

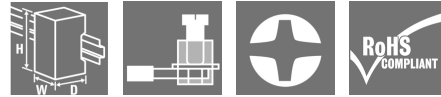
**ACT20P-VMR-1PH-H-S****Weidmüller Interface GmbH & Co. KG**

Klingenbergstraße 26

D-32758 Detmold

Germany

www.weidmueller.com

**Product image****General ordering data**

Version	Limit value monitoring, Input: single-phase voltage, Relay output, 110 / 240 / 400 V AC/DC, 2 x relays
Order No.	<a href="#">7760054164</a>
Type	ACT20P-VMR-1PH-H-S
GTIN (EAN)	6944 169689079
Qty.	1 pc(s).

Creation date March 10, 2023 8:35:20 AM CET

Catalogue status 03.03.2023 / We reserve the right to make technical changes.

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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	-25 °C...60 °C
Operating temperature, min.	-25 °C	Operating temperature, max.	60 °C
Humidity	5...85 % rel. humidity, no condensation		

### Probability of failure

SIL in compliance with IEC 61508    None

### Input

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

### 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 voltage, AC	250 V	Max. switching voltage, DC	30 V
Number of digital outputs	2	Rated switching current	5 A
Switching thresholds	Adjustable, MIN = 50... 100 % x $U_{\text{Rated input voltage}}$ (undervoltage alarm), MAX = 70... 120 % x $U_{\text{Rated input voltage}}$ (overvoltage alarm)	Type	2 x 1 - or 1 x 2 changeover contact relay, Relay polarity can be inverted

### General data

Accuracy	3 % * $U_{\text{rated voltage}}$	Configuration	DIP switch and potentiometer
Galvanic isolation	3-way isolator, between input / output / supply	Long-term drift	0.1 % / 10.000 h
Measurement calibration	max: 70... 120% * $U_{\text{rated voltage}}$ , min: 50... 100% * $U_{\text{rated voltage}}$	Power consumption	≤ 100 mA @ 24 VDC, ≤ 120mA @ 24V AC
Rail	TS 35	Repeat accuracy	2 % * $U_{\text{rated voltage}}$
Step response time	< 220 ms (10...90 %)	Temperature coefficient	350 ppm/K
Type of connection	Screw connection	Voltage supply	24...240 VUC ±10%

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### Insulation coordination

EMC standards	IEC 61326-1	Galvanic isolation	3-way isolator, between input / output / supply
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 <sup>2</sup>
Clamping range, min.	0.5 mm <sup>2</sup>	Clamping range, max.	2.5 mm <sup>2</sup>
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	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

### Environmental Product Compliance

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

### Important note

Product information

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.

#### Features

- 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

### Approvals

Approvals



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

**Data sheet****ACT20P-VMR-1PH-H-S****Weidmüller Interface GmbH & Co. KG**  
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**Technical data****Downloads**

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Approval/Certificate/Document of Conformity	<a href="#">Declaration of Conformity</a>
Engineering Data	<a href="#">CAD data – STEP</a>
Software	<a href="#">Runtime Software – DIP switch configuration tool</a>
User Documentation	<a href="#">Instruction sheet</a>
Catalogues	<a href="#">Catalogues in PDF-format</a>

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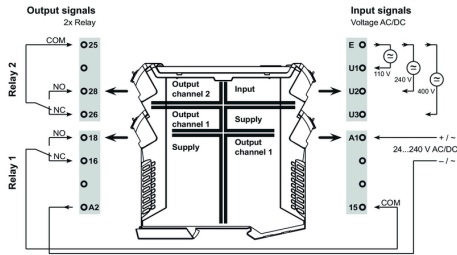
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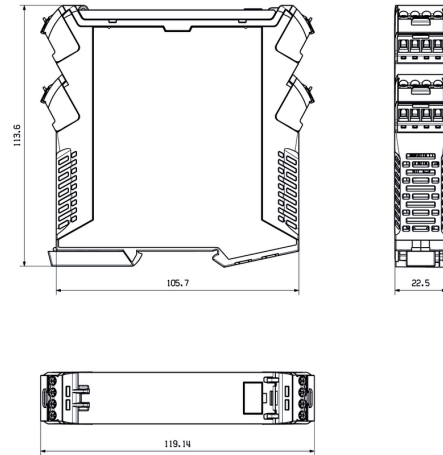
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**Drawings**

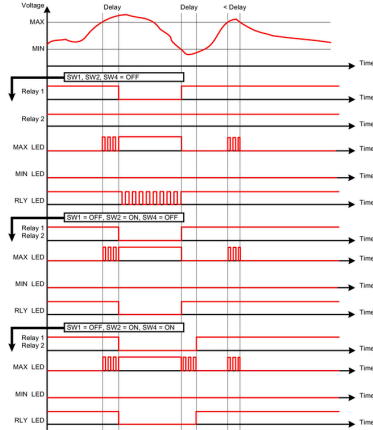
**Connection diagram**



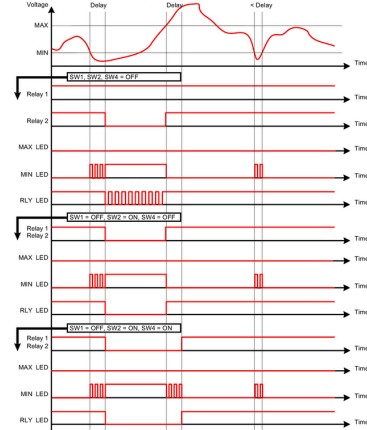
**Dimensioned drawing**



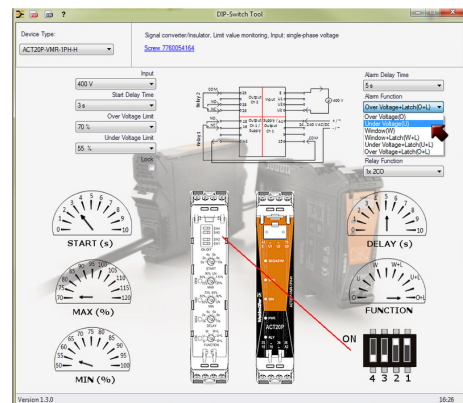
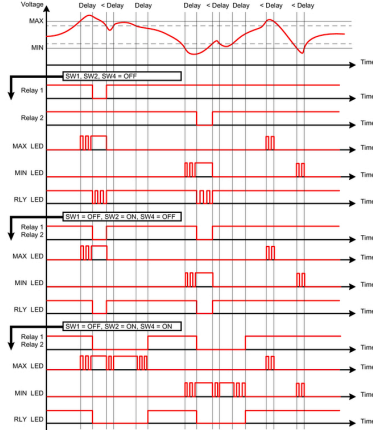
**Overvoltage alarm (O)**



**Undervoltage alarm (U)**



**Window alarm (W)**



example for DIP switch setting (with ACT20 tool)