

ANALOG MONITORING RELAY PHASE FAILURE AND
-SEQUENCE 3X 160 TO 690V AC 50 TO 60 HZ 2
CHANGEOVER CONTACTS SPRING LOADED
CONNECTION



Product function		Phase monitoring relay
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Measuring circuit:

Type of voltage for monitoring		AC
Number of poles for main current circuit		3
Measurable voltage at AC	V	160 ... 690
Relative repeat accuracy	%	1

General technical data:

Display version LED		Yes
Product function		
• undervoltage detection		No
• Overvoltage detection		No
• phase sequence recognition		Yes
• Phase failure detection		Yes
• Phase unbalance		No
• Overvoltage detection 3 phase		No
• undervoltage detection 3 phases		No
• Voltage window recognition 3 phase		No
• Auto-reset		Yes






<ul style="list-style-type: none"> Adjustable open/closed-circuit current principle 		No
Starting time after the control supply voltage has been applied	ms	1 000
Response time maximum	ms	450
Type of voltage of the control supply voltage		AC
Control supply voltage		
<ul style="list-style-type: none"> at AC <ul style="list-style-type: none"> at 50 Hz rated value at 60 Hz rated value 	V V	160 ... 690 160 ... 690
Operating range factor control supply voltage rated value		
<ul style="list-style-type: none"> at AC <ul style="list-style-type: none"> at 50 Hz at 60 Hz 		1 ... 1 1 ... 1
Surge voltage resistance rated value	kV	6
Consumed active power	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Vibration resistance acc. to IEC 60068-2-6		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Shock resistance acc. to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude at height above sea level maximum	m	2 000
Conducted interference due to burst acc. to IEC 61000-4-4		2 kV
Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5		2 kV
Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5		1 kV
Electrostatic discharge acc. to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling acc. to IEC 61000-4-3		10 V/m
Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value	V	690
Degree of pollution		3
Ambient temperature		
<ul style="list-style-type: none"> during operation during storage during transport 	°C °C °C	-25 ... +60 -40 ... +85 -40 ... +85
Galvanic isolation		
<ul style="list-style-type: none"> between entrance and outlet between the outputs between the voltage supply and other circuits 		Yes Yes Yes




Mechanical data:

Width	mm	22.5
Height	mm	94
Depth	mm	91
Mounting position		any
Required spacing for grounded parts		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Required spacing with side-by-side mounting		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Required spacing for live parts		
• forwards	mm	0
• Backwards	mm	0
• at the side	mm	0
• upwards	mm	0
• downwards	mm	0
Mounting type		snap-on mounting
Product function removable terminal for auxiliary and control circuit		Yes
Type of electrical connection		spring-loaded terminals
Type of connectable conductor cross-sections		
• solid		2x (0.25 ... 1.5 mm ²)
• finely stranded		
— with core end processing		2 x (0.25 ... 1.5 mm ²)
— without core end processing		2x (0.25 ... 1.5 mm ²)
• at AWG conductors		
— solid		2x (24 ... 16)
— stranded		2x (24 ... 16)
Outputs:		
Number of NO contacts delayed switching		0
Number of NC contacts delayed switching		0
Number of CO contacts delayed switching		2
Ampacity of the output relay		
• at AC-15		
— at 250 V at 50/60 Hz	A	3
— at 400 V at 50/60 Hz	A	3

• at DC-13		
— at 24 V	A	1
— at 125 V	A	0.2
— at 250 V	A	0.1
Thermal current of the switching element with contacts maximum	A	5
Operating current at 17 V minimum	mA	5
Continuous current of the DIAZED fuse link of the output relay	A	4
Mechanical service life (switching cycles) typical		10 000 000
Electrical endurance (switching cycles) at AC-15 at 230 V typical		100 000
Operating frequency with 3RT2 contactor maximum	1/h	5 000

Certificates/ approvals:

General Product Approval	EMC	Declaration of Conformity	Test Certificates
 CCC		 UL	 C-TICK
		 EG-Konf.	spezielle Prüfbescheinigungen n

Test Certificates	Shipping Approval	other	Railway
Typprüfbescheinigung/Werkzeugnis	 DNV	 GL	 LRS
		Bestätigungen	Schwingen/Schocke n

Further information

Information- and Downloadcenter (Catalogs, Brochures,...)

<http://www.siemens.com/industrial-controls/catalogs>

Industry Mall (Online ordering system)

<http://www.siemens.com/industrymall>

Cax online generator

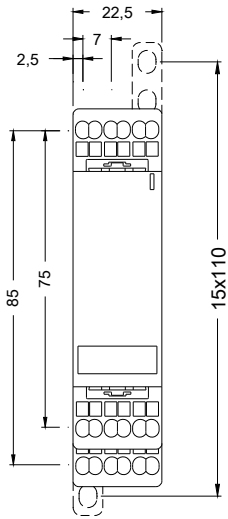
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG45122BR20>

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

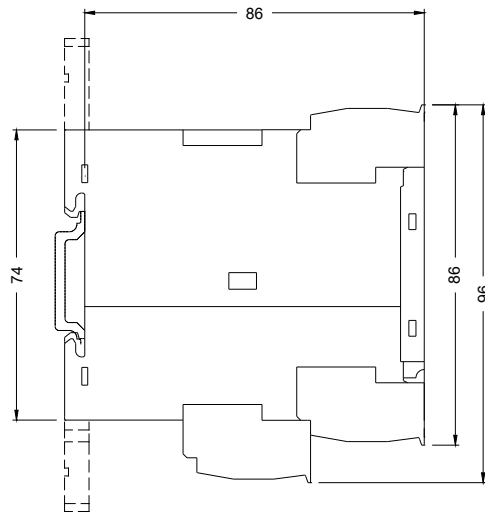
<https://support.industry.siemens.com/cs/ww/en/ps/3UG45122BR20>

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG45122BR20&lang=en



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