

General Specifications

Y/11AH
Pneumatic
Absolute Pressure Transmitter

P10 Series

GS 02C01B03-00EN

Model Y/11AH Pneumatic Absolute Pressure Transmitter measures absolute pressure in spans from 0.07 to 2.7 MPa.

The instrument transmits a proportional 20 to 100 kPa signal to remote pneumatic receivers.



■ FEATURES

- Time-Proven Pneumatic Differential Pressure Transmitter Design.
- Trouble-Free Construction.
- Excellent Performance.
- Easy to Calibrate.
- Wide Range.
- Overrange Protection.
- Stable Absolute Reference.

■ STANDARD SPECIFICATIONS

Span Limits:

Refer to Table 1.
Span is continuously adjustable within range limits.

Range Limits:

Refer to Table 1.

Overpressure Limits:

Refer to Table 1.

Output Signal:

Refer to Table 1.

Accuracy (includes linearity, hysteresis and repeatability):

±0.5% of span.

Repeatability:

0.1% of span.

Dead Band:

0.05% of span.

Air Supply Pressure:

140 kPa, 1.4 kgf/cm² or bar, or 20 psi.

Air Consumption:

0.5 m³/h at 0°C, 101.3 kPa {1.033 kgf/cm²} absolute (0.3 scfm).

Ambient Operating Temperature Range:

-40 to 120°C (-40 to 250°F).

Process Temperature Limits:

-40 and 120°C (-40 and 250°F) at capsule.

Table 1. Span, Range and Overpressure Limits.

Capsule		–	M-calibration	P-calibration	bar-calibration
A	Span Limits	0.07 to 0.55 MPa	0.7 to 5.6 kgf/cm ²	10 to 80 psi	0.7 to 5.5 bar
	Range Limits	0 to 0.6 MPa abs.	0 to 6 kgf/cm ² abs.	0 to 90 psi abs.	0 to 6 bar abs.
	O. P. Limits	0.6 MPa	6 kgf/cm ²	90 psi	6 bar
B	Span Limits	0.14 to 1.4 MPa	1.4 to 14 kgf/cm ²	20 to 200 psi	1.4 to 14 bar
	Range Limits	0 to 2.4 MPa abs.	0 to 24 kgf/cm ² abs.	0 to 350 psi abs.	0 to 24 bar abs.
	O. P. Limits	2.4 MPa	24 kgf/cm ²	350 psi	24 bar
C	Span Limits	0.28 to 2.7 MPa	2.8 to 28 kgf/cm ²	40 to 400 psi	2.8 to 27 bar
	Range Limits	0 to 5 MPa abs.	0 to 52 kgf/cm ² abs.	0 to 750 psi abs.	0 to 50 bar abs.
	O. P. Limits	5 MPa	52 kgf/cm ²	750 psi	50 bar
Output Signal		20 to 100 kPa	0.2 to 1.0 kgf/cm ²	3 to 15 psi	0.2 to 1.0 bar
Option Code		Standard Specifications	CAL-M	CAL-E	CAL-B

Mounting:

Bracket for nominal 50 mm (2 inches) horizontal or vertical pipe.

Air Connection:

Tapped for JIS R1/4 or 1/4 NPT, whichever specified.

Process Connection:

JIS Rc1/2 or 1/2 NPT, whichever specified.

Wetted Parts Material:

Body: Forged JIS SUS316 stainless steel.
 Bellows Capsule: SUS316L stainless steel.
 Force Bar: SUS316 stainless steel.
 Force Bar Seal: Cobalt-nickel alloy.
 Capsule Gasket: Silicone elastomer.
 Force Bar Seal Gasket: Silicone elastomer.

Connection Hardware:

JIS SCM435 chrome-molybdenum steel cap screws and nuts for body; JIS SCM435 cap screws for process connectors.

Cover:

Cast aluminum, finished with gray polyurethane paint.

Degrees of Protection:

IP53 (Equivalent to NEMA3)

Approximate Weight:

5.3 kg (12 lb).

■ MODEL AND SUFFIX CODES

Model	Suffix Codes	Description
Y/11AH	Pneumatic absolute pressure transmitter.
Bellows Capsule	-A	A capsule. Span: 0.07 to 0.55 MPa.
	-B	B capsule. Span: 0.14 to 1.4 MPa.
	-C	C capsule. Span: 0.28 to 2.7 MPa.
Body Material *1	S	Forged SUS316 stainless steel.
Process Connections	2	JIS Rc1/2 female.
	4*2 ...	ANSI 1/2 NPT female.
Options	/□/□	

*1: ⚠ Users must consider the characteristics of selected wetted parts material and the influence of process fluids. The use of inappropriate materials can result in the leakage of corrosive process fluids and cause injury to personnel and/or damage to plant facilities. It is also possible that the diaphragm itself can be damaged and that material from the broken diaphragm and the fill fluid can contaminate the user's process fluids. Be very careful with highly corrosive process fluids such as hydrochloric acid, sulfuric acid, hydrogen sulfide, sodium hypochlorite, and high-temperature steam (150 °C [302 °F] or above). Contact Yokogawa for detailed information of the wetted parts material.

*2: Air connections, drain plug connections are also tapped for ANSI NPT threads in addition to the process connection.

■ OPTIONS

Item	Description	Code
Air set	Supply pressure: 0.2 to 1 MPa, 2 to 10 kgf/cm ² or bar, or 30 to 150 psi. Output pressure: 140 kPa, 1.4 kgf/cm ² or bar, or 20 psi. Maximum operating temperature: 80 °C (180 °F). Refer to Table 2.	GAS-F□ NAS-F□
Low spans	Refer to Table 3.	LD
Cover color other than standard finish	Specify in color block □ by color code. Refer to GS22D01F01-00E.	SCF-□
Coating other than standard finish	Epoxy resin-baked coated.	EPF
Oxygen service preparation	Degrease cleansing treatment.	OSW
Stainless steel bolts and nuts	JIS SUS630 bolts and nuts for the body	SSB
	JIS SUS630 bolts and nuts for the body and sealant (liquid silicone rubber) are coated on surface of SUS630 nuts.	SSB-S
Ammonia service	Force bar gasket and capsule gasket: Neoprene rubber	AMM
Stainless tube	Tube and connectors between air-set (fixed pressure regulator with filter) and transmitter are made by stainless steel. However, connection of pressure gauge remains as standard material (Bs-Ni3).	SST
Tropicalization	When there is a possibility to generate rusts using under the condition of high temperature and high humidity area, silicone grease is coated on whole screws. Silicon grease which has stronger oil film feature.	PSG
M-calibration	Output signal: 0.2 to 1.0 kgf/cm ²	CAL-M
P-calibration	Output signal: 3 to 15 psi	CAL-E
bar-calibration	Output signal: 0.2 to 1.0 bar	CAL-B
Stainless Tag plate	Stainless Tag plate fixed with screws. Up to 16 characters.	TP-S
Force bar seal gasket*1	GF Teflon	GFT

*1: Not applicable for option code OSW.

Table 2. Air set

Air Connection	Gauge Scale	Code
JIS Rc 1/4 female	0 to 200 kPa	GAS-FP
	0 to 2 kgf/cm ²	GAS-FM
	0 to 30 psi	GAS-FE
	0 to 2 bar	GAS-FB
1/4 NPT female	0 to 200 kPa	NAS-FP
	0 to 2 kgf/cm ²	NAS-FM
	0 to 30 psi	NAS-FE
	0 to 2 bar	NAS-FB

Table 3. Low Spans

Capsule	Span		
	kPa	kgf/cm ²	psi
A	35 to 270	0.35 to 2.8	5 to 40
B	70 to 700	0.7 to 7	10 to 100
C	140 to 1350	1.4 to 14	20 to 200

<Reference>

Teflon: Trademark of E.I. DuPont de Nemours & Co.

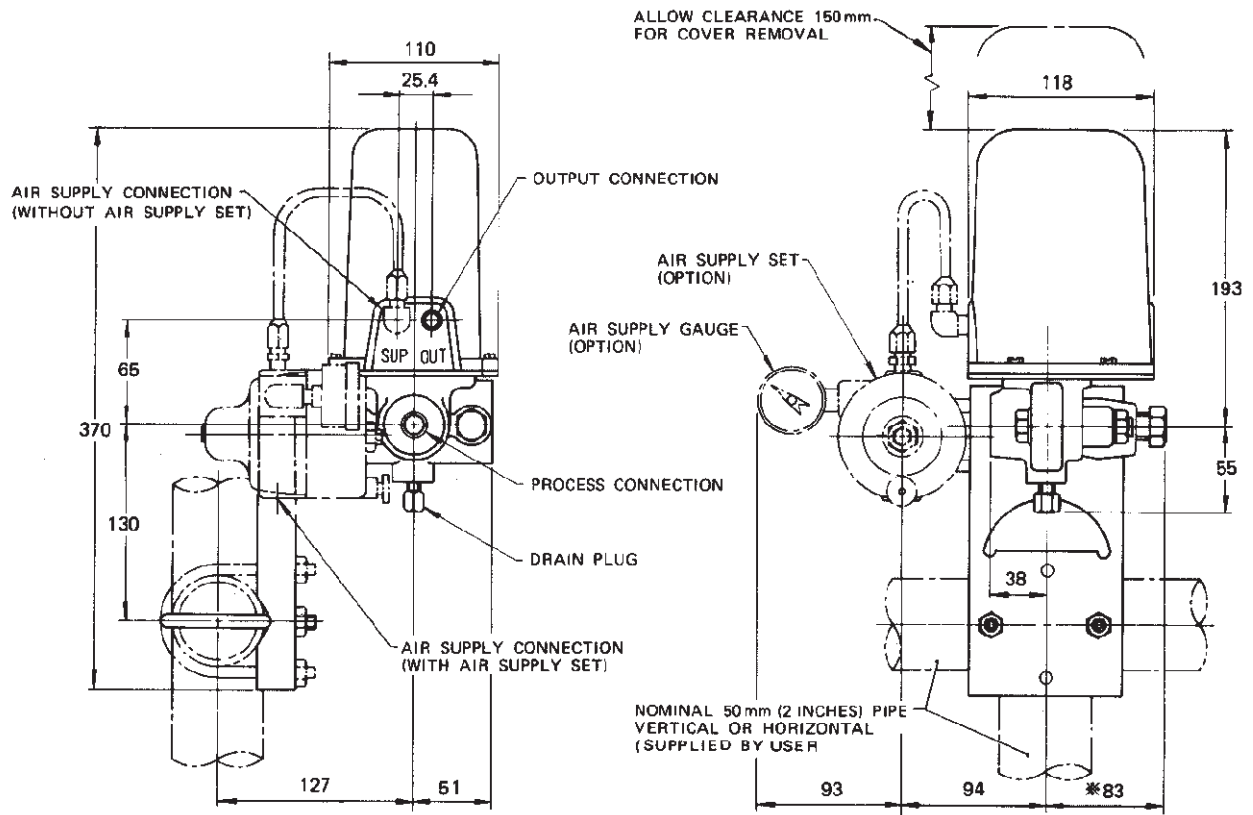
■ ORDERING INSTRUCTIONS

Specify the following when ordering:

1. Model and suffix codes.
2. Option codes.
3. Calibrated range.
4. Tag number.

■ DIMENSIONS

Unit: mm



* 97mm WHEN A CAPSULE.