

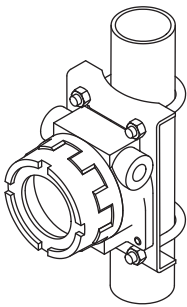
Field-mounted Two-wire Signal Conditioners 6B-UNIT

FREQUENCY TRANSMITTER

(field-selectable freq. range)

Functions & Features

- IP66 / IP67 housing enables field mounting
- Stainless steel field housing selectable
- Transmitter with pulse signal input
- Input frequency range freely configurable



MODEL: 6BPA-02[1][2][3]

ORDERING INFORMATION

- Code number: 6BPA-02[1][2][3]

Specify a code from below for each of [1] through [3].
(e.g. 6BPA-020A1)

- Input range (e.g. 0 - 500 Hz)

Select from the frequency variable ranges below.

Frequency variable range: adjustment range

36 - 100 Hz: 36 - 120 Hz

100 - 240 Hz: 90 - 300 Hz

240 - 480 Hz: 180 - 600 Hz

480 Hz - 1.0 kHz: 360 Hz - 1.2 kHz

1.0 - 2.4 kHz: 0.9 - 3.0 kHz

2.4 - 4.8 kHz: 1.8 - 6.0 kHz

4.8 - 12 kHz: 3.6 - 12 kHz

SAFETY APPROVAL

0: None

INPUT

2: Voltage pulse

[1] WIRING CONDUIT

0: G 1/2

1: 1/2 NPT

2: M20 × 1.5

3: PG 13.5

[2] ENCLOSURE MATERIAL

A: Diecast aluminum

S: Stainless steel casting

[3] MOUNTING BRACKET

0: Without

1: With

PACKAGE INCLUDES...

- Mounting screws

Bolt (M8 x 15): 4

Spring washer for M8: 4

Material: Stainless steel 304

- Mounting bracket assembly (option):

Mounting bracket: 1

M10 U-bolt: 2

Nut for M10: 4

Spring washer for M10: 4

Material: Stainless steel 304

Applicable pipe: 1 1/2" min.; 2" max.

GENERAL SPECIFICATIONS

Degree of protection: NEMA 4X, IP66/IP67

Wiring conduit: See 'Ordering information.'

Electrical connection: M3 screw terminals
(torque 0.6 N·m)

Materials

- **Transmitter housing:** Diecast aluminum

Screw terminals: Nickel-plated steel

- **Enclosure:** Diecast aluminum or stainless steel casting
(equivalent to type 316); silver color, epoxy resin coated

Isolation: Input or output to outdoor enclosure

Zero adjustment: -5 to +5 % (behind the access cover)

Span adjustment: 95 to 105 % (behind the access cover)

INPUT SPECIFICATIONS

- **Voltage Pulse:**

Frequency range: 0 - 36 Hz through 12 kHz

Input amplitude:

100 mVp-p - 50 Vp-p (≤ 1.2 kHz range)

200 mVp-p - 50 Vp-p (≥ 0.9 kHz range)

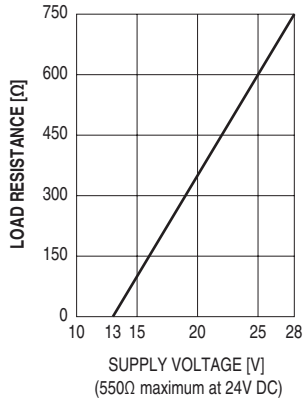
Pulse width requirement: Duty ratio 20 - 80 %

Input impedance: 100 kΩ

OUTPUT SPECIFICATIONS

Output: 4 - 20 mA DC

Load resistance vs. supply voltage: Load Resistance (Ω) =
 (Supply Voltage (V) - 13 (V)) \div 0.02 (A)
 (including leadwire resistance)



INSTALLATION

Supply voltage: 13 - 28 V DC

Operating temperature: -5 to +70°C (23 to 158°F)

Weight:

- Unit
 - Approx. 1.5 kg (2.9 lb), aluminium
 - Approx. 4.2 kg (8.8 lb), stainless steel
- Mounting bracket assembly (option)
 - Approx. 0.78 kg (1.72 lb)

PERFORMANCE in percentage of span

Accuracy: $\pm 0.2\%$ ($\pm 0.5\%$ at spans ≤ 600 Hz)

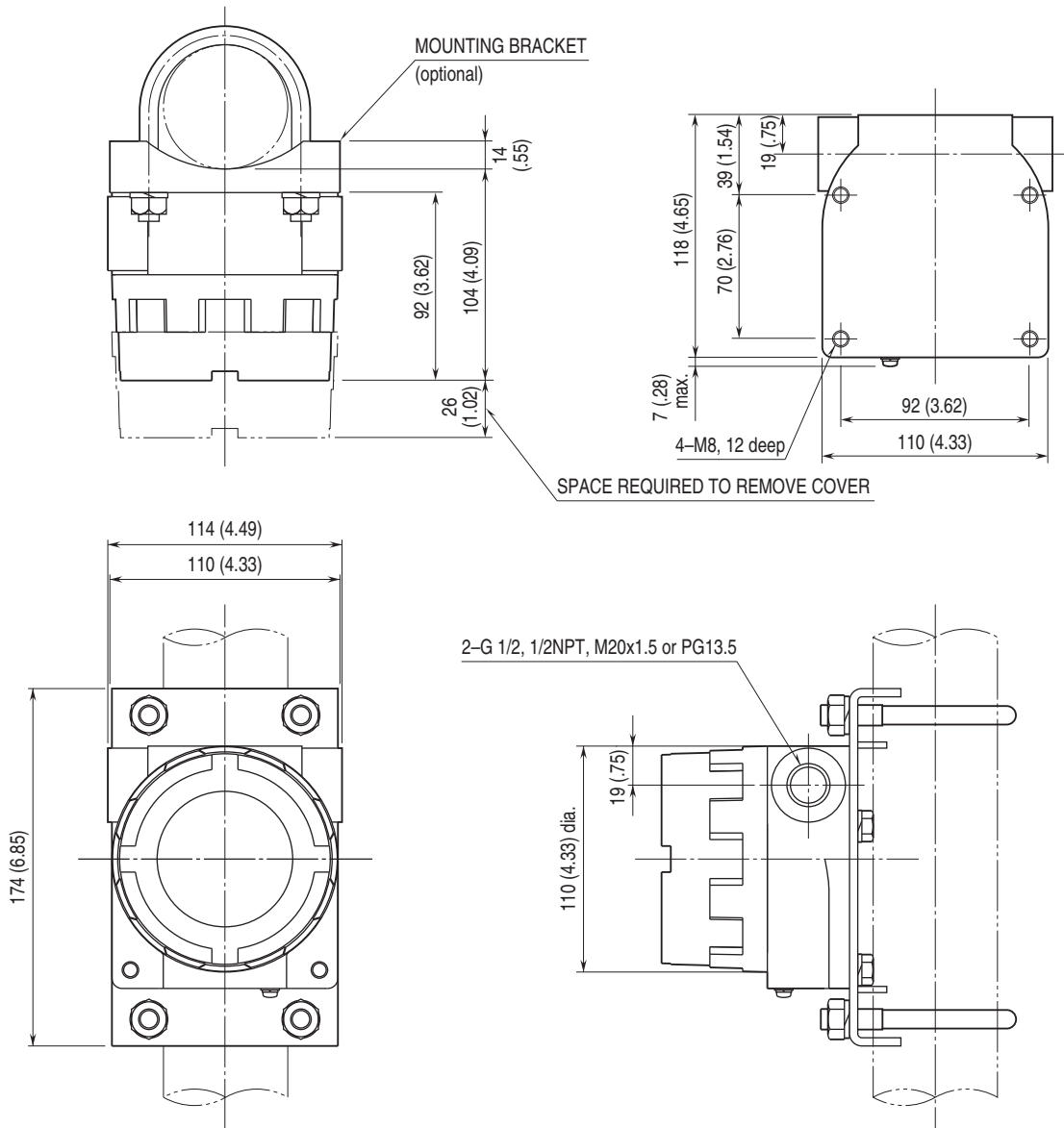
Temp. coefficient: $\pm 0.015\%/^{\circ}\text{C}$ ($\pm 0.008\%/^{\circ}\text{F}$)

Response time: Approx. 4 sec. (0 - 90 %)

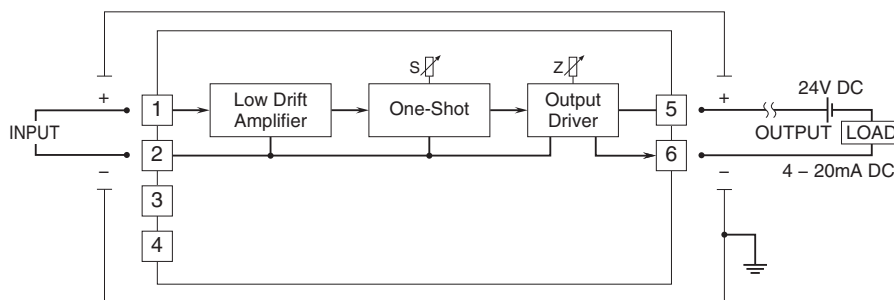
Insulation resistance: $\geq 100\text{ M}\Omega$ with 500 V DC

Dielectric strength: 1500 V AC @ 1 minute
 (input or output to outdoor enclosure)

EXTERNAL DIMENSIONS unit: mm (inch)



SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM





Specifications are subject to change without notice.