



TECHNICAL GUIDANCE

Compact purgometer for measuring medium to large flow rates of gases and liquids

P-530 Purgometer

OUTLINE

The P-530, more compact than the P-510, is a purgometer for medium to large flow rates. Swagelok or VCR connection is available.

MAJOR APPLICATIONS

General purpose (large flow rate)

STANDARD SPECIFICATIONS

| | | | |
|---|---|---|--|
| Measuring fluid | Gases Liquids | | |
| Measuring range | Air | Min. 10 to 50 L/min (nor) Max. 50 to 250 L/min (nor) | |
| | Water | Min. 0.2 to 2 L/min Max. 1 to 10 L/min | |
| | <ul style="list-style-type: none"> When selecting a flow range, refer to "Index & Quick Reference for P Series Purgometers" (TG-S0001). When selecting a flow range, refer to the standard flow rate table. | | |
| Range ability | 10:1 for liquids 10:2 for gases | | |
| Indication accuracy | ±5% F.S. | | |
| Fluid pressure | Max. 0.8 Mpa Select the P-510 if the differential pressure is 0.05 MPa or less. | | |
| Fluid temperature | Max. 120°C (Depends on the gasket material) | | |
| Material | Wetted parts | 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) | | | |
| | <ul style="list-style-type: none"> The maximum fluid temperature for each gasket material may vary depending on usage and ambient conditions. | | |
| Support | Aluminum | | |
| Cover | Acryl | | |
| Process Connection | Rc : 3/8"(Standard) , 1/2" NPT : 3/8", 1/2" SW : 3/8", 1/2" VCR : 3/8", 1/2" | | |
| Mounting | Screw mount on the panel front (Standard) Bezel installation or panel-rear installation can be specified. Panel embedded mounting | | |
| Mass | approx. 0.6kg | | |



BASIC MODEL CODE

| Model Code | | Descriptions | Notes |
|-------------------------|--|--|---|
| P-53 | <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> | | |
| 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 Purgometers" (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 Purgometers" (TG-S0001). |
| | A | Reed switch (LO) | |
| | B | Reed switch (LC) | |
| | C | Reed switch (HO) | |
| | D | Reed switch (HC) | |
| | Z | Special | |
| Wetted parts material | - 4 | SUS304 (Standard) | |
| | - 6 | SUS316 | |
| | - Z | Special | |
| Gasket material | N | Nitrile rubber (NBR) (Standard) | Select this code for ammonia gas. |
| | C | Chloroprene rubber (CR) | |
| | F | Fluoro rubber | |
| | E | Ethylene-propylene rubber (EPDM) | |
| | Z | Special | |
| Process connection type | - R | Rc (Standard) | Screw mounting on the panel front. Bezel mounting can be specified. For other mounting options, Refer to "Index & Quick Reference for P Series Purgometers" (TG-S0001). |
| | - N | NPT female | |
| | - S | SW | |
| | - V | VCR | |
| | - Z | Special | |
| Process connection size | 3 | 3/8" (Standard) | |
| | 4 | 1/2" | |
| | Z | Special | |

ALARM CONTACT AND OUTPUT

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

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

STANDARD FLOW RATE TABLE

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

| For alarm output code of 0 | | For alarm output codes of A to D | | | |
|----------------------------|----------------|----------------------------------|-----------------------|----------------|---------------------|
| Air (0°C, 0 MPa) | Water | Air (0°C, 0 MPa) | Alarm setting range | Water | Alarm setting range |
| 10 to 50 L/min (nor) | 0.2 to 2 L/min | | | | |
| 20 to 100 L/min (nor) | 0.3 to 3 L/min | 20 to 100 L/min (nor) | 20 to 80 L/min (nor) | 0.3 to 3 L/min | 0.6 to 2.4 L/min |
| 40 to 200 L/min (nor) | 0.5 to 5 L/min | 40 to 200 L/min (nor) | 40 to 160 L/min (nor) | 0.5 to 5 L/min | 1 to 4 L/min |
| 50 to 250 L/min (nor) | 1 to 10 L/min | 50 to 250 L/min (nor) | 50 to 200 L/min (nor) | 1 to 10 L/min | 2 to 8 L/min |

Although other flow rate specifications are available, some flow ranges need to be changed. Contact us for details.

OTHER AVAILABLE OPTIONS

You can specify the following options:
Length of reed switch lead wire, double graduations, special graduations, etc. For details, refer to "Index & Quick Reference for P Series Purgometers" (TG-S0001).

ORDERING INFORMATION

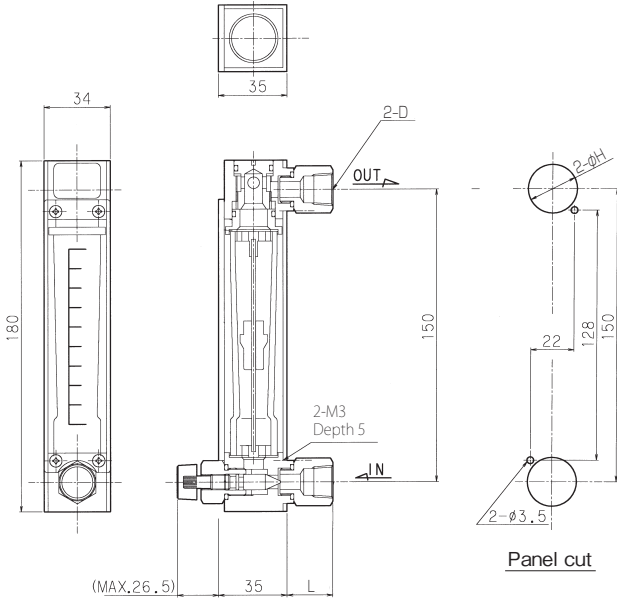
| Basic model code | Items to be specified |
|-----------------------------------|--|
| P-53 □ - □□ - □□ - □□ | ① Fluid name - ② Flow range - ③ Press. - ④ Temp. - ⑤ Mounting option - ⑥ Other options |
| (Select in the model code table.) | (Refer to "Index & Quick Reference for P Series Purgemeters" (TG-S0001).) |

DIMENSIONS

● Standard type

P - 530 - L0 - 4N - R3

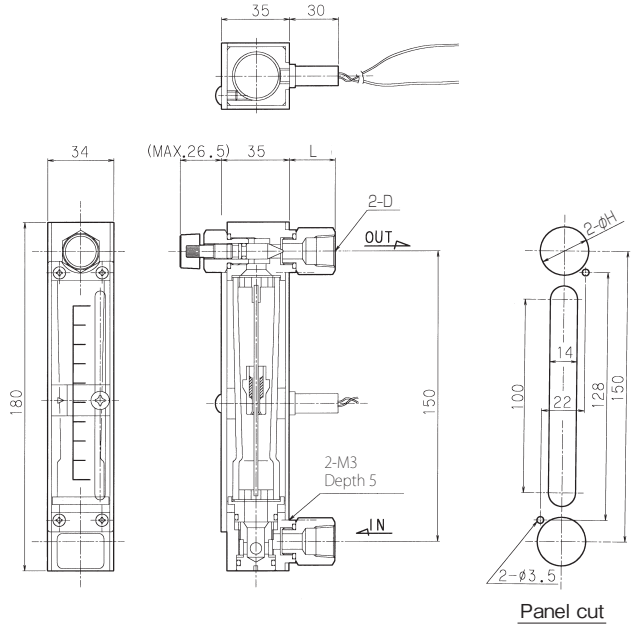
- Screw mounting on the panel front
- Valve at the inlet



● Reed switch alarm type

P - 530 - UA - 4N - R3

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



● Panel cut dimension

| Connection size | Diameter (mm) | Rear dimension (mm) |
|-----------------|---------------|---------------------|
| D | H | L |
| Rc3/8 | 25 | 23.5 |
| 3/8NPT | 25 | 23.5 |
| Rc1/2 | 25 | 28.5 |
| 1/2NPT | 25 | 28.5 |
| 3/8SW | 25 | (30.9) |
| 1/2SW | 25 | (32.8) |
| 3/8VCR | 29 | (34.5) |
| 1/2VCR | 29 | (34.5) |

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 |
|----------------|------------------------|--|
| Body | ○ SUS304 | SUS316 |
| Tapered tube | ○ Heat-resistant glass | — |
| Float | ○ SUS304 | SUS316 |
| Gasket | ○ Nitrile rubber | Fluoro rubber, Chloroprene rubber (CR), Ethylene-propylene rubber (EPDM) |
| Float rod | ○ SUS316 | — |
| Float stopper | ○ POM | — |
| Valve | ○ SUS304 | SUS316 |
| Fitting | ○ SUS304 | SUS316 |
| Mounting board | Aluminum | — |
| Cover | Acryl | — |

Parts marked "○" come in contact with the measuring fluid.
 · 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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