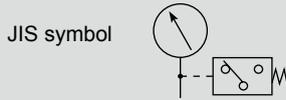


F.R.L.  
 F.R.  
 F (Filtr)  
 R (Reg)  
 L (Lub)  
 Drain  
 Separ  
 Mech  
 Press SW  
 Res press  
 exh valve  
 SlowStart  
 Anti-bac/Bac-  
 remove Filtr  
 Film  
 Resist FR  
 Oil-ProhrR  
 Med  
 Press FR  
 No Cu/  
 PTFE FRL  
 Outdrs FRL  
 Adapter  
 Joiner  
 Press  
 Gauge  
 CompFRL  
 LgFRL  
 PrecsR  
 VacF/R  
 Clean FR  
 ElecPneur  
 AirBoost  
 Speed Ctr  
 Silncr  
 CheckV/  
 other  
 Fit/Tube  
 Nozzle  
 Air Unit  
 PrecsCompn  
 Electro  
 Press SW  
 ContactSW  
 AirSens  
 PresSW  
 Cool  
 Air Flo  
 Sens/Ctrl  
 WaterRtSens  
 TotAirSys  
 (Total Air)  
 TotAirSys  
 (Gamma)  
 Gas  
 generator  
 RefrDry  
 DesiccDry  
 HiPolymDry  
 MainFiltr  
 Dischrg  
 etc  
 Ending



# Pressure gauge with switch G52D Series



## Features

- Pressure switch function added to the analog pressure gauge
- Nonpolar connector as an option
- Activation confirmation lamp as an option

## Specifications

1 MPa = 10 bar

Item	Pressure gauge	
Working fluid	Compressed air	
Fluid temperature °C	5 (41°F) to 60 (140°F)	
Ambient temperature °C	-5 (23°F) to 60 (140°F) (no freezing)	
Accuracy *1	Full scale ±3%	
Shape	DT type (rear side screw, stock section hexagon)	
Material	Stock	Copper alloy
	Bourdon tube	Phosphor bronze
	Housing	Steel plate + chrome plating
	Lens	Polycarbonate resin
	Setting needle	ABS resin (green)
Pressure range *2	0 (≈0 psi) to 1.0 MPa (≈150 psi)	
Port size	R 1/4	
Weight	g 150	

\*1: The guaranteed indicator accuracy temperature is 20±15°C.  
 \*2: Do not apply pressure exceeding the maximum indicated pressure. Otherwise, malfunctions may result.

1 MPa = 10 bar

Item	Pressure switch
Pressure switch setting range	0.1 (≈15 psi) to 0.8 MPa (≈120 psi)
Hysteresis	0.07 MPa (≈10 psi, 0.7 bar)
Contact array	Without lamp: 1ab (normally open, normally closed) With lamp: 1a (normally open)
Setting needle error	±0.05 MPa (≈7.3 psi, 0.5 bar)
Lead wire length	300 mm
Electrical connections	Without lamp: 3 lead wires With lamp: M12 connector (4-pin)
Indicator lamp	LED (load current: 8 to 30 mA)

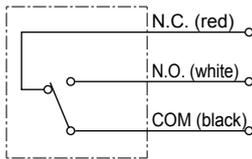
## Micro switch rating

Load	Resistance load	
Rated voltage	30 VDC	125 VAC
Operating current range *1	0.1 to 2 A	0.1 to 5 A

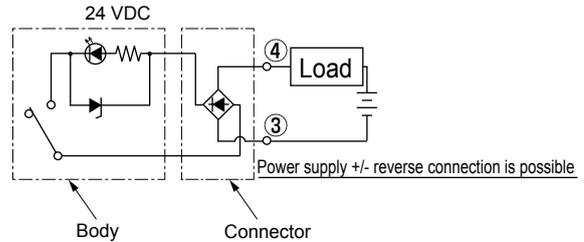
\*1: Use 12 VDC or more for 0.10 to 0.16 A.

## Electrical wiring diagram

○ Without indicator lamp



○ With indicator lamp/LED



## How to order

**G52D - 8 - P10 - 3N**

Model No.

**A** Port size

**B** Pressure display

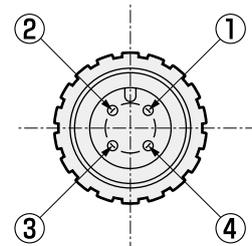
**C** Option

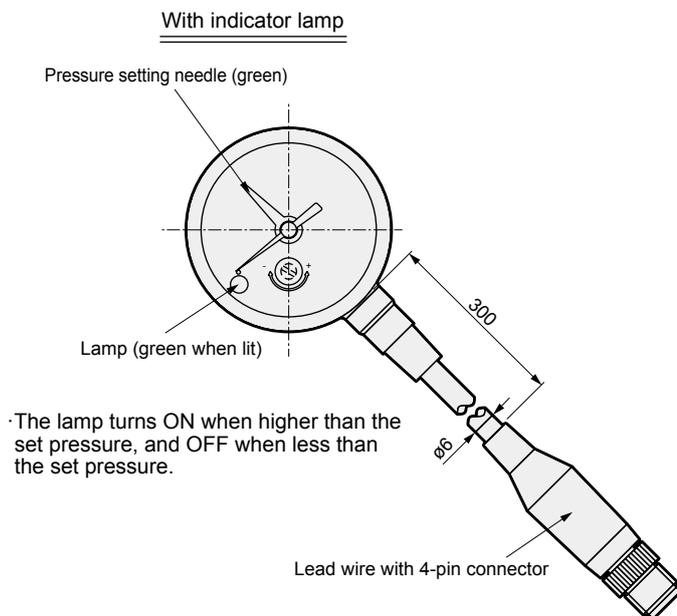
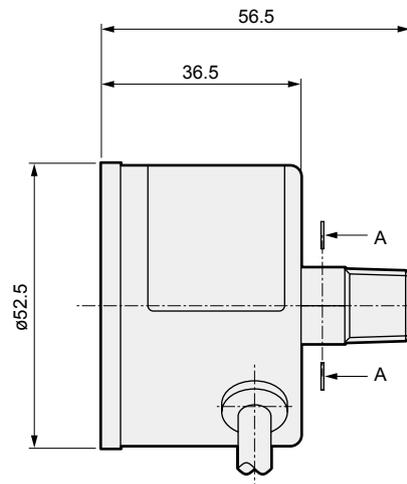
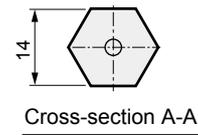
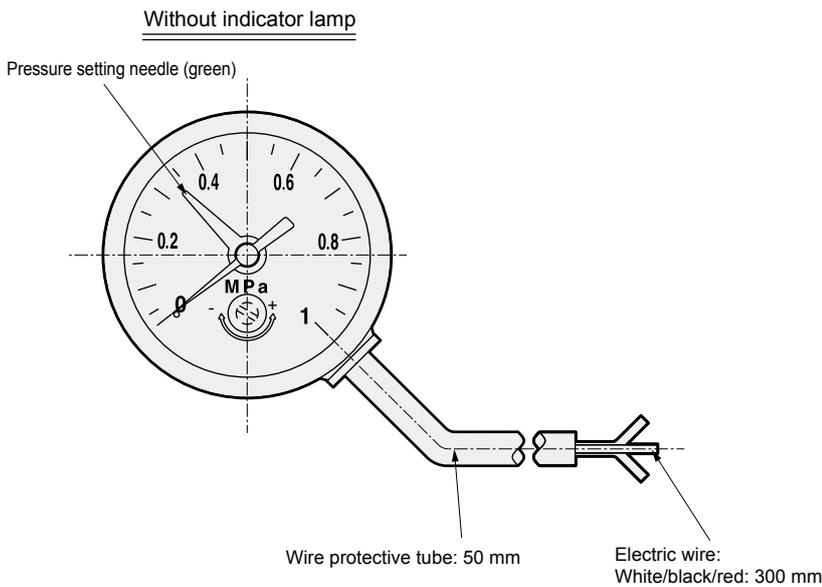
Code	Description
<b>A</b> Port size	*1
<b>8</b>	R1/4
<b>B</b> Pressure display MPa	*2
<b>P10</b>	0 to 1.0
<b>C</b> Option	
<b>Blank</b>	Without indicator lamp
<b>3N</b>	LED (24 VDC) no polarity

## ⚠ Precautions for model No. selection

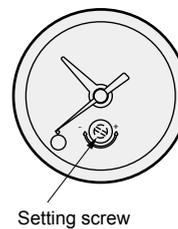
\*1: Contact CKD when ordering NPT thread.  
 \*2: Contact CKD for indications other than MPa.

## Terminal layout of male connectors





### Setting the setting needle



- Pass a flathead screwdriver (tip width 2.9 mm) through the rubber cap on the lens, and turn the setting screw to set the setting needle to the required pressure.

- \* Turn the setting screw
  - Minus (-) side (clockwise) → set pressure decrease
  - Plus (+) side (counterclockwise) → set pressure increase

### Safety precautions

- Make sure that impact and vibration are not applied directly onto the body.
- Repeated and sudden increases or decreases in pressure and pressure pulsations must be avoided as they could adversely affect the life of the pressure gauge. Ease the pressure fluctuation in the circuit.
- The pressure switch setting value is indicated with the green setting needle. Set the pressure switch value so that the setting needle turns clockwise. If the setting needle passes the setting position, turn the setting needle counterclockwise once, then reset.
- Set a difference of 0.1 MPa and over from the working pressure (including pressure drops). Malfunctions could result if the difference is small. Refer to the drawings above for details on setting the setting needle. When using the pressure switch in the normally open state, the switch may not turn ON when the pressure drops unless pressure, to which set indication error ( $\pm 0.05$  MPa), hysteresis (0.07 MPa), and indicated accuracy ( $\pm 3\%$  F/S) have been added, has been applied.
- Add the pressure gauge's indication accuracy to the maximum value of the setting indicator and indicator error (set indicator error).
- When a DC lamp is used, the internal voltage drop is to be 4 V or less and load current 8 to 30 mA at 24 VDC. Please be careful.
- Wire such that repeated bending or tension are not applied to the lead wires. Failure to do so could lead to disconnection or malfunction.
- Avoid using in an atmosphere containing silicone (siloxane). Contact failure could result.
- Setting needle error may increase depending on the operating environment and operating frequency. Check the operation periodically.

F.R.L.
F.R.
F (Filtr)
R (Reg)
L (Lub)
Drain Separ
Mech Press SW
Res press exh valve
SlowStart
Anti-bac/Bac-remove Filtr
Film Resist FR
Oil-ProhR
Med Press FR
No Cu/ PTFE FRL
Outdrs FRL
Adapter Joiner
<b>Press Gauge</b>
CompFRL
LgFRL
PrecsR
VacF/R
Clean FR
ElecPneuR
AirBoost
Speed Ctrl
Silncr
CheckV/ other
Fit/Tube
Nozzle
Air Unit
PrecsCompn
Electro Press SW
ContactSW
AirSens
PresSW Cool
Air Flo Sens/Ctrl
WaterRISens
TotAirSys (Total Air)
TotAirSys (Gamma)
Gas generator
RefrDry
DesicDry
HiPolymDry
MainFiltr
Dischrg etc
Ending