

# TECHNICAL GUIDANCE

PVC-body purgemeter for measuring large flow rates of liquids

## P-520

### Purgemeter

#### OUTLINE

The resin construction eliminates the mixing of metallic ions into process liquids. The P-520 is ideal for pure and ultra-pure waterlines in semiconductor production facilities. Alarm contacts can be added.

#### MAJOR APPLICATIONS

Pure waterlines

#### ■ STANDARD SPECIFICATIONS

Measuring fluid		Liquids			
Measuring range		Water Min. 1 to 10 L/min Max. 12 to 60 L/min			
		<ul> <li>When selecting a flow range, refer to the standard flow rate table.</li> </ul>			
Range a	bility	10:1 (10:2 for some models)			
Indicatio	n accuracy	±5% F.S.			
Fluid pre	essure	Max. 0.5 Mpa			
Fluid temperature		Max. 80°C (Depends on the gasket material or body material)			
	Wetted parts	PVC (Max. 60°C), HT-PVC (Max. 80°C), PTFE (Max. 80°C)			
	Tapered tube	Heat-resistant glass			
Material	Gasket	Fluoro rubber Ethylene-propylene rubber (EPDM) (Max. 80°C) • The maximum fluid temperature for each gasket material may vary depending on usage and ambient conditions.			
	Support	SUS304			
	Cover	Transparent PVC			
Process Connection		Rc : 1/2" (Standard) , 3/4", 1" NPT : 1/2", 3/4", 1"			
Mounting		Screw mount on the panel front (Standard) Panel embedded mounting			
Mass		approx. 1.2kg			

#### ■ ALARM CONTACT AND OUTPUT

Ту	Availability	
Dood quitab time clare unit	General	0
Reed switch type alarm unit	UL-approved	0
PAU optica	0	

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

#### ■ STANDARD FLOW RATE TABLE

For alarm output codes of 0 or E	For alarm output codes of A to D			
Water	Water	Alarm setting range		
1 to 10 L/min*	1.2 to 12 L/min	2.4 to 10 L/min		
1.5 to 15 L/min	1.5 to 15 L/min	3 to 12 L/min		
2 to 20 L/min	2 to 20 L/min	4 to 16 L/min		
3 to 30 L/min	3 to 30 L/min	6 to 24 L/min		
4 to 40 L/min	4 to 40 L/min	8 to 32 L/min		
4.5 to 45 L/min	4.5 to 45 L/min	9 to 36 L/min		
5 to 50 L/min	5 to 50 L/min	10 to 40 L/min		
12 to 60 L/min	12 to 60 L/min	18 to 48 L/min		

Although other flow rate specifications are available, some flow ranges need to be changed. Contact us for details.  $^{\star}1$  Contact us for flow rate ranges of less than 1 to 10 L/min.

#### **■** OTHER AVAILABLE OPTIONS

You can specify the following options: Two-point alarm, length of reed switch lead wire, double graduations, special graduations, various joint types, etc. For details, refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).



#### ■ BASIC MODEL CODE

P-52	Model Code													
Flow direction 1								П	Descriptions	Notes				
direction		0										→ Top rear	code for normal	
Valve		1										Bottom → Top	valve cannot be	
Valve		9										Special		
A			_	0								Not provided		
A   B   B   B   B   B   B   B   B   B	Valve		_	L								Inlet		
A			-	Z								Special		
Alarm output    A					0							Not provided		
Alarm output    B					Α								Pofor to "Indox &	
C					В								Quick Reference	
Wetted parts material   F   P   PAU alarm unit provided   PVC (Standard)   PTFE   PTFE   PTFE   PTFE   PTFE   PTFE   PTFFE   PTFFE   PTFFE   PTFFE   PTFFE   PTFFE   PTFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFE   PTFFFFE   PTFFFE   PTFFF	Alarm out	put			С									
E					D								(TG-S0001).	
Vetted parts material					Е									
Vetted parts material						-	Р					PVC (Standard)		
Gasket material  F   SUS304   Special   F   F   F   Fluor rubber   Ethylene-propylene rubber ((EPDM)   Z   Special   F   Suppose   F   Suppos	Wetted no	orto r	mot	oriol		_	Т					PTFE		
F   Fluoro rubber   E   Ethylene-propylene rubber (EPDM)   Z   Special   Screw mounting on a panel front For other mounting options, Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).  Process connection size   4 1/2" (Standard)   5 3/4"   Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)	welled pa	ai to i	IIat	ciiai		_	4					SUS304		
Gasket material  Ethylene-propylene rubber (EPDM)  Z Special  - R R (Standard)  Rc (Standard)  Screw mounting on a panel front For other mounting options, Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).  Process connection size  Process connection size  Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)						_	Z					Special		
Frocess connection size  E   propylene rubber (EPDM)  Z   Special   Screw mounting on a panel front For other mounting options, Refer to *Index & Quick Reference for P Series Purgemeters" (TG-S0001).  4 1/2" (Standard)   Screw mounting on a panel front For other mounting options, Refer to *Index & Quick Reference for P Series Purgemeters" (TG-S0001).  4 1/2" (Standard)   Salar								F				Fluoro rubber		
Process connection type  - R Rc (Standard)  - Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).  - 1/2" (Standard)  - 3/4"  - Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)								_						
Process connection type  - R Rc (Standard)  - Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).  - 4 1/2" (Standard)  - 3/4"  - Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)	Gasket ma	ateri	al											
Process connection type  - R Rc (Standard) on a panel front For other mounting options, Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).  4 1/2" (Standard) 5 3/4"  Process connection size  6 1" Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)								Z				Special		
Process connection size    A   NPT female   Quick Reference for P Series Purgemeters" (TG-S0001).     4   1/2" (Standard)     5   3/4"   Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)									Rc (Standard)	on a panel front For other mounting options,				
Process connection size  5 3/4"  Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)	Process connection type  -							-	N		NPT female	Quick Reference for P Series Purgemeters"		
Process connection size  6 1"  Available only for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)											4	1/2" (Standard)		
Process connection size  6 1" for flow direction code= 0 (Bottom rear → Top rear) and valve code= 0 (none)											5	3/4"		
Z Special	Process connection size						6	1"	for flow direction code= 0 (Bottom rear → Top rear) and valve code=					
											Z	Special		

#### ORDERING INFORMATION

Basic model code	Items to be specified							
P -52 🗆 - 🗆 🗆 - 🗆 🗆	① ② ③ ④ ⑤ ⑥ Fluid name - Flow range - Press Temp Mounting option - Other options							
(Select in the model code table.)	(Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).)							

#### **■** NOTE

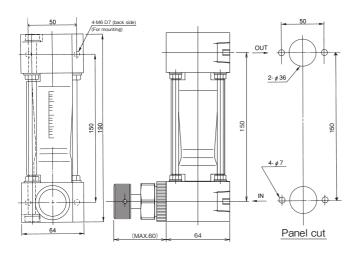
Depending on the required specifications, the P-520-L with a valve falls under "valves or components thereof" listed in (ii)-7 of row 3 of Appended Table 1 of the Export Trade Control Order. Contact us for details.

#### DIMENSIONS

#### Standard type

P - 520 - L0 - PF - R4

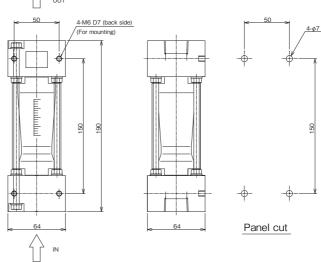
- Screw mounting on the panel front
- Valve at the inlet



#### Straight-through type

P - 521 - 00 - PF - R5

- Screw mounting on the panel front (bottom → top)
- Without a valve



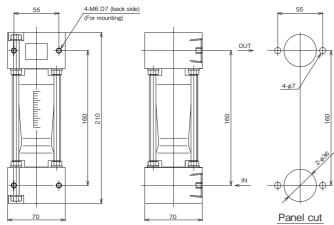
Note: Use non-magnetic material for the panel when the alarm output code is one of A to D.

#### Standard type

2

P - 520 - 00 - PF - R6

- Screw mounting on the panel front
- Without a valve



#### Standard material

Parts name		Standard material	Available material				
Body	0	PVC	HT-PVC, PTFE, SUS304				
Tapered tube	0	Heat-resistant glass	_				
Float *	0	PVC,SUS304,PTFE	_				
Gasket	0	Fluoro rubber	Ethylene-propylene rubber (EPDM)				
Float rod	0	FEP-coated SUS316	_				
Float stopper	0	PVC	PTFE				
Valve	0	PVC	PTFE				
Column		SUS304	_				
Cover		Transparent PVC	_				

Parts marked "O" come in contact with the measuring fluid.

 $\ensuremath{\ast}$  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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