

General Specifications

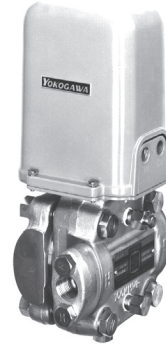
Y/11AM
Pneumatic
Absolute Pressure Transmitter

P10 Series

GS 02C01B02-00EN

Model Y/11AM Pneumatic Absolute Pressure Transmitter measures absolute pressure in spans from 5.3 to 200 kPa.

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.

*: Kit for suppressed-zero ranges is installed as standard.

Upper range-value must not exceed upper range-limit of capsule.

Overpressure Limits:

Refer to Table 1.

Output Signal:

Refer to Table 1.

Accuracy:

Refer to Table 2.

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.

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, Rc1/4, 1/2 NPT, or 1/4 NPT female, whichever specified.

Table 1. Span, Range and Overpressure Limits.

Capsule		—	M-calibration	P-calibration	bar-calibration
M	Span Limits	5.3 to 53 kPa	40 to 400 mmHg	1.6 to 15.7 inHg	53 to 530 mbar
	Range Limits	0 to 53 kPa abs.	0 to 400 mmHg abs.	0 to 15.7 inHg abs.	0 to 530 mbar abs.
	O. P. Limits	0.7 MPa	7 kgf/cm ²	100 psi	7 bar
H	Span Limits	50 to 200 kPa	375 to 1520 mmHg	14.8 to 59.8 inHg	500 to 2000 mbar
	Range Limits	0 to 200 kPa abs.	0 to 1520 mmHg abs.	0 to 59.8 inHg abs.	0 to 2000 mbar abs.
	O. P. Limits	1 MPa	10 kgf/cm ²	142 psi	10 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

Wetted Parts Material:

Body: Forged JIS SUS316 stainless steel.
 Process Connector: SCS14 A (equivalent to SUS316 Stainless Steel casting)
 Capsule (Body): SUS316L stainless steel.
 Force Bar: SUS316 stainless steel.
 Force Bar Seal: Cobalt-nickel alloy.
 Process Connector Gasket: Teflon (PTFE).
 Capsule Gasket: SUS316L stainless steel coated with Teflon.
 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 connector.

Cover:

Cast aluminum, finished with gray polyurethane paint.

Degrees of Protection:

IP53 (Equivalent to NEMA3)

Approximate Weight:

9.3 kg (21 lb).

Table2. Accuracy (includes linearity, hysteresis and repeatability).

Capsule	Spans		Accuracy (% of span)
	kPa	mmHg	
M	5.3 to 13	40 to 100	±0.5
	13 to 33	101 to 248	±1.0
	33 to 53	249 to 400	±2.0
H	50 to 113	375 to 850	±0.5
	113 to 200	851 to 1520	±1.0

■ MODEL AND SUFFIX CODES

Model	Suffix Codes	Description
Y/11AM	Pneumatic absolute pressure transmitter.
Diaphragm Capsule	-M.....	Medium range capsule. Span: 5.3 to 53 kPa
	-H.....	High range capsule. Span: 50 to 200 kPa
Body Material *1	S.....	Forged SUS316 stainless steel.
Process Connection	1.....	JIS Rc1/4 female.
	2.....	JIS Rc1/2 female.
	3*2 ...	ANSI 1/4 NPT 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, vent and 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 3.	GAS-F□ NAS-F□
Low spans	Refer to Table 4.	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
High process temperature	Glass reinforced Teflon gaskets are used in the process connector and force bar seal. Maximum process temperatures to 190 °C (375 °F).	DG5
Oxygen service preparation	Degrease cleansing treatment.	OSW
Stainless steel bolts and nuts	JIS SUS630 bolts and nuts for the body and JIS SUS630 bolts for process connector.	SSB
	JIS SUS630 bolts and nuts for the body and JIS SUS630 bolts for process connector and sealant (liquid silicone rubber) are coated on surface of SUS630 nuts.	SSB-S
Ammonia service	Force bar 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
Reverse output signal*2	Reverse output signal	ROUT

*1: Not applicable for option code DG5 and OSW.

*2: Not applicable for option code EPF.

Table 3. 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

<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.

Table 4. Low Spans

Capsule	Span (kPa)	Accuracy (%)	
		Suffix Code LD	Suppressed -Zero Range
M	2.7 to 6.5	±0.5	±1.5
	6.5 to 16.5	±1.0	
	16.5 to 26	±2.0	±3.0
H	25 to 56	±0.5	±1.5
	56 to 100	±1.0	

■ DIMENSIONS

Unit: mm

