

DIGITAL MONITORING RELAY SPEED MONITORING  
 FROM 0.1 TO 2200 REV/MIN OVERSHOOT AND  
 UNDERSHOOT SUPPLY VOLTAGE: AC/DC 24V DC  
 AND AC 50 TO 60 HZ NO GALVANIC ISOLATION  
 FROM MEASURING CIRCUIT STARTUP DELAY 1 TO  
 900S TRIP DELAY 0.11 TO 99.9S HYSTERESIS 0.1  
 TO 99 REV/MIN 1 CO CONTACT W. OR W/O ERROR  
 LOG SPRING-LOADED CONNECTION

<b>Product function</b>		RPM monitoring relay
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**Measuring circuit:**

<b>Measurable line frequency</b>	Hz	50 ... 60
<b>Adjustable response delay time</b>		
• when starting	s	1 ... 900
• with lower or upper limit violation	s	0.1 ... 99.9
<b>Adjustable response value speed</b>	1/min	0.1 ... 2 200
<b>Input voltage at digital input 1</b>		
• 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
<b>Input current at digital input 2</b>		
• 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
<b>Design of input feedback input</b>		No
<b>Design of the sensor</b>		
• 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
<b>Input current at digital input 1 maximum</b>	mA	50
<b>Pulse duration minimum</b>	ms	5
<b>Pulse interval minimum</b>	ms	5
<b>Number of sensor signals per revolution</b>		1 ... 10
<b>Switching hysteresis for rotational speed</b>	1/min	0 ... 99.9

**General technical data:**

<b>Design of the display</b>		LCD
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<b>Product function</b>		
• rotation speed monitoring		Yes
• Standstill monitoring		No
• Fault storage		Yes
• External reset		Yes
• Auto-reset		Yes
• Manual RESET		Yes
• Adjustable open/closed-circuit current principle		Yes
<b>Startup time after the control supply voltage has been applied</b>	ms	500
<b>Response time maximum</b>	ms	100
<b>Buffering time in the event of power failure minimum</b>	ms	10
<b>Relative metering precision</b>	%	10
<b>Accuracy of digital display</b>		+/- 1 Digit
<b>Relative repeat accuracy</b>	%	1
<b>Type of voltage of the control supply voltage</b>		AC/DC
<b>Control supply voltage</b>		
• with AC		
— at 50 Hz Rated value	V	24 ... 24
— at 60 Hz Rated value	V	24 ... 24
• for DC Rated value	V	24 ... 24
<b>Operating range factor control supply voltage rated value</b>		
• with AC		
— at 50 Hz		1.1 ... 0.8
— at 60 Hz		1.1 ... 0.8
• for DC		0.8 ... 1.1
<b>Surge voltage resistance Rated value</b>	kV	4
<b>Active power consumption</b>	W	2
<b>Protection class IP</b>		IP20
<b>Electromagnetic compatibility</b>		IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
<b>Shock resistance acc. to IEC 60068-2-27</b>		sinusoidal half-wave 15g / 11 ms
<b>Installation altitude at height above sea level maximum</b>	m	2 000
<b>Conducted interference due to burst acc. to IEC 61000-4-4</b>		2 kV
<b>Conducted interference due to conductor-earth surge acc. to IEC 61000-4-5</b>		2 kV
<b>Conducted interference due to conductor-conductor surge acc. to IEC 61000-4-5</b>		1 kV
<b>Electrostatic discharge acc. to IEC 61000-4-2</b>		6 kV contact discharge / 8 kV air discharge
<b>Field-bound parasitic coupling acc. to IEC 61000-4-3</b>		10 V/m








<b>Insulation voltage for overvoltage category III according to IEC 60664 with degree of pollution 3</b> <b>Rated value</b>	V	300
<b>Degree of pollution</b>		3
<b>Apparent power consumption</b> • with AC — at 24 V maximum	V·A	2.5
<b>Ambient temperature</b> • during operation • during storage • during transport	°C °C °C	-25 ... +60 -40 ... +80 -40 ... +80
<b>Galvanic isolation</b> • between entrance and outlet • between the outputs		Yes No
<b>Suitability for use safety-related circuits</b>		No
<b>Category acc. to EN 954-1</b>		none
<b>Safety Integrity Level (SIL) acc. to IEC 61508</b>		none

<b>Mechanical data:</b>		
<b>Width</b>	mm	22.5
<b>Height</b>	mm	86
<b>Depth</b>	mm	103
<b>mounting position</b>		any
<b>Required spacing for grounded parts</b> • forwards • Backwards • at the side • upwards • downwards	mm mm mm mm mm	0 0 0 0 0
<b>Required spacing with side-by-side mounting</b> • forwards • Backwards • at the side • upwards • downwards	mm mm mm mm mm	0 0 0 0 0
<b>Required spacing for live parts</b> • forwards • Backwards • at the side • upwards • downwards	mm mm mm mm mm	0 0 0 0 0
<b>Mounting type</b>		screw and 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-section		
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded <ul style="list-style-type: none"> <li>— with core end processing</li> <li>— without core end processing</li> </ul> </li> <li>• for AWG conductors <ul style="list-style-type: none"> <li>— solid</li> <li>— stranded</li> </ul> </li> </ul>		2x (0.25 ... 1.5 mm <sup>2</sup> )  2 x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> )  2x (24 ... 16) 2x (24 ... 16)

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		
<ul style="list-style-type: none"> <li>• at AC-15 <ul style="list-style-type: none"> <li>— at 250 V at 50/60 Hz</li> </ul> </li> <li>• at DC-13 <ul style="list-style-type: none"> <li>— at 24 V</li> <li>— at 125 V</li> <li>— at 250 V</li> </ul> </li> </ul>	A  A A A	3  1 0.2 0.1
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	Test Certificates	
 CCC		 UL	 C-TICK
		<a href="#">Type Test Certificates/Test Report</a>	<a href="#">Special Test Certificate</a>
Shipping Approval	other		
 DNV	 GL	 LRS	<a href="#">Declaration of Conformity</a>
			<a href="#">other</a>

## 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=3UG46512AA30>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3UG46512AA30>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG46512AA30&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG46512AA30&lang=en)

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