

# KL12

## Miniaturized 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

- This transmitter can detect fine differential pressures between 50Pa to 2 kPa with high sensitivity.
- Highly durable construction for each high pressure and low pressure port withstanding 50kPa maximum pressure.
- Miniaturized sensing part designed with silicon diaphragm having less moving parts contributes for excellent vibration proof and shock resistance.
- Easy to handle small and lightweight pressure transmitter.



RoHS

### Specifications

#### Media:

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

#### 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

#### Mounting:

Surface mounting

#### Pressure connection:

φ 5.5 Barb fitting

#### Wetted parts:

Glass, Aluminum, Silicon, PBT, NBR (Nitrile rubber)

#### Differential pressure range:

0 to 50Pa → 20kPa  
±50Pa → ±10kPa

#### Allowable maximum pressure:

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

#### Operating temperature:

-10 to 60°C (Non-freezing or condensing)

#### Operating humidity limits:

30 to 90%RH (No condensation)

#### Response time:

Less than 200 ms

#### Power source:

14 to 27V DC

#### Output:

4 to 20mA DC

#### Load resistance:

500Ω maximum  
(With current output at 24V DC power source)

#### Transmission method:

2 wire system

#### Accuracy:

±2.0%F.S. (23±2°C)

#### Temperature coefficient:

±0.2%F.S./°C (Zero)  
0 to 0.3%F.S./°C (Span)

#### Position effects:

Smaller than 1Pa/45°

#### Case material/finish:

PBT resin

#### Construction:

Indoor use (IP50)

#### Weight:

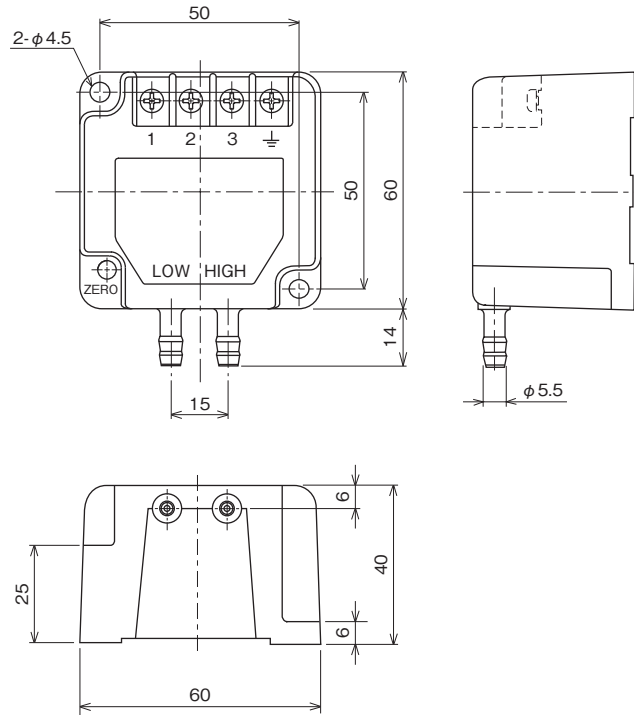
Approx. 80g

# KL12

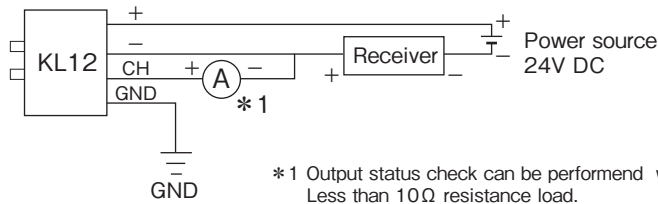
## Miniaturized Differential Pressure Transmitter

Unit: mm

### Dimensions



### Wiring



### Application

Digital display and various functions are available in one compact digital pressure gauge.

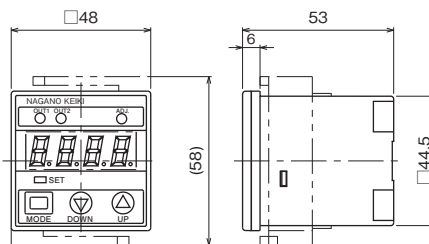
#### [GC68]



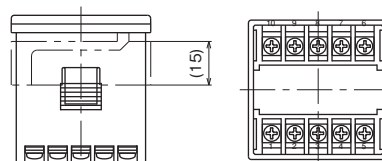
- **Display:** 4 digit LED digital display
- **Display accuracy:** ±0.5%F.S.
- **Power supply voltage:** 24V DC ±10%
- **Connecting sensor:**  
Supply power source: 24V DC ±10%  
Sensor input: 4 to 20mA DC or 1 to 5V DC
- **Mating sensor:**  
Relay contact ×2 output  
Analog output (Option)
- **Primarily functions:** Scaling, loop check, filter function
- **Mounting:** Panel mounting, surface mounting

\* For GC68, refer to catalog for detailed information.

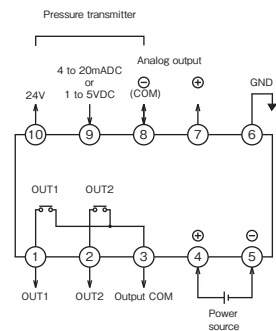
#### Panel mount



#### Back view



#### Wiring diagram



### Model number configuration

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

Model

<b>K L 1 2</b>	—	<b>2</b>	<b>0</b>	<b>1</b>	—	<b>9</b>	<b>L</b>	<b>1</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>	<b>X</b>
		①	②	③		④	⑤	⑥	⑦	⑧	⑨	⑩	⑪	⑫	⑬	⑭	⑮

Miniaturized Differential Pressure Transmitter

Model number	Product specifications	Additional specifications (Optional)
① Mounting	<b>2</b>	Surface mounting
② Pressure connection	<b>0</b>	φ 5.5 Barb fitting
③ Wetted parts	<b>1</b>	Diaphragm: silicon
④ Differential pressure range	<b>1</b>	0 to 50, 100, 200Pa
	<b>2</b>	0 to 0.5, 1, 2, 5, 10, 20kPa
	<b>3</b>	±50, ±100, ±200Pa
	<b>4</b>	±0.5, ±1, ±2, ±5, ±10kPa
⑤ Accuracy	<b>9</b>	±2.0%F.S.
⑥ Power source	<b>L</b>	14 to 27V DC
⑦ Output	<b>1</b>	4 to 20mA DC (2 wire system)
⑮ Documents	<b>0</b>	Not required
	<b>1</b>	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

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

\* Specify code "X" to refer N/A

**Warning**

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