

Autonics

Display Pressure Transmitter

KT-302H SERIES

INSTRUCTION MANUAL

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

- ⚠

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

1. 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.

2. 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.

3. 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℃.

4. Do not disassemble or modify the unit.
Failure to follow this instruction may result in fire or electric shock.
- ⚠

Caution

1. Do not apply beyond the rated pressure.
Failure to follow this instruction may result in product damage.

2. Use the unit within the rated specifications.
Failure to follow this instruction may result in fire or product damage.

3. Keep metal chip, dust, and wire residue from flowing into the unit.
Failure to follow this instruction may result in fire or product damage.

4. Check the polarity of the contact before wiring the unit.
Failure to follow this instruction may result in product damage by a fire.

5. 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.

6. 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.

KT-302H

S

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01

0

0

(-0.1~35MPa)

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Item	Description		
①Item	KT-302H	Pressure Transmitter	
②Measurement pressure	S	Gauge pressure, sealed gauge pressure※ ¹	
	A	Absolute pressure	
③Rated pressure range		Gauge pressure	Absolute pressure
	01	0 to 35kPa	0 to 35kPa
	02	0 to 0.1MPa	0 to 0.1MPa
	03	0 to 0.2MPa	0 to 0.2MPa
	04	0 to 0.7MPa	0 to 0.7MPa
	05	0 to 2MPa	0 to 2MPa
	06	0 to 3.5MPa	0 to 3.5MPa
	07	0 to 7MPa	
	08	0 to 21MPa	
	09	0 to 35MPa	
		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	
④Mounting bracket	0	Without bracket	
	1	With bracket	
⑤Pressure port	0	G3/8 (PF, standard)	
	1	Others	
⑥User pressure range※ ²		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 ③Rated 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 Parameter display part: 16-segment 8-digit
Display range		-9999 to 99999
Output		DC4-20 mA (2-wire) 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
Environ-ment	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

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1. Display part:
Displays measured value and unit messages.

2. M key:
Enters set mode and saves the set values.

3. A key:
Changes the set values of data.

4. C key:
Changes the set position of data.

Opening the Cover

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

0000 MPa

M key

0000 MPa

M key

RUN mode

Set zero value.
• Setting range: -9999 to 99999

0.000 MPa

M key

U MPa

M key

00.1 dAMP S

M key

disp PV

M key

dot 3

M key

3.8000 F I × C mA

M key

OUT LINE

M key

Set SPAN value.
• Setting 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.
• Setting range: 0 to 99.9

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

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

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

Select output type.
• Setting range: LINE, SQRT

Dimensions

• Mounting bracket

Connections

Cautions during Use

1. Follow instructions in 'Cautions during Use'. Otherwise, It may cause unexpected accidents.

2. 9-45VDC power supply should be insulated and limited voltage/current or Class 2, SELV power supply device.

3. The connection of this unit should be separated from the power line and high voltage line in order to prevent inductive noise.

4. Do not use this unit near the high frequency instruments

5. Switch or circuit breaker for suppling or cutting off the power should be installed nearby users for convenient control.

6. Use verified explosion-proof cable gland or sealing fitting.
(explosion proof standard: over Ex d IIC T6, IP rating: over IP67 protection structure).

7. Use dedicated external terminal for earth. For connecting earth, use a spring washer and earth cable which is over 4mm².

8. This unit may be used in the following environments.

① Indoor / Outdoor (in the environment condition rated in 'Specifications')

② Altitude max. 2,000 m

③ Pollution Degree 2

④ 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.)