

## ACT20P-PRO-FI-AO-DO-P

**Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

[www.weidmueller.com](http://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="#">2447950000</a>
Type	ACT20P-PRO-FI-AO-DO-P
GTIN (EAN)	4050118462128
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 Frequency measurement

Frequency range, max.	200,000 Hz	Frequency range, min.	0 Hz
Input frequency		Input voltage	Threshold voltage (NPN / PNP Sensor): 3 V...43.5 V (configurable), Hysteresis level: $\geq 0.5$ V
Sensor	0,01 Hz...200 kHz NPN/PNP sensor, 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)

### Output (digital)

Alarm function	configurable, Top and bottom limit values, window range, Short circuit at input, Alarm delay: 0...10 s, Hysteresis: 10 V	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		

### Output (analogue)

Load resistance current	$\leq 600 \Omega$	Load resistance voltage	$\geq 1 \text{ k}\Omega$
Number of analogue outputs	1	Output current	-20...+20 mA, $\pm 10$ mA, 0(4)...20 mA, configurable downscale (3.5 mA) / upscale (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, $x^{1/2}$ , $x^{3/2}$ , $x^{5/2}$ or user-defined curve (101 points), direct or inverted	Type (analogue output)	Voltage and current output (configurable)

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**Technical data****General data**

Accuracy	<±0.1 % of span	Configuration	with push-buttons and display
Long-term drift	≤±0.05% of the measurement range / year	Nominal power consumption	1 VA
Operating altitude	≤ 2000 m	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	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	PUSH IN	Stripping length, rated connection	10 mm
Wire connection cross section, finely stranded, min.	0.2 mm <sup>2</sup>	Wire connection cross section, finely stranded, max.	2.5 mm <sup>2</sup>
Wire cross-section, finely stranded, min. (AWG)	AWG 24	Wire cross-section, finely stranded, max. (AWG)	AWG 14

**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

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**Technical data**

**Approvals**

Approvals



Approvals MAMID	<a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319215/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319215/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319222/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319228/-T1z1mm-S800/</a> <a href="https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/">https://mdcop.weidmueller.com/mediadelivery/rendition/900_319234/-T1z1mm-S800/</a>
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>

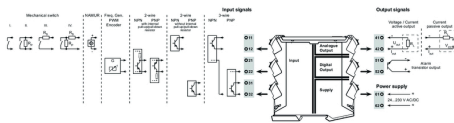
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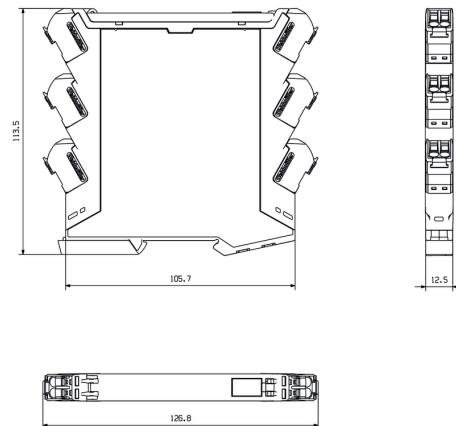
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**Drawings**

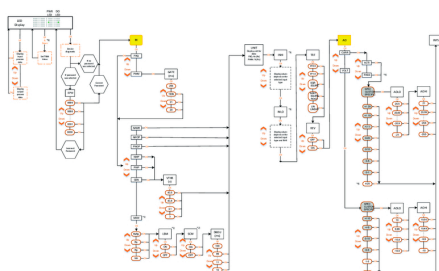
**Connection diagram**



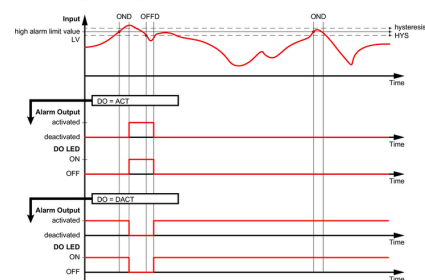
**Dimensioned drawing**



**Flow diagram part**



**Measuring overrange**

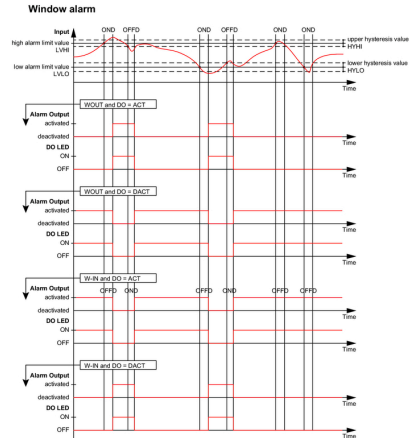
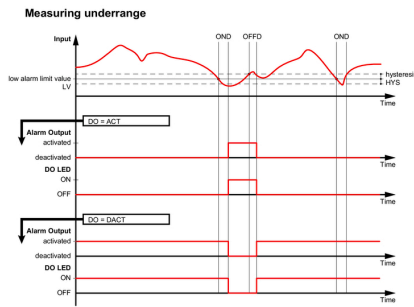


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**Drawings**



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