



Model KD15 Explosion - protected Construction Pressure Transmitter

OUTLINE

This is a pressure transmitter with pressure resistant and explosion preventive construction, thereby making it possible to be used in an explosive environment. A pressure sensing portion equipped with a built-in semiconductor strain gauge and a built-in electronic circuit in the explosion-proof case is provided. Measured pressures are converted into unified signals of 4 mA DC to 20 mA DC and transmitted.

FEATURES

- This pressure transmitter can be applied in an explosive environment of first class and second class.
- Because of evaporation type semiconductor strain gauge application to the pressure sensing portion, excellent durability and stability is assured.
- Because of stainless steel application to the liquid contacting portion and of all over welding construction, excellent durability is provided.
- An electronic circuit is of hybrid IC type, thereby assuring high electric reliability and high quality.

SPECIFICATION

Kind of explosion proof construction:

Explosion-protected

Explosion-proof class:

2G4

Fluid:

Gas, liquid or steam

Operating condition:

Hazardous area. The details refer to explanation column of explosion-protected construction.

Mounting:

Surface mounting, 2B pipe mounting

Connection:

G3/8B (PF), G1/2B (PF), Rc 1/4 (PT female),

Rc 1/2 (PT female), R3/8 (PT), R1/2 (PT),

1/2NPT, 1/4 NPT female

Wetted parts material:

Element 630 st.st. (17-4PH st.st.)

Socket SCS14

Pressure range:

0 ~ 1 → 0 ~ 50MPa (0 ~ 10 → 0 ~ 500kgf/cm²)

Power source:

24V DC ±10%

Output:

4 ~ 20mA DC

Load resistance:

500Ω max.

Transmission system:

2 wire system

Max. allowable pressure:

200% of rated pressure (But 35, 50MPa is 150%)

Operating temperature:

-10 ~ 60°C (But fluid should not be frozen)

Storage temperature:

-20 ~ 70°C

Accuracy:

±0.5%F.S.

Temperature coefficient:

±0.05%F.S./°C (Zero)

±0.05%F.S./°C (Span)

Methods of leading external conductors and cable in to a terminal box:

Flame-proof packing type, Conduit type

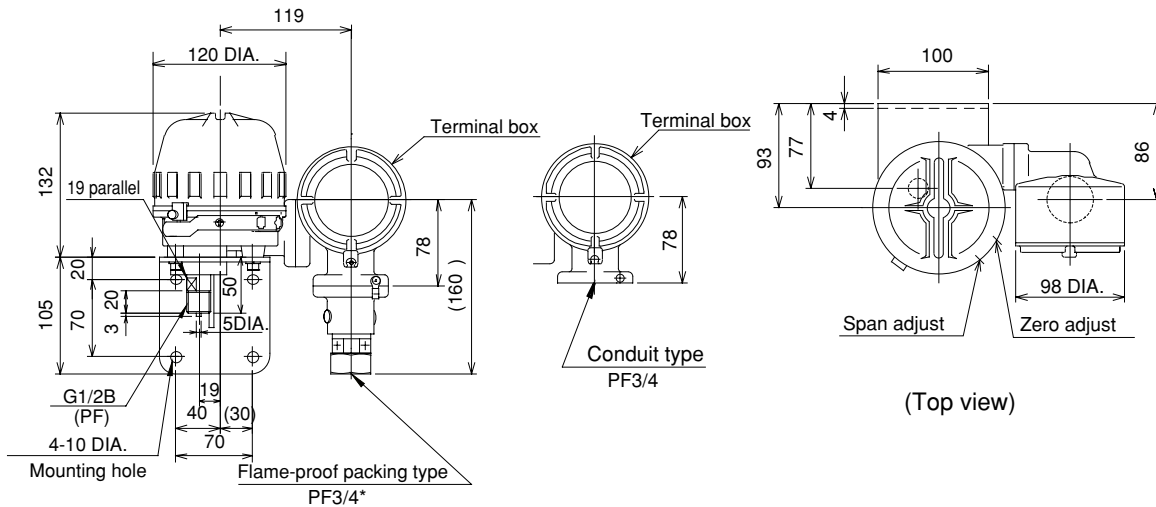
Case material • finishing:

Aluminium alloy die casting (ADC12) • Gray

Weight:

Approx.3.6 kg

DIMENSIONS



KD15-344

* PF1/2, PF1 is also available

EXPLOSION-PROOF

The explosion-proof class authorization:

Class name	Class official approval pass number	Pressure range MPa (kgf/cm ²)
KD 15	40201	0 ~ 1 (10) 0 ~ 2 (20)
	40202	0 ~ 3.5 (35) 0 ~ 5 (50) 0 ~ 10 (100) 0 ~ 20 (200) 0 ~ 35 (350)
	40203	0 ~ 50 (500)

Explosion-protected construction:

Explosion protected-construction is a totally enclosed construction such that even if the explosive gas explodes inside the container, the container withstands the force of the explosion and there is no danger of ignition of external explosive gases.

Our pressure transmitter manufactured under this basic policy are widely used in the measurement, alarm, and control of pressure in factories and business offices where combustible gases or the vapor of combustible liquids having a flash point of 40°C or less may exist.

Application range: d2G4

Explosion-protected construction: d

Explosion class: 2 (Minimum gap with 25mm length of patch

which permits the flame propagation : 0.4mm to 0.6mm)

Ignitability: G4 (Ignition point : 135°C to 200°C, limits of temperature rise : 70 deg)

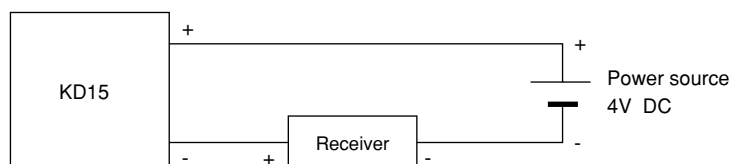
Hazardous areas: Zone 1 or zone 2

Objective industries: Petrochemical, chemical fiber, synthetic resin, ethylene, methanol, dielectric products manufacturing, liquefied gas, electric furnace, pharmaceuticals, paints, ammonium sulfate, soda, other measurement medium or industries in which there is the danger of ignition and explosion.

Classification of hazardous areas

Hazardous areas	Contents
Zone 0	A place where hazardous atmosphere is continuously present or present for a long period under ordinary circumstances.
Zone 1	A place where hazardous atmosphere is likely to occur under ordinary circumstances.
Zone 2	A place where hazardous atmosphere is likely to occur under abnormal circumstances.

WIRING



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.

