P-100 Purgemeter



DESCRIPTION

P-100 is a standard type purgemeter suitable for measuring both liquids and gases, covering a wide range from built-in use for equipment to purging industrial processes, and is widely used in various industries. PTFE packing is available.

MAJOR APPLICATIONS

Built-in use for general-purpose equipment (small flow rate)

STANDARD SPECIFICATIONS

Measuring fluid		Gases Liquids
Measuring range	Air	Min. 0.5 to 5 mL/min (nor) Max. 5 to 50 L/min (nor)
	Water	Min. 5 to 50 mL/min Max. 0.4 to 2 L/min
		· When selecting a flow range, refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001). · When selecting a flow range,refer to the standard flow rate table.
Range ability		10:1(10:2 for some models)
Indication accuracy		±5% F.S.
Fluid pressure		Max. 0.8 MPa Up to 0.5MPa for models with a PTFE gasket
Fluid temperature		Max. 120°C (Depends on the gasket material)
Material	Wetted part	SUS304, SUS316
	Tapered tube	Heat-resistant glass
	Gasket	Nitrile rubber (NBR) (Max. 80°C) Chloroprene rubber (CR) (Max. 80°C) Fluoro rubber (Max. 120°C) Ethylene-propylene rubber (EPDM) (Max. 80°C) PTFE (Max. 120°C) · The maximum fluid temperature for each gasket material may vary depending on usage and ambient conditions.
	Mounting bracket	Aluminum
	Cover	Polycarbonate
Process Connection		Rc : 1/4"(Standard) , 1/8" NPT : 1/4", 1/8"
Mounting		Lock nut mount on the panel front (Standard) Bezel mounting Panel embedded mounting With stand
Mass		approx. 0.5 kg

STANDARD FLOW RATE TABLE

When the fluid pressure is other than 0MPa, refer to "Index & Quick Reference for P Series Purgemeters"(TG-S0001).

For alarm output codes of 0 or E		
Air (0MPa,0°C)	Pressure loss (kPa)☆1	Water
0.5 to 5 mL/min (nor)	0.5 or less	
1 to 10 mL/min (nor)	0.5 or less	
2 to 20 mL/min (nor)	0.5 or less	
3 to 30 mL/min (nor)	0.5 or less	
5 to 50 mL/min (nor)	0.5 or less	
10 to 100 mL/min (nor)	0.5 or less	
20 to 200 mL/min (nor)☆2	0.5 or less	
30 to 300 mL/min (nor)	0.5 or less	
50 to 500 mL/min (nor)	0.5 or less	
0.1 to 1 L/min (nor)☆3	0.5 or less	5 to 50 mL/min
0.2 to 2 L/min (nor)	0.5 or less	10 to 100 mL/min
0.3 to 3 L/min (nor)	0.5 or less	20 to 200 mL/min
0.5 to 5 L/min (nor)	1 or less	30 to 300 mL/min
1 to 10 L/min (nor)	3 or less	50 to 500 mL/min
2 to 20 L/min (nor)	12 or less	0.1 to 1 L/min☆4
3 to 30 L/min (nor)	30 or less	0.3 to 1.5 L/min
5 to 50 L/min (nor)	15 or less	0.4 to 2 L/min

For alarm output codes of A to D				
Air (0MPa,0°C)	Pressure loss (kPa)☆1	Alarm setting range	Water☆5	Alarm setting range
1 to 10 L/min (nor)☆6	10 or less	2 to 8 L/min (nor)		
3 to 15 L/min (nor)	15 or less	3 to 12 L/min (nor)		
6 to 30 L/min (nor)	35 or less	6 to 24 L/min (nor)	50 to 500 mL/min	100 to 400 mL/min
8 to 40 L/min (nor)	60 or less	8 to 32 L/min (nor)	0.1 to 1 L/min	0.2 to 0.8 L/min

Although other flow rate specifications are available, some flow ranges need to be changed. Contact us for details.
Low pressure loss type of production and I are available. Contact us for details.
Pressure loss of liquid, please contact.
☆1 : It becomes the pressure loss during the valve fully open
☆2 : For flow rates of less than 150 mL/min (nor), models with the alarm code E are not available.
☆3 : For purgemeters with PTFE gasket for flow rates of less than 1 L/min (nor), models with a valve are not available.
☆4 : For flow rates over 1 L/min, rangeability will be 10 : 2
☆5 : The viscosity of the liquid will be produced Allowed only 1.0 mPa · s
☆6 : For flow rates over 10 L/min(nor), rangeability will be 10 : 2

ALARM CONTACT AND OUTPUT

Type		Availability
Reed switch type alarm unit	General	○
	UL-approved	○
PAU optical alarm unit		○

For CE approval, refer to "Index & Quick Reference for P-Series Purgemeters" (TG-S0001).

BASIC MODEL CODE

Model Code											Descriptions	Notes
P-10	□	—	□	□	—	□	□	—	□	□		
Flow direction	0										Bottom rear → Top rear (Standard)	Select this code for normal conditions
	1										Bottom → Top	A valve will be installed externally
	9										Special	
Valve		—	0								Not provided	Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).
		—	L								Inlet (gas for atmospheric pressure scale)	
		—	U								Outlet (gas for pressure scale or for negative pressure on the secondary side)	
		—	Z								Special	
Alarm output				0							Not provided	Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).
				A							Reed switch alarm (LO)	
				B							Reed switch alarm (LC)	
				C							Reed switch alarm (HO)	
				D							Reed switch alarm (HC)	
				E							PAU alarm unit provided	
				Z							Special	
Wetted parts material					—	4					SUS304 (Standard)	
					—	6					SUS316	
					—	Z					Special	
Gasket material							N				Nitrile rubber (NBR) (Standard)	
							C				Chloroprene rubber (CR)	Select this code for ammonia gas.
							F				Fluoro rubber	
							E				Ethylene-propylene rubber (EPDM)	
							T				PTFE	Only for models with an SUS316 wetted part
							Z				Special	
Process connection type								—	R		Rc (Standard)	Lock nut mounting on panel front For other mounting options, Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).
								—	N		NPT female	
								—	Z		Special	
Process connection size										1	1/8"	
										2	1/4" (Standard)	
										Z	Special	

OTHER AVAILABLE OPTIONS

You can specify the following options: length of reed switch lead wire, double graduations (depending on specifications; contact us for details), special graduations, built-in check valve type, built-in valve lock mechanism type, rubber joint type, other joint types, etc. For details, refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001)

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ORDERING INFORMATION

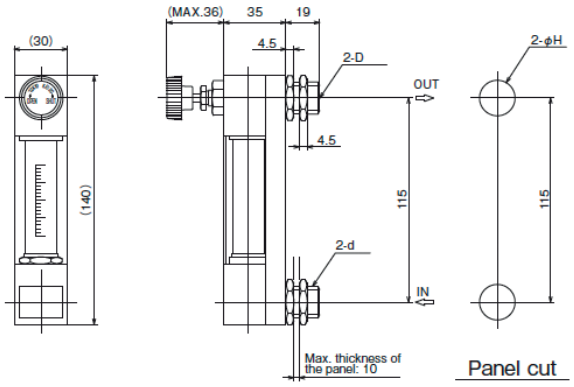
Basic model code	Items to be specified
P-10□-□□-□□-□□	① Fluid name – ② Flow range – ③ Press. – ④ Temp. – ⑤ Mounting option – ⑥ Other options
(Select in the model code table.)	(Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).)

DIMENSIONS

Standard type

P – 100 – U0 – 4N –□□

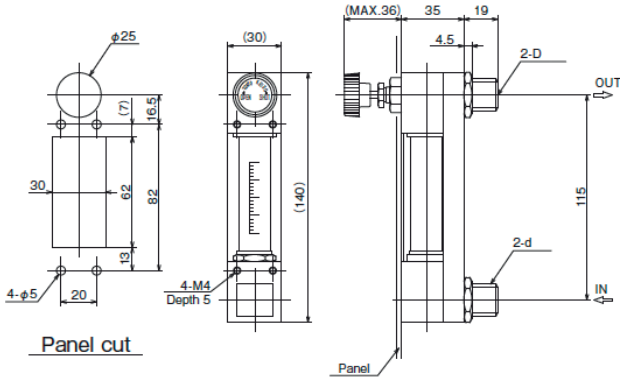
■ Lock nut mounting on the panel front
■ Valve at the outlet



Panel-rear installation type

P – 100 – U0 – 4N –□□

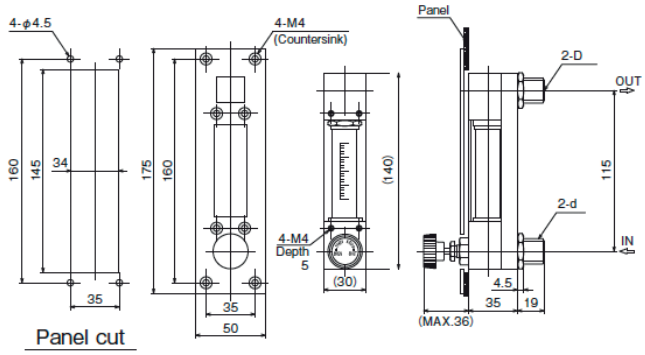
■ Panel-rear installation (Mounting option code: C)
■ Valve at the outlet



Bezel installation type

P – 100 – L0 – 4N –□□

■ Bezel installation (option code: D)
■ Valve at the inlet



Panel cut dimension

Connection size		Diameter (mm)
D	d	H
Rc1/8	M14	16
1/8NPT	M14	16
Rc1/4	M18	20
1/4NPT	M18	20

Note: Use non-magnetic material for the panel when the alarm output code is one of A to D.

Standard material

Parts name		Standard material	Available material
Wetted part	○	SUS304	SUS316
Tapered tube	○	Heat-resistant glass	
Float*	○	SUS316, Glass, PTFE, Ruby	—
Gasket	○	Nitrile rubber (NBR)	Fluoro rubber, Chloroprene rubber (CR), Ethylene-propylene rubber (EPDM), PTFE
Fitting	○	SUS304	SUS316
Valve	○	SUS304	SUS316
Mounting bracket		Aluminum	—
Cover		Polycarbonate	—

Parts marked "○" come in contact with the measuring fluid.
* We will select a proper material for your application.
SUS316 may be used instead of SUS304 due to production reasons.
ASTM or AISI materials equivalent to JIS materials may be used due to production reasons.

*Specification is subject to change without notice.

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