ACT20D-LED-UI-AO-4RC-AC-DC

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

www.weidmueller.com

Product image

Devices in this series display universal analogue process values.
Depending on the version, the devices convert/isolate the signals into an analogue current signal and have additional limit value relays which switch further signals.
Features:

- Several sensor variants can be processed.
- An auxiliary power supply is required.
- Even in unfavourable lighting conditions, the display value is clearly visible.

General ordering data

Version	Display, Input : I/U universal, Temperature, Potentiometer, Output : Display, analogue V / mA, 4 x Relay
Order No.	2920060000
Type	ACT20D-LED-UI-AO-4RC-AC-DC
GTIN (EAN)	4099986580350
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	120 mm	Depth (inches)	4.724 inch
Height	48.8 mm	Height (inches)	1.921 inch
Width	96.6 mm	Width (inches)	3.803 inch
Net weight	315 g		

Temperatures

Operating temperature	-20 °C...60 °C	Humidity	5...95 % rel. humidity, no condensation

Display

Cycle time	2.2 times / s	Decimal point	18888, 1.8888, 18.888, 188.88, 1888.8
Dimmable	Yes	Display range	-1999...9999
Display value	current measured value, Percentage or real value display, Switching status	Format	14 segment (numbers + letters), Scrolling text in 8 languages in case of error (e.g. sensor wire breakage, input overrange...)
Scaling	Variable	Type	red LED, 4-character display, Digit size: 13.8 mm

General data

Accuracy	<0.1 % of measuring range	Configuration	Front push-button
DIN Rail compatibility	No	Power consumption	≤ 3.5 W
Protection degree	IP20, IP65 (in plugged condition), IP65	Temperature coefficient	≤0,01% of measurement range/°C
Type of connection	Tension clamp connection with actuator	Type of mounting	Frontpanel mounting, Front mounting
Voltage supply	21.6...253 VAC, (50...60 Hz) or 19.2...300 VDC		

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Input

Input current	0...20 mA, 4...20 mA	Input resistance	20 Ω
Input resistance, voltage	> 10 MΩ	Input voltage	0...1 V DC, 0,2...1 V DC, 0...10 V DC, 2...10 V DC
Line resistance in measuring circuit	50 Ω	Number of inputs	1
Potentiometer	10 Ω...10 kΩ	Response time	configurable 0.4...60 s (mA / V input), configurable 1...60 s (temperature input)
Sensor	2-wire transmitter (without own power supply), 4- wire sensor (with own power supply), RTD (2,3-wire): Pt100, Pt200, Pt1000, Ni120, Cu10, Thermocouples: B / C / E / J / K / L / N / R / S / T / W3 / W5, Resistance measurement, Potentiometer: 10 Ω...10 kΩ	Sensor supply	> 15 V DC at 20 mA
Temperature input range	E: (-100...+1000 °C), J: (-100...+1200 °C), K: (-180...+1372 °C), L: (-200...+900 °C), N: -180...+1300 °C, R: (-50...+1760 °C), S: (-50...+1760 °C), T: (-200...+400 °C), U: (-200...+600 °C), W3: (0...+2300 °C), W5: (0...+2300 °C), LR: (-200...+800 °C), PT100 / 200 / 1000: -200 °C...+850 °C	Type	'active','connected control must be passive'
cold junction compensation	internal		

Output (digital)

Alarm function	Under voltage, Over voltage, Under-current, Surge current, Surge voltage, Under-temperature, Over-temperature, Sensor error	Hysteresis	0...100 %
Max. switching voltage, AC	250 V	Max. switching voltage, DC	30 V
Number of digital outputs	4	Rated switching current	2 A
Rated switching voltage	24...250 V AC	Status indicator	Green LED
Switch-off delay	0...3600 s	Switch-on delay	0...3600 s
Switching capacity	500 VA	Switching thresholds	10...100% of %*U_N
Type	4 x 1 CO contact (hard gold-plated)	Type of switch function	direct or inverted

Output (analogue)

Load resistance current	≤ 800 Ω	Number of analogue outputs	1
Output behaviour on failure downscale	3.5 mA	Output behaviour on failure upscale	23 mA
Signal output	direct or inverted	Type (analogue output)	'active','connected control must be passive'

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Insulation coordination

EMC standards	EN 61326-1	Galvanic isolation	between input / output / supply / relay
Insulation voltage	2.3 kVAC (Test) / 250 VAC (operating state)	Pollution severity	2

Connection data

Wire connection method	Clamping yoke, pluggable	Type of connection	Tension clamp connection with actuator
Wire connection cross section AWG, min.	AWG 30	Wire connection cross section AWG, max.	AWG 12
Wire connection cross section, finely stranded, min.	0.13 mm²	Wire connection cross section, finely stranded, max.	2.8 mm²

Classifications

ETIM 6.0	EC000677	ETIM 7.0	EC000677
ETIM 8.0	EC000677	ETIM 9.0	EC000677
ECLASS 9.0	27-14-31-10	ECLASS 9.1	27-21-03-01
ECLASS 10.0	27-14-31-10	ECLASS 11.0	27-14-31-10
ECLASS 12.0	27-14-31-10	ECLASS 13.0	27-14-31-10
ECLASS 14.0	27-14-31-10		

Environmental Product Compliance

RoHS Compliance Status	Compliant with exemption
RoHS Exemption (if applicable/known)	6c, 7a, 7cI
REACH SVHC	Lead 7439-92-1 Potassium perfluorobutane sulfonate 29420-49-3
SCIP	f4905d12-f516-4eb5-90a8-8c87685bc956

Important note

Product information	The device is a built-in device used to digitally display process values such as current, voltage, resistance, temperature and potentiometer signals in real-time. The device is designed for switch panel installation in a visible area. The device may only be used indoors.

Approvals

Approvals	CE
ROHS	Conform

Downloads

Approval/Certificate/Document of Conformity	RCM certification DNV certification UL certification Declaration of Conformity
Engineering Data	CAD data – STEP
User Documentation	Instruction sheet
Catalogues	Catalogues in PDF-format

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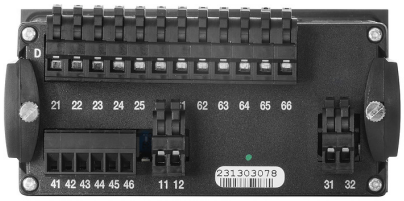
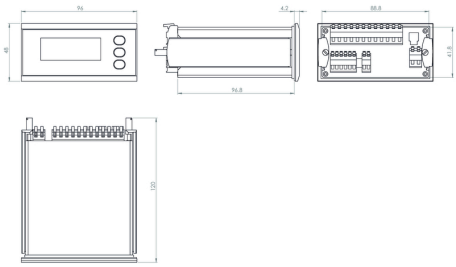
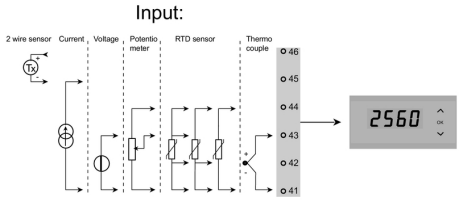
Drawings



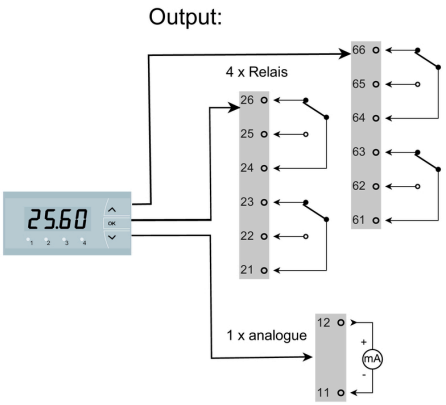
Dimensioned drawing

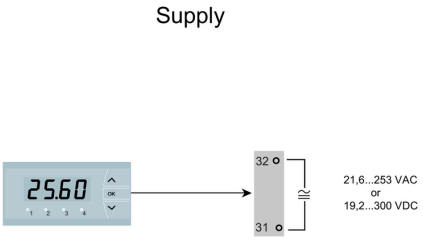


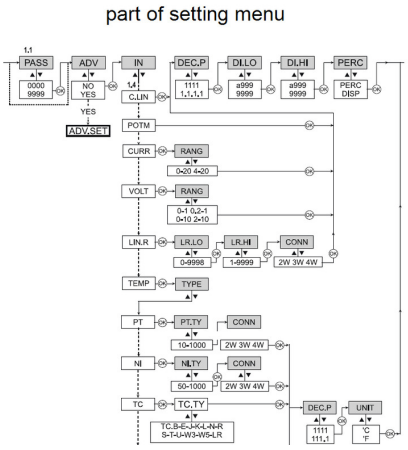
Wiring diagram



Wiring diagram







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Accessories

Process value indicators with LED display - ACT20D

Devices in this series display universal analogue process values.
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Features:

- Several sensor variants can be processed.
- An auxiliary power supply is required.
- Even in unfavourable lighting conditions, the display value is clearly visible.

General ordering data

Type	PROTECTIVE COVER	Version
Order No.	2964330000	Display, Hood
GTIN (EAN)	4099986768086	
Qty.	1 pc(s).	