

ACT20P-VMR-3PH-ILP-H-S

Weidmüller Interface GmbH & Co. KG
 Klingenbergstraße 26
 D-32758 Detmold
 Germany

www.weidmueller.com



ACT20P: The flexible solution

- Precise and highly functional signal converters
- Release levers simplify handling

General ordering data

Version	Limit value monitoring, Input : 3 phase, Output : 2 x relays
Order No.	7760054165
Type	ACT20P-VMR-3PH-ILP-H-S
GTIN (EAN)	6944 169689086
Qty.	1 items

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Technical data

Approvals

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ROHS Conform

 UL File Number Search [UL Website](#)

Certificate No. (cURus) E469563

Dimensions and weights

Depth	114.3 mm	Depth (inches)	4.5 inch
Height	117 mm	Height (inches)	4.6063 inch
Width	22.5 mm	Width (inches)	0.8858 inch
Net weight	233 g		

Temperatures

Storage temperature	-40 °C...85 °C	Operating temperature	-20 °C...60 °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	MTTF	136 a
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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

Input

Number inputs	1	Input frequency	40...60 Hz
Type	3-phase or 3-phase plus zero conductor, AC voltage	Input voltage	180...500 VAC
Input measurement range	200...480 VAC	Input resistance, voltage	≥1,8MΩ

Output

Number of outputs	2
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Output (digital)

Rated switching current	5 A	Number of digital outputs	2
Max. switching voltage, AC	250 V	Max. switching voltage, DC	30 V
Hysteresis	5 % @ Phase asymmetry	Type	2 x 1 - or 1 x 2 changeover contact relay, Relay polarity can be inverted
Switch-on delay	0...10 s, configurable	Alarm function	Top and bottom limit values, window range, Holding function can be activated, Phase error, Phase sequence,

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Switching thresholds	Adjustable, MIN = 50... 100 % x URated input voltage (undervoltage alarm), MAX = 70...120 % x URated input voltage (overvoltage alarm)	Asymmetry, Alarm delay: 0...10 s
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General data

Repeat accuracy	2 % *URated voltage	Accuracy	3 % *URated voltage
Protection degree	IP20	Supply voltage	supplied from voltage measurement inputs
Long-term drift	0.1 % / 10.000 h	Step response time	≤ 100 ms
Mounting rail	TS 35	Power consumption	≤ 3VA, <2 W
Temperature coefficient	350 ppm/K	Nominal power consumption	1.5 VA
Configuration	DIP switch and potentiometer	Operating altitude	≤ 2000 m

Insulation coordination

Impulse withstand voltage	6 kV (input - output), 4 kV (output 1- output 2), 1.2/50 µs	EMC standards	EN 61326-1
Test voltage	0.5 kV	Surge voltage category	III
Pollution severity	2	Galvanic isolation	between input / output / supply / relay
Insulation voltage	2.5 kV (input / output)	Rated voltage	600 VAC (input - output), 300 VAC (output 1 - output 2)

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

Part description

Product description	<p>ACT20P-VMR-3PH-ILP-H is a three-phase voltage setpoint limit monitor relay (3-phase or 3-phase plus zero conductor). The device is powered by the input measuring circuit. The device incorporates two separate relay outputs which trigger an alarm upon phase asymmetry, phase loss, phase sequence errors and phase angle errors and when exceeding or falling below preset voltage limit values. The alarm can also be set to trigger after an adjustable time delay.</p> <p>Features</p> <ul style="list-style-type: none"> • Supply from the input measuring circuit • Manual front-sided configuration via DIP switch, potentiometer and rotary switch • Various alarm functions: phase asymmetry, phase loss, phase sequence errors, phase angle errors, alarm delay, upper/lower limit value alarm, window alarm • Front LEDs indicates operation status and malfunction. • 3-way galvanic isolation between input, output 1 and output 2.
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Classifications

ETIM 8.0	EC002654	ETIM 9.0	EC002654
ETIM 10.0	EC002654	ECLASS 14.0	27-21-01-22
ECLASS 15.0	27-21-01-22		

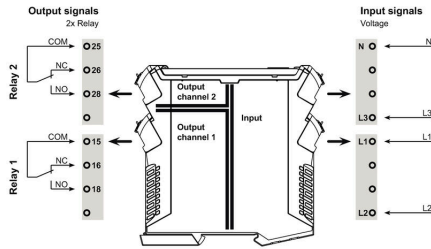
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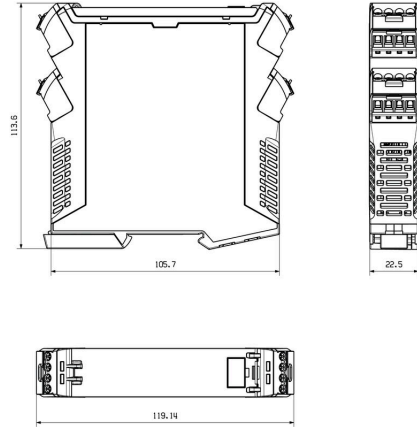
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Drawings

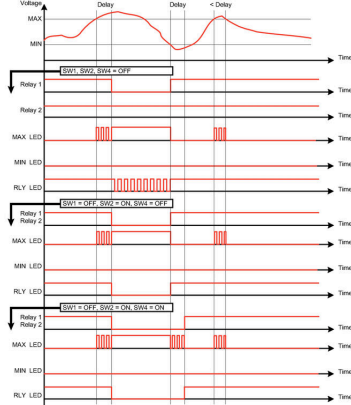
Connection diagram



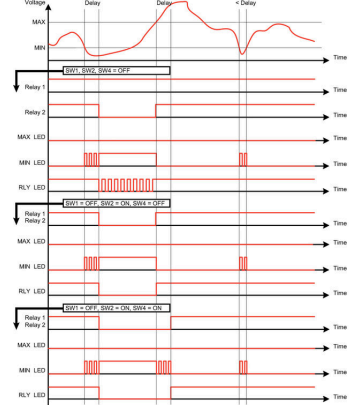
Dimensioned drawing



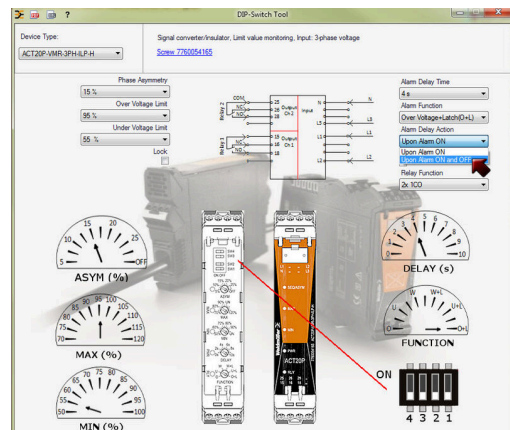
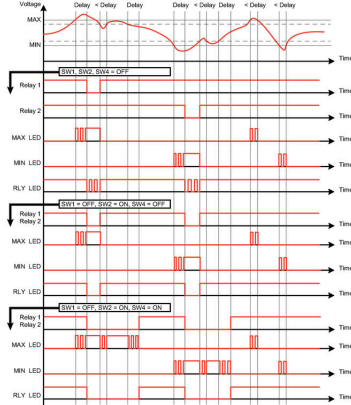
Overvoltage alarm (O)



Undervoltage alarm (U)



Window alarm (W)



example for DIP switch setting (with ACT20 tool)