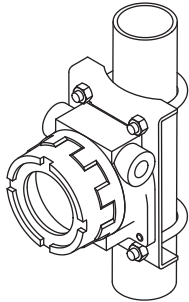


## Field-mounted Two-wire Signal Conditioners 6B-UNIT

### INPUT LOOP POWERED ISOLATOR

#### Functions & Features

- IP66 / IP67 housing enables field mounting
- Stainless steel field housing selectable
- Isolator not requiring power supply with input 4 to 20 mA DC / 10 to 50 mA DC, output 4 to 20 mA DC



### MODEL: 6BSN-0[1][2][3][4]

#### ORDERING INFORMATION

- Code number: 6BSN-0[1][2][3][4]

Specify a code from below for each of [1] through [4].  
(e.g. 6BSN-0A0A1)

#### SAFETY APPROVAL

0: None

#### [1] INPUT

A: 4 - 20 mA DC  
H: 10 - 50 mA DC

#### [2] WIRING CONDUIT

0: G 1/2  
1: 1/2 NPT  
2: M20 x 1.5  
3: PG 13.5

#### [3] ENCLOSURE MATERIAL

A: Diecast aluminum  
S: Stainless steel casting

#### [4] 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 to output to outdoor enclosure
- Zero adjustment:** -0.5 to +0.5 % (behind the access cover)
- Span adjustment:** 98.5 to 101.5 % (behind the access cover)

#### INPUT & OUTPUT

##### ■ Input 4 - 20 mA DC / Output 4 - 20 mA DC

**Equivalent input impedance:** 230 Ω + load resistance with 20 mA input

**Operational range:** 3 - 22 mA DC  
(Accuracy is assured within 4 - 22 mA)

**Load resistance:** 350 Ω maximum; min. 50 Ω required for adequate operation

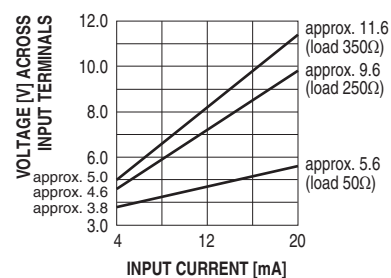
##### ■ Input 10 - 50 mA DC / Output 4 - 20 mA DC

**Equivalent input impedance:** 90 Ω + [load resistance x 0.16] with 50 mA input

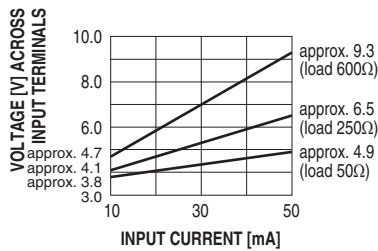
**Operational range:** 7 - 55 mA DC  
(Accuracy is assured within 8 - 55 mA)

**Load resistance:** 600 Ω maximum; min. 50 Ω required for adequate operation

##### • INPUT 4 - 20mA DC / OUTPUT 4 - 20 mA DC



•INPUT 10 - 50 mA DC / OUTPUT 4 - 20 mA DC



## INSTALLATION

**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:** ±0.1 %

**Temp. coefficient:** ±0.02 %/°C (±0.01 %/°F)

**Response time**

**4 - 20 mA DC input:** Approx. 45 msec. (0 - 90 %, 50 Ω load)

**10 - 50 mA DC input:** Approx. 15 msec. (0 - 90 %, 50 Ω load)

**Load effect** (The unit is calibrated with 250 Ω load at the factory.)

• **4 - 20 mA input:**

0.015 %/Ω (50 - 150 Ω)

0.003 %/Ω (150 - 350 Ω)

• **10 - 50 mA input:**

0.015 %/Ω (50 - 100 Ω)

0.003 %/Ω (100 - 600 Ω)

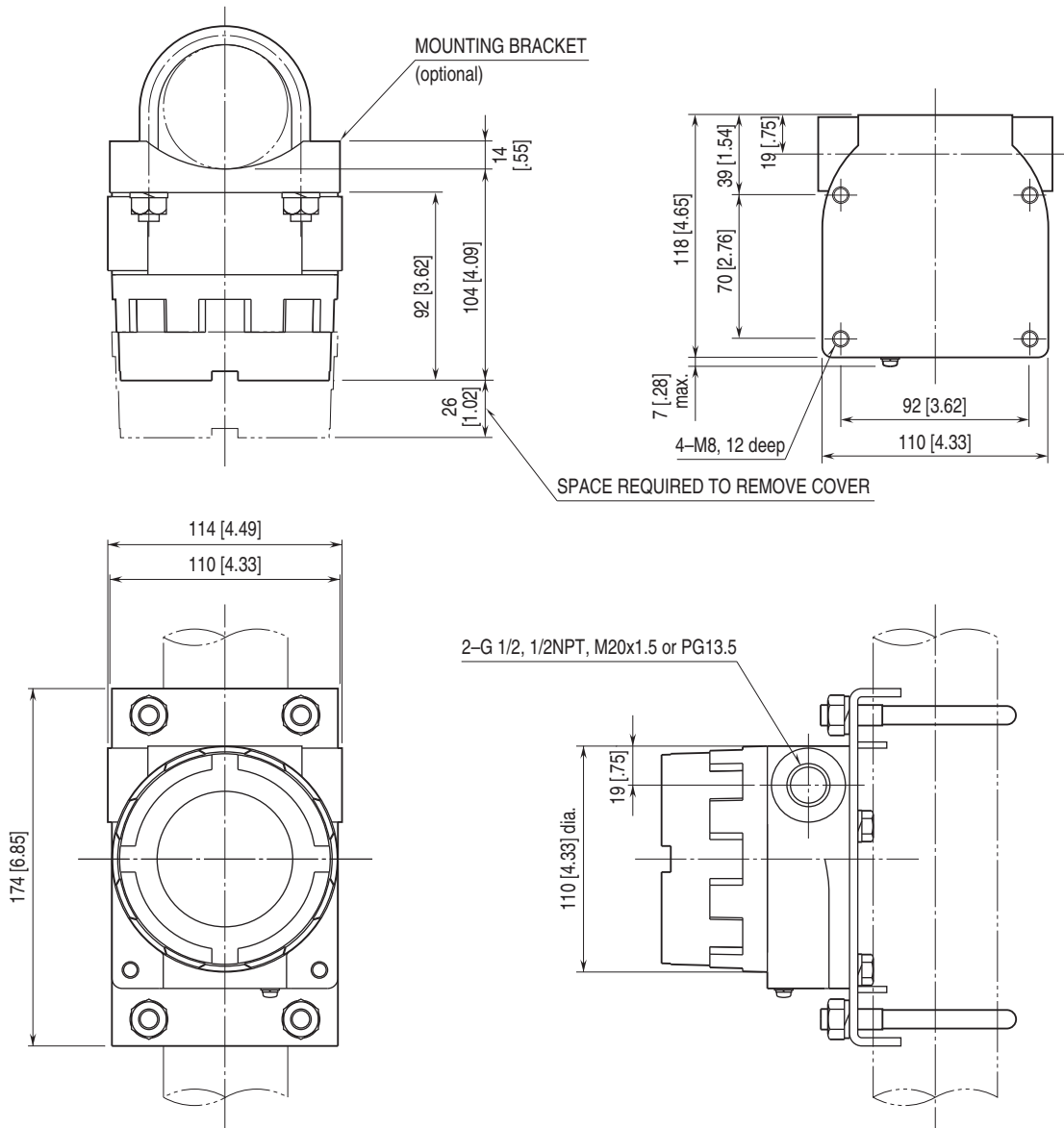
**Insulation resistance:** ≥ 100 MΩ with 500 V DC

**Dielectric strength:** 500 V AC @1 minute

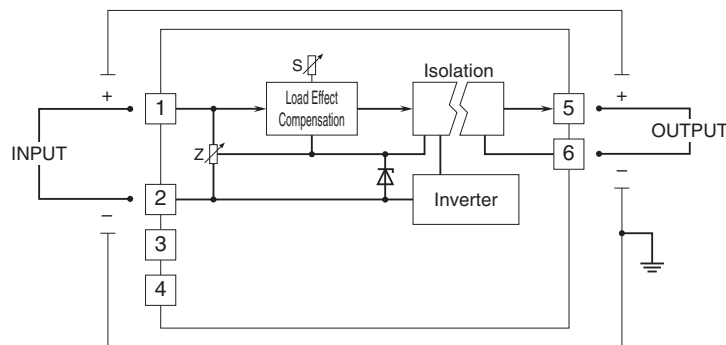
(input to output)

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.