P-400 Purgemeter



DESCRIPTION

The P-400 is a corrosion-resistance type purgemeter with all stainless steel construction. Panel installation and flange connection are possible.

MAJOR APPLICATIONS

Corrosive services

STANDARD SPECIFICATIONS

Measuring fluid			Gases Liquids
Measuring range		Air	Min. 80 to 800 mL/min (nor) Max. 6 to 60 L/min (nor) Air at 0°C, 0 MPa (1atm)
		Water	Min. 5 to 50 mL/min Max. 0.2 to 2 L/min Water with a density of 1.0 g/cm³ and viscosity of 1.0 mPa • s
			• 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
Indication accuracy			±3% F.S.
Fluid pressure			Max. 1MPa (Max. 0.5MPa for PVC)
Fluid temperature			Max. 120°C (Depends on the gasket material) (Max. 60°C for PVC)
Material	Wetted part		SCS14/SUS304 (Standard), SCS14/SUS316, PVC
	Tapered tube		Heat-resistant glass
	Gasket		Nitrile rubber (NBR) (Max. 80°C) Chloroprene rubber (CR) (Max. 80°C) Fluoro rubber (Max. 120°C) PTFE (Max. 120°C) not applicable to PVC body • The maximum fluid temperature for each gasket material may vary depending on usage and ambient conditions.
	Mounting plate		SUS304
	Cover		Acryl, SUS304
Process Connection			Rc : 1/4" (Standard), 1/8", 3/8", 1/2" NPT : 1/8", 1/4", 3/8", 1/2" Flange : 10A, 15A (1/2), 20A (3/4), 25A (1)
Mounting			Lock nut mount on panel front (Standard) Flange connection With stand
Mass			approx. 0.9 kg

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).

STANDARD FLOW RATE TABLE

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

Air (0MPa,0℃)	Pressure loss(kPa)☆1	Water
80 to 800 mL/min (nor)	0.5 or less	5 to 50 mL/min
0.1 to 1 L/min(nor)	0.5 or less	10 to 100 mL/min
0.2 to 2 L/min (nor)	0.5 or less	20 to 200 mL/min
0.3 to 3 L/min (nor)	0.5 or less	30 to 300 mL/min
0.5 to 5 L/min (nor)	0.5 or less	40 to 400 mL/min
1 to 10 L/min (nor)	1 or less	50 to 500 mL/min
2 to 20 L/min (nor)	3 or less	0.1 to 1 L/min
3 to 30 L/min (nor)	6 or less	0.12 to 1.2 L/min☆2
5 to 50 L/min (nor)	15 or less	0.15 to 1.5 L/min
6 to 60 L/min (nor)	20 or less	0.2 to 2 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 : If body wetted parts materials made of PVC, can not be produced more than 0.12 ~ 1.2L/min.

www.sps-international.com | sales@sps-international.com
www.sps-polos.com | sales@sps-polos.com
www.waferhandlingsystems.com | sales@waferhandlingsystems.com
www.esproflow.com | sales@esproflow.com

BASIC MODEL CODE

Model Code											Descriptions	Notes
P-40	□	–	□	□	–	□	□	–	□	□		
Flow direction	0										Bottom rear → Top rear (Standard)	Select this code for normal conditions.
	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)	
Alarm output				0							Not provided	
Wetted parts material					–	4					SCS14/SUS304 (Standard)	
					–	6					SCS14/SUS316	
					–	Z					Special	
Gasket material							N				Nitrile rubber (NBR) (Standard)	
							C				Chloroprene rubber (CR)	Select this code for ammonia gas.
							F				Fluoro rubber	
							T				PTFE	
							Z				Special	
Process connection								–	R	1	Rc 1/8" (With R 1/4" × Rc 1/8" adapter)	Lock nut mounting on panel front For other mounting options, Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001). For "RZ," specify connection standard & size separately.
										2	Rc 1/4" (Standard)	
										3	Rc 3/8" (With R 1/4" × Rc 3/8" adapter)	
										4	Rc 1/2" (With R 1/4" × Rc 1/2" adapter)	
										Z	Special (With R 1/4" × □" adapter)	
								–	N	1	NPT 1/8" (F) (With R 1/4" × NPT 1/8" (F) adapter)	
										2	NPT 1/4" (F)	
										3	NPT 3/8" (F) (With R 1/4" × NPT 3/8" (F) adapter)	
										4	NPT 1/2" (F) (With R 1/4" × NPT 1/2" (F) adapter)	
								–	Z	Z	Special	Specify connection standard & size separately.
Connection standard, rating & flange face								–	JR		JIS 10K RF	For "ZR" or "ZF," specify connection standard & rating separately.
									JF		JIS 10K FF	
									AR		ASME Class 150 RF	
									AF		ASME Class 150 FF	
									PR		JPI Class 150 RF	
									PF		JPI Class 150 FF	
									ZR		Special (RF)	
									ZF		Special (FF)	
Connection size										3	10A	
										4	15A (1/2)	
										5	20A (3/4)	
										6	25A (1)	

OTHER AVAILABLE OPTIONS

You can specify the following options:

Double graduations, special graduations, rubber joint type, other joint types, etc. For details, refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).

*Specification is subject to change without notice.

www.sps-international.com sales@sps-international.com | www.sps-polos.com sales@sps-polos.com | www.waferhandlingsystems.com sales@waferhandlingsystems.com | www.esproflow.com sales@esproflow.com

Model Code											Descriptions	Notes
P-40	1	–	□	□	–	□	□	–	□	□		
Flow direction	1										Bottom → Top	For PVC, only this code is selectable but no valve can be installed.
Valve		–	0								Not provided	A valve will be installed extemally. 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)	
Alarm output				0							Not provided	
Wetted parts material					–	4					SCS14/SUS304 (Standard)	
					–	6					SCS14/SUS316	
					–	P					PVC	
					–	Z					Special	
Gasket material							N				Nitrile rubber (NBR) (Standard)	
							C				Chloroprene rubber (CR)	Select this code for ammonia gas.
							F				Fluoro rubber	
							T				PTFE	
							Z				Special	
Process connection								–	R	1	Rc 1/8"	Piping installation For "RZ," specify connection standard & size separately.
										2	Rc 1/4" (Standard)	
										3	Rc 3/8"	
										4	Rc 1/2" (With R 3/8" × Rc 1/2" adapter)	
										Z	Special (With R 3/8" × □" adapter)	
								–	N	1	NPT 1/8" (F)	
										2	NPT 1/4" (F)	
										3	NPT 3/8" (F)	
										4	NPT 1/2" (F) (With R 3/8" × NPT 1/2" (F) adapter)	
								–	Z	Z	Special	Specify connection standard & size separately.
Connection standard, rating & flange face								–	JR		JIS 10K RF	For "ZR" or "ZF," specify connection standard & rating separately.
									JF		JIS 10K FF	
									AR		ASME Class 150 RF	
									AF		ASME Class 150 FF	
									PR		JPI Class 150 RF	
									PF		JPI Class 150 FF	
									ZR		Special (RF)	
									ZF		Special (FF)	
Connection size										3	10A	
										4	15A (1/2)	
										5	20A (3/4)	
										6	25A (1)	

OTHER AVAILABLE OPTIONS

You can specify the following options:

Double graduations, special graduations, rubber joint type, other joint types, etc. For details, refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).

ORDERING INFORMATION

Basic model code	Items to be specified
P -40 □ - □□ - □□ - □□	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).)

*Specification is subject to change without notice.

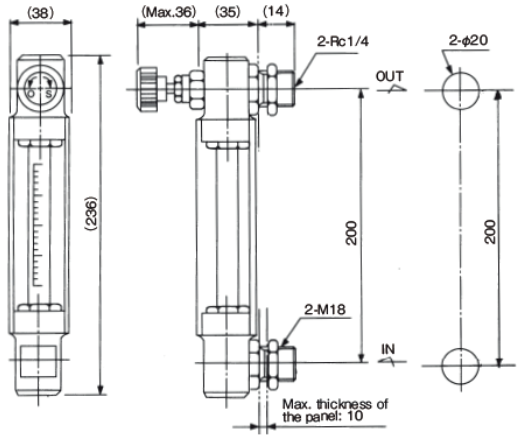
www.sps-international.com sales@sps-international.com | www.sps-polos.com sales@sps-polos.com | www.waferhandlingsystems.com sales@waferhandlingsystems.com | www.esproflow.com sales@esproflow.com

DIMENSIONS

Standard type

P — 400 — U0 — 4N — R2

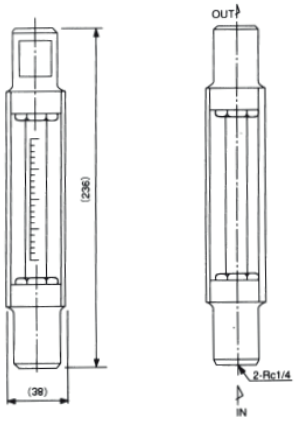
■ Lock nut mounting on the panel front
■ Valve at the outlet



Straight-through type

P — 401 — 00 — 4N — R2

■ Bottom to Top
■ Screw connection

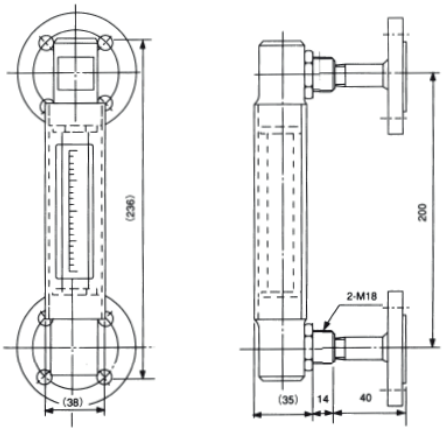


Note: An R3/8×Rc1/2 adapter is attached for Rc1/2 or larger connection.

Flange-ended type

P — 400 — 00 — 4N — JR4

■ Flange connection (Mounting option code: E)
■ No valve



Standard material

Parts name		Standard material	Available material
Body	○	SCS14	PVC
Tapered tube	○	Heat-resistant glass	—
Float *1	○	SUS316, Glass, PTFE, Ruby	—
Gasket	○	Nitrile rubber (NBR)	Fluoro rubber, Chloroprene rubber (CR), PTFE
Fitting	○	SUS304	SUS316
Valve	○	SUS304	SUS316
Mounting plate		SUS304	—
Cover		Acryl *2	SUS304

Parts marked "○" come in contact with the measuring fluid.
*1 We will select a proper material for your application.
*2 SUS304 is the standard material for the following specifications:
- When the connection standard is flange.
- When the flow direction is Bottom to Top and the process connection is Rc or NPT1/2" or larger.

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.

www.sps-international.com | www.sps-polos.com | www.waferhandlingsystems.com | www.esproflow.com
sales@sps-international.com | sales@sps-polos.com | sales@waferhandlingsystems.com | sales@esproflow.com