

Autonics Smart Pressure Transmitter

KT-302H SERIES

MANUAL



Thank you very much for selecting Autonics products.
For your safety, please read the following before using.

Caution for your safety

- ※ Please keep these instructions and review them before using this unit.
- ※ Please observe the cautions that follow;
- Warning** Serious injury may result if instructions are not followed.
- Caution** Product may be damaged, or injury may result if instructions are not followed.
- ※ The following is an explanation of the symbols used in the operation manual.
- Caution:** Injury or danger may occur under special conditions.

Warning

- In case of using this unit with machinery (Ex: nuclear power control, medical equipment, ship, vehicle, train, airplane, combustion apparatus, safety device, crime/disaster prevention equipment, etc) which may cause damages to human life or property, it is required to install fail-safe device. It may cause a fire, human injury or damage to property.
- Check explosion-proof standard(Ex d IIC T6) of this unit and do not use it in place where there are flammable or explosive gas, humidity, direct ray the light, radiant heat, vibration and impact etc. It may cause a fire or explosion.
- Do not disassemble the case. Please contact us if it is required. It may cause electric shock or a fire.

Caution

- Do not apply beyond rated pressure. It may cause a damage to the product.
- Please observe the rated specifications. It may shorten the life cycle of the product and cause a fire.
- Do not inflow dust or wire dregs into the unit. It may cause a fire or a malfunction.
- Wire it properly after checking polarity of terminal. It may cause a damage to the product.
- Please contact our service center if using for the corrosive detergent. It may shorten the life cycle of the product and cause a damage to the product.
- In cleaning unit, do not use water or organic solvent. And use dry cloth. It may cause electric shock or a fire.
- The explosion-proof standard of this unit is Ex d IIC T6 IP67 and the range of max. surface temperature is below 85°C.

Ordering information

KT-302H S - 01 0 0

Item	Description
① Item	KT-302H Pressure Transmitter
② Measurement pressure	S Gauge pressure
	A Absolute pressure
	Gauge pressure Absolute pressure
③ Pressure range	01 0 to 0.35kgf/cm ² 0 to 0.35kgf/cm ²
	02 0 to 1kgf/cm ² 0 to 1kgf/cm ²
	03 0 to 2kgf/cm ² 0 to 2kgf/cm ²
	04 0 to 7kgf/cm ² 0 to 7kgf/cm ²
	05 0 to 20kgf/cm ² 0 to 20kgf/cm ²
	06 0 to 35kgf/cm ² 0 to 35kgf/cm ²
	07 0 to 70kgf/cm ² —
	08 0 to 210kgf/cm ² —
	09 0 to 350kgf/cm ² —
	14 -760mmHg to 0kgf/cm ² —
15 -760mmHg to 2kgf/cm ² —	
16 -760mmHg to 7kgf/cm ² —	
17 -760mmHg to 20kgf/cm ² —	
18 -760mmHg to 35kgf/cm ² —	
Z Others	
④ Mounting bracket	0 Without bracket
	1 With bracket
⑤ Pressure port	0 PF 3/8" (Standard)
	1 Others

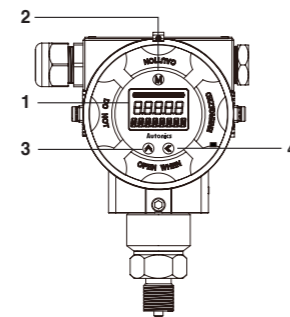
※ The above specifications are subject to change and some models may be discontinued without notice.

Specification

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: 52EA Parameter display part: 16 Segment 8 digit	
Display range	-9999 to 99999	
Output	4-20 mA (2-wire) Low-limit 3.8 mA, High-limit 22.8 mA	
Accuracy	±0.2% of Span	
Setting method	Setting by front push keys and HART-protocol	
Sampling cycle	200ms	
Environment	Ambient temperature	0 to 85%RH, storage: 0 to 85%RH
	Ambient humidity	-20 to 70 °C, storage: -40 to 85 °C
Material	Body: Aluminum(AIDc.8S), Cover O-Ring: Buna N, Diaphragm: SUS316, Connections: SUS316	
Explosion class	Ex d IIC T6 IP67	
Unit weight*1	Approx. 1.7 kg(Approx. 1.4 kg)	

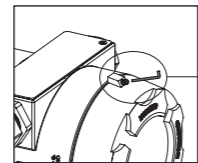
*1: The weight is with packaging and the weight in parentheses is only unit weight.
※ Environment resistance is rated at no freezing or condensation.

Part descriptions



- Display part:** Displays measured value and unit messages.
- M key:** Enters set mode and saves the set values.
- A key:** Changes the set values of data.
- L key:** Changes the set position of data.

Opening cover

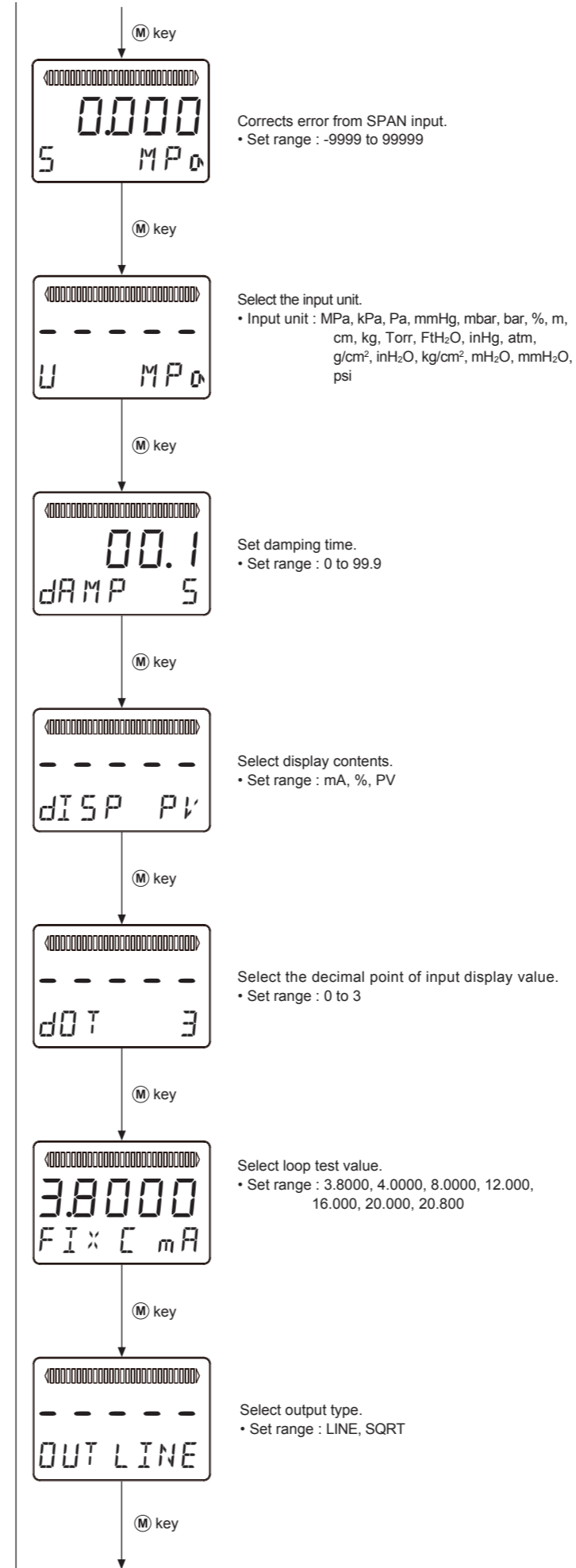
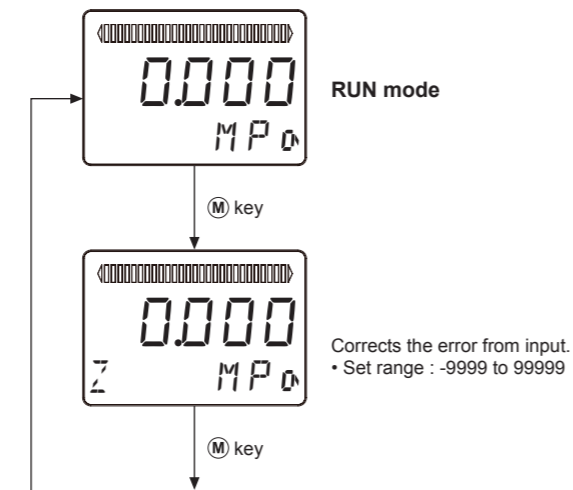


To open the cover, unscrew the M3 X 6L headless bolt using a 1.5 hexagon wrench and rotate the cover.

Parameters

※ Do not press the A and L keys at the same time, or the product is initialized and does not operate.

- ※ L : Moves digits / A : Changes set value
- ※ Press the M key after checking 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.



Corrects error from SPAN input.
• Set range : -9999 to 99999

Select the input unit.
• Input unit : MPa, kPa, Pa, mmHg, mbar, bar, %, m, cm, kg, Torr, FtH₂O, inHg, atm, g/cm², inH₂O, kg/cm², mH₂O, mmH₂O, psi

Set damping time.
• Set range : 0 to 99.9

Select display contents.
• Set range : mA, %, PV

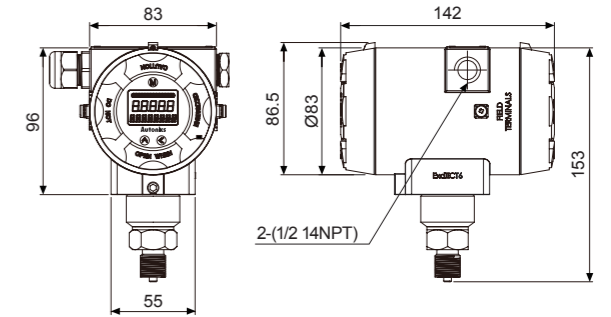
Select the decimal point of input display value.
• Set range : 0 to 3

Select loop test value.
• Set range : 3.8000, 4.0000, 8.0000, 12.000, 16.000, 20.000, 20.800

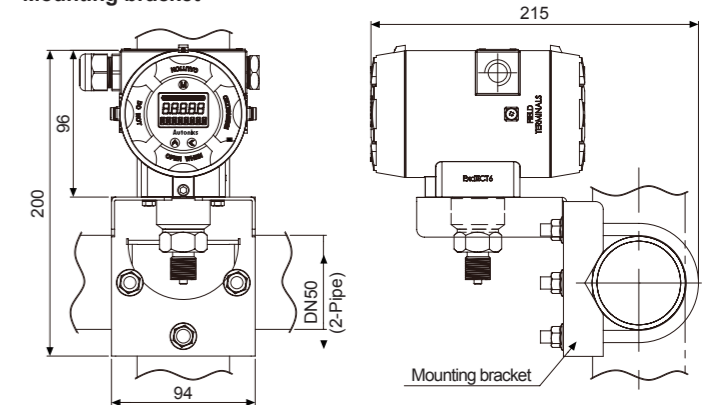
Select output type.
• Set range : LINE, SQRT

Dimensions

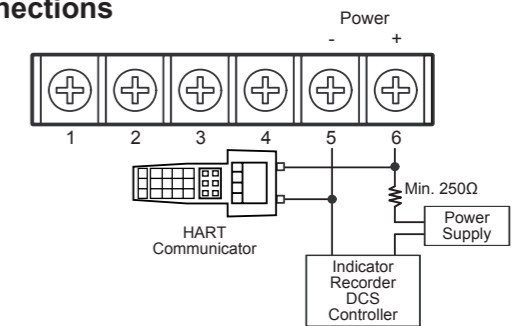
(unit: mm)



Mounting bracket



Connections



Caution for using

- For connecting the power, use a crimp terminal(M3.5, min. 7.2 mm).
 - The connection of this unit should be separated from the power line and high voltage line in order to prevent inductive noise.
 - Install a power switch or a circuit breaker to supply or cut off the power.
 - Switch or circuit breaker should be installed nearby users for convenient control.
 - Do not use this unit near the high frequency instruments(high frequency welding machine & sewing machine, large capacity SCR controller).
 - Installation environment.
 - ① Indoor / Outdoor
 - ② Altitude max. 2,000 m
 - ③ Pollution degree 2
 - ④ Installation category II
 - Use the verified explosion-proof electric connection (cable gland or sealing fitting) (over Ex d IIC T6 IP67).
 - Use the dedicated external terminal for earth. For connecting earth, use a spring washer(earth cable) which is over 4mm².
- ※ We are not responsible for any damages and claims for careless.
Must read the cautions for your safety and using.
※ This explosion-proof unit is certified and the same specifications which is reported to Korea Gas Safety Corporation.
※ If there are any problems with the unit, contact the sales office.
※ It may cause malfunction if above instructions are not followed.

Major product

- Photoelectric sensors
- Fiber optic sensors
- Door sensors
- Door side sensors
- Area sensors
- Proximity sensors
- Pressure sensors
- Rotary encoders
- Connectors/Sockets
- Switching mode power supplies
- Control switches/Lamps/Buzzers
- I/O Terminal Blocks & Cables
- Stepper motors/drivers/motion controllers
- Graphic/Logic panels
- Field network devices
- Laser marking system(Fiber, CO₂, Nd:YAG)
- Laser welding/soldering system
- Temperature controllers
- Temperature/Humidity transducers
- SSR/Power controllers
- Counters
- Timers
- Panel meters
- Tachometer/Pulse(Rate)meters
- Display units
- Sensor controllers
- Recorders
- Indicators
- Converters
- Controllers
- Thyristor units
- Pressure transmitters
- Temperature transmitters

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AEP-E-0653C