



GP-M100T

Main Unit, Built-in temperature sensor Positive-pressure Type, 10 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-M100T
Rated pressure			0 to +1450 PSI (0 to +10 MPa)
Possible display range			−145.0 to +1595.4 PSI (−1.00 to +11.00 MPa)
Allowable pressure			4351 PSI (30 MPa)
Zero-cut pressure value			±0.5% of F.S.
Burst pressure			14504 PSI (100 MPa)
Display resolution			1.5 PSI (0.01 MPa)
Fluid type			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-M100

