



DIGITAL MONITORING RELAY SPEED MONITORING,
FOR IO-LINK FROM 0.1 TO 2200 RPM OVERSHOOT
AND UNDERSHOOT ON DELAY TIME TRIPPING
DELAY TIME HYSTERESIS 0.1 TO 99 RPM 1
CHANGE-OVER CONTACT, SCREW TERMINAL

Product function	RPM monitoring relay	
Measuring circuit:		
Adjustable response delay time		
• when starting	s	0 ... 999.9
• with lower or upper limit violation	s	0 ... 999.9
Adjustable response value speed	1/min	0 ... 2 200
Input voltage at digital input 1		
• initial value for signal<0>-recognition	V	0
• Full-scale value for signal<0> recognition	V	1
• initial value for signal<1>-recognition	V	4.5
• Full-scale value for signal<1> recognition	V	30
Input current at digital input 2		
• initial value for signal<0>-recognition	mA	0
• Full-scale value for signal<0> recognition	mA	1.2
• initial value for signal<1>-recognition	mA	2.1
• Full-scale value for signal<1> recognition	mA	8.2
Design of input feedback input		No
Design of the sensor		
• at digital input 1 connectable		PNP switching three-wire sensor or mechanical impulse contact with external DC supply (4.5 V ... 30 V)
• at digital input 2 connectable		2-conductor Namur sensor or mechanical impulse contact
Input current at digital input 1 maximum	mA	50
Pulse duration minimum	ms	5

Pulse interval minimum	ms	5
Number of sensor signals per revolution		1 ... 10
Switching hysteresis for rotational speed	1/min	0 ... 99.9

General technical data:

Design of the display		LCD
Product function		
<ul style="list-style-type: none"> • rotation speed monitoring • Standstill monitoring • Fault storage • External reset • Auto-reset • Manual RESET • Adjustable open/closed-circuit current principle 		Yes No Yes Yes Yes Yes Yes
Startup time after the control supply voltage has been applied	ms	500
Response time maximum	ms	100
Relative metering precision	%	10
Accuracy of digital display		+/- 1 Digit
Relative repeat accuracy	%	1
Type of voltage of the control supply voltage		DC
Control supply voltage		
<ul style="list-style-type: none"> • for DC Rated value 	V	24 ... 24
Operating range factor control supply voltage rated value		
<ul style="list-style-type: none"> • for DC 		0.75 ... 1.25
Surge voltage resistance Rated value	kV	4
Active power consumption	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
Degree of pollution		2
Apparent power consumption		

<ul style="list-style-type: none"> • for DC <ul style="list-style-type: none"> — at 24 V maximum 	V·A	4
Ambient temperature		
<ul style="list-style-type: none"> • during operation 	°C	-25 ... +60
<ul style="list-style-type: none"> • during storage 	°C	-40 ... +80
<ul style="list-style-type: none"> • during transport 	°C	-40 ... +80
Galvanic isolation		
<ul style="list-style-type: none"> • between entrance and outlet 		Yes
<ul style="list-style-type: none"> • between the outputs 		No
<ul style="list-style-type: none"> • between the voltage supply and other circuits 		Yes
Suitability for use safety-related circuits		No
Category acc. to EN 954-1		none
Safety Integrity Level (SIL) acc. to IEC 61508		none

Communication/ Protocol:

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
Amount of data		
<ul style="list-style-type: none"> • of the address area of the outputs with cyclical transfer total 	byte	2
<ul style="list-style-type: none"> • of the address area of the inputs with cyclical transfer total 	byte	4
Point-to-point cycle time between master and IO-Link device minimum	ms	10

Mechanical data:

Width	mm	22.5
Height	mm	91
Depth	mm	102
mounting position		any
Required spacing for grounded parts		
<ul style="list-style-type: none"> • forwards 	mm	0
<ul style="list-style-type: none"> • Backwards 	mm	0
<ul style="list-style-type: none"> • at the side 	mm	0
<ul style="list-style-type: none"> • upwards 	mm	0
<ul style="list-style-type: none"> • downwards 	mm	0
Required spacing with side-by-side mounting		
<ul style="list-style-type: none"> • forwards 	mm	0
<ul style="list-style-type: none"> • Backwards 	mm	0
<ul style="list-style-type: none"> • at the side 	mm	0
<ul style="list-style-type: none"> • upwards 	mm	0
<ul style="list-style-type: none"> • 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		screw and snap-on mounting
Product function removable terminal for auxiliary and control circuit		Yes
Type of electrical connection		screw-type terminals
Type of connectable conductor cross-section		
• solid		1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded		
— with core end processing		1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• for AWG conductors		
— solid		2x (20 ... 14)
— stranded		2x (20 ... 14)
Tightening torque with screw-type terminals	N·m	0.8 ... 1.2

Outputs:		
Number of NO contacts delayed switching		0
Number of NC contacts delayed switching		0
Number of CO contacts delayed switching		1
Ampacity of the output relay		
• at AC-15		
— at 230 V at 50/60 Hz	A	3
— at 250 V at 50/60 Hz	A	3
• at DC-13		
— at 24 V	A	1
— at 110 V	A	0.2
— at 125 V	A	0.2
— at 230 V	A	0.1
— at 250 V	A	0.1
Operating current at 17 V minimum	mA	5
Continuous current of the DIAZED fuse link of the output relay	A	4
Thermal current of the switching element with contacts maximum	A	5
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



[Manufacturer
declaration](#)



Test Certificates

[Type Test
Certificates/Test
Report](#)

[Special Test
Certificate](#)

other

[Declaration of
Conformity](#)

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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

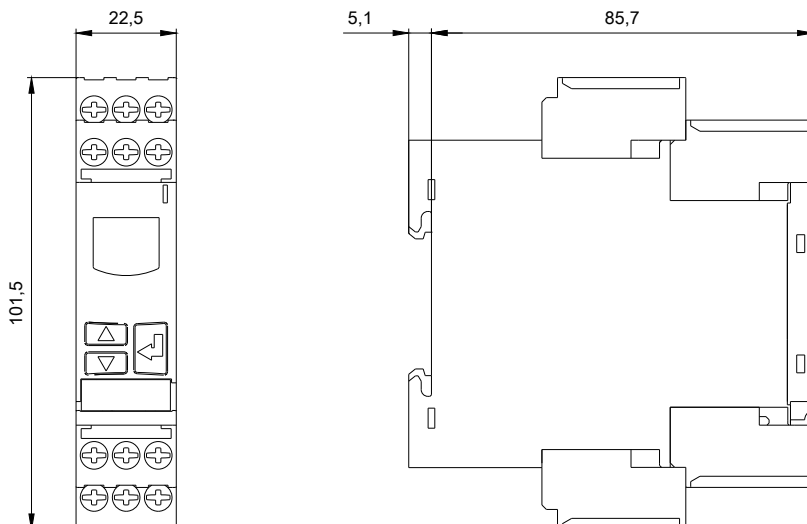
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mfb=3UG48511AA40>

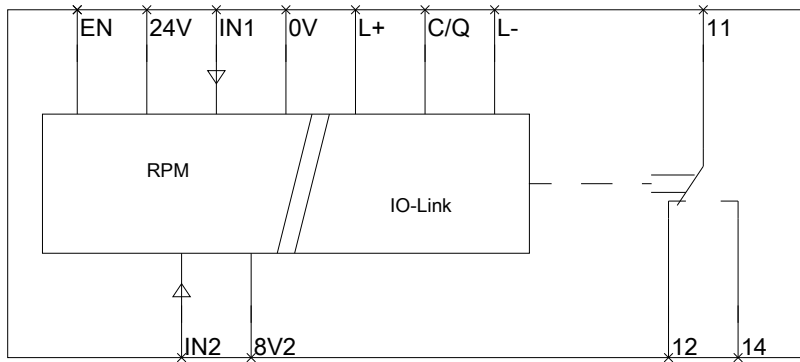
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG48511AA40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mfb=3UG48511AA40&lang=en





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