

# Autonics Display Pressure Transmitter KT-302H SERIES

## INSTRUCTION MANUAL

Thank you for choosing our Autonics product.  
Please read the following safety considerations before use.

### Safety Considerations

- ※ Please observe all safety considerations for safe and proper product operation to avoid hazards.
- ※ ⚠ symbol represents caution due to special circumstances in which hazards may occur.
- Warning** Failure to follow these instructions may result in serious injury or death.
- Caution** Failure to follow these instructions may result in personal injury or product damage.

### Warning

- Fail-safe device must be installed when using the unit with machinery that may cause serious injury or substantial economic loss.** (e.g. nuclear power control, medical equipment, ships, vehicles, railways, aircraft, combustion apparatus, safety equipment, crime/disaster prevention devices, etc.)  
Failure to follow this instruction may result in personal injury, fire or economic loss.
- Do not use the unit in the place where flammable/explosive/corrosive gas, high humidity, direct sunlight, radiant heat, vibration, impact, or salinity may be present.**  
Failure to follow this instruction may result in explosion or fire.
- The explosion-proof standard of this unit is Ex d IIC T6, protection structure of this unit is IP67 and the range of max. surface temperature is below 85°C.**
- Do not disassemble or modify the unit.**  
Failure to follow this instruction may result in fire or electric shock.

### Caution

- Do not apply beyond the rated pressure.**  
Failure to follow this instruction may result in product damage.
- Use the unit within the rated specifications.**  
Failure to follow this instruction may result in fire or product damage.
- Keep metal chip, dust, and wire residue from flowing into the unit.**  
Failure to follow this instruction may result in fire or product damage.
- Check the polarity of the contact before wiring the unit.**  
Failure to follow this instruction may result in product damage by a fire.
- This product is designed to detect the pressure of noncorrosive fluid. Do not use for corrosive fluid.**  
Failure to follow this instruction may result in product damage.
- Use a dry cloth to clean the unit, and do not use water or organic solvent.**  
Failure to follow this instruction may result in fire.

### Ordering Information

KT-302H S - 01 0 0 (-0.1~35MPa)

| Item                    | Description                               |
|-------------------------|---|
| ① Item                  | KT-302H Pressure Transmitter              |
| ② Measurement pressure  | S Gauge pressure, sealed gauge pressure*1 |
|                         | A Absolute pressure                       |
| ③ Rated pressure range  | Gauge pressure                            |
|                         | 01 0 to 35kPa                             |
|                         | 02 0 to 0.1MPa                            |
|                         | 03 0 to 0.2MPa                            |
|                         | 04 0 to 0.7MPa                            |
|                         | 05 0 to 2MPa                              |
|                         | 06 0 to 3.5MPa                            |
|                         | 07 0 to 7MPa                              |
|                         | 08 0 to 21MPa                             |
|                         | 09 0 to 35MPa                             |
| ④ Mounting bracket      | Sealed gauge pressure*1                   |
|                         | 14 -0.1 to 0MPa                           |
|                         | 15 -0.1 to 0.2MPa                         |
|                         | 16 -0.1 to 0.7MPa                         |
|                         | 17 -0.1 to 2MPa                           |
|                         | 18 -0.1 to 3.5MPa                         |
|                         | Z Others                                  |
|                         | 0 Without bracket                         |
| ⑤ Pressure port         | 1 With bracket                            |
|                         | 0 G3/8 (PF, standard)                     |
| ⑥ User pressure range*2 | 1 Others                                  |
|                         | 0 User pressure range                     |

※ 1: The pressure is sealed gauge pressure. The unit is sealed structure. It is based on atmospheric pressure 101.3kPa (1.013bar).  
※ 2: Write the desired pressure range and it is the default of user pressure range. (select "Z" at ③ Rated pressure range)

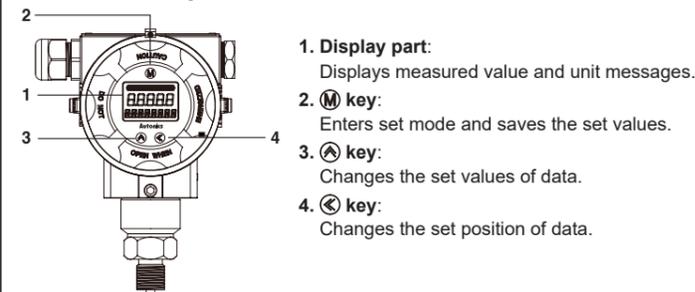
※ The above specifications are subject to change and some models may be discontinued without notice.  
※ Be sure to follow cautions written in the instruction manual and the technical descriptions (catalog, homepage).

### Specifications

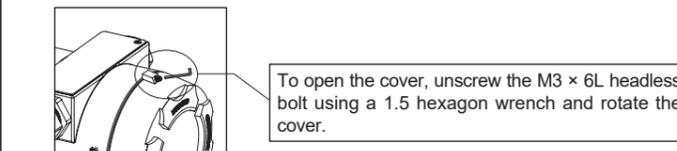
|                      |   |                                     |
|----------------------|---|-------------------------------------|
| Series               | KT-302H   |                                     |
| Measured materials   | Vapor, Liquid, Fluid (except corrosive environment of SUS316)                                 |                                     |
| Power supply         | 9-45 VDC=   |                                     |
| Display method       | PV display part: 7-segment 5-digit, Bar LED: 52<br>Parameter display part: 16-segment 8-digit |                                     |
| Display range        | -9999 to 99999  |                                     |
| Output               | DC4-20 mA (2-wire)<br>Low-limit 3.8 mA, High-limit 22.8 mA                                    |                                     |
| Accuracy*1           | ±0.3% of F.S.   |                                     |
| Setting method       | Setting by front push keys and HART-protocol  |                                     |
| Sampling cycle       | 200ms   |                                     |
| Environment          | Ambient temperature   | -20 to 70 °C, storage: -40 to 85 °C |
|                      | Ambient humidity  | 0 to 85%RH, storage: 0 to 85%RH     |
| Material             | Body: Aluminum (AlDc.8S), Cover O-Ring: Buna N, Diaphragm, connections: Stainless steel 316   |                                     |
| Explosion class*2    | Ex d IIC T6   |                                     |
| Protection structure | IP67 (IEC standard)   |                                     |
| Weight*3             | Approx. 1.7 kg (approx. 1.4 kg)   |                                     |

※ 1: F.S.: Rated pressure range.  
※ 2: The explosion class specification is acquired and managed by KONICS.  
※ 3: The weight includes packaging. The weight in parenthesis is for unit only.  
※ Environment resistance is rated at no freezing or condensation.

### Unit Descriptions

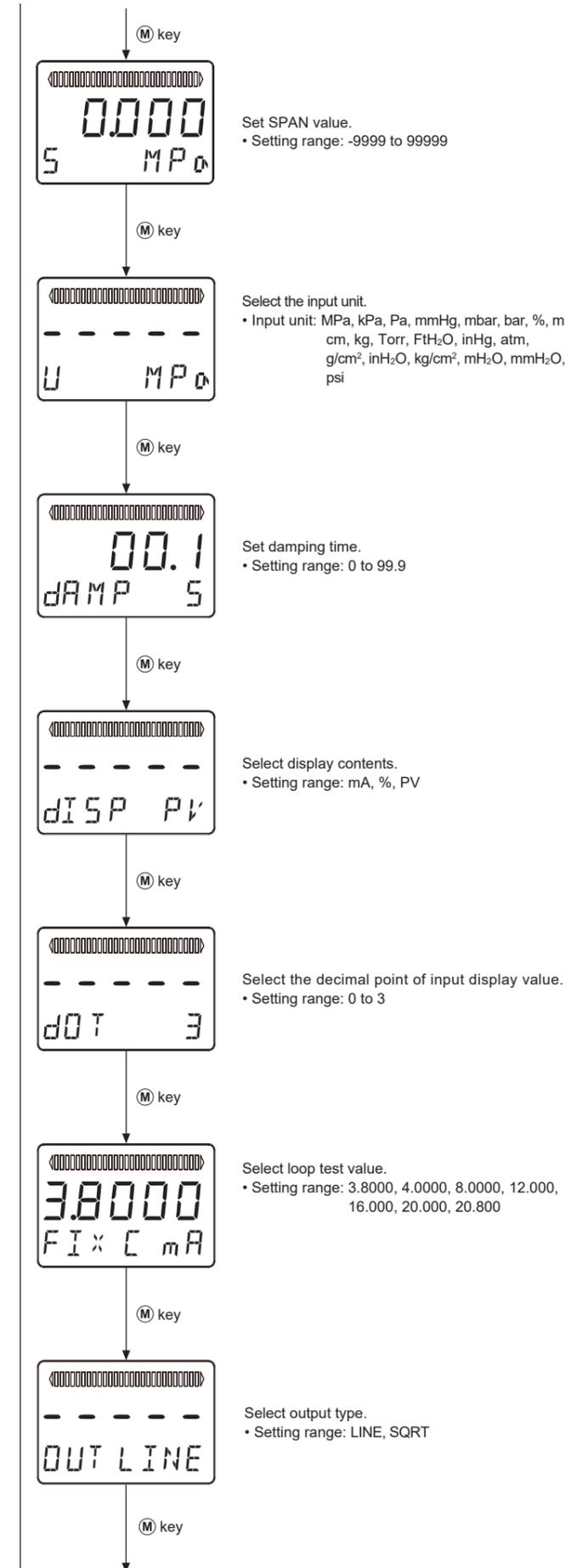
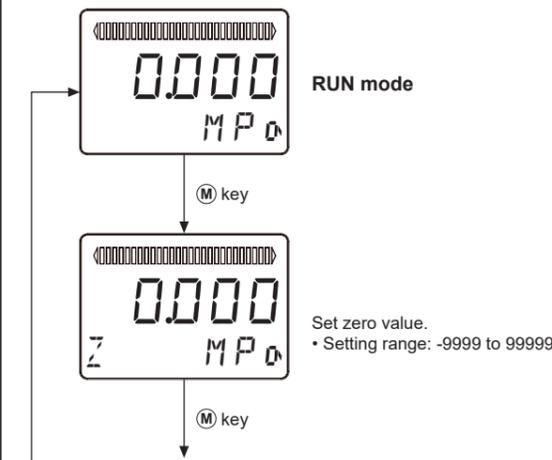


### Opening the Cover

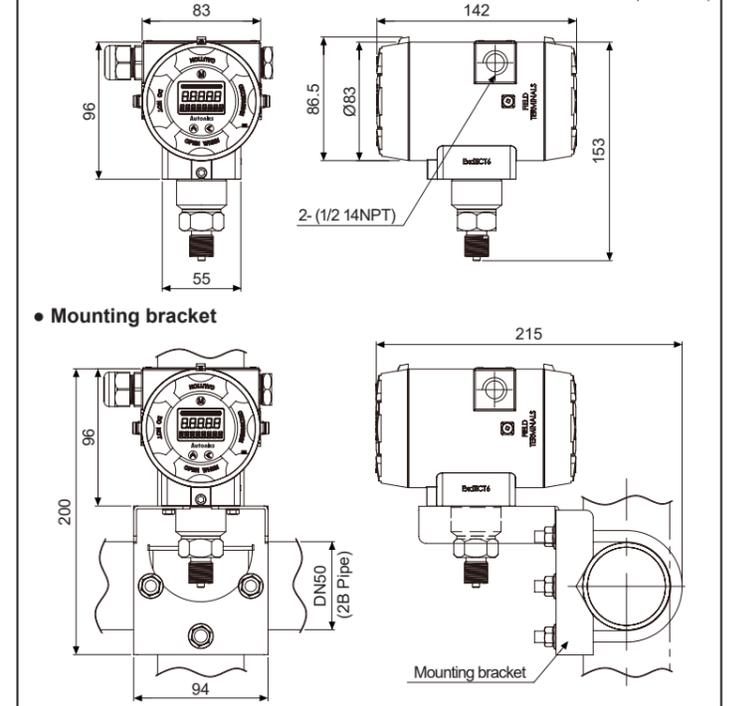


### Parameters

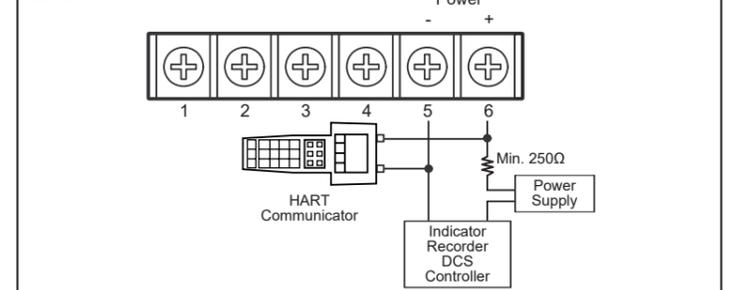
※ Do not press the A and C keys at the same time, or the product is reset and it does not operate.  
※ C: Moves digits / A: Changes set value  
※ Press the M key after checking/changing the set value and it saves and moves to the next parameter.  
※ Factory default depends on the pressure range of model.  
※ Below displays for parameters are different by models.



### Dimensions



### Connections



### Cautions during Use

- Follow instructions in 'Cautions during Use'. Otherwise, It may cause unexpected accidents.
- 9-45VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.
- The connection of this unit should be separated from the power line and high voltage line in order to prevent inductive noise.
- Do not use this unit near the high frequency instruments
- Switch or circuit breaker for supplying or cutting off the power should be installed nearby users for convenient control.
- Use verified explosion-proof cable gland or sealing fitting. (explosion proof standard: over Ex d IIC T6, IP rating: over IP67 protection structure).
- Use dedicated external terminal for earth. For connecting earth, use a spring washer and earth cable which is over 4mm<sup>2</sup>.
- This unit may be used in the following environments.
  - Indoor / Outdoor (in the environment condition rated in 'Specifications')
  - Altitude max. 2,000 m
  - Pollution Degree 2
  - Installation Category II

※ The explosion-proof unit is certified and the same specifications which is reported to Korea Gas Safety Corporation. (This unit is manufactured following by the announcement 2013-54 of Ministry of Employment and Labor of Korea.)