

ACT20P BRIDGE

Weidmüller Interface GmbH & Co. KG
Klingenbergstraße 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


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Technical data

Approvals

Approvals	CE
Approvals	CULUS;
Approvals	

ROHS	Conform
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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
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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

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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	<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"> • 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. 		
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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	<p>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</p>	Short specification	<p>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</p>
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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

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.

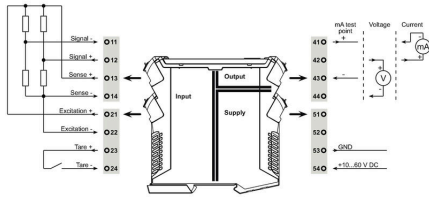
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Drawings

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Electric symbol

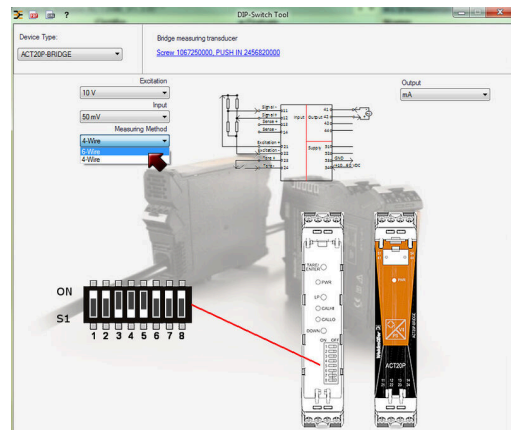
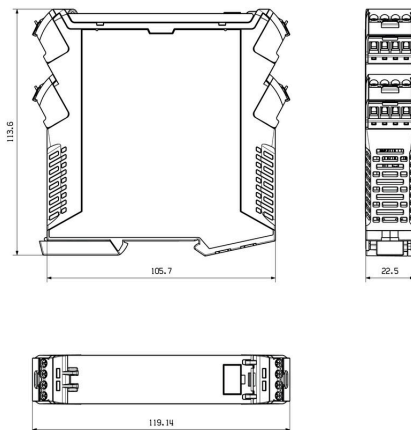


DIP switch setting

		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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Accessories

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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		