

**ACT20P-PRO-FI-AO-DO-S****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="#">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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## Technical data

### 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, $\pm 10\text{mA}$ , 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	$\leq \pm 0.1 \%$ of span	Configuration	with push-buttons and display
Galvanic isolation	4-way isolator;	Long-term drift	$\leq \pm 0.05\%$ of the measurement range / year
Power consumption	$\leq 2.6 \text{ W}$	Protection degree	IP20
Rail	TS 35	Step response time	40 ms + period
Temperature coefficient	$\leq 0.02 \%$ / °C, $\leq 100 \text{ ppm/K}$ of final value	Voltage supply	24...230 V DC $\pm 15\%$ , 24... 230 V AC $\pm 15\%$ @48...62 Hz

### Insulation coordination

EMC standards	EN 61326-1	Galvanic isolation	4-way isolator;
Impulse withstand voltage	5 kV (1.2/50 $\mu\text{s}$ )	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

### Environmental Product Compliance

REACH SVHC	Lead 7439-92-1
SCIP	2f6dd957-421a-46db-a0c2-cf1609156924

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[www.weidmueller.com](http://www.weidmueller.com)**Technical data****Approvals**

Approvals



ROHS

Conform

**Downloads**

Approval/Certificate/Document of Conformity	<a href="#">UL certification</a>
	<a href="#">DNV certification</a>
	<a href="#">Bureau Veritas certification</a>
	<a href="#">IECEX certification</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>

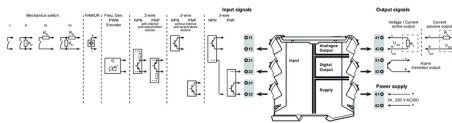
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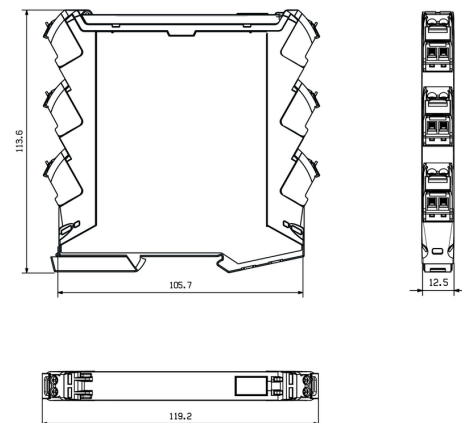
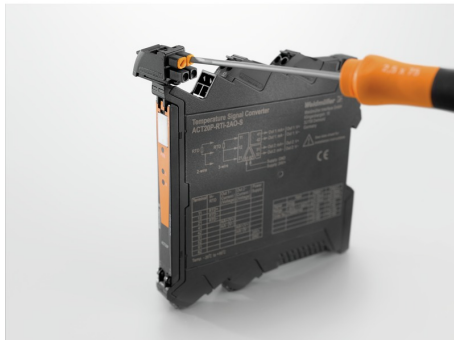
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## Drawings

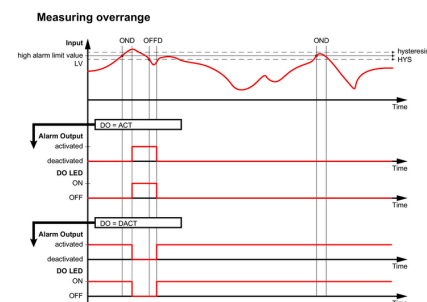
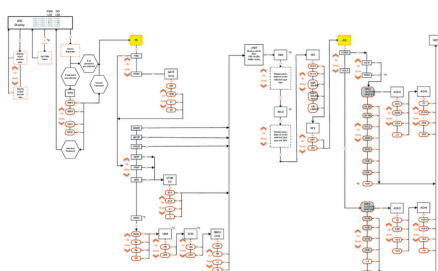
### Connection diagram



## Dimensioned drawing



**Flow diagram part**



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Catalogue status 29.06.2024 / We reserve the right to make technical changes.

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[www.weidmueller.com](http://www.weidmueller.com)**Accessories****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**

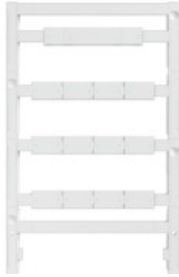
Type	ESG 6.6/11 BHZ 5.00/02	Version
Order No.	<a href="#">1082490000</a>	ESG, Device markers x 11 mm, PA 66, Colour: white
GTIN (EAN)	4032248845330	
Qty.	200 pc(s).	

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**General ordering data**

Type	ESG 8/13.5/43.3 SAI AU	Version
Order No.	<a href="#">1912130000</a>	ESG, Device markers x 13.5 mm, PA 66, Colour: Transparent
GTIN (EAN)	4032248541164	
Qty.	5 pc(s).	

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## Drawings

