

CL11

Differential Pressure Switch

OUTLINE

This is a pressure gauge which has been designed to measure minute differential pressure of 2 kPa (200 mmH₂O) or smaller. For the contactor, a microswitch rich in application and with high reliability has been applied.

FEATURES

- This gauge is appropriate for measuring minute differential pressure.
- To output a large driving force by equipping a large diameter diaphragm, this pressure switch is equipped with a relatively large rating microswitch.
- A 60 DIA. setting indication dial is built in, and the setting is easily performed by the setting knob.
- Electric parts including a microswitch. etc. are separately installed from measuring liquid by a seal bellows.

*Using This Differential Pressure Switch

If the pressure larger than differential pressure is applied to the one pressure connecting port, the mechanism of the differential pressure switch will be damaged. So, careful attention is required. Especially at the time of starting and finishing, this type of phenomena can occur. Therefore, a bypass cock or a bypass valve is recommended.

SPECIFICATION 1

Fluid:
Gas

Operating condition:
Under the normal condition, where there is no inflammable gas or liquid which cause the ignition or explosion.

Connection:
Rc1/4(PT female)

Gas contact part:
Diaphragm Neoprene
Body YBsC3

Differential pressure range:
0.1 ~ 0.5 → 0.4 ~ 2kPa (10 ~ 50 → 40 ~ 200mmH₂O)

Base pressure:
0 ~ 100kPa (0 ~ 1kgf/cm²)

One side proof-pressure:
100kPa (1kgf/cm²)

Operating temperature:
5~40℃(But fluid should not be frozen)

Setting accuracy:
Within ±2% max. P.

Repeatability:
Within 1% max. P.

Dead band:
Fixed 0.05 ~ 0.2kPa or less (5 ~ 20mmH₂O or less)
(Depending on differential pressure range)

Switch:
JIS C4505 Industrial micro switch

Number of contact:
One contact

Setting system:
Internal adjustment type

Outlet for electric wire:
PF1/2 female (Conduit type)

Case material finishing:
Aluminium alloy casting (AC7A)·Black

Construction:
Drip-proof

Weight:
Approx. 12.5kgs

SPECIFICATION 2

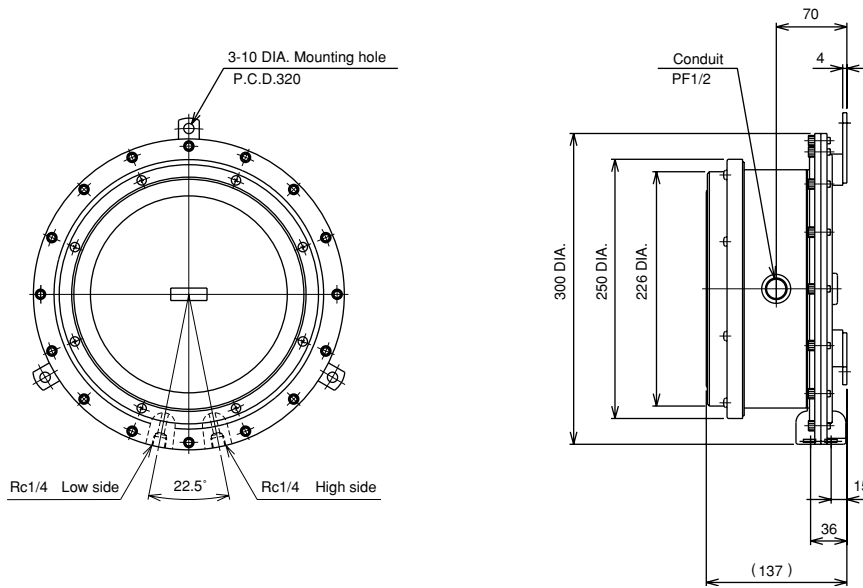
Dead band:

Differential pressure range kPa (mmH ₂ O)	Dead band kPa (mmH ₂ O)
0.1 ~ 0.5 (10 ~ 50)	0.05 or less (5)
0.2 ~ 1 (20 ~ 100)	0.1 or less (10)
0.4 ~ 2 (40 ~ 200)	0.2 or less (20)

Electric characteristics:

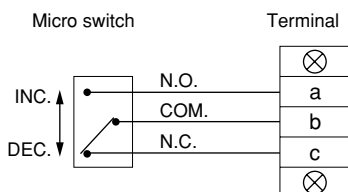
Rating	Rating		Withstand voltage	Insulation resistance
	Resistance load	Inductive load		
125V AC	15A	15A	1500V AC	500V DC 100MΩ over
250V AC	15A	15A		
125V DC	0.5A	0.05A	Between terminal and case	Between terminal and case
30V DC	2A	1A		
Inductive load: Power factor more than 0.4 (AC) Time-constant 7ms or less (DC)			1 minute	

DIMENSIONS



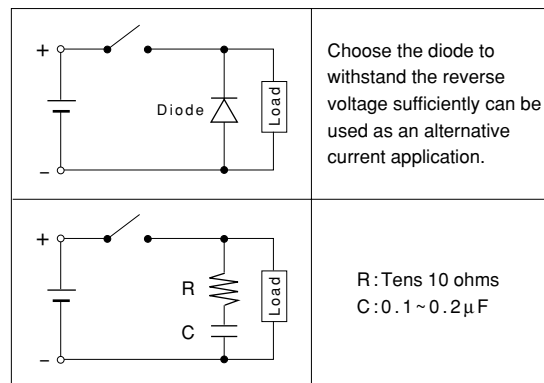
TYPE OF CONTACT AND WIRING SYSTEM

Type of contact	Mark	A figure of operation system and operation
Upper limit type with one contact	H	When differential pressure rises to a set value, switch work to turn a circuit ON. Pressure up → OFF SET max. ON
Lower limit type with one contact	L	When differential pressure decreases to a set value, contact points work to turn a circuit ON. ← Pressure down ON SET max. OFF



Installation of protection circuit for contact:

In the inductive load open and close circuit, install the protection circuit to protect the contact. When you use the relay, choose the built-in protection circuit for the contact.



Type No. constitution

Please specify Type No., each specification and range, when ordering.

Note: For this Model, there is no applicable item for the figures X, but please specify X when ordering.

Differential pressure switch

CL 11 — 1 2 3 — Selection spec. 4 5 6 7 — Additional spec. (Option) 8 9 10 11 12 13 14 15

Type No. 1 7 1

1 Mounting system
 1 Surface mounting

2 Connection
 7 Rc1/4

3 Gas contact part
 1 Diaphragm: Neoprene
 Body: YBsC3

4 Differential pressure range (kPa)
 (When ordering, please specify pressure range, unit and base pressure and also specify which is the base pressure, high side (H) or low side (L).)
 1 0.1 ~ 0.5
 2 0.2 ~ 1
 3 0.4 ~ 2

5 Type of contact point
 1 H: Upper limit type with one contact
 2 L: Lower limit type with one contact

6 Switch
 0 Standard type
 1 Ultra high sensitivity switch
 3 Standard + gold plated
 4 Ultra high sensitivity switch + gold plated

7 Outlet for electric wire
 2 PF1/2 female (Conduit type)

8 Treatment
 0 Nil
 1 Use no oil
 2 Use no water
 3 Use no oil & water

9 Other additional spec.
 0 Nil
 1 Please specify your requirement
 Case finishing

10 X
 11 X
 12 X
 13 X
 14 X

15 Document
 0 Nil
 1 Please specify your requirement
 Drawing one sheet, Instruction manual,
 Inspection procedure, Mill sheet,
 Test report