

ACT20P-VMR-1PH-H-S**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	Limit value monitoring, Input : 110 / 240 / 400 V AC/DC, Output : 2 x relays, Input: single-phase voltage, Relay output
Order No.	7760054164
Type	ACT20P-VMR-1PH-H-S
GTIN (EAN)	6944169689079
Qty.	1 pc(s).

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Technical data

Dimensions and weights

Depth	114.3 mm	Depth (inches)	4.5 inch
Height	117 mm	Height (inches)	4.606 inch
Width	22.5 mm	Width (inches)	0.886 inch
Net weight	198.7 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-20 °C...65 °C
Humidity at operating temperature	0...95 % (no condensation)	Humidity	5...85 % rel. humidity, no condensation

Probability of failure

SIL in compliance with IEC 61508	None
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Input

Input frequency	40...60 Hz, DC	Input measurement range	50...120% U_{rated} voltage
Input resistance, voltage		Input voltage	Channel 1: (U1-E): 110V AC/DC, Channel 2: (U2-E): 240V AC/DC, Channel 3 1: (U3-E): 400V AC/DC
	1 MΩ±5%		
Number of inputs	1	Type	single-phase

Output

Number of outputs	2
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Output (digital)

Alarm function	Top and bottom limit values, window range, Holding function can be activated, Alarm delay: 0...10 s	Hysteresis	5% of final value
Max. switching frequency	20 Hz	Max. switching voltage, AC	250 V
Max. switching voltage, DC	30 V	Number of digital outputs	2
Rated switching current	5 A	Switch-on delay	0...10 s, configurable
Switching thresholds	Adjustable, MIN = 50...100 % x U_{Rated} input voltage (undervoltage alarm), MAX = 70...120 % x U_{Rated} input voltage (overvoltage alarm)	Type	2 x 1 - or 1 x 2 changeover contact relay, Relay polarity can be inverted

General data

Accuracy	3 % * U_{rated} voltage	Configuration	DIP switch and potentiometer
Galvanic isolation	3-way isolator, between input/output/supply, yes	Long-term drift	0.1 % / 10.000 h
Power consumption	≤ 100 mA @ 24 VDC, ≤ 120mA @ 24V AC, <2 W	Protection degree	IP20
Rail	TS 35	Repeat accuracy	2 % * U_{rated} voltage
Step response time	<220 ms (10...90 %)	Temperature coefficient	350 ppm/K
Voltage supply	24...240 VUC ±10%		

Creation date June 10, 2024 11:18:53 AM CEST

Catalogue status 01.06.2024 / We reserve the right to make technical changes.

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Insulation coordination

EMC standards	EN 61326-1	Galvanic isolation	3-way isolator, between input/output/supply, yes
Impulse withstand voltage	Supply/output: 4 kV; input/output, input/output: 6 kV, 1.2/50 µs	Insulation voltage	2.5 kV (input / output), 2 kV input / output/ power supply
Pollution severity	2	Rated voltage	300 VAC (output 1 - output 2), 300 VAC (supply-output), 500 VAC (supply-input; input-output)
Surge voltage category	III		

Connection data

Type of connection	Screw connection	Tightening torque, min.	0.4 Nm
Tightening torque, max.	0.6 Nm	Clamping range, rated connection	1.5 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	EC002654	ETIM 7.0	EC002654
ETIM 8.0	EC002654	ETIM 9.0	EC002654
ECLASS 9.0	27-21-01-22	ECLASS 9.1	27-21-01-22
ECLASS 10.0	27-21-01-22	ECLASS 11.0	27-21-01-22
ECLASS 12.0	27-21-01-22	ECLASS 13.0	27-21-01-22


Environmental Product Compliance

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

Important note

Product information	<p>The ACT20P-VMR-1PH-H is a monitoring relay for DC voltage or single-phase AC voltage. The device has two independent relay outputs which emit an alarm when levels exceed or fall below preset voltage limits. The alarm can also be set to trigger after an adjustable time delay.</p> <p>Features</p> <ul style="list-style-type: none"> • Manual front-sided configuration via DIP switch, potentiometer and rotary switch • Various alarm functions: upper/lower limit value alarm, window alarm • Adjustable start and alarm delay • Front LEDs indicates operation status and malfunction[• 4-way galvanic isolation between input, output 1, output 2 and power supplyswitch
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Approvals

Approvals	
ROHS	Conform
UL File Number Search	UL Website
Certificate No. (cURus)	E469563

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Technical data

Downloads

Approval/Certificate/Document of Conformity

[Application notes – Declaration of Conformity](#)

Engineering Data

[CAD data – STEP](#)

Software

[DIP switch configuration tool](#)

User Documentation

[Instruction sheet](#)

Catalogues

[Catalogues in PDF-format](#)

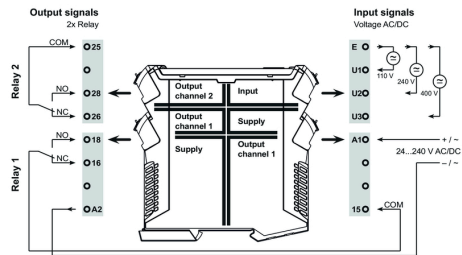
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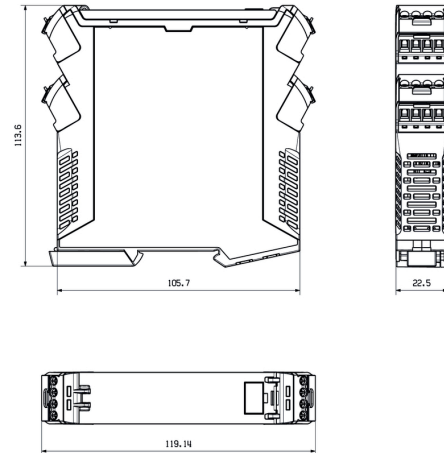
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Drawings

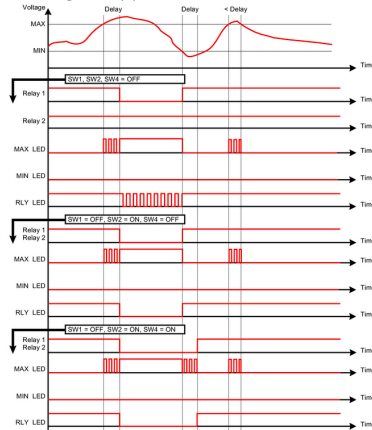
Connection diagram



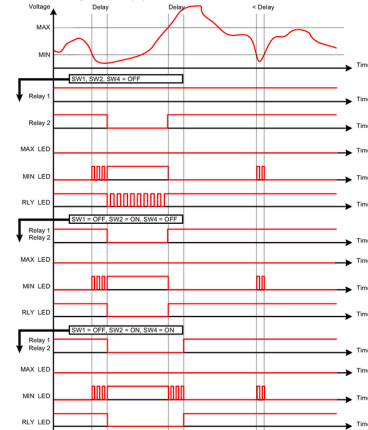
Dimensioned drawing



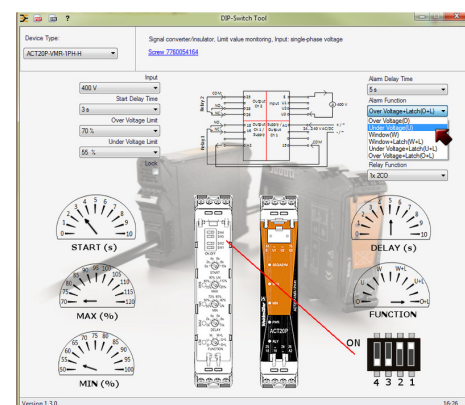
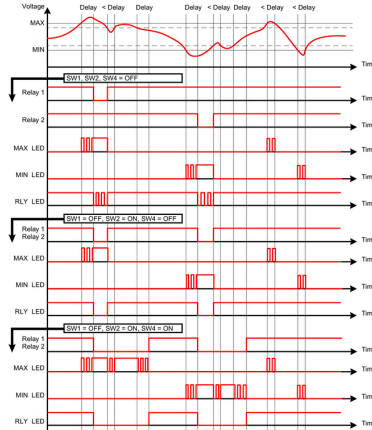
Overvoltage alarm (O)



Undervoltage alarm (U)



Window alarm (W)



example for DIP switch setting (with ACT20 tool)