

Filtering signal conditioner for sensor signal matching with symmetrical +/- 4 V voltage output

Features

- low noise and low drift
- no regulated supply voltage necessary
- internal generation of negative operating voltage
- integrated reverse polarity protection
- outputs are short circuit proof
- highly stable voltage supply for operation of a sensor
- protection against reverse sensor polarity
- zero position and gain adjustable via potentiometers
- electronic components hermetically sealed
- optionally frequency programmable, active 5th order low pass filter
- optional high pass filter
- different connector options

Description

The NV4a amplifies, filters and normalizes the output signals of SEIKA sensors. The symmetrical output signal enables unproblematic subsequent signal processing with standard measuring instruments such as oscilloscopes, transient recorders, A/D converters, multimeters, etc.

Multiple internal switching variants allow for optimal adaptation of signal processing parameters, such as settling time, filter cut-off frequencies and amplification and zero point adjustment, to the measuring task.

Application

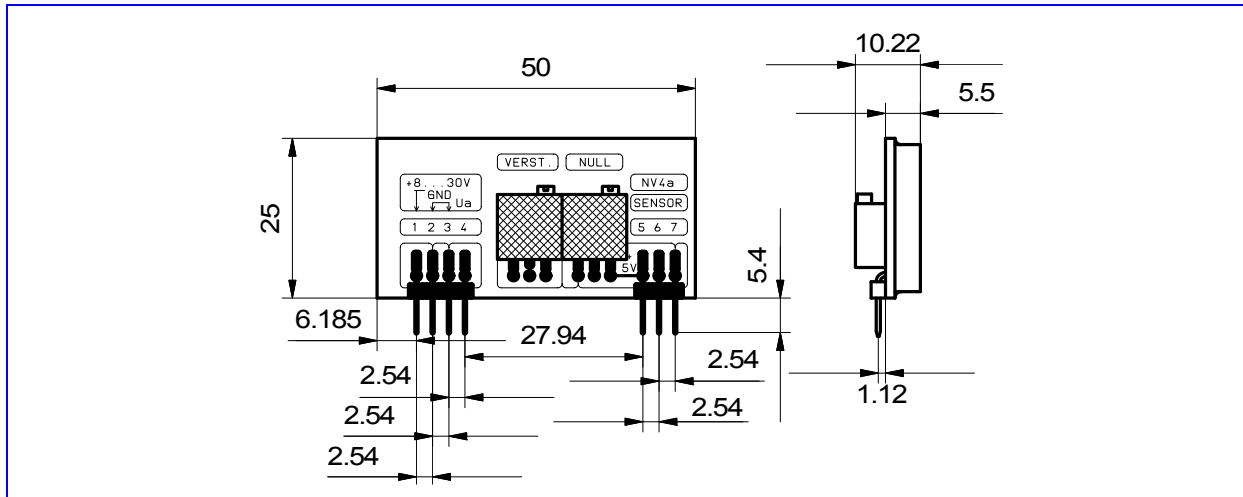
The NV4a has its application anywhere a SEIKA sensor is, without much expenditure and under optimal compatibility, to be connected to application specific measuring equipment with optimal matching conditions and subsequent adjustments to amplification and zero voltage are necessary.

Technical Specifications

| | |
|---|---|
| Dimensions | see dimension drawing |
| Supply voltage | 9V ... 30V (polarity protected up to -70Volt) |
| Current drawn excluding sensors | approx. 5mA |
| Operating temperature | 0...70°C |
| Internally generated sensor supply voltage | 5.00 Volt |
| Temperature drift of sensor supply voltage | 20ppm / Kelvin |
| Output signal range | ±3.5 Volt |
| Offset adjust range | 2.4V ... 2.6V (larger ranges on request) |
| Output impedance | approx. 100 Ohm |
| Signal-to-noise ratio | 30µVs.s. |
| Signal-to-noise ratio with standard sensors | approx. 80dB |

| | |
|------------------------|--|
| Frequency range | 0...10Hz, 0...200Hz, 0...2kHz, custom ranges on request |
| Electrical connections | pin connector 2.54mm, length 5.7mm, Ø 0.63mm gold-plated; solder pads optional |

Dimensions (in mm)



Connections

