

**ACT20P BRIDGE**

**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
GTIN (EAN)	4032248820856
Qty.	1 pc(s).

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Catalogue status 18.02.2023 / 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
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	127.972 g		

### Temperatures

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

### Probability of failure

SIL in compliance with IEC 61508	None	MTTF	543 Years
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### Input

Bridge sensitivity	1.0 mV / V to 5.0 mV / V	Bridge supply voltage	5 V or 10 V
Number of inputs		Sensor	Resistance measuring bridge, Total resistance of all parallel resistance measuring bridges: min. 87Ω
	1		
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	active, connected control must be passive
load impedance voltage	600 Ω		

### Output (digital)

Max. switching voltage, AC	0 V
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### 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

### 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		

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**Technical data****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
ETIM 8.0	EC002653	ECLASS 9.0	27-21-01-20
ECLASS 9.1	27-21-01-20	ECLASS 10.0	27-21-01-20
ECLASS 11.0	27-21-01-20	ECLASS 12.0	27-21-01-20

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**Technical data**

**Tender specification sheets**

Long specification

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/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**

**Output 0...11 V / 0...22 mA configurable Load resistance <math>300\text{ Ohm} </math> to <math>1\text{ kOhm}</math> / voltage Temperature coefficient type 50 ppm / K**

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

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**Technical data****Environmental Product Compliance**

REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

**Important note**

Product information	<p>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).</p> <p>Properties</p> <ul style="list-style-type: none"> <li>• 4-wire and 6-wire measurement</li> <li>• Supply of up to 4 parallel-connected measuring bridges each with 350 Ω</li> <li>• Input and output ranges can be adjusted via DIP switches</li> <li>• Tare compensation via external button or PLC signal</li> <li>• Operating status display on a front panel LED</li> <li>• Galvanic 3-way isolation between input, output and supply.</li> </ul>
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**Approvals**

Approvals



Approvals	CULUS;
ROHS	Conform

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Engineering Data	<a href="#">WSCAD</a>
Software	<a href="#">Runtime Software – DIP switch configuration tool</a>
User Documentation	<a href="#">Quickstart guide german</a> <a href="#">Instruction sheet</a> <a href="#">Quickstart guide english</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>
Brochures	

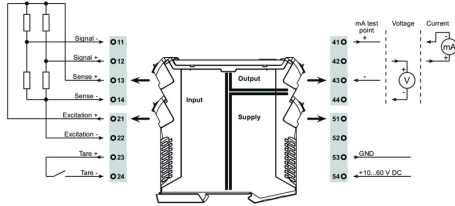
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**Drawings**

**Electric symbol**

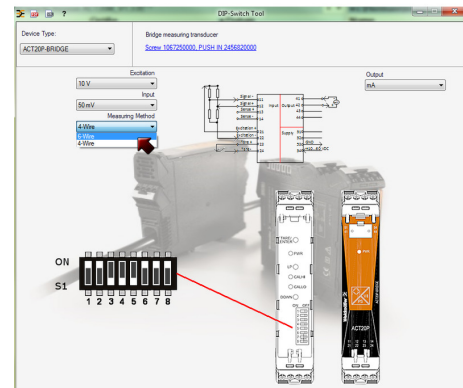
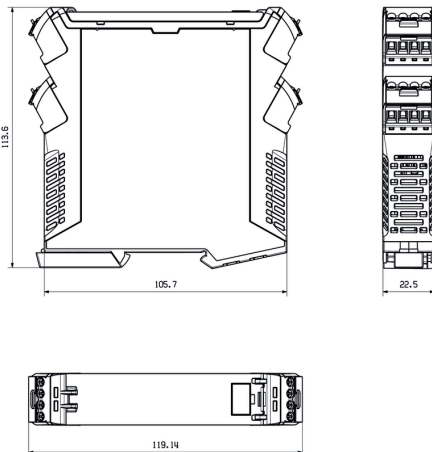


**DIP switch setting**

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

■ = ON

**Dimensioned drawing**



example for DIP switch setting (with ACT20 tool)