

**ACT20P-PRO-FI-AO-DO-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image, Similar to illustration**

Universal, electrically-isolated signal converters for measuring frequencies with auxiliary power supply and optional limit-value monitoring.

Similar frequency signals from 2-/3-wire PNP/NPN- or Namur initiators can be processed on the input side.

Frequency converters can be used to measure speeds for drives and motors. They can also be used for counting and checking the flow of incoming goods in industrial shipping and handling applications.

**General ordering data**

Version	Frequency signal converter, Limit value monitoring, Frequency, PWM, analogue V / mA, Transistor (Alarm)
Order No.	<a href="#">2447940000</a>
Type	ACT20P-PRO-FI-AO-DO-S
GTIN (EAN)	4050118462111
Qty.	1 pc(s).

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## Technical data

### Dimensions and weights

Depth	113.7 mm	Depth (inches)	4.476 inch
Height	117.2 mm	Height (inches)	4.614 inch
Width	12.5 mm	Width (inches)	0.492 inch
Net weight	999 g		

### Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-40 °C...60 °C
Humidity	0...95 % (no condensation)		

### Probability of failure

SIL in compliance with IEC 61508	None
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### Input

Input frequency	0,01 Hz...200 kHz	Input voltage	Threshold voltage (NPN / PNP Sensor): 3 V...43.5 V (configurable), Hysteresis level: $\geq 0.5$ V
Number of inputs	1	PWM measurement, gate time	20 ms ... 20 s
PWM measurement, step response time	20 ms ... 20 s + 20 ms	Pulse duty factor	0--100% push/pull or push, parameterisable
Sensor	NPN / PNP transistor (trigger level low: $\leq 4$ V high: $\geq 7$ V), NAMUR sensor, according to EN60947-5-6, switch with or without RS, RP, 2-wire transmitter (without own power supply), 3 wire NPN/PNP-transistor, frequency generator, PDM	Sensor supply	18 V $\pm 15$ %, 8.2 V $\pm 15$ % (@ NAMUR sensor)
Type	frequency or PWM		

### Output (digital)

Alarm function	configurable, Top and bottom limit values, window range, Short circuit at input, Alarm delay: 0...10 s, Hysteresis adjustable	Hysteresis	1...20 %
Number of digital outputs	1	Rated switching current	100 mA
Rated switching voltage	24 VDC $\pm 30$ %	Switch-on delay	0...180 s
Type	NPN-Transistor, Switching frequency 5 kHz		

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### Output (analogue)

Load resistance current	≤ 600 Ω	Load resistance voltage	≥ 1 kΩ
Number of analogue outputs	1	Output current	-20...+20 mA, ± 10mA, 0(4)...20 mA, configurable downscale (3.5 mA) / up-scale (23 mA) @ error
Output voltage	0...5 V, 0(1)...5 V, 0(2)...10 V, -5...+5 V, -10...+10 V	Signal output	direct or inverted
Transmit function	linear, $\sqrt{X}$ , $X^1$ , $X^{1.5}$ , $X^2$ , $X^{2.5}$ , 1-X, direct or inverted, -5...+5 % of output span (TRIM)	Type (analogue output)	Voltage and current output (configurable)

### General data

Accuracy	≤ 0.05 % of span	Configuration	with push-buttons and display
Galvanic isolation	4-way isolator;	Long-term drift	± 0.05% of the measurement range / year
Power consumption	≤ 2.6 W	Protection degree	IP20
Rail	TS 35	Step response time	40 ms + period
Temperature coefficient	≤ 0.02 % / °C, ≤ 100 ppm/K of final value	Voltage supply	24...230 V DC ± 15%, 24...230 V AC ± 15% @ 48...62 Hz

### Insulation coordination

EMC standards	EN 61326-1	Galvanic isolation	4-way isolator;
Impulse withstand voltage	5 kV (1.2/50 μs)	Insulation voltage	4 kV <sub>eff</sub> / 1 min.
Pollution severity	2	Rated voltage	600 V
Surge voltage category	II		

### Safety-related basic specifications

Safety category	No
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### Connection data

Type of connection	Screw connection
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### Classifications

ETIM 6.0	EC002918	ETIM 7.0	EC002918
ETIM 8.0	EC002918	ETIM 9.0	EC002918
ECLASS 9.0	27-21-01-28	ECLASS 9.1	27-21-01-28
ECLASS 10.0	27-21-01-28	ECLASS 11.0	27-21-01-28
ECLASS 12.0	27-21-01-28	ECLASS 13.0	27-21-01-28
ECLASS 14.0	27-21-01-28		

### 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

Creation date November 26, 2024 12:20:58 PM CET

Catalogue status 26.11.2024 / We reserve the right to make technical changes.

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**Technical data**

**Approvals**

Approvals



ROHS	Conform
UL File Number Search	UL Website
Certificate no. (cULus)	E337701

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">UL certification for US</a> <a href="#">DNV certification</a> <a href="#">Bureau Veritas certification</a> <a href="#">UL certification for canada</a> <a href="#">UL certification (hazardous locations) for canada</a> <a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
User Documentation	<a href="#">Configuration manual</a> <a href="#">Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

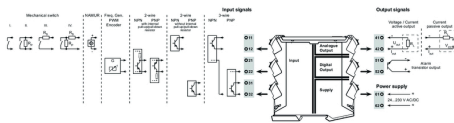
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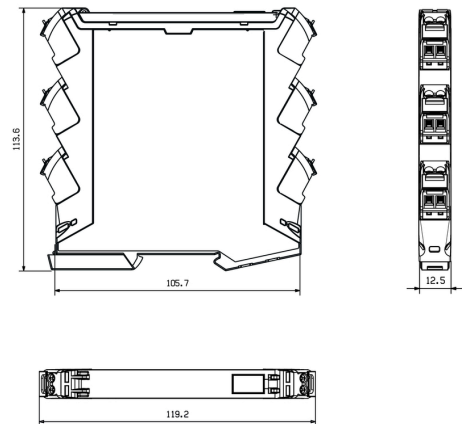
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Drawings

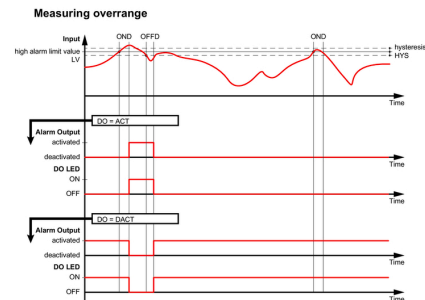
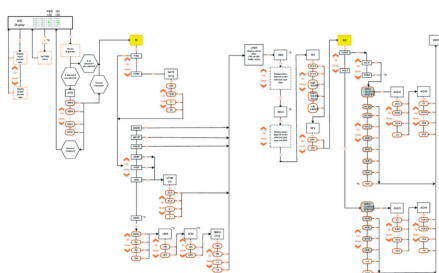
Connection diagram



Dimensioned drawing



Flow diagram part



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