

P-510

● Old model P-500-1

GENERAL

Purgemeter for medium and large flow rate. Aluminum body available in addition to standard Stainless-steel body. It is the same size as P-200 model of small flow rate type.

MAJOR APPLICATIONS

General purpose(Large flow rate)

STANDARD SPECIFICATION

Measuring object		Liquids and gases	
Measuring range	Air	Min. 2.5~25 NL/min. Max. 60~600 NL/min.	<ul style="list-style-type: none"> Air at 0°C, 1atm When selecting flow range, refer to standard flow rate table. In case Op. Press. at gas is not 1atm, refer to page 1.
	Water	Min. 0.1~1 L/min. Max. 3~30 L/min.	
Range ability	10:1		
Accuracy	±5%F.S.		
Max. Op. Press.	8kgf/cm ² G(0.8MPa)		
Max. Op. Temp.	120°C	Standard products have the packing materials made of NBR, so Max. Temp.is 80°C.	
Material	Std.	Option(Specify by model code)	
Body	Body	SUS304	SUS316, Aluminum
	Tapered tube	Pyrex glass	Refer to P-7□□series for fluorine resin made tapered tube.
	Packing	NBR(max.80°C)	Viton(max.120°C), CR(max.80°C), EPDM(max.80°C)
	Support	SPCC or BS	
Cover	Acryl		
Connection	Std.	Rc3/8	Refer to Basic model code for details.
	Opt.	Rc1/2,NPT3/8,NPT1/2,3/8SW,3/8VCR,JIS10KFF etc.	
Mounting	Std.	Thread(M3)mount onto panel front Lock-nut mount onto panel front	Refer to ordering information for details.
	Opt.	Bezel installation,Panel-rear installation, Stand provided Flange pipe tube installation	
Weight(std. type)	2.0kg		

ALARM AND ANALOG OUTPUT

Type	Availability	Reference pages	
Reed switch type alarm unit	General	○	49, 50 page
	CE, UL Version	○	49, 50 page
PAU Optical alarm unit	○	51 page	
Optical alarm unit	×		
Analog output unit	○	53~56 page	

STANDARD FLOW RATE TABLE

(In case Op. Press at gas is not 1atm, refer to page 1.)

In case alarm analog output code is O,E and F		In case alarm analog output code is A to D			
AIR(1atm,0°C)	Water	AIR(1atm,0°C)	Alarm setting range	Water	Alarm setting range
2.5~25 NL/min 3~30 NL/min	0.1~1 L/min				
5~50 NL/min	0.2~2 L/min	5~50 NL/min	10~40 NL/min	0.2~2 L/min	0.4~1.6 L/min
10~100 NL/min	0.3~3 L/min	10~100 NL/min	20~80 NL/min	0.3~3 L/min	0.6~2.4 L/min
20~200 NL/min	0.5~5 L/min	20~200 NL/min	40~160 NL/min	0.5~5 L/min	1~4 L/min
30~300 NL/min	1~10 L/min	30~300 NL/min	60~240 NL/min	1~10 L/min	2~8 L/min
40~400 NL/min	1.5~15 L/min	40~400 NL/min	80~320 NL/min	1.5~15 L/min	3~12 L/min
50~500 NL/min	2~20 L/min	50~500 NL/min	100~400 NL/min	2~20 L/min	4~16 L/min
60~600 NL/min	3~30 L/min	60~600 NL/min	120~480 NL/min	3~30 L/min	6~24 L/min

*1 Float material should be PVC
*2 Available for Viscosity 1.0cP only.

OTHER AVAILABLE OPTIONS

You can specify the following options:

Two point alarm, Variable type on the front of alarm contact, reed switch lead wire length, double graduations, special graduations, built-in check valve type, built-in rubber joint type, built-in joint type, etc.
(For details, refer to ⑥ Other Option on page 60).

ORDERING INFORMATION

Basic model code	Designation items for detailed specifications					
P-51□-□□-□□-□□	①	②	③	④	⑤	⑥
(Use model code table for selection)	Fluid name	Measuring range	Press.	Temp.	Mounting Option	Other Option
	(For specification procedure, refer to page 57)					



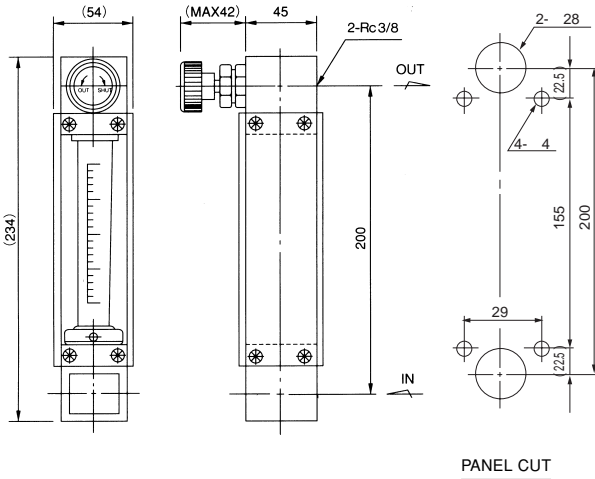
BASIC MODEL CODE

SERIES NAME	VALVE	ALARM ANALOG OUTPUT	WETTED PARTS MATERIAL	PACKING MATERIAL	CONNECTION TYPE	CONNECTION SIZE	EXAMPLE	DESCRIPTION
P-51	0	-L	0	-4	N	-F	3	
		VALVE	ALARM ANALOG OUTPUT	WETTED PARTS MATERIAL	PACKING MATERIAL	CONNECTION TYPE	CONNECTION SIZE	
							3	3/8(Standard)
							4	1/2
							5	3/4
							6	1
							Z	Special
					R	Rc thread		Front thread(M3)of panel, mounting or pipe mounting
					N	NPT thread		Same as above
					L	Rc thread		Lock-nut mounting onto panel front.
					M	NPT thread		Same as above
					S	SW		Same as above
					V	VCR		Same as above
					Z	Special		Select Z for flange
					N	NBR(Standard)		
					C	CR		Select it for ammonia gas.
					F	VITON		
					E	EPDM		
					Z	Special		
				4		SUS304(Standard)		Select P-520 model for PVC and PTFE. Select P-7□□series for fluorine resin made tapered tube.
				6		SUS316		
				A		Aluminium(For Gas)		
				Z		Special		
				0		Not provided		
				A		Reed switch alarm (LO)		Refer to page 49, 50.
				B		Reed switch alarm (LC)		
				C		Reed switch alarm (HO)		
				D		Reed switch alarm (HC)		
				E		PAU ALARM UNIT provided		Refer to page 51.
				G		PAS/IAU analog output unit		Refer to page 53.
				Z		Special		
				0		Not provided		
				L		Bottom(gas for atmospheric pressure scale)		Refer to valve location selection guide (Page 61).
				U		Top(gas for pressure scale or for negative pressure on the secondary side)		
				Z		Special		
				0		Bottom rear → Top rear(Standard)		Select this code normally.
				1		Bottom → Top		Valve should be installed externally.
				9		Special		

DIMENSIONS

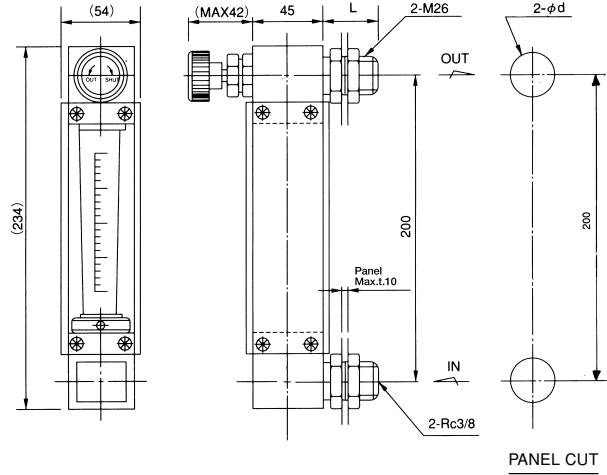
STANDARD TYPE

(P-510-U0-4N-R3 Valve provided at Outlet, panel front thread (M3) mounting type)



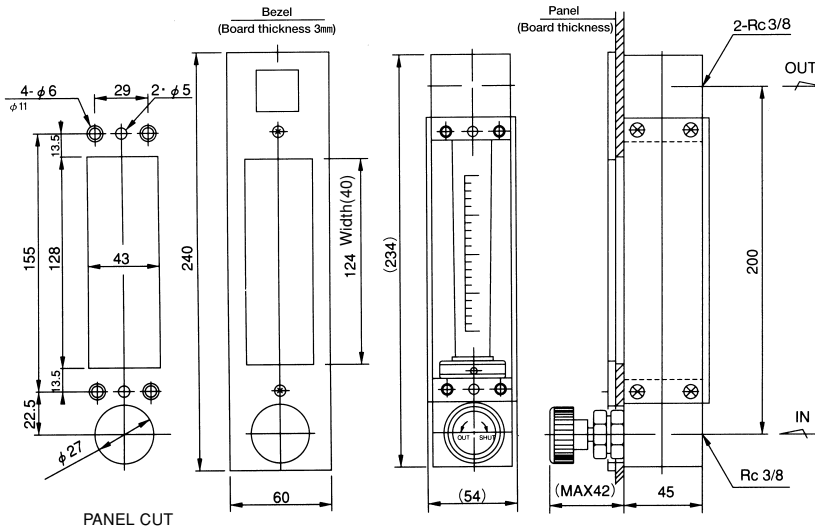
PANEL-FRONT INSTALLATION TYPE

(P-510-U0-4N-L3, Valve provided at Outlet, panel front lock-nut fixing)



BEZEL INSTALLATION TYPE

(P-510-L0-4N-R3, Valve provided at Outlet, Bezel installation.)
(Mounting Option code **D**)



PANEL CUT SIZE

For PANEL-FRONT INSTALLATION TYPE, Panel cut dimension may differ depending on connection size and rating. Refer to following table.

Connection size	Hole dia ϕd	Rear dia L
Rc 3/8	$\phi 28$	26
NPT 3/8	$\phi 28$	26
Rc 1/2	$\phi 32$	26
NPT 1/2	$\phi 32$	26
Rc 3/4	$\phi 38$	28
3/8 SW	$\phi 22$	(38)
3/8 VCR	$\phi 32$	(37.5)
1/2 VCR	$\phi 32$	(37.5)

Caution) Use non-magnetize material for panel when ALARM ANALOG OUTPUT code is A-D.

Standard Material

Parts name	Standard material	Available material
Body	SUS304	Aluminium, SUS316
Tapered tube	Pyrex glass	—
Float	SUS304	—
Packing	NBR	Viton, CR, EPDM
Spindle	SUS304	SUS316
Valve	SUS304	SUS316
Mounting board	SPCC	SUS304
Cover	Acryl	—

Parts whose names are described in **bold letters** are in contact with fluids to be measured.

In case alarm output code is A to D

A	Reed switch alarm(LO)	Refer to page 49, 50.
B	Reed switch alarm(LC)	
C	Reed switch alarm(HO)	
D	Reed switch alarm(HC)	

In case alarm output code is E, G

E	PAU ALARM UNIT provided	Refer to page 51.
G	PAS/IAU Analog output unit provided	Refer to page 53.