

## INSTRUCTION MANUAL DIFFERENTIAL PRESSURE GAUGE

GA400-8-P02  
GA400-8-P02-T1.5  
GA400-8-P02-P60  
GA400-8-P02-P80  
GA400-8-P02-P90

Thank you for adopting quality product of CKD's.

Read this manual well, as we have lined up specification, installation procedure and precaution of maintenance works, for better and effective utilization of Product of CKD's.

### 1. Product

#### 1-1. Specification

Model code		GA400-8-P02	GA400-8-P02-T1.5	GA400-8-P02-P60	GA400-8-P02-P80	GA400-8-P02-P90
Item						
Max. working pressure (MPa)		1.0				
Proof pressure (MPa)		1.5				
Range of working temperature (°C)		5~65				
Range of measuring differential pressure (MPa)		0~0.2				
Gauge accuracy		Full scale $\pm 3\%$				
Dia. of connecting port	High press. side	R1/4				
	Low press. side	Rc1/4				
Treatment		Non-grease				
Mass of product (kg)		0.34				0.6
Option item		—	• Attached nylon tube 1.5m	• Copper and PTFE free	• Dust defense countermeasures	• Dust defense countermeasures • All stainless

### 2. INSTALLATION

- (1) Install the gauge as close to the pneumatic equipment serviced as possible.
- (2) Eliminate installation of the gauge of this type within the area where ambient temperature is expected to exceed 65 °C.
- (3) Install the gauge of this type within the system line where working pressure is to be kept 1.0MPa or lower.
- (4) Eliminate installation of the gauge of this type together with the equipment which pressure difference is expected to be more than 0.2MPa.
- (5) Eliminate installation of the gauge of this type within the place where it is exposed directly to a ray of the sun.

DEC-07 5th Edition

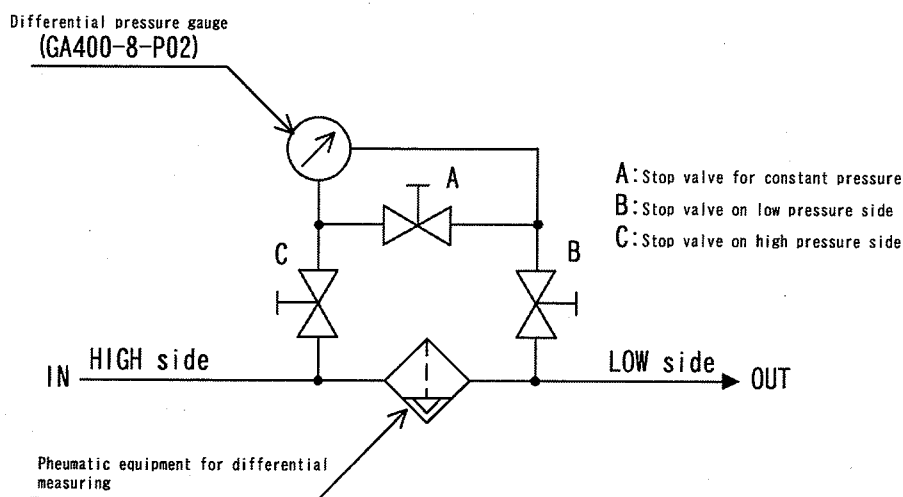
CKD Corporation

- (6) Install an air filter just upstream of this gauge to keep foreign particle or condensed humidity from falling into the gauge.
- (7) Connect each port of the gauge in accordance with the following principle.
  - "High" port of the gauge to "IN" side of pneumatic equipment serviced.
  - "Low" port of the gauge to "OUT" side of pneumatic equipment serviced.
 Make use of a set of plumbing components (such as Half-unions, Elbow and Tubes) which are furnished together with the gauge on delivery.

### 3. OPERATIONS

- 1) Don't mount the valve between a differential pressure gauge and a pneumatic equipment for differential measuring to prevent failure accident of the gauge from valve's maloperation as a rule.

Please use the stop valve for constant pressure, if you assemble the system such as giving line pressure on one side of pneumatic equipment for differential measuring rapidly. See the following procedure.



#### 《starting operation》

- ① Close the valve A, B, C at first.
- ② Open the valve A.
- ③ Open the valve B for the pointer of the differential pressure gauge not to come off scale range slowly. If you open it rapidly, Rapid pressure is added on one side for the cause of difference between hyperbaric chamber's contents and low pressure chamber's contents, and it is liable to damage bourdon tube.
- ④ If the pointer of the differential pressure gauge indicate 0 stably. Close the valve A.
- ⑤ Open the valve C slowly.

#### 《Measuring stop, maintenance》

- ① Close the valve C.
  - ② Open the valve A.
  - ③ Close the valve B.
- 2) In the case of the system which stops air in front of the pneumatic equipment for differential measuring, when passing air, it is careful that rapid air does not flow to the pneumatic equipment. It leads to damage of the differential pressure gauge. (example: when attaching a coupler directly)

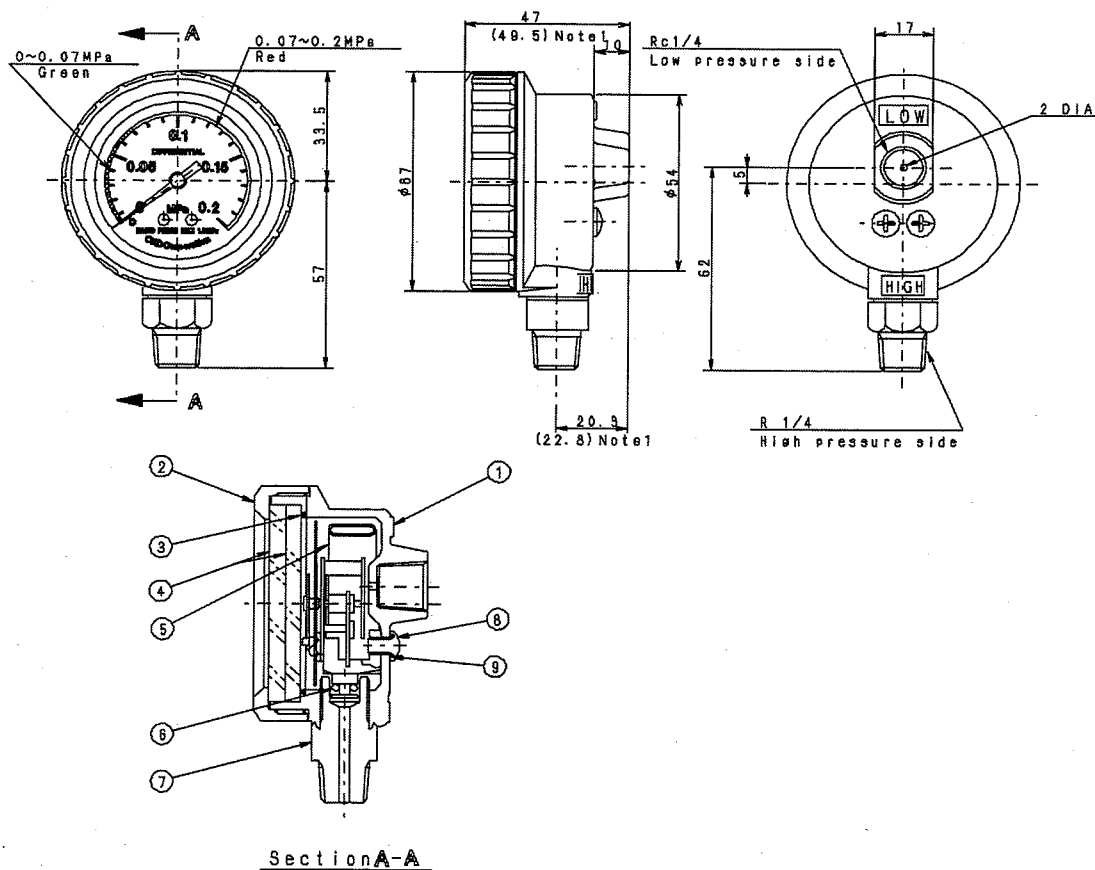
- 3) Do not let air flow backwards to the differential pressure gauge. It leads to breakage of the differential pressure gauge.
- 4) Make certain that plumbing is firmly fixed as the coming off piping, of course, results the gauge getting out of order or sometimes causing its mechanical damage.

## 4. MAINTENANCE

### 4.1 Maintenance and Disassembling

- 1) In the event the transparent face plate of the gauge is stained much, disassemble it from the gauge front as per following principle for the purpose of washing it, although there is no specific maintenance requirement other than mentioned above throughout a normal operation of system.
  - ① Firstly, shut the supply of compressed air neither the equipment nor the differential pressure gauge.
  - ② Release the pressure of air gradually though the secondary port of pneumatic equipment being serviced so as to retain the residual pressure difference within 0.2MPa.
  - ③ Turn the clamp ring ② counterclockwise to take out the face plate.
  - ④ Wash the plate in a household neutral detergent.
  - ⑤ Firmly tighten-up the clamp ring while reassembling back the transparent plate.
- 2) The Bourdon tube ass'y ⑤ within the differential pressure gauge is not replaceable through disassembling the gauge. Contact any CKD dealer nearest to you, should there be any abnormality is disclosed.

### 4.2 Appearance, Structure and Parts list



No.	Part	Material				Q'TY	Remark
		GA400-8-P02 (-T1.5)	GA400-8-P02 -P60	GA400-8-P02 -P80	GA400-8-P02 -P90		
1	Body	Zinc die casting			Stainless steel	1	
2	Clamp ring	Zinc die casting			Stainless steel	1	
3	O ring	Synthetic rubber				1	(S50)
4	Transparent plate	Polyamide		Tempered glass		2	
5	Burdon tube ass'y	Brass tube	Stainless tube	Brass tube	Stainless tube	1	
6	O-ring	Synthetic rubber				1	P3
7	Connector	Brass	Carbon steel		Stainless steel	1	
8	Screw	Stainless steel				2	M4×7ℓ
9	O-ring	Synthetic rubber				2	(S3)

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