Stainless Steel Diaphragm for temperature character
- 4~20mA transmission output by 2-wire

Ordering Codes

| | | | |
|---|----|------------------------------|--|
| ① TPS20 | | Description | ① Pressure Transmitter |
| ② Pressure Type | G | Gauge Pressure | ② Pressure Type |
| | A | Absolute Pressure | ③ Connector Type |
| ③ Type | 1 | Head Type | ④ Pressure range |
| ※ Cable selection 2M, 5M (Separate goods) | 2 | Din Connector Type | ⑤ Process Connection |
| | 3 | Connector Cable Type | |
| ④ Range ※ mark is possible for absolute pressure | 1 | 0 - 0.2 kgf/cm ² | C 0 - 200 kgf/cm ² |
| | 2 | 0 - 0.5 kgf/cm ² | F 0 - 300 kgf/cm ² |
| | 3 | * 0 - 1 kgf/cm ² | H 0 - 350 kgf/cm ² |
| | 4 | * 0 - 2 kgf/cm ² | M -760mmHg - 0 kgf/cm ² |
| | 5 | * 0 - 5 kgf/cm ² | O -760mmHg - 1 kgf/cm ² |
| | 6 | * 0 - 10 kgf/cm ² | Q -760mmHg - 5 kgf/cm ² |
| | 7 | * 0 - 20 kgf/cm ² | V -760mmHg - 10 kgf/cm ² |
| | 8 | * 0 - 30 kgf/cm ² | X -760mmHg - 20 kgf/cm ² |
| | 9 | 0 - 50 kgf/cm ² | Y -760mmHg - 30 kgf/cm ² |
| | A | 0 - 100 kgf/cm ² | Z Others |
| ⑤ Process Connection | P2 | PT 1/2" | |
| | P8 | PT 3/8 | |
| | F8 | PF 3/8" (Standard) | ※ In case of ordering only cable, code shall be 'TPS2L', 'TPS2L', 'TPS5L', 'TPS5L', etc. |
| | ZZ | Others | |
| Option (Connector cable) | 00 | None | |
| | 2L | "L"Type 2M | |
| | 2L | "L"Type 2M | |
| | 5L | "L"Type 5M | |
| | 5L | "L"Type 5M | |



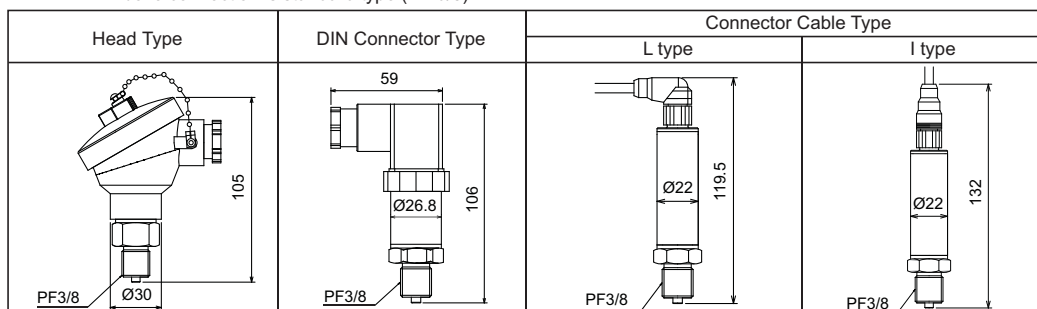
Specifications

| | | |
|----------------------------|---|--|
| Measuring range | -760mmHg ~ 0 to 30 Kg/cm ² A (Compound pressure) 0~0.2 to 350 Kg/cm ² G (Gauge pressure) 0~1.0 to 30 Kg/cm ² Abs (Absolute pressure) | |
| Allowable over pressure | 300% of max. Span | |
| Electric characteristic | Power supply | 15V~35VDC |
| | Output | 4-20mA DC |
| | Load resistance | 600Ω Max |
| | Consumption power | 0.5W |
| Accuracy | ±0.3% F.S.(Linearity, Hysteresis, Repeatability) | |
| | Linearity | ±0.3% F.S -10~50℃±0.3% F.S 50~70℃±0.5% F.S((except for -10~50℃)) |
| | Hysteresis | ±0.3% F.S |
| Using temp. / Humidity | -10~70℃, 5~95%RH | |
| Temperature Characteristic | Z e r o | ±0.03%F.S |
| | S p a n | ±0.03%F.S (25℃ STD.) |
| Response time | Less 100mS | |
| Connection | PF 3/8(STD.) (Option : PT 3/8, PT 1/2) | |
| Material | Element | Diaphragm : SUS 316 Sealing : SUS 316 |
| | C a s e | O-ring : Fluorine rubber Connection : SUS316 |
| Range | Refer to Range table | |
| Case protection | Weatherproof | |
| Weight | Approx. 320g (Head type STD.) | |

Dimensions

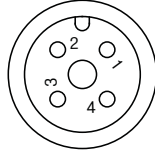
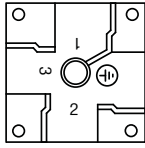
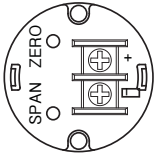
* Above connection is standard type (PF 3/8).

(Unit : mm)



Connections

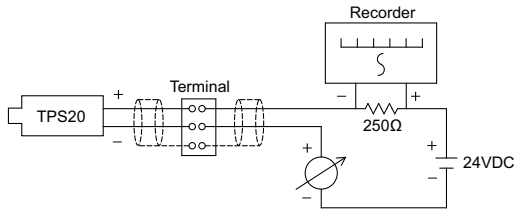
- Head Type
- DIN Connector Type
- Connector Cable Type



1 : +
2 : -
⊥ : F.G

1 : +
3 : Ground
4 : -

- External connections



4-20mA
Power 24VDC load 600Ω
output 4-20mA 2wire

Mounting | Transportation | Storage | Repair

- **Mounting** : When mounting this unit to pressure line, please use hexagon of connector instead of pipe wrench.
Also please do not use it where sharp vibration occurs
- **Transportation** : As precision instrument, because drop or shock may cause mechanical trouble, please be careful during transportation.
- **Storage** : Please store it in the place without moisture, dust, vibration.
- **Repair** : This unit is unnecessary for repair because detector has not the operating parts.
Internal parts are usually clean but it shall need repair according to the using condition.
Regular repair cycle should be done every year. In this case, please check as following clause.
 - * Please check external connector damages.
 - * Please check pressure connector, internal cleanness, corrosion.
 - * After short circuit, please check isolated resistance between case and power supply.
 - * Please check Zero/Span and linearity by using standard pressure equipment.
 - ※ In case of disconnecting sensor in order for repair / checking, please operate as follows.
 - (a) Please replace the used O-Ring.
 - (b) Please be care of sensor diaphragm element in order to avoid from damages.

Diagnosis defect

| Error situation | Diagnosis Clause |
|--|--|
| It is not outputting. | Does it power on? Is wiring (+.-) correct? Is not connection defective? |
| Output is strangely fluctuating. | Is power normally supplied? Is pressure correctly supplied? Is there any problem in pressure line? |
| Output value of zero point is largely different. | Is power normally supplied? Is load resistance of receiving instrument in excess of 600Ω? How about the transmitting distance to measuring point? Is the line resistance large? (Max. 600Ω) |

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|----------|-----------------|
| A | Recorders |
| B | Data Loggers |
| C | Indicators |
| D | Converters |
| E | Controllers |
| F | Thyristor Units |
| G | Transmitters |
| H | Temp. Sensors |
| I | Thermo Meters |
| J | Pressure Gauges |
| K | Others |

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| TPS20 Series |
| IDP |
| IGP-10 / IAP-10 |
| KT - 302H |
| KT - 502H |
| CN-502H/ CN-501H |
| SS - 5300 |

High-Reliability Pressure Transmitter
KONICS