



GP-M010T

Main Unit, Built-in temperature sensor Positive-pressure Type, 1 MPa



*Please note that accessories depicted in the image are for illustrative purposes only and may not be included with the product.

Specifications

Model			GP-M010T
Rated pressure			−14.5 to +145.0 PSI (−0.1 to +1 MPa)
Possible display range			−30.5 to +161.0 PSI (−0.210 to +1.110 MPa)
Allowable pressure			580 PSI (4 MPa)
Zero-cut pressure value			±0.5% of F.S.
Burst pressure			2176 PSI (15 MPa)
Display resolution			0.15 PSI (0.001 MPa)
Fluid type			Gas or liquid that will not corrode the fluid contact part
Type of pressure			Gauge pressure
Precision			±1.0% of F.S. or less*1
Repeatability			±0.3% of F.S. or less*2
Temperature characteristics			±0.6% of F.S. / 10°C 50°F
Connection port			G3/4 (Changes to R1/8 male, R1/4 male, R3/8 male, G1/4 female, NPT1/8 male, and NPT1/4 male with available adapters.)
Box rotation angle			Maximum 330°
Medium temperature			−20 to +100°C −4 to +212°F (no freezing/condensation)*3*4
Power voltage			10 to 30 VDC, Ripple (P-P): 10% max., Class 2 or LPS
Current consumption			60 mA or less (when 24 V: 30 mA or less; when 12 V: 50 mA or less. Excluding output)*5
Possible display range (temperature)			−32 to +112°C −25.6 to +233.6°F
Display method			4 column digital LED white/Vertical inversion of display is possible
Display resolution (temperature)			0.1°C 32.18°F
Liquid contact temperature measurement accuracy			±3.5°C ±6.3°F (at an ambient temperature of 25°C 77°F)*6
Display method			Status indicator (orange, green, red, blue), output indicator 1 (orange), output indicator 2 (orange), temperature indicator (white), communication indicator (green)
Pressure hysteresis			During hysteresis mode: variable (Hysteresis is the difference between the upper setting value and the lower setting value) During window mode: fixed (0.5% of F.S.)
Pressure responsiveness	Control output		Selectable from 3 to 5000 ms
	Analog output		As above +2 ms (90% response)
Output	Output 1 control output		NPN/PNP open collector (Selectable) 30 V or less, Output 2 Max. 100 mA Residual voltage for the Main Unit is 1 V or less, N.O./N.C. selectable
	Output 2 replacement type	Control output	
			Analog output
Network compatibility			IO-Link*7

Environmental resistance	Enclosure rating	IP67
	Ambient temperature	–20 to +80°C –4 to +176°F (no freezing or condensation)* ⁸
	Relative humidity	35 to 85% RH (no condensation)* ⁸
	Vibration resistance	IEC60068-2-6 20 G (10 to 2000 Hz In each direction of X, Y, Z for 2 hours)
	Shock resistance	IEC60068-2-27 50 G (11 ms In each direction X, Y, Z 3 times)
Material properties	Wetted part	Pressure port: SUSXM7/Diaphragm pressure port: Al ₂ O ₃ /O-Ring: FKM
	Other parts	Housing metal portion: SUS304, SUS303; Housing plastic portion: PPSU; Air hole* ⁹ : PTFE, nickel-plated brass.
Applicable cable		M12 connector 4 pin
Weight		Approx. 150 g 5.29 oz

*¹ This is the value when considering linearity + hysteresis + repeatability in a stable environment of 23°C [73.4°F](#).

*² The repeatability, based on consistent conditions, is the difference in the detection points at the time of fluctuations in the repetition.

*³ When the temperature of the piping exceeds 80°C [176°F](#), do not connect the cable.

*⁴ Condensation may cause measurement failure or breakage. To prevent condensation, take the following measures:

- Make sure the ambient temperature is the same or lower than the fluid temperature.
- Use A/C for dehumidification.
- Keep the sensor 30 cm 11.81" or more from the cooling pipe using connective piping.

*⁵ Consumption current including output is 0.3 A and under.

*⁶ This is the value when the measured fluid is water and a KEYENCE adapter is used.

*⁷ IO-Link specification v1.1/COM2 (38.4 kbps) is supported.

*⁸ See "7" in "Other precautions" on P.13 for measures on preventing condensation.

*⁹ Only GP-M001T/M010T/M025T

Dimensions

* Download CAD file or product manual for larger image/text and more detail.

GP-M010

