



Model CE10 • 20 Electronic Pressure Switches

OUTLINE

This is a small and high-performance electronic pressure switch in which a pressure sensor module utilizing a semiconductor strain gauge and a hybrid electronic circuit are combined. This pressure switch can be applied extensively to the pressure control including hydraulic, pneumatic machines, etc.

When pressure confirmation and setting are required on job site, a convenient pressure switch equipped with a pressure indicator is provided. (Model: CE20)

FEATURES

- As a stainless diaphragm is applied to the construction of the hermetic pressure sensing portion, no liquid leakage is worried which is suspected in a piston type pressure switch.
- As no moving part exists in this pressure gauge, excellent anti-vibration, anti-impact and durable performance are demonstrated.
- This pressure switch is small in size and light in weight.
- When setting this pressure switch, the setting can be simply implemented by viewing the LCD display without applying pressure. (CE20)

SPECIFICATION 1

Fluid:

Gas or liquid

Operating condition:

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

Type:

Cable type (Complete with 2m as standard)

Connection:

G3/8B (PF), R1/4 (PT), R3/8 (PT)

* For other connections please contact us.

Seal type:

Method to joint pressuer sensing parts and transmission parts.

O-ring type ●● Sealed with O-ring. so well performing the seal diaphragm

Diaphragm: 630st.st. (17-4 PH st.st.)

O-ring: NBR

Welding type ●●● By EB welding, completely sealed.

Diaphragm: 630st.st. (17-4 PH st.st.)

Pressure range:

0 ~ 0.3 → 0 ~ 100MPa (0 ~ 3 → 0 ~ 1000kgf/cm²)

-100 ~ 300kPa → -0.1 ~ 2MPa (-1 ~ 3 → -1 ~ 20kgf/cm²)

Max. allowable pressure:

200% of rated pressure

(150% for 35, 50MPa and 120% for 70, 100MPa)

Operating temperature:

CE10 -20 ~ 70°C

CE20 -10 ~ 60°C

Power source:

24V DC

* 10 ~ 28 V DC is available for CE10.

Output signal:

Open collector output

30V DC, 80mA max.

Response time:

CE10 1ms or less

CE20 10ms or less

Indication:

LED display (Light on ON)

Repeatability:

Within ± 0.2 % F.S.

(The value that hysteresis, creep between short time was included in)

Temperature coefficient: (Zero • span)

±0.05%F.S. / °C (Except 300kPa, 70MPa, 100MPa)or

±0.1%F.S. / °C

Dead band:

CE10 1%F.S.Fixation (TYP.)

CE20 Free in operating range

Setting:

1 setting or 2 setting

Setting range:

CE10 2%F.S. ~ 100%F.S.

CE20 Free in a range

Setting system:

CE10 Variable resistor

CE20 Numerical value input by switch

SPECIFICATION 2

Consumption electric current:

CE10	1 Setting	Less than 20 mA
	2 Setting	Less than 30 mA
CE20		Less than 30 mA

Pressure indication: (CE20)

Indication	3 figuras
Indication period	0.2 second
Indication accuracy	±1%F.S. ±1digit (Expect compound range)

Finishing:

Munsel 10B4/6

Construction :

Indoor use

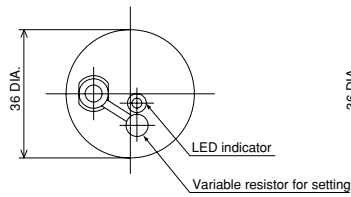
Weight:

Approx. 200g

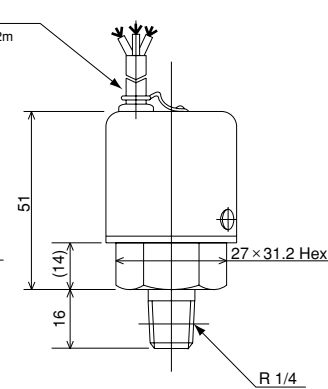
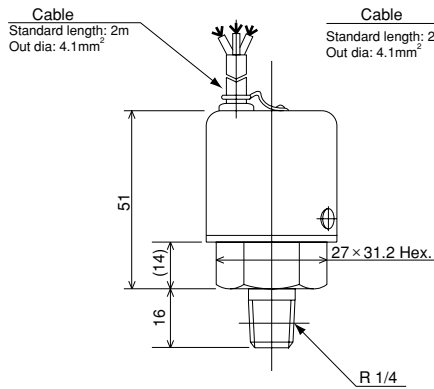
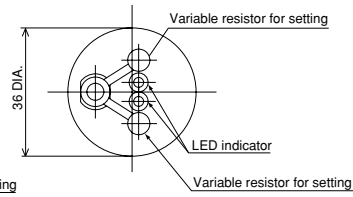
DIMENSION

CE10 (No Indication)

1 setting

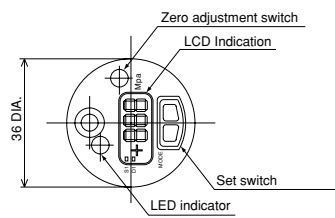


2 setting

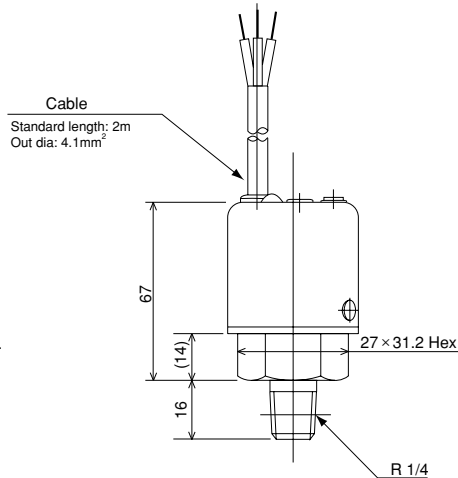
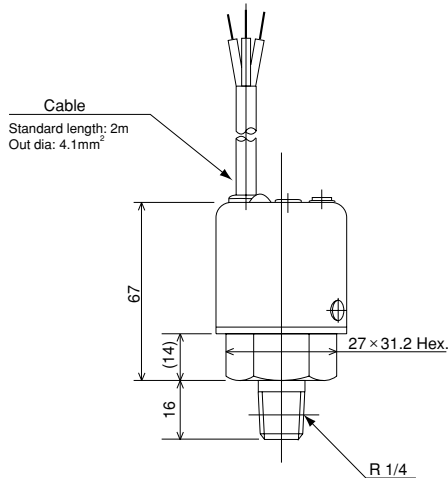
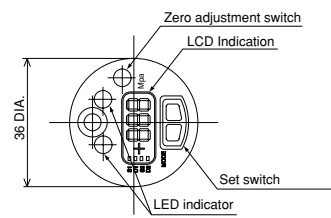


CE20 (With Indication)

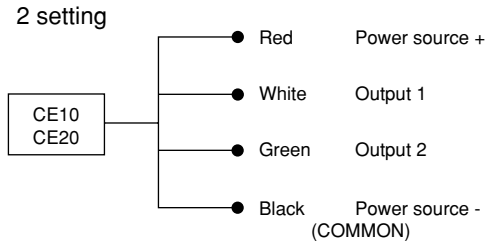
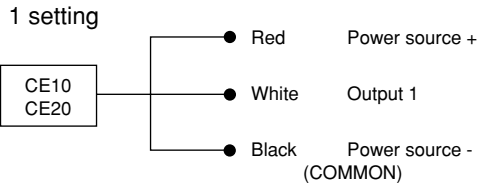
1 setting



2 setting

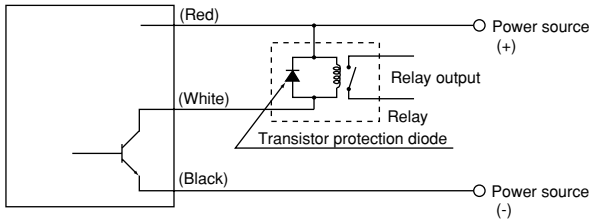


WIRING



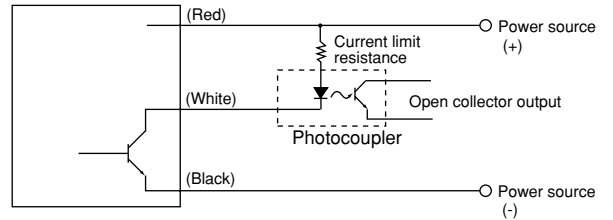
OPEN COLLECTOR OUTPUT EXAMPLE

① Relay connection
CE10 or CE20

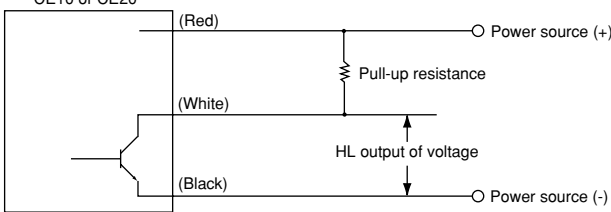


Note
Rated current and voltage of operation coil of relay should be in transistor's rating.

② Photocoupler connection
CE10 or CE20

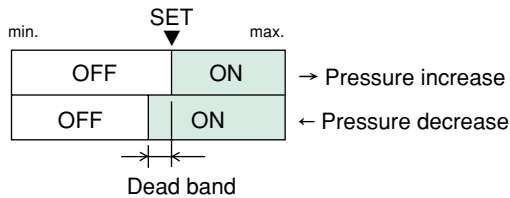


③ Voltage output
CE10 or CE20

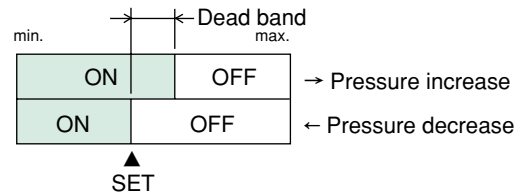


THE OPERATION SYSTEM

Upper limit ... Transistor will be ON at setting point when pressure increase



Lower limit ... Transistor will be ON at setting point when pressure decrease

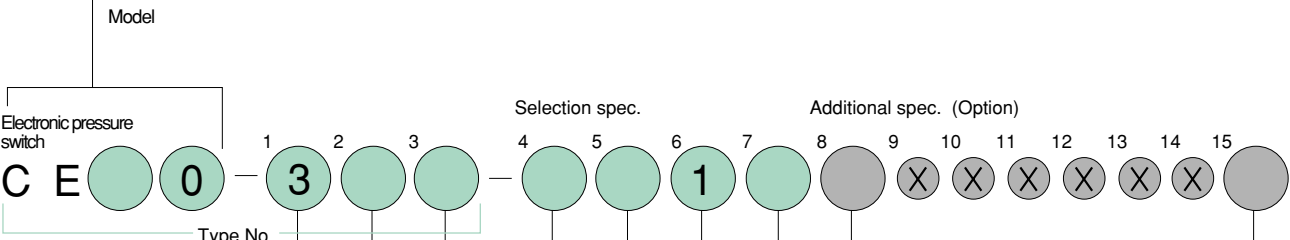


Type No. constitution

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.

C	E	1	0	No indication
C	E	2	0	With indicator



1 Type

3	Cable type (With standard cable 2m)
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2 Connection

3	G3/8B
7	R1/4
8	R3/8

3 Seal type

3	O-ring type
4	Welding type

4 Pressure range
(When ordering, please specify pressure range & unit.)

Seal type	Pressure range	
	3 O-ring type	1 -100 ~ 300kPa ~ 500 -0.1 ~ 1MPa ~ 2
4 Welding type	1	0 ~ 1MPa ~ 2 ~ 3.5 0 ~ 5MPa ~ 10
	2	0 ~ 20MPa ~ 35
	3	0 ~ 50MPa
	4	0 ~ 70MPa (CE10 G3/8B only)
	5	0 ~ 100MPa (CE10 G3/8B only)

8 Treatment

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

7 Setting

1	H: Upper limit 1 setting
2	L: Lower limit 1 setting
4	2H: Upper limit 2 setting
5	2L: Lower limit 2 setting
6	HL: Upper lower limit setting

6 Power source

1	24V DC
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5 Temperature coefficient

4	±0.05%F.S./°C (Except range 300kPa, 70MPa & 100MPa)
6	±0.1%F.S./°C

15 Document

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

The contents in the catalogue are subject to change without notice.

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UEDA FACTORY (JQA-0794)
 MARUKO FACTORY (JQA-0789)

