Description

The electronic E-T-A Voltage Monitor E-1079-60. is designed to monitor DC or AC voltages against falling below, or rising above, preset tolerance limits. Two LEDs indicate relay status or overlimits; an opto coupler output provides a physically isolated signal.
The device is available either with a (non-conducting) N/O or a (conducting) N/C contact. It is powered by the measuring signal so that there is no need for an additional power supply.

E-1079-600-...

Features

- Voltage under and over limit monitoring (tolerance window)
- For DC and AC voltages between 5 V and 230 V
- DC and AC voltage output
- N/O or N/C contact (MOSFET)
- Status indication by red and green LEDs
- No need for separate power supply
- Reverse polarity protection
- Compact design (plug-in housing)
- 12 mm wide housing

Ordering information

Type No.		
E-1079	Electronic Voltage Monitor	
	Output	
	600	signal output as N/O contact
	601	signal output as N/C contact
	Voltage rating	
	DC 12 V	
	DC 24 V	
	DC 48 V	
	DC 110 V	
	DC 220 V	
	AC 115 V	
	AC 230 V	

E-1079 - 600 - DC 24 V ordering example

Technical data

Input voltage U_E

Voltage rating U_N	Tolerance	Tolerance range U_{min}...U_{max}
DC 12 V	± 25%	(9...15 V)
DC 24 V	± 25%	(18...30 V)
DC 48 V	± 25%	(36...60 V)
DC 110 V	+10%/-15%	(93.5...121 V)
DC 220 V	+10%/-15%	(187...242 V)
AC 115 V	+10%/-15%	(97.8...126.5V)
AC 230 V	+10%/-15%	(195.5...253 V)

Load current	3 mA DC and AC
Dielectric strength	260 V DC and AC
Reverse polarity protected	

Output U_A/I_A	
MOSFET output	
Max. load current	80 mA DC and AC
Max. load voltage	250 V DC and AC
Voltage drop	< 2.0 V with 80 mA load < 0.8 V with 10 mA load
Free-wheeling diode for non-resistive loads	in-built
Polarization	optional
Response time	200 mA

Signalling	(> 5 V signal voltage)
green LED	voltage within set tolerance limits
red LED	voltage outside set tolerance limits

Accuracy	
Undervoltage	U_{min} -10 % U_N...U_{min}
Overvoltage	U_{max}...U_{max} +10%U_N

Environmental conditions	
Temperature range	0...60 °C (without condensation)
Degree of protection to DIN 40050/IEC 529	IP20
Dielectric strength (IEC 664)	4 kV_{rms}
EMC	to EN50081-1 and prEN50082-2

Housing	plug-in ultramid housing
Terminals	6.3 mm blade terminals to DIN 46244 to plug into E-T-A socket 17-P10-Si
Mounting attitude	optional, no air gap between devices required
Mass	28 g

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Function

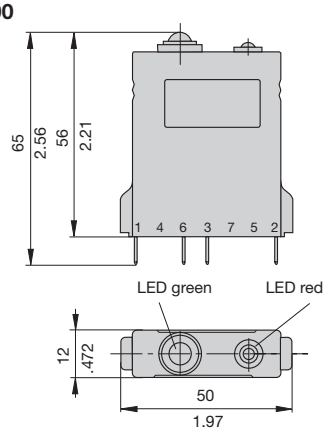
The operating voltage applied at the input terminals is monitored for upper and lower limits. When the input signal is within tolerance limits, the green LED will indicate and the MOSFET of the signal output has the following operating status:

- N/O contact (-600): MOSFET is active
- N/C contact (-601): MOSFET is inactive

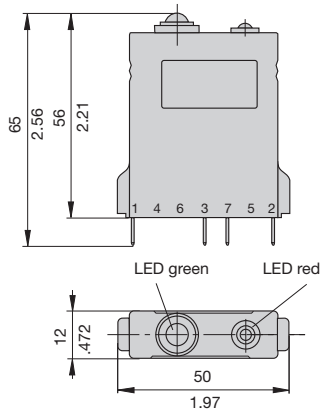
From approx. 5 V to the lower tolerance limit the red LED will indicate. It also indicates when the upper tolerance limit has been exceeded. The output will change its operating status.

Dimensions

E-1079-600



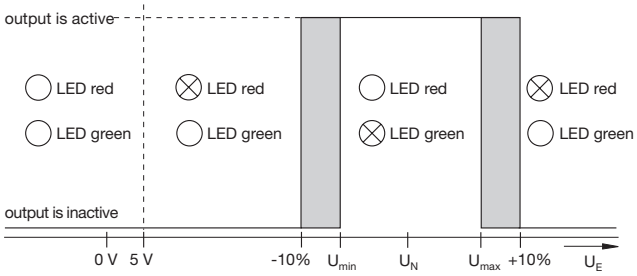
E-1079-601



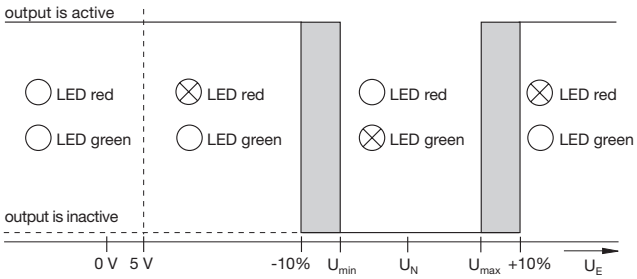
This is a metric design and millimeter dimensions take precedence ($\frac{mm}{inch}$)

Functional diagram

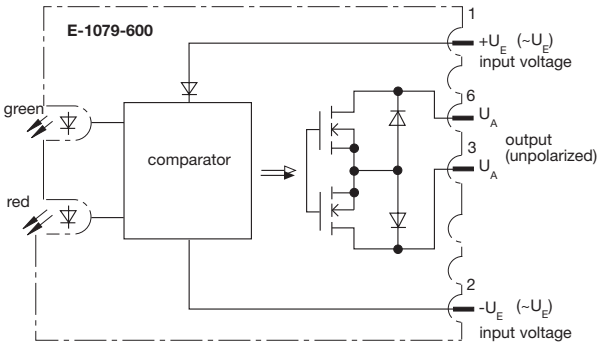
E-1079-600

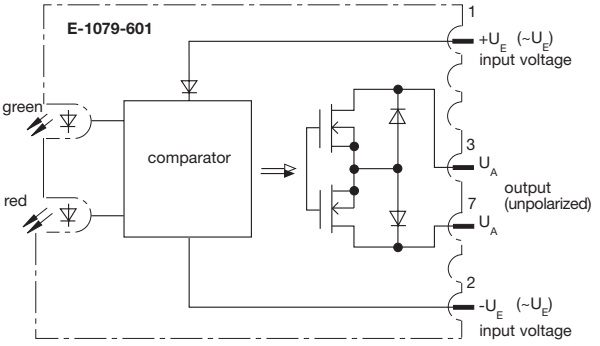


E-1079-601



Connection diagram





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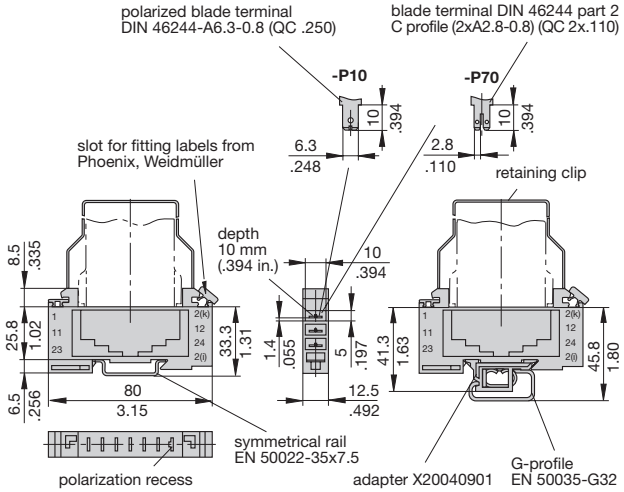
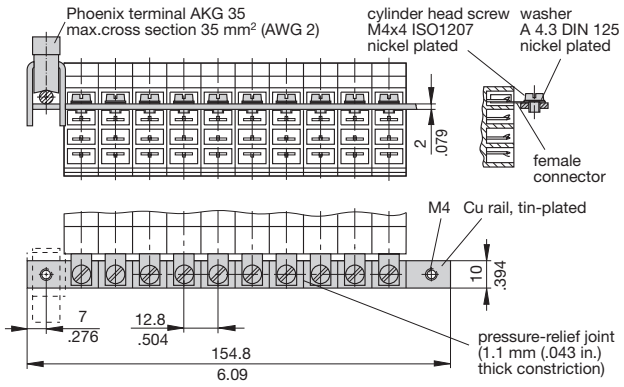
Accessories for E-1079-600/601

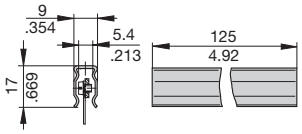
Single mounting sockets (with adapter)
(up to 16 A max. load)
17-P10-Si **17-P10-Si-20025**
17-P70-Si **17-P70-Si-20025**
(retaining clip Y 300 581 11 available on request)



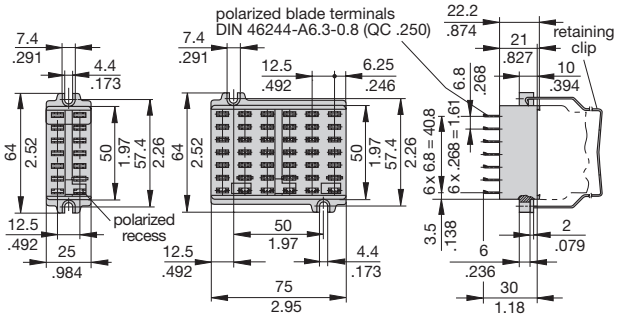
Bus bar (10-way) (supplied as a complete package)
for type 17 socket
(for max. 100 A continuous load),
more positions available on request
X 211 157 01 with terminal
X 211 157 02 without terminal



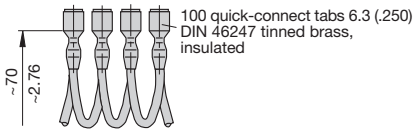
Insulating sleeving for bus bar (10-way)
Y 303 824 01



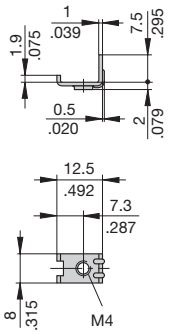
2-way mounting socket **6-way mounting socket**
23-P10-Si **63-P10-Si**
(retaining clip Y 300 581 03 available on request)



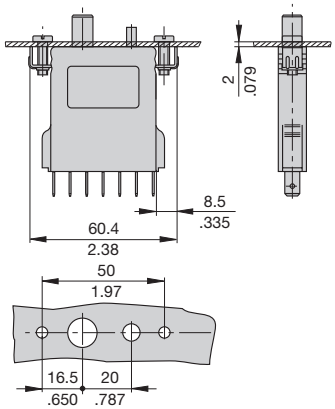
Connector bus links -P10
X 210 588 01/ 1.5 mm², (AWG 16), brown (up to 13 A max. load)
X 210 588 02/ 2.5 mm², (AWG 14), black (up to 20 A max. load)
X 210 588 03/ 2.5 mm², (AWG 14), red (up to 20 A max. load)
X 210 588 04/ 2.5 mm², (AWG 14), blue (up to 20 A max. load)



2 mounting clips
Y 300 504 02



Installation drawing with
mounting clips Y 300 504 02



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All dimensions without tolerances are for reference only. In the interest of improved design, performance and cost effectiveness the right to make changes in these specifications without notice is reserved. Product markings may not be exactly as the ordering codes. Errors and omissions excepted.