

KL11

Differential Pressure Transmitter

For gas measurement
(Featuring silicone diaphragm)

Overview

Incorporated miniaturized silicone diaphragm precisely fabricated by micro machining can detect fine differential pressure to convert into analog output signal.

Features

- Highly sensitive capacitive sensing element can detect highly accurate pressure.
- The sensor is hermetically sealed in a capsule to contribute to high vibration proof and high durability.
- Position effects exhibit only 1Pa/45°



Specifications

Media:

Gas (Dry air and nitrogen gas)
No water or dusts should be contained.

Installation Environment*1:

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

Mounting:

Surface mounting

Process connection:

φ 3.2, φ 5.1, 2 steps barb fitting

Wetted parts:

Glass, Aluminum, Silicon, PBT

Differential pressure range:

0 to 0.05 → 0 to 2kPa
-0.05 to +0.05 → -1 to +1kPa

Allowable maximum pressure:

Proof pressure for single port 50kPa
Proof pressure for double ports 50kPa

Operating temperature:

0 to 60°C (Non-condensing)

Operating humidity limits:

30 to 90%RH (Non-condensing)

Response time:

Less than 100 ms

Power source:

14 to 27V DC 20mA maximum (Current output)

Output:

4 to 20mA DC (2 wire system)
0 to 5V DC (3 wire system)
1 to 5V DC (3 wire system)

Load resistance:

電流出力：500Ω max. (電源24V DCの時)
電圧出力：10kΩ min.

Transmission method:

2 or 3 wire system

Accuracy:

±1.0%F.S.

Temperature coefficient:

±0.1%F.S./°C (Zero)
±0.1%F.S./°C (Span)

Position effects:

Smaller than 1Pa/45°

Case material/finish:

PBT

Construction:

Indoor use (IP50)

Weight:

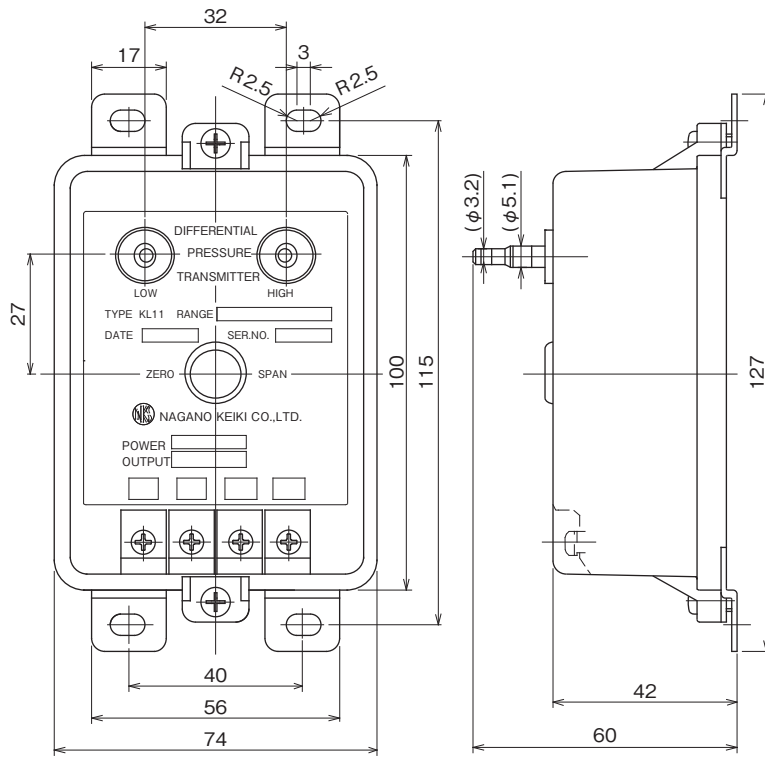
Approx. 250g

KL11

Differential Pressure Transmitter

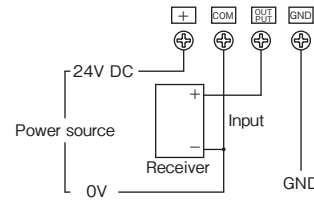
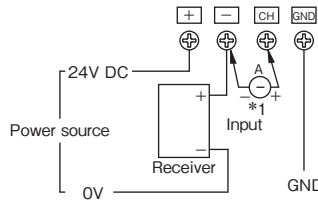
Unit: mm

Dimensions



Output 4 to 20mA DC

Output 0 to 5V DC or 1 to 5V DC

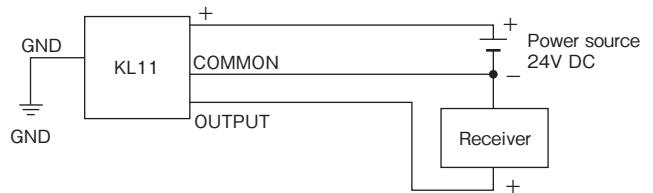
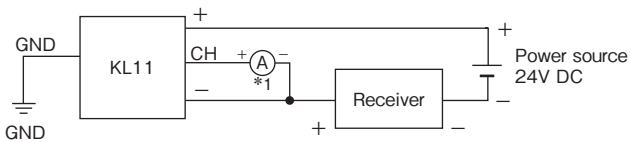


*1 Output status check can be performed without opening circuit.
Less than 10Ω resistance load.

Wiring

2 wire system (4 to 20mA DC)

3 wire system (0 to 5V DC)
1 to 5V DC



*1 Output status check can be performed without opening circuit.
Less than 10Ω resistance load.

Model number configuration

Please specify the model, each requiring specification and differential pressure range to order.

Model		<table border="1"> <tr> <td>K</td><td>L</td><td>1</td><td>1</td> <td>2</td><td>0</td><td>1</td> <td>7</td><td>L</td> <td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td><td>X</td> </tr> <tr> <td colspan="4"></td> <td>①</td><td>②</td><td>③</td> <td>④</td><td>⑤</td><td>⑥</td><td>⑦</td><td>⑧</td><td>⑨</td><td>⑩</td><td>⑪</td><td>⑫</td><td>⑬</td><td>⑭</td><td>⑮</td> </tr> </table>															K	L	1	1	2	0	1	7	L	X	X	X	X	X	X	X	X					①	②	③	④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮
K	L	1	1	2	0	1	7	L	X	X	X	X	X	X	X	X																																				
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① Mounting	2	Surface mounting																																																		
② Pressure connection	0	φ 3.2, φ 5.1 2 steps barb fitting																																																		
③ Wetted parts	1	Diaphragm: Silicon																																																		
Please specify differential pressure range and unit of measure along with corresponding ordering code.	④ Differential pressure range (kPa)	1	±0.05, ±0.1																																																	
		2	±0.25																																																	
		3	±0.5, ±1																																																	
		4	0 to 0.05, 0.1, 0.25, 0.5																																																	
		5	0 to 1, 2																																																	
⑤ Accuracy	7	±1.0%F.S.																																																		
⑥ Power source	L	14 to 27V DC																																																		
⑦ Output	1	4 to 20mA DC (2 wire system) (14 to 27V DC)																																																		
	6	0 to 5V DC (3 wire system) (24V DC±10%)																																																		
	8	1 to 5V DC (3 wire system) (24V DC±10%)																																																		
⑮ Documents	0	Not required																																																		
	1	Required (Documents available upon request) Datasheet (Drawing / Specifications) Instruction manual Inspection procedure Calibration test report (One-part one sheet) Inspection / Traceability certificate Calibration test report for pressure standard Attending inspection																																																		

* Specify code "X" to refer N/A

■ Warning

The product can't be used for corrosive, flammable gas and fluids measurements.