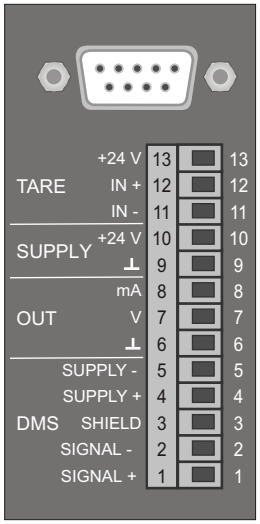
# Digital amplifier for strain gauge

## Characteristics




Input: up to 4 strain gauge full bridges (350 ohms / summation)
Input sensitivity: 0,1...5 mV/V
Sensor supply: 5 VDC
Analogue output: 4...20 mA / 0...10 V (standard version)
Voltage supply: 24 VDC +/-30%
Resolution: 12 / 14 / 15 / 16 bit
Combined error: 0,2% of end scale value
Degree of protection: IP 20
Taring: with external drive
Adjustment and output: RS232 interface
Enclosure: plastics
Mounting: top hat rail

## Technical data

### Input

| | |
|---|---|
| Amplifier: | up to 4 strain gauge full bridges 350 ohms (summation of signal) |
| Sensitivity: | 0,1...5 mV/V (programmable) |
| Interface: | RS232 (for programming) |

### Output

| | |
|---|---|
| Analogue: | 2 outputs (programmable)<br>0...10 V and 4...20 mA (standard)<br>optionally 2...10 V or 0...20 mA |
| Current: | working resistance <500 Ohm |
| Voltage: | load resistor > 600 Ohm |
| Interface: | RS232 |
| Sensor supply: | 5 VDC 60 mA maximum |

### Adjustment

| | |
|---|---|
| Interface: | RS232 |
| Measuring rate: | 10 ms....5 s (programmable) |
| Filter: | 10 ms...5 s (programmable) |

### Ambient conditions

| | |
|---|---|
| Operating temperature: | -10...+60°C |
| Storing temperature: | -20...+70°C |

### Accuracy

| | |
|---|---|
| Resolution: | 12 /14 /15 /16 bit (programmable) |
| at measuring rate: | 128 / 32 / 16 / 8 per second |
| Combined error: | +/- 0,2% of end scale value |
| Temperature coeff.: | <50 ppm/K |

### Tare

| | |
|---|---|
| Active: | drive with 24 VDC (externally) |
| Passive: | drive with potential free relay point (make contact) |

### Power supply

| | |
|---|---|
| Voltage: | 24 VDC, +/-30% |
| Power consumption: | with options approx. 1,5 W |
| Residual ripple: | 200 mV |

### Mechanics

| | |
|---|---|
| Enclosure: | plastics PA6 |
| Dimension: | W38 x D76 x H74 |
| Mounting: | top hat rail |
| Colour: | black |
| Protection: | degree IP 20 |
| Weight: | approx. 90 g |
| Connection: | 13-pole pin and socket connector<br>9-pole Sub-D socket |

### Accessories

| | |
|---|---|
| Programming: | cable set with adaptor and software |

## Applications

Mounted in an adequate housing the digital measuring amplifier is suitable for nearly all applications. It can be matched easily to the local conditions with the interface. As output is available a standard signal and serial RS232 for the following processing.



photo: www.pixelquelle.de

## Ordering code

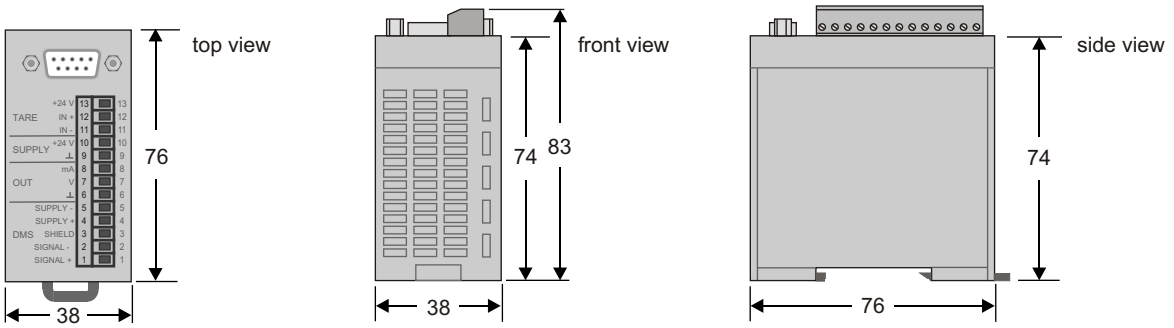
| D | L | X | X | X | X | X | X | - | X | X | X |
|---|---|---|---|---|---|---|---|---|---|---|---|

| | | |
|---|---|---|
| **Input:** | 0,1...5 mV/V | 0 |
| **Output:** | 4...20 mA / 0...10 V | 0 |
| **Supply:** | 24 VDC | 0 |
| **Enclosure:** | plastics for top hat rail | 0 |
| **Adjustment:** | factory-configuration* | 0 |
| | customized (please indicate)** | 1 |
| **Other / accessories:** | special model (please indicate) | 0 |
| | Sub-D cable set with adaptor and software for programming | 1 |

*factory-set: sensitivity: 3 mV/V / analogue output: 0...10 V and 4...20 mA / resolution: 16 bit / measuring rate: 5/s / filter: 1s / tare: active (24 VDC)

**the possibilities of the technical data can be selected. In case of not given values the details of factory-set are used.

## Dimensions (in mm)




## Connection (example)