

KL71

Pressure Transmitter with Ceramic Sensing Element

Overview

The KL71 pressure transmitter utilizes functional ceramic material for sensing element with its characteristics of high durability, high corrosion resistance and small drift in fine through low pressure measurements.

Features

- High corrosion resistant with ceramic sensing element covering wide range of pressure media compatibility
- Excellent overpressure protection
- Reduced secular change and hysteresis with good repeatability

⚠ CAUTION

- This product uses NBR as the wetted seal material. Beware of corrosion resistance against process media.
- Apply of negative pressure to pressure sensor generates capacitance change inside sensing element causing output shift which could be the cause of break. Make sure for the use with positive pressure range. (Use is prohibited under condition where higher pressure can be generated around pressure sensor itself than process pressure media.)



Specifications 1

Media:

Gases and Fluids

Installation Environment:

Install in location where no gases or liquids may exist that have the potential to become flammable or ignitable under normal operating condition

Type:

Cable type (With 2m shield cable)

Connection:

G1/4B, G3/8B, R1/4, R3/8

Wetted parts:

Sensing element Alumina 96%
O-ring NBR
Fitting SUS316

Pressure range:

0 to 2kPa→0 to 0.2MPa

Allowable maximum pressure:

0.05 to 1MPa (Depends on pressure range)

Operating temperature range:

-20 to 80°C (Process media must not be frozen)

Power source:

24V DC±10%

Output:

4 to 20mA DC (2 wire system)

1 to 5V DC (3 wire system)

Load resistance:

500Ω max. (For current output) (2 wire system)

10kΩ min. (For voltage output) (3 wire system)

Transmission system:

2 wire system or 3 wire system

Accuracy:

±0.5%F.S. or ±1.0%F.S.

(Depends on pressure range)

Temperature coefficient:

±0.05%F.S./°C (Zero)

±0.05%F.S./°C (Span)

Humidity characteristic:

±0.5%F.S./95%RH (Zero)

±0.5%F.S./95%RH (Span)

Response time:

15ms or lower

Enclosure:

Indoor use (IP40 suitable, IEC standard)

Weight:

Approx. 200g

Specifications2

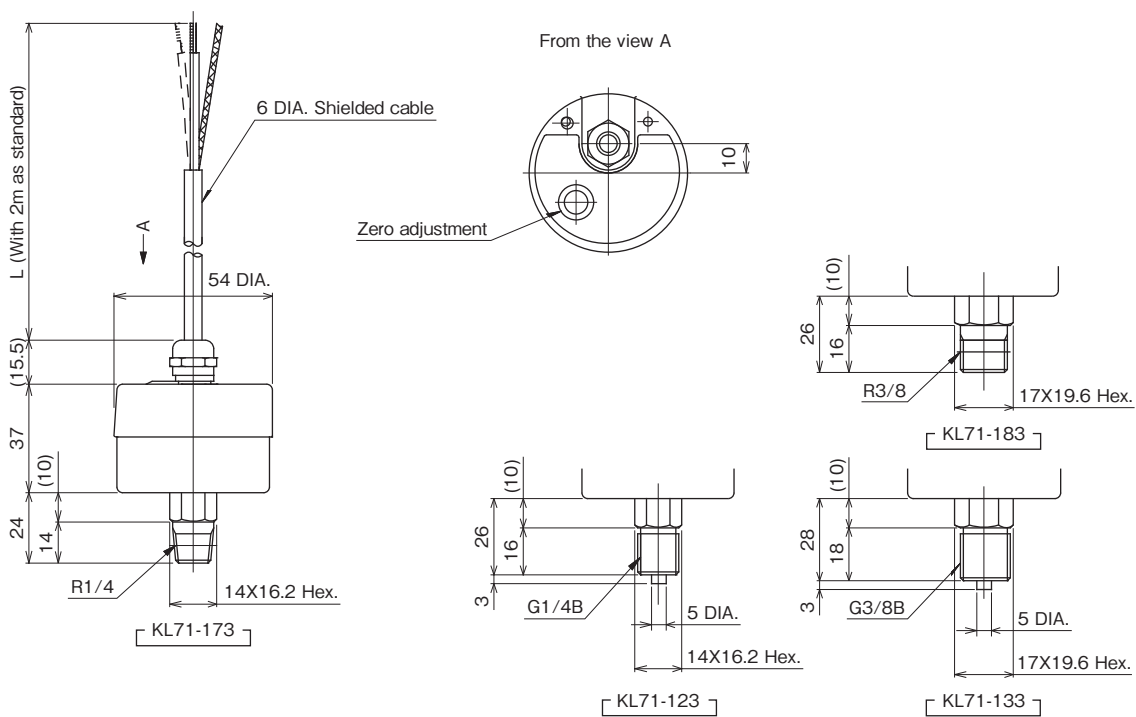
Allowable maximum pressure, Accuracy:

Pressure range	Allowable maximum pressure *1	Accuracy
0 to 2kPa	0.05MPa	±1%F.S.
0 to 5kPa 0 to 10kPa	0.1MPa	±0.5%F.S.
0 to 20kPa 0 to 0.05MPa 0 to 0.1MPa	0.5MPa	
0 to 0.2MPa	1MPa	

*1 Accidental instant pressure which may safely be applied to the product and remain in specification once pressure is returned within rated pressure range.

Dimensions

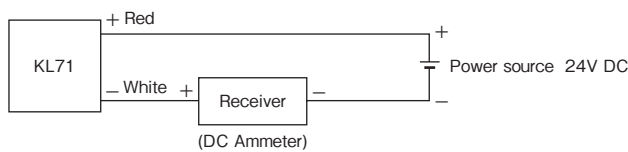
Unit: mm



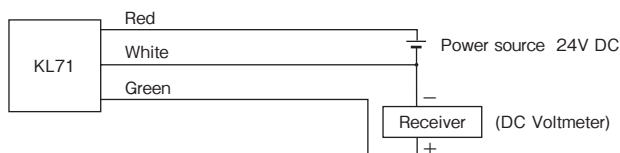
Example of external device connection

Output

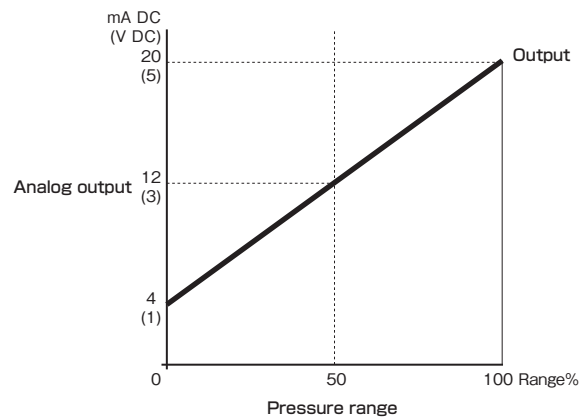
2 wire system (4 to 20mA DC) Output



3 wire system (1 to 5V DC) Output



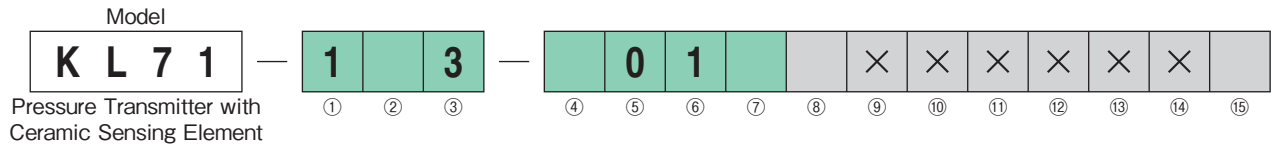
Shown is 4 to 20mA DC (1 to 5V DC)



Pressure transmitter linear outputs of 4 to 20mA (1 to 5V DC)

Model number configuration

Please specify the model number, each specs and the range for ordering.



Model number		Product specifications		Additional specifications (Optional)		
① Type	1	Cable type (With 2 m Shielded cable)				
② Connection	2	G1/4B				
	3	G3/8B				
	7	R1/4				
	8	R3/8				
③ Wetted parts	3	Sensing element: Alumina 96% O-ring : NBR Fitting : SUS316				
④ Pressure range		Pressure range		Accuracy		
	1	0 to 2kPa		±1.0%F.S.		
	2	0 to 5, 10kPa		±0.5%F.S.		
	3	0 to 20kPa, 0.05, 0.1, 0.2MPa		±0.5%F.S.		
⑤ Accuracy	0	±0.5%F.S. ±1.0%F.S. (Depends on pressure range)				
⑥ Supply voltage	1	24V DC±10%				
⑦ Output signal	1	4 to 20mA DC 2 wire system				
	8	1 to 5V DC 3 wire system				
⑧ Treatment	0	Not required				
	1	Use no oil				
	2	Use no water				
	3	Use no oil & water				
⑮ Documents	0	Not required				
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Mill test report Clibration test report (One-part one sheet) Inspection / Traceability certificate Calibration test report for pressure standard Attending inspection				

Please specify pressure range and unit of measure along with corresponding ordering code.

Treatment against wetted parts

- **Use no oil**
Oil used in manufacturing the gauges had been flushed out & no oil residue remained inside its wetted parts.
- **Use no water**
Water used in manufacturing the gauges had been flushed out & no water residue remained inside its wetted parts.
- **Use no oil & water**
Oil/Water used in manufacturing the gauges had been flushed out & no oil/water residue remained inside its wetted parts.

* Specify code "X" to refer N/A