

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

Klingenbergstraße 26

D-32758 Detmold

Germany

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.	1067250000
Type	ACT20P BRIDGE
GTIN (EAN)	4032248820856
Qty.	1 pc(s).

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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	198 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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Input

Bridge sensitivity	1.0 mV / V to 5.0 mV / V	Bridge supply voltage	5 V or 10 V
Input signal	±10 mV / ±20 mV / ±30 mV / ±50 mV	Number of inputs	1
Sensor	Strain gauge resistance, Resistance measurement, 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	active, connected control must be passive
load impedance voltage	600 Ω		

Output (digital)

Max. switching voltage, AC	0 V	Rated switching current	0.1 A
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General data

Accuracy	<0.05 % of measuring range	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	Protection degree	IP20
Rail	TS 35	Step response time	<400 ms (10...90 %)
Temperature coefficient	typ. 0.005 % / °C	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
Surge voltage category	III		

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www.weidmueller.com**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 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

Classifications

ETIM 6.0	EC002653	ETIM 7.0	EC002653
ETIM 8.0	EC002653	ETIM 9.0	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	ECLASS 13.0	27-21-01-20
ECLASS 14.0	27-21-01-20		

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Technical data

Tender specification sheets

Long specification

Bridge measuring trans-
former with electrical
3-way isolation, config-
urable
measurement isolat-
ing transformer in 22.5
mm width with exter-
nal power supply, for
recording,
transforming and isolat-
ing of measurements
from industrial strain
gauges.
Standard DC cur-
rent/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 sig-
nal, or manually with a
press of a button.
6-wire connection com-
pensates for differ-
ences in wire resis-
tance. Bridge excitation
voltage
can be switched be-
tween 5 v and 10 V .
Load cells can be cali-
brated using a button
on the front side.
I/O signals can be con-
figured via DIP switch-
es.
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 (ad-
justable)
Input resistance > 1
MOhm
Bridge supply
5 V or 10 V

Out-
put
0...11 V / 0...22
mA config-
urable
Load resistance

1600 Ohm / 30 Ohm
kOhm/ voltage
Temperature coeffi-
cient typ. 50 ppm/K
Transmission er-

Short specification

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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

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 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.
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Approvals

Approvals



Approvals	CULUS;
ROHS	Conform

Downloads

Approval/Certificate/Document of Conformity	Declaration of Conformity
Engineering Data	CAD data – STEP
Software	DIP switch configuration tool
User Documentation	Quickstart guide german Device description – Instruction sheet Quickstart guide english
Catalogues	Catalogues in PDF-format
Brochures	

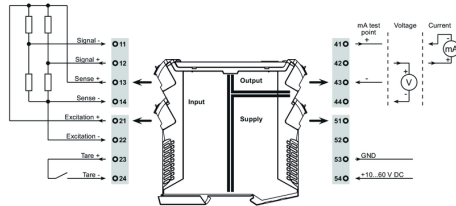
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Drawings

Electric symbol

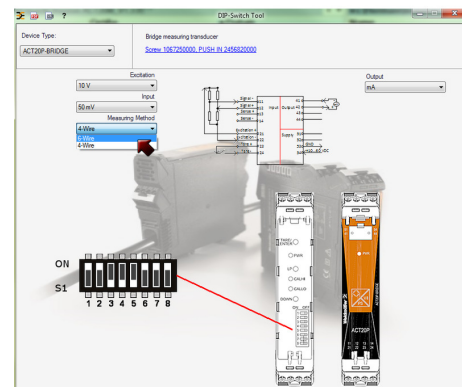
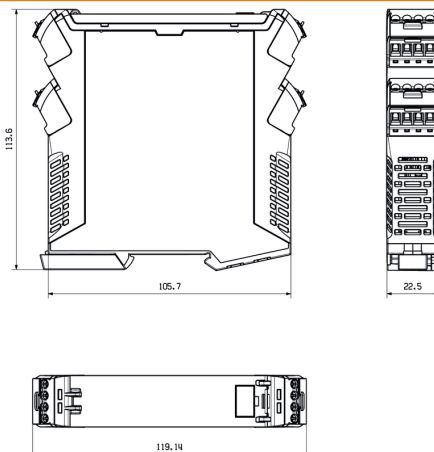


DIP switch setting

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)