

General Specifications

Model Y/11GH
Pneumatic
Gauge Pressure Transmitter

P10 Series

GS 2C1B5-E

Model Y/11 GH Pneumatic Gauge Pressure Transmitter measures gauge pressure from -0.1 to 82 MPa in spans of 7 to 82 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.

STANDARD SPECIFICATIONS

Span Limits:

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

Range Limits *:

Refer to Table 1.
* When lower range-value is other than zero, optional kit for elevated-zero or suppressed-zero ranges is installed.

Overpressure Limits:

Refer to Table 1.

Output Signal:

20 to 100 kPa.

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 element.

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, 1/2 NPT female or 9/16-18 Aminco (American Instrument Co.) connection whichever specified. For Aminco connection, Yokogawa supplies Aminco fitting and nipple (O.D. 6.4 mm, I.D. 1.4 mm, length 100 mm). Weld between nipple and tube leading to process to be done by user.

Table 1. Span, Range and Overpressure Limits.

Capsule		-	M-calibration	P-calibration	bar-calibration
K	Span Limits	7 to 41 MPa	70 to 420 kgf/cm ²	1000 to 6000 psi	70 to 410 bar
	Range Limits	-0.1 to 41 MPa	-1 to 420 kgf/cm ²	-15 to 6000 psi	-1 to 410 bar
	O. P. Limits	62 MPa	630 kgf/cm ²	9000 psi	620 bar
N	Span Limits	14 to 82 MPa	140 to 840 kgf/cm ²	2000 to 12000 psi	140 to 820 bar
	Range Limits	-0.1 to 82 MPa	-1 to 840 kgf/cm ²	-15 to 12000 psi	-1 to 820 bar
	O. P. Limits	124 MPa	1260 kgf/cm ²	18000 psi	1240 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

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Table 2. Accuracy (includes linearity, hysteresis and repeatability).

Bourdon Element	Spans			Accuracy % of span
	Mpa	kgf/cm ²	psi	
K	7 to 20	70 to 210	1000 to 3000	±0.5
	20 to 41	210 to 420	3000 to 6000	±1.0
N	14 to 41	140 to 420	2000 to 6000	±0.5
	41 to 82	420 to 840	6000 to 12000	±1.0

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Wetted Parts Material:

Element: Ni-Span C * Bourdon with JIS SUS 316 stainless steel tip.

Process Connector: SUS 316 stainless steel.

Connection Tubing from Process Connector to Element: SUS 316 stainless steel.

* Trademark of International Nickel Company for Nickel-Titanium-Chrome-Iron (copper free) alloy.

Element Housing:

Cast iron with blowout plug on rear of housing.

Cover:

Cast aluminum, finished with gray polyurethane paint. Gasketed for National Electrical Manufacturers Association (NEMA) (USA) Type3 weatherproof service.

Approximate Weight:

6.6 kg (15 lb).

■ OPTIONS

Air Set:

Fixed combination pressure regulator and filter with 35 mm diameter pressure gauge mounted and piped to transmitter. Also available without gauge.

Supply pressure: 0.2 to 1 MPa, 2 to 10 kgf/cm² or bar, or 30 to 150 psi.

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

Maximum operating temperature: 80 °C (180 °F).

Air Connection	Gauge Scale	Option 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
	Without gauge	GAS-F
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
	Without gauge	NAS-F

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Kit for Elevated-Zero or Suppressed-Zero Ranges:

Permits adjustments to 500 % of minimum span and to range limits of element. Upper range-value must not exceed upper range-limit of element.

Option code: R-kit for suppressed-zero ranges and L-kit for elevated-zero ranges:

Cover Color Other Than Standard Finish:

Specify in color block by color code. Refer to GS 22D1F1-E.

Option code: SCF-.

Oxygen Service Preparation:

Degrease cleansing treatment.

Option code: OSW.

ANSI connection:

For transmitters with Aminco connection, Air connections with tapped for ANSI NPT threads.

Option code: NPT

Low Spans:

Refer to Table 3.

Suffix code: LD.

Calibration Units:

M-calibration (Unit: kgf/cm²)

Option code: CAL-M

P-calibration (Unit: psi)

Option code: CAL-E

bar-calibration (Unit: bar)

Option code: CAL-B

■ MODEL AND SUFFIX CODES

Model	Suffix Codes	Description
Y/11GH	Pneumatic gauge pressure transmitter.
Bourdon Element	-K	K element. Span: 7 to 41 MPa
	-N	N element. Span: 14 to 82 MPa
Element Material	C	Ni-Span C.
Process Connection	2	JIS Rc 1/2 female.
	4 *1	ANSI 1/2 NPT female.
	5	9/16-18 Aminco connection
Options	/ <input type="checkbox"/> / <input type="checkbox"/>	

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*1: Air connections are also tapped for ANSI NPT threads in addition to the process connection.

Table 3. Law Spans

Element	Span (MPa)	Accuracy (%)	
		Suffix Code LD	Suffix Code LD+R
K	3.5 to 10	±0.5	±1.0
	10 to 20	±1.0	±1.5
N	7 to 20	±0.5	±1.0
	20 to 41	±1.0	±1.5

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■ ORDERING INSTRUCTIONS

Specify the following when ordering:

1. Model and suffix codes.
2. Option codes.
3. Process and air connections (Rc or NPT).
4. Output signal unit (kPa, kgf/cm², bar or psi).
5. Calibrated range.
6. Tag number and application.

Unit : mm

