KT-302H Series

Features

- HART protocol
- 330° rotatable display for environment conditions
- Backlight helps to read easily in the darkness
- Standard and high accuracy sensor
- Self stability and filter device
- High electrical compatibility
- Realizes high accuracy(±0.2%) measurement by stainless steel diaphragm of pressure sensing part for various measured subjects
- 4-20 mA analog output (2-wire)
- Explosion class : Ex d IIC T6 IP67

Please read "Caution for your safety" in operation manual before using this unit.

Ordering information

KT-302H	S	—	01	0	0
①	②		③	④	⑤

Item	Description			
①Item	KT-302H	Pressure Transmitter		
②Measurement presssure	S	Gauge prssure		
	A	Absolute prssure		
③Pressure range		Absolute prssure		Gauge pressure
	01	0 to 0.35kgf/cm²	07	0 to 70kgf/cm²
	02	0 to 1kgf/cm²	08	0 to 210kgf/cm²
	03	0 to 2kgf/cm²	09	0 to 350kgf/cm²
	04	0 to 7kgf/cm²	14	-760mmHg to 0kgf/cm²
	05	0 to 20kgf/cm²	15	-760mmHg to 2kgf/cm²
	06	0 to 35kgf/cm²	16	-760mmHg to 7kgf/cm²
		—	17	-760mmHg to 20kgf/cm²
		—	18	-760mmHg to 35kgf/cm²
	Z			
④Mounting bracket	0	Without bracket		
	1	With bracket		
⑤Pressure port	0	PF 3/8″(Standard)		
	1	Others		

Specifications

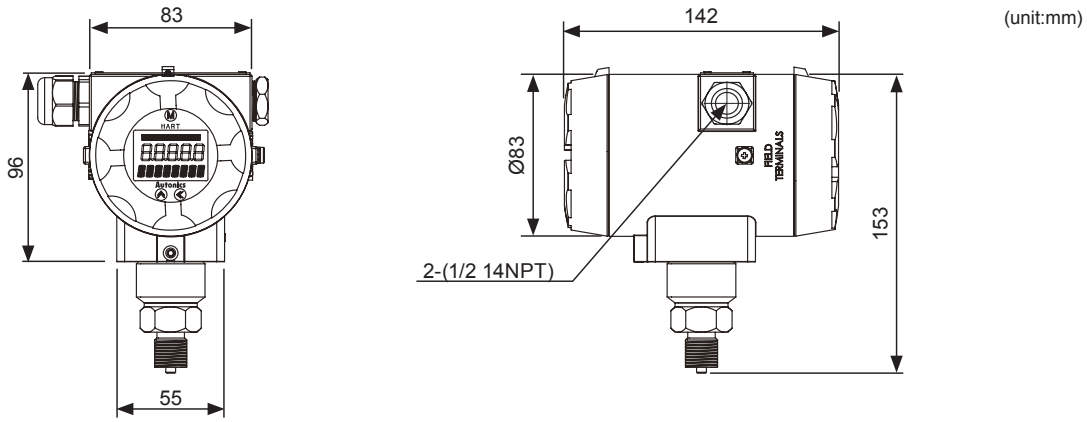
Series		KT-302H
Measured materials		Vapor, Liquid, Fluid (except corrosive environment of SUS316)
Power supply		9-45VDC
Display method		PV display part : 7 Segment 5 digit, Parameter display part: 16 Segment 8 digit, Bar LED : 52EA
Display range		-19999 to 99999
Output		4-20mA (2-wire) Low-limit 3.8mA, High-limit 22.8mA
Accuracy		±0.2% of Span
Setting method		Setting by front push keys and HART-protocol
Sampling cycle		200ms
Environment	Ambient temperature	-20 to 70℃, storage: -40 to 85℃
Material		Body : Aluminum(AlDc.8S), Cover O-Ring : Buna N, Diaphragm : SUS316, Connections : SUS316
Explosion class※1		Ex d IIC T6 IP67
Unit weight		Approx. 2kg

※1: This Explosion class is acquired and managed by Konics Co., Ltd.

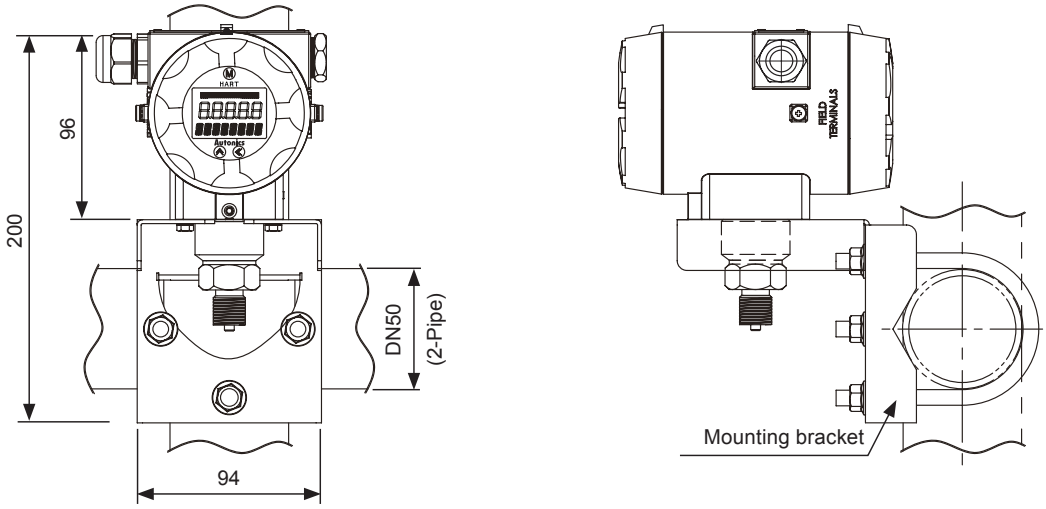
※ Environment resistance is rated at no freezing or condensation.

Dimensions

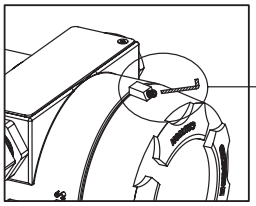
(unit:mm)



● **Mounting bracket**

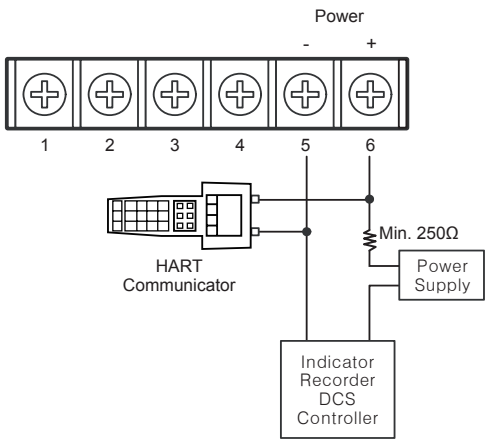


● **Opening cover**

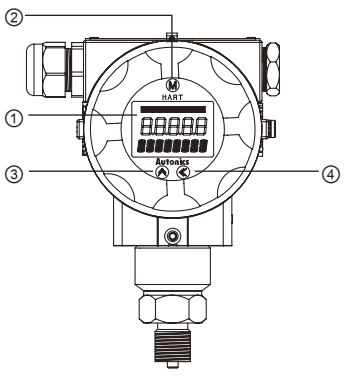


To open the cover, unscrew the M3 X 6L headless bolt using a 1.5 hexagon wrench and rotate the cover.

Connections



Part descriptions



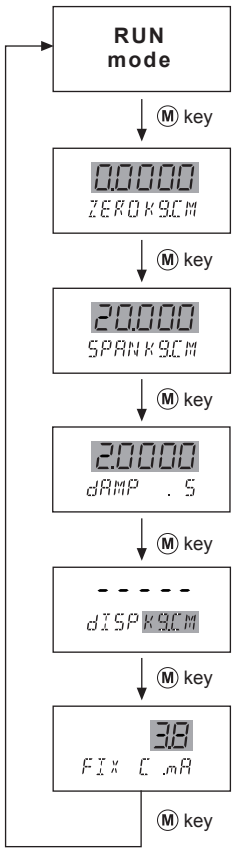
① Display part: Displays measured value and unit messages.
② Ⓜ key: Enters set mode and saves the set values.
③ ⓐ key: Changes the set values of data.
④ ⓒ key: Changes the set position of data.

Parameters

※ **Do not press the ⋀ and ≪ keys at the same time , or the product is initialized and does not operate.**

※ Shaded parameters are able to change SV.

※ Below displays for parameters are different by models.



Set ZERO value by the ≪, ⋀ keys and save SV by pressing the Ⓜ key.

Set SPAN value by the ≪, ⋀ keys and save SV by pressing the Ⓜ key.

Set dAMP value by the ≪, ⋀ keys and save SV by pressing the Ⓜ key.

Set dISP value by the ⋀ key and save SV by pressing the Ⓜ key.

Execute loop test by the ⋀ key.
※When changing the loop, execute the loop test by the ≪ key.

Current Trim adjustment

Connect a HART communicator and adjust current trim as below by a HART communicator.

① Select the **'1. Device Setup'** by ↑ , ↓ keys and press the → key.

1. Device Setup
2. PV
3. PV Ao
4. PV LRV
5. URV

② Select the **'2. Diag/Service'** by ↑ , ↓ keys and press the → key.

1. Process Variables
2. Diag/Service
3. Basic Setup
4. Detailed Setup
5. Review

③ Select the **'4. D/A trim'** by ↑ , ↓ keys and press the → key.

1. Test device
2. Loop test
3. Calibration
4. D/A trim

④ Press the **O K** (F4) key.

WARN-Loop should be removed from automatic control

ABORT | **O K**

⑤ Press the **O K** (F4) key.

Connect reference meter

ABORT | **O K**

⑥ Press the **O K** (F4) key.

Setting fid dev output to 4mA

ABORT | **O K**

⑦ Press the **ENTER** (F4) key to set 4 mA display value.

Enter meter Value
4.000

HELP | **DEL** | **ABORT** | **ENTER**

⑧ If output display value is correct, select **'1. Yes'** and press the **ENTER** (F4) key. If not, select **'2. No'** and press the **ENTER** (F4) key and re-set the display value.

Ex)If output display value is 3.89mA, select 3.89 and press the **ENTER** (F4) key.

Fid dev output 4.000 mA equal to reference meter ?
1. Yes
2. No

ABORT | **ENTER**

⑨ Press the [O K] (F4) key.

Setting fid dev. output to 20mA		
	ABORT	O K

⑩ Press the [ENTER] (F4) key to set 20 mA display value.

Enter meter Value 20.000			
HELP	DEL	ABORT	ENTER

⑪ If output display value is correct, select **'1. Yes'** and press the [ENTER] (F4) key. If not, select **'2. No'** and press the [ENTER] (F4) key and re-set the display value.

Fid dev output 20.000 mA equal to reference meter ?		
1. Yes		
2. No	ABORT	ENTER

⑫ Press the [O K] (F4) key.

NOTE-Loop may be returned to automatic control		
	ABORT	O K

⑬ Press the [HOME] (F3) key.

Diag/Service		
1. Test device		
2. Loop test		
3. Calibration		
4. D/A trim		
HELP	SAVE	HOME

⑭ Press the [QUIT] (F3) key.

Device Disconnected	
RETRY	QUIT

⑮ Press the [⊿] (F3) key to complete the adjustment.

1. Offline
2. Online
3. Frequency Device
4. Utility

Proper usage

■ Caution for using

- For connecting the power, use a crimp terminal (M3.5, min. 7.2mm).
- 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. 2,000m
  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 and earth cable which is over $4mm^2$.
- **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.**