



DIGITAL MONITORING RELAY COS-PHI AND CURRENT MONITORING FOR IO-LINK 90 TO 690V AC, 0.2 TO 10A OVERSHOOT AND UNDERSHOOT ON DELAY TIME TRIPPING DELAY TIME HYSTERESIS 0.1 TO 3.0A 2 CHANGE-OVER CONTACTS, SPRING-LOADED TERMINAL

Product function	Active power monitoring relay
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Measuring circuit:		
Number of poles / for main current circuit		1
Phase number		1
Adaptable response value phase angle	°	0.1 ... 0.99
Type of current / for monitoring		AC
Measurable current	A	0.2 ... 10
Adjustable response current		
• 1	A	0.2 ... 10
• 2	A	0.2 ... 10
Adjustable response delay time		
• when starting	s	0 ... 999.9
• with lower or upper limit violation	s	0 ... 999.9
Adjustable switching hysteresis for measured current value	mA	0 ... 3,000
Operating voltage		
• rated value	V	90 ... 690
Relative metering precision	%	10
Precision of digital display		+/-1 digit
Relative repeat accuracy	%	1

General technical details:		
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Design of the display		LCD
Product function		
• overcurrent recognition of 1 phase		Yes
• undercurrent recognition of 1 phase		Yes
• reset external		Yes
• open-circuit or closed-circuit current principle		Yes
Starting time / after the control supply voltage has been applied	ms	1,000
Voltage type / of control feed voltage		DC
Control supply voltage		
• at 50 Hz / at AC		
• rated value	V	0 ... 0
• at 60 Hz / at AC		
• rated value	V	0 ... 0
• for DC		
• rated value	V	24 ... 24
Operating range factor control supply voltage rated value		
• for DC		0.75 ... 1.25
Impulse voltage resistance / rated value	kV	6
Recorded real power	W	2
Protection class IP		IP20
Electromagnetic compatibility		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
Resistance against vibration / according to IEC 60068-2-6		1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
Resistance against shock / according to IEC 60068-2-27		sinusoidal half-wave 15g / 11 ms
Installation altitude / at a height over sea level / maximum	m	2,000
Conductor-bound parasitic coupling BURST / according to IEC 61000-4-4		2 kV
Conductor-bound parasitic coupling conductor-earth SURGE / according to IEC 61000-4-5		2 kV
Conductor-bound parasitic coupling conductor-conductor SURGE / according to IEC 61000-4-5		1 kV
Electrostatic discharge / according to IEC 61000-4-2		6 kV contact discharge / 8 kV air discharge
Field-bound parasitic coupling / according to IEC 61000-4-3		10 V/m
Degree of pollution		2
Ambient temperature		
• during operating	°C	-25 ... +60
• during storage	°C	-40 ... +85
• during transport	°C	-40 ... +85
Galvanic isolation		
• between entrance and outlet		Yes
• between the outputs		Yes

• between the voltage supply and other circuits		Yes
Mechanical operating cycles as operating time / typical		10,000,002
Electrical operating cycles as operating time / at AC-15 / at 230 V / typical		100,000
Operating cycles / with 3RT2 contactor / maximum	1/h	5,000

Communication:

Type of voltage supply / via input/ output link master		Yes
IO-Link transfer rate		COM2 (38,4 kBaud)
Protocol / is supported / IO-Link protocol		Yes
Data volume		
• of the address range of the outputs / with cyclical transfer	byte	2
• of the address range of the inputs / with cyclical transfer	byte	4
Point-to-point cycle time / between master and IO-Link device / minimum	ms	10

Mechanical design:

Width	mm	22.5
Height	mm	103
Depth	mm	91
mounting position		any
Distance, to be maintained, to earthed part		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, to the ranks assembly		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Distance, to be maintained, conductive elements		
• forwards	mm	0
• backwards	mm	0
• sideways	mm	0
• upwards	mm	0
• downwards	mm	0
Mounting type		snap-on mounting

Product function / removable terminal for auxiliary and control circuit		Yes
Design of the electrical connection		spring-loaded terminals
Type of the connectable conductor cross-sections • solid • finely stranded • with wire end processing • without wire end processing • for AWG conductors • solid • stranded		2x (0.25 ... 1.5 mm²) 2 x (0.25 ... 1.5 mm²) 2x (0.25 ... 1.5 mm²) 2x (24 ... 16) 2x (24 ... 16)

Outputs:

Number of NO contacts / delayed switching		0
Number of NC contacts / delayed switching		0
Number of change-over switches / delayed switching		2
Current carrying capacity / of output relay • at AC-15 • at 250 V / at 50/60 Hz • at 400 V / at 50/60 Hz • at DC-13 • at 24 V • at 125 V • at 250 V	A A A A A	3 3 1 0.2 0.1
Operating current / at 17 V / minimum	mA	10
Continuous current / of the DIAZED fuse link of the output relay	A	4
Thermal current / of the contact-affected switching element / maximum	A	5

Certificates/approvals:

General Product Approval



[Manufacturer declaration](#)



Test Certificates

[Special Test Certificate](#)

[Type Test Certificates/Test Report](#)

other

[Declaration of Conformity](#)

[other](#)

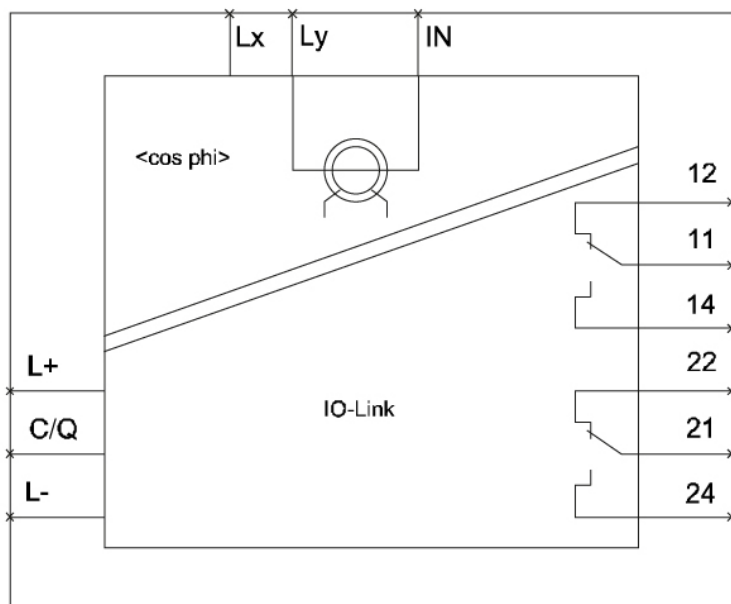
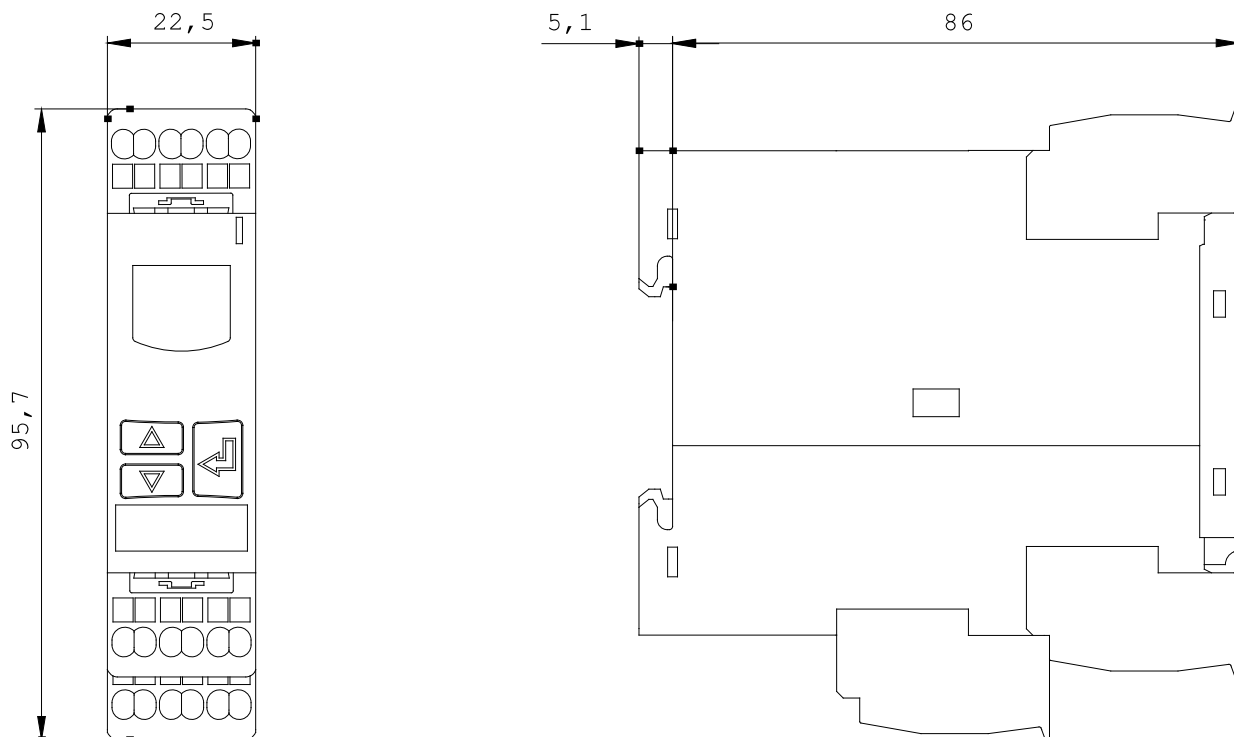
Further information:

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

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

Industry Mall (Online ordering system)

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



last change:

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