

ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

**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. | 1067250000 |
| Type | ACT20P BRIDGE |
| GTIN (EAN) | 4032248820856 |
| Qty. | 1 items |

ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Technical data

Approvals

| | |
|-----------|---|
| Approvals | CE |
| Approvals | CULUS; |
| Approvals |  |

| | |
|------|---------|
| ROHS | Conform |
|------|---------|

Dimensions and weights

| | | | |
|------------|----------|-----------------|-------------|
| Depth | 113.6 mm | Depth (inches) | 4.4724 inch |
| Height | 119.2 mm | Height (inches) | 4.6929 inch |
| Width | 22.5 mm | Width (inches) | 0.8858 inch |
| Net weight | 255.59 g | | |

Temperatures

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

Probability of failure

| | | | |
|----------------------------------|------|------|-------|
| SIL in compliance with IEC 61508 | None | MTTF | 543 a |
|----------------------------------|------|------|-------|

Environmental Product Compliance

| | |
|--------------------------------------|--------------------------------------|
| RoHS Compliance Status | Compliant with exemption |
| RoHS Exemption (if applicable/known) | 7a, 7cl |
| REACH SVHC | Lead 7439-92-1 |
| SCIP | 2f6dd957-421a-46db-a0c2-cf1609156924 |

Input

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

General data

| | | | |
|-------------------------|------------------------------------|---------------------------|---------------------|
| Accuracy | <0.05 % of measuring range | Protection degree | IP20 |
| Supply voltage | 10...60 V DC | Long-term drift | 0.1 % / 10.000 h |
| Linearity | Typically ± 0.05 % of signal range | Step response time | <400 ms (10...90 %) |
| Mounting rail | TS 35 | Power consumption | 3 W @ 24 V DC |
| Temperature coefficient | typ. 0.005 % / °C | Nominal power consumption | 4 VA |
| Configuration | DIP switch and button | Operating altitude | ≤ 2000 m |

ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Technical data

Insulation coordination

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

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 ² |
| Clamping range, min. | 0.5 mm ² | Clamping range, max. | 2.5 mm ² |
| Wire connection cross section AWG, min. | AWG 26 | Wire connection cross section AWG, max. | AWG 12 |

Part description

| | |
|---------------------|---|
| Product description | 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 Ω. 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 Ω • 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. |
|---------------------|---|

Classifications

| | | | |
|-------------|-------------|-------------|-------------|
| ETIM 8.0 | EC002653 | ETIM 9.0 | EC002653 |
| ETIM 10.0 | EC002653 | ECLASS 14.0 | 27-21-01-20 |
| ECLASS 15.0 | 27-21-01-20 | | |

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 | Short 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/voltages 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 |
|--------------------|---|---------------------|--|

ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Technical data

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 mm²
 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
 Output
 0...11 V / 0...22 mA
 configurable
 Load resistance < 600 Ohm/ Strom/> 1 kOhm/ voltage
 Temperature coefficient typ. 50 ppm / K
 Transmission error typ. 0.05 % of input
 Step response time < 400 ms (10...90 %)
 Auxiliary power 10...60 VDC
 Ambient temperature range -40°C... +70 °C
 Isolation EN 50178, 3-way isolation up to 5.7 kV of all circuits against each other
 Test voltage 4 kV input against output against auxiliary power
 Rated voltage 300 V AC/DC at overvoltage category III and pollution degree 2
 Approvals cULus
 Type ACT20P-BRIDGE-S

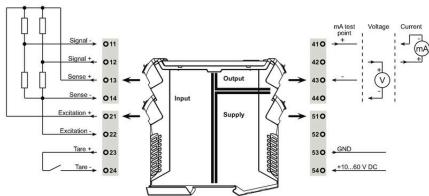
ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Drawings

Electric symbol

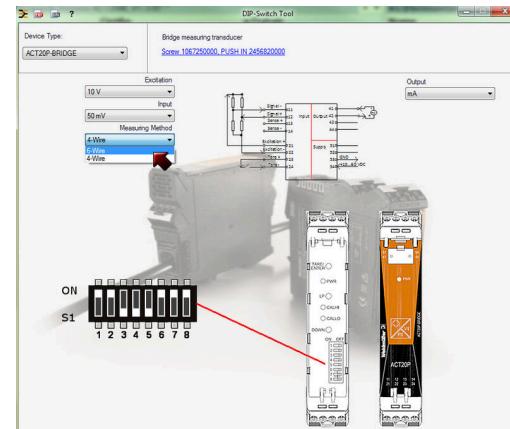
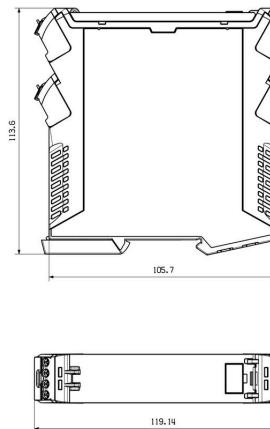


DIP switch setting

| DIP switch | | | | | | | | | |
|------------------|--|-------------------------------------|--------------------------|-------------------------------------|-------------------------------------|-------------------------------------|-------------------------------------|--------------------------|---|
| Excitation | | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 |
| 10 V | | <input checked="" type="checkbox"/> | | | | | | | |
| 5 V | | | <input type="checkbox"/> | | | | | | |
| Output | | | | | | | | | |
| mA | | | | <input checked="" type="checkbox"/> | | | | | |
| V | | | | | <input type="checkbox"/> | | | | |
| Input span | | | | | | | | | |
| 10 mV | | | | <input checked="" type="checkbox"/> | | | | | |
| 20 mV | | | | | <input checked="" type="checkbox"/> | | | | |
| 30 mV | | | | | | <input checked="" type="checkbox"/> | | | |
| 50 mV | | | | | | | <input checked="" type="checkbox"/> | | |
| Measuring method | | | | | | | | | |
| 4-wire | | | | <input checked="" type="checkbox"/> | | | <input checked="" type="checkbox"/> | | |
| 6-wire | | | | | <input type="checkbox"/> | | <input type="checkbox"/> | <input type="checkbox"/> | |

■ = ON

Dimensioned drawing



example for DIP switch setting (with ACT20 tool)

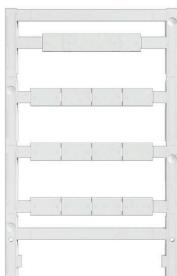
ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergsstraße 26
D-32758 Detmold
Germany

www.weidmueller.com

Accessories

Blank



ESG is the tried-and-tested marker in MultiCard format for use on many well-known electrical devices. The result is high-quality device marking with a high-contrast appearance.

Various types are available for devices from manufacturers like Siemens, ABB, Beckhoff etc.

Advantages at a glance:

- Tags for universal usage, self-adhesive or clip-on tags, depending on type
- For aligned equipment, e.g. circuit breakers, we supply ESG markers for clipping onto tag rails
- Individual laser-quality printing according to specifications

For custom printing: Please send us a file of our labeling software M-Print PRO or M-Print PRO Online (without installation) for your labeling specifications.

General ordering data

| | | |
|------------|----------------------------|--|
| Type | ESG 8/13.5/43.3 SAI AU | Version |
| Order No. | 1912130000 | ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent, |
| GTIN (EAN) | 4032248541164 | pluggable |
| Qty. | 5 ST | |
| Type | ESG 6.6/20 BHZ 5.00/04 | Version |
| Order No. | 1082540000 | ESG, Device markers x 20 mm, PA 66, Colour: white, pluggable |
| GTIN (EAN) | 4032248845439 | |
| Qty. | 200 ST | |