

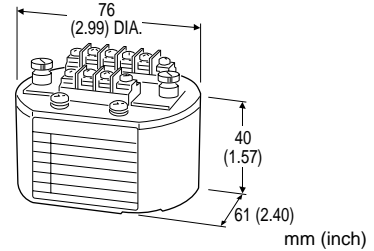
Field-mounted Two-wire Signal Conditioners 6-UNIT

FREQUENCY TRANSMITTER
(field-selectable freq. range)

MODEL **6PA**

MODEL & SUFFIX CODE SELECTION

MODEL _____ **6PA-2**
 INPUT _____
2 : Voltage pulse
OUTPUT
 4 – 20mA DC
SUPPLY VOLTAGE
 13 – 28V DC



Functions & Features

- Converting the output from a pulse-type transducer into a standard 4 – 20mA DC signal
- Field selectable frequency range
- Rugged enclosure

Typical Applications

- Positive displacement flowmeters, turbine flowmeters and vortex flowmeters
- Proximity switches

ORDERING INFORMATION

Specify code number and variables.

- **Code number** (e.g. 6PA-2)
- **Frequency range** (e.g. 0 – 500 Hz)

User's frequency range specified when ordering determines the field adjustable range of the 6PA. Refer to the table below and check the range before ordering.

ORDER SPECIFIED FREQ.	ADJUSTABLE RANGE
36 Hz – 100 Hz	36 Hz – 120 Hz
100 Hz – 240 Hz	90 Hz – 300 Hz
240 Hz – 480 Hz	180 Hz – 600 Hz
480 Hz – 1.0 kHz	360 Hz – 1.2 kHz
1.0 kHz – 2.4 kHz	0.9 kHz – 3.0 kHz
2.4 kHz – 4.8 kHz	1.8 kHz – 6.0 kHz
4.8 kHz – 12 kHz	3.6 kHz – 12 kHz

GENERAL SPECIFICATIONS

Connection: M3 screw terminals
(nickel-plated steel; torque ≤0.6 N·m)

Housing material: die cast aluminium

Adjustments

Zero & span: 3-turn screwdrivers behind the access cover; approx. -3 – +15% for zero, approx. ±10% for span

Input range: rotary switches behind the covering

INPUT & OUTPUT

■ **INPUT:** voltage pulse

Frequency range: 0 – 36 Hz through 12 kHz

Input amplitude:

100mV p-p – 50V p-p (≤1.2 kHz range)

200mV p-p – 50V p-p (≥0.9 kHz range)

Pulse width requirement: duty ratio 20 – 80%

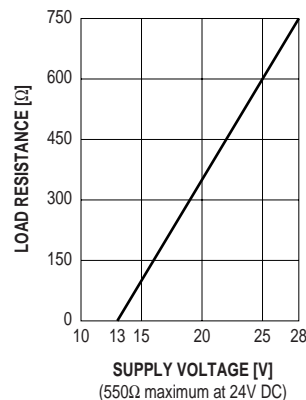
Input impedance: 100kΩ

■ **OUTPUT:** 4 – 20mA DC

Load resistance vs. supply voltage:

$$\text{Load Resistance } (\Omega) = \frac{\text{Supply Voltage (V)} - 13 \text{ (V)}}{0.02 \text{ (A)}}$$

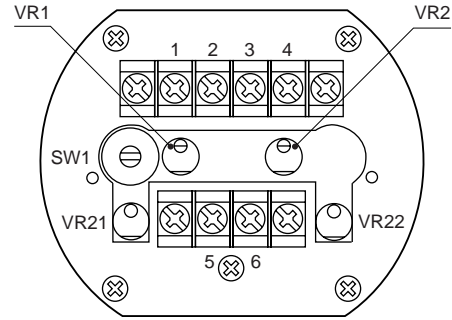
(including leadwire resistance)



INSTALLATION

Supply voltage: 13 – 28V DC
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.

TOP VIEW DIAGRAM

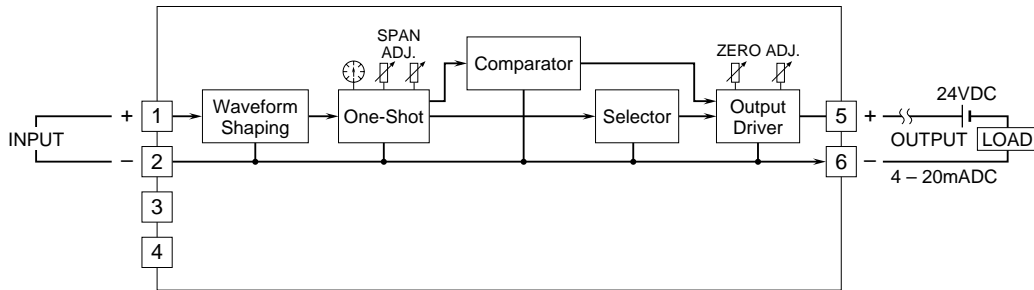


- SW1 : Frequency Selector
- VR1 : Zero Adjustment
- VR2 : Span Adjustment (fine)
- VR21 : NOT USED
- VR22 : Span Adjustment (coarse)

PERFORMANCE in percentage of span

Accuracy: ±0.2% (±0.5% at spans ≤600 Hz)
Temp. coefficient: ±0.015%/°C (±0.008%/°F)
Response time: approx. 4 seconds (0 – 90%)

SCHEMATIC CIRCUITRY & CONNECTION DIAGRAM



Specifications subject to change without notice.