

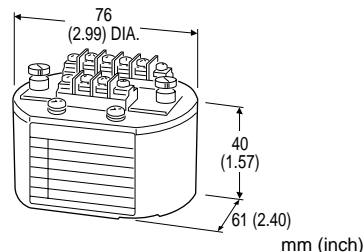
Field-mounted Two-wire Signal Conditioners 6-UNIT

INPUT LOOP POWERED ISOLATOR

MODEL 6SN

MODEL & SUFFIX CODE SELECTION

MODEL _____ 6SN-□
 INPUT _____
 A : 4 – 20mA DC
 H : 10 – 50mA DC
 OUTPUT
 4 – 20mA DC



Functions & Features

- Loop-powered design eliminates output loop power supply
- 500V DC input-to-output isolation
- 350Ω output drive with 4 – 20mA
- Rugged enclosure

Typical Applications

- Isolation between control room and field instrumentation, between telemetering system and input device
- Eliminates ground problems in existing systems thanks to easiness of application without requiring additional power wiring

ORDERING INFORMATION

Specify code number. (e.g. 6SN-A)

GENERAL SPECIFICATIONS

- Connection:** M3 screw terminals
 (nickel-plated steel; torque ≤0.6 N·m)
Housing material: die cast aluminium
Isolation: input to output
Adjustments: ±0.5% for zero; ±1.5% for span

INPUT & OUTPUT

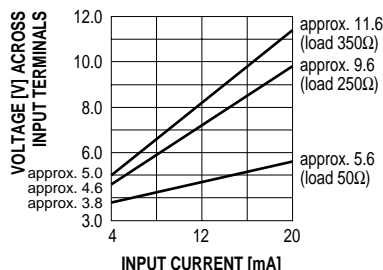
■ INPUT 4 – 20mA DC / OUTPUT 4 – 20mA DC

Equivalent input impedance: 230Ω plus load resistance with 20mA input

Operational range: 3 – 22mA DC

(Accuracy is assured within 4 – 22mA)

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



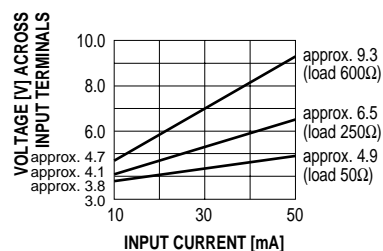
■ INPUT 10 – 50mA DC / OUTPUT 4 – 20mA DC

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

Operational range: 7 – 55mA DC

(Accuracy is assured within 8 – 55mA)

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



INSTALLATION

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

Operating humidity: 30 to 90% RH (non-condensing)

Mounting: DIN rail with mounting plate A-31;
surface mounting with adapter plate A-01;
spring clip A-02 for 3-inch hub

Dimensions: W76×H52.5×D61 mm (2.99"×2.07"×2.40")
See General Spec. Sheet Figure A-1.

Weight: 220 g (0.49 lbs)

Terminal assignment: See General Spec. Sheet Figure B-1.

PERFORMANCE in percentage of span

Accuracy: ±0.1%

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

Response time: approx. 15 milliseconds (0 – 90%)

Load effect*:

4 – 20mA input: 0.015%/Ω (50 – 150Ω)
0.003%/Ω (150 – 350Ω)

10 – 50mA input: 0.015%/Ω (50 – 100Ω)
0.003%/Ω (100 – 600Ω)

Insulation resistance: ≥100MΩ with 500V DC

Dielectric strength: 500V AC @1 minute

(input to output)

1500V AC @1 minute

(input or output to ground)

*The unit is calibrated with 250Ω load at the factory.

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM

