

**ACT20P-BRIDGE-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://www.weidmueller.com)**Product image****ACT20P: The flexible solution**

- Precise and highly functional signal converters
- Release levers simplify handling

**General ordering data**

|            |                                                                                              |
|------------|----------------------------------------------------------------------------------------------|
| Version    | Measuring bridge converter, Input : Resistance measuring bridge, Output : 0(4)-20 mA, 0-10 V |
| Order No.  | <a href="#">1067250000</a>                                                                   |
| Type       | ACT20P-BRIDGE-S                                                                              |
| GTIN (EAN) | 4032248820856                                                                                |
| Qty.       | 1 pc(s).                                                                                     |

Creation date February 17, 2021 6:02:31 PM CET

Catalogue status 12.02.2021 / We reserve the right to make technical changes.

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**Technical data****Dimensions and weights**

|                |            |                 |            |
|----------------|------------|-----------------|------------|
| Depth          | 113.6 mm   | Depth (inches)  | 4.472 inch |
| Height         | 119.2 mm   | Height (inches) | 4.693 inch |
| Net weight     | 176 g      | Width           | 22.5 mm    |
| Width (inches) | 0.886 inch |                 |            |

**Temperatures**

|                     |                            |                       |                |
|---------------------|----------------------------|-----------------------|----------------|
| Storage temperature | -40 °C...85 °C             | Operating temperature | -40 °C...70 °C |
| Humidity            | 10...90 %, no condensation |                       |                |

**Probability of failure**

|      |           |
|------|-----------|
| MTTF | 543 Years |
|------|-----------|

**Environmental Product Compliance**

|            |                |
|------------|----------------|
| REACH SVHC | Lead 7439-92-1 |
|------------|----------------|

**Input**

|                         |                                                                                                       |                       |                                              |
|-------------------------|-------------------------------------------------------------------------------------------------------|-----------------------|----------------------------------------------|
| Bridge sensitivity      | 1.0 mV / V to 5.0 mV / V                                                                              | Bridge supply voltage | 5 V or 10 V                                  |
| Input measurement range | ± 10 mV / ± 20 mV /<br>± 30 mV / ± 50 mV<br>(adjustable)                                              | Number of inputs      | 1                                            |
| Sensor                  | Resistance measuring bridge, Total resistance of all parallel resistance measuring bridges: min. 87 Ω | Sensor supply         | 120 mA @ 10 V (= 4 x 350 Ω bridge resistors) |

**Output**

|                        |                       |                |                                           |
|------------------------|-----------------------|----------------|-------------------------------------------|
| Load impedance current | ≤ 600 Ω               | Output current | 0...22 mA (adjustable)                    |
| Output voltage, note   | 0...11 V (adjustable) | Type           | Voltage and current output (configurable) |
| load impedance voltage | 600 Ω                 |                |                                           |

**Output (analogue)**

|                        |                                           |
|------------------------|-------------------------------------------|
| Type (analogue output) | Voltage and current output (configurable) |
|------------------------|-------------------------------------------|

**General data**

|                    |                       |                         |                                    |
|--------------------|-----------------------|-------------------------|------------------------------------|
| Configuration      | DIP switch and button | Linearity               | Typically ± 0.05 % of signal range |
| Long-term drift    | 0.1 % / 10.000 h      | Power consumption       | 3 W @ 24 V DC                      |
| Rail               | TS 35                 | Repeat accuracy         | ± 0.05 % of final value            |
| Step response time | < 400 ms (10...90 %)  | Temperature coefficient | typ. 0.005 % / °C                  |
| Type of connection | Screw connection      | Voltage supply          | 10...60 V DC                       |

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**Technical data****Insulation coordination**

|                        |          |                    |                                         |
|------------------------|----------|--------------------|-----------------------------------------|
| EMC standards          | EN 61326 | Insulation voltage | 5.7 kV (input / output, input / supply) |
| Pollution severity     | 2        | Rated voltage      | 300 V <sub>eff</sub>                    |
| Surge voltage category | III      |                    |                                         |

**Connection data**

|                                         |                     |                                         |                     |
|-----------------------------------------|---------------------|-----------------------------------------|---------------------|
| Type of connection                      | Screw connection    | Tightening torque, min.                 | 0.4 Nm              |
| Tightening torque, max.                 | 0.6 Nm              | Clamping range, rated connection        | 2.5 mm <sup>2</sup> |
| Clamping range, min.                    | 0.5 mm <sup>2</sup> | Clamping range, max.                    | 2.5 mm <sup>2</sup> |
| Wire connection cross section AWG, min. | AWG 26              | Wire connection cross section AWG, max. | AWG 12              |

**Classifications**

|             |             |             |             |
|-------------|-------------|-------------|-------------|
| ETIM 6.0    | EC002653    | ETIM 7.0    | EC002653    |
| ECLASS 9.0  | 27-21-01-20 | ECLASS 9.1  | 27-21-01-90 |
| ECLASS 10.0 | 27-21-01-20 | ECLASS 11.0 | 27-21-01-20 |

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## Technical data

## Tender specification sheets

## Long specification

**Bridge measuring transformer with electrical 3-way isolation, configurable measurement isolating transformer in 22.5 mm width with external power supply, for recording, transforming and isolating of measurements from industrial strain gauges. Standard DC current/voltage signals are available on the output side. Measuring bridges of up to 3 x 350 Ohm can be supplied via the input circuit. Automatic tare calibration via external switch signal, or manually with a press of a button. 6-wire connection compensates for differences in wire resistance. Bridge excitation voltage can be switched between 5 V and 10 V. Load cells can be calibrated using a button on the front side. I/O signals can be configured via DIP switches. Add-on housing for TS35 rail mounting Dimensions: L/W/H 119.2/ 22.5/ 113.6 mm Screw connection / Nominal cross-section 2.5 mm<sup>2</sup> Protection degree: IP 20 Input Resistance measuring bridge / 1 mV / V... 5 mV / V Bridge sensitivity +/- 10 mV / +/- 20 mV / +/- 30 mV / +/- 50 mV (adjustable) Input resistance > 1 MOhm Bridge supply 5 V or 10 V**

## Short specification

**Output**  
0...11 V / 0...22 mA  
configurable  
**Load resistance**  
≤ 200 Ohm / 500  
kOhm/ voltage  
**Temperature**  
coefficient type 150  
°m / K

**Bridge measuring transformer with electrical 3-way isolation, configurable measurement isolating transformer in 22.5 mm width with external power supply, for recording**

Creation date February 17, 2021 6:00 PM 6/15/2021

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**Technical data****Important note**

## Product information

The ACT20P-BRIDGE-S bridge measuring transducer converts measuring bridge voltages into standard signals. Buttons are used for adjustment to the measuring bridge connected. The bridge measuring transducer can supply up to 4 parallel-connected measuring bridges each with 350  $\Omega$ . The device supports simple compensation of the tare weight with a separate input for an external button or an external PLC signal. The power supply is electrogalvanised and isolated from the input and output (3-way isolation).

## Properties

- 4-wire and 6-wire measurement
- Supply of up to 4 parallel-connected measuring bridges each with 350  $\Omega$
- Input and output ranges can be adjusted via DIP switches
- Tara compensation via external button or PLC signal
- Operating status display on a front panel LED
- Galvanic 3-way isolation between input, output and supply.

**Approvals**

## Approvals



## Approvals

CULUS;

## ROHS

Conform

**Downloads**

## Approval/Certificate/Document of Conformity

[Declaration of Conformity](#)

## Brochure/Catalogue

[CAT 4.1 ELECTR 16/17 EN](#)

## Engineering Data

[STEP](#)

## Engineering Data

[EPLAN, WSCAD](#)

## Software

[DIP switch configuration tool](#)

## User Documentation

[Quickstart\\_german.pdf](#)[Instruction sheet](#)

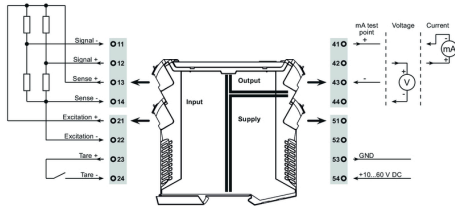
# ACT20P-BRIDGE-S

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## Drawings

### Electric symbol

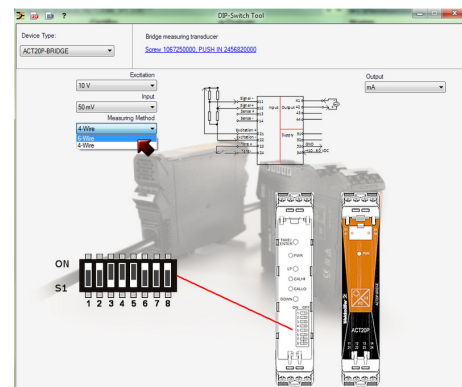
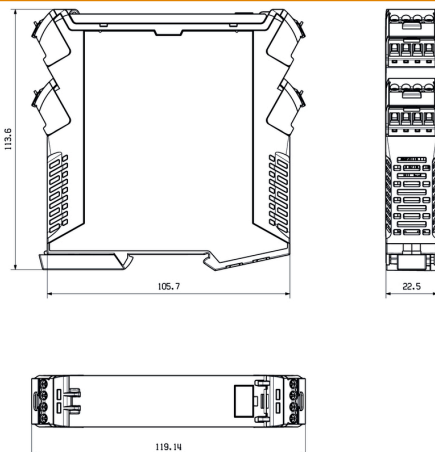


### DIP switch setting

| DIP switch       |   |   |   |   |   |   |   |   |
|------------------|---|---|---|---|---|---|---|---|
| Excitation       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 10 V             | ■ |   |   |   |   |   |   |   |
| 5 V              |   | ■ |   |   |   |   |   |   |
| Output           | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| mA               |   | ■ |   |   |   |   |   |   |
| V                |   |   | ■ |   |   |   |   |   |
| Input span       | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 10 mV            |   |   | ■ |   |   |   |   |   |
| 20 mV            |   |   |   | ■ |   |   |   |   |
| 30 mV            |   |   |   |   | ■ |   |   |   |
| 50 mV            |   |   |   |   |   | ■ |   |   |
| Measuring method | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 4-wire           |   |   |   |   |   |   | ■ | ■ |
| 6-wire           |   |   |   |   |   |   |   |   |

■ = ON

### Dimensioned drawing



example for DIP switch setting (with ACT20 tool)

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