

Siemens  
EcoTech



digital monitoring relay speed monitoring from 0.1 to 6000 r/min overshoot and undershoot for IO-Link supply voltage 24 V DC ON delay and tripping delay 0.1..999.9 s 2 changeover contacts spring-loaded terminal

product brand name	SIRIUS
product designation	Speed monitoring relay with digital setting
design of the product	monitoring of speed, external power supply with auxiliary voltage for IO-Link
product type designation	3UG5
<b>General technical data</b>	
product function	RPM monitoring relay
design of the display	LCD
insulation voltage	
• rated value	690 V
• for overvoltage category III according to IEC 60664	
— with degree of pollution 2 rated value	690 V
— with degree of pollution 3 rated value	690 V
degree of pollution	3
type of voltage of the control supply voltage	DC
protection class IP	
• of the enclosure	IP20
• of the terminal	IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance according to IEC 60068-2-6	f = 4 ... 5,81 Hz, dmax = 15 mm; f = 5,81 ... 500 Hz, Amax = 20 m/s <sup>2</sup> ; 10 cycles
mechanical service life (operating cycles) typical	10 000 000
electrical endurance (operating cycles) at AC-15 at 230 V typical	100 000
thermal current of the switching element with contacts maximum	5 A
reference code according to IEC 81346-2	K
Substance Prohibitance (Date)	06/01/2023
SVHC substance name	Lead - 7439-92-1 Lead monoxide (lead oxide) - 1317-36-8 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol - 79-94-7 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol - 119-47-1
Net Weight	0.163 kg
<b>Product Function</b>	
product function	
• standstill monitoring	No
• rotation speed monitoring	Yes
• error memory	Yes
• galvanic isolation	Yes
• adjustable open/closed-circuit current principle	Yes

<ul style="list-style-type: none"> <li>external reset</li> </ul>	Yes
<ul style="list-style-type: none"> <li>auto-RESET</li> </ul>	Yes
<ul style="list-style-type: none"> <li>manual RESET</li> </ul>	Yes
suitability for use safety-related circuits	No
<b>Control circuit/ Control</b>	
<b>control supply voltage at DC rated value</b>	24 V
<b>operating range factor control supply voltage rated value at DC</b>	
<ul style="list-style-type: none"> <li>initial value</li> </ul>	0.7
<ul style="list-style-type: none"> <li>full-scale value</li> </ul>	1.25
<b>Measuring circuit</b>	
<b>measurable line frequency</b>	50 ... 60 Hz
<b>adjustable operating delay time</b>	0 ... 999.9 s
<b>adjustable response delay time</b>	
<ul style="list-style-type: none"> <li>when starting</li> </ul>	0 ... 999.9 s
<ul style="list-style-type: none"> <li>with lower or upper limit violation</li> </ul>	0 ... 999.9 s
<b>accuracy of digital display</b>	+/- 1 Digit
<b>Communication/ Protocol</b>	
protocol is supported IO-Link protocol	Yes
<b>IO-Link transfer rate</b>	COM2 (38,4 kBaud)
<b>point-to-point cycle time between master and IO-Link device minimum</b>	5 ms
<b>type of voltage supply via input/output link master</b>	Yes
<b>data volume</b>	
<ul style="list-style-type: none"> <li>of the address range of the inputs with cyclical transfer total</li> </ul>	4 byte
<ul style="list-style-type: none"> <li>of the address range of the outputs with cyclical transfer total</li> </ul>	2 byte
<b>Auxiliary circuit</b>	
number of CO contacts delayed switching	1
<b>Inputs/ Outputs</b>	
design of input feedback input	No
<b>number of outputs as contact-affected switching element</b>	
<ul style="list-style-type: none"> <li>safety-related</li> <li>— instantaneous contact</li> </ul>	0
<b>ampacity of the output relay at AC-15</b>	
<ul style="list-style-type: none"> <li>at 230 V at 50/60 Hz</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at 250 V at 50/60 Hz</li> </ul>	3 A
<ul style="list-style-type: none"> <li>at 400 V at 50/60 Hz</li> </ul>	3 A
<b>ampacity of the output relay at DC-13</b>	
<ul style="list-style-type: none"> <li>at 24 V</li> </ul>	1 A
<ul style="list-style-type: none"> <li>at 125 V</li> </ul>	0.2 A
<ul style="list-style-type: none"> <li>at 250 V</li> </ul>	0.1 A
<b>ampacity of the semiconductor output in SIO mode</b>	200 mA
<b>operational current at 17 V minimum</b>	5 mA
<b>Galvanic isolation</b>	
<b>galvanic isolation</b>	
<ul style="list-style-type: none"> <li>between input and output</li> </ul>	Yes
<ul style="list-style-type: none"> <li>between the voltage supply and other circuits</li> </ul>	Yes
<b>Connections/ Terminals</b>	
<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	spring-loaded terminal (push-in)
<ul style="list-style-type: none"> <li>for auxiliary and control circuit</li> </ul>	spring-loaded terminals (push-in)
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>solid</li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>finely stranded with core end processing</li> </ul>	1x (0.5 ... 2.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>finely stranded without core end processing</li> </ul>	0.5 ... 4 mm <sup>2</sup>
<ul style="list-style-type: none"> <li>for AWG cables solid</li> </ul>	1x (20 ... 12)
<ul style="list-style-type: none"> <li>for AWG cables stranded</li> </ul>	20 ... 12

<b>connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• finely stranded with core end processing</li> <li>• finely stranded without core end processing</li> </ul>	<p>0.5 ... 4 mm<sup>2</sup></p> <p>0.5 ... 2.5 mm<sup>2</sup></p> <p>0.5 ... 1.5 mm<sup>2</sup></p>
<b>AWG number as coded connectable conductor cross section</b>	
<ul style="list-style-type: none"> <li>• solid</li> <li>• stranded</li> </ul>	<p>24 ... 12</p> <p>20 ... 12</p>

### Installation/ mounting/ dimensions

<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting
<b>height</b>	100 mm
<b>width</b>	22.5 mm
<b>depth</b>	90 mm
<b>required spacing</b>	
<ul style="list-style-type: none"> <li>• with side-by-side mounting <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> <li>• for grounded parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— at the side</li> <li>— downwards</li> </ul> </li> <li>• for live parts <ul style="list-style-type: none"> <li>— forwards</li> <li>— backwards</li> <li>— upwards</li> <li>— downwards</li> <li>— at the side</li> </ul> </li> </ul>	<p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p> <p>0 mm</p>

### Ambient conditions

installation altitude at height above sea level maximum	2 000 m
<b>ambient temperature</b>	
<ul style="list-style-type: none"> <li>• during operation</li> <li>• during storage</li> <li>• during transport</li> </ul>	<p>-25 ... +60 °C</p> <p>-40 ... +80 °C</p> <p>-40 ... +80 °C</p>

### Approvals Certificates

<b>Environment</b>	<b>General Product Approval</b>
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[Environmental Confirmations](#)



other

[Confirmation](#)



### Further information

Information on the packaging  
<https://support.industry.siemens.com/cs/ww/en/view/109813875>  
Information for data generation and storage  
<https://support.industry.siemens.com/cs/ww/en/view/109995012>  
Information- and Downloadcenter (Catalogs, Brochures,...)

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3UG5851-2AA40>

Cax online generator

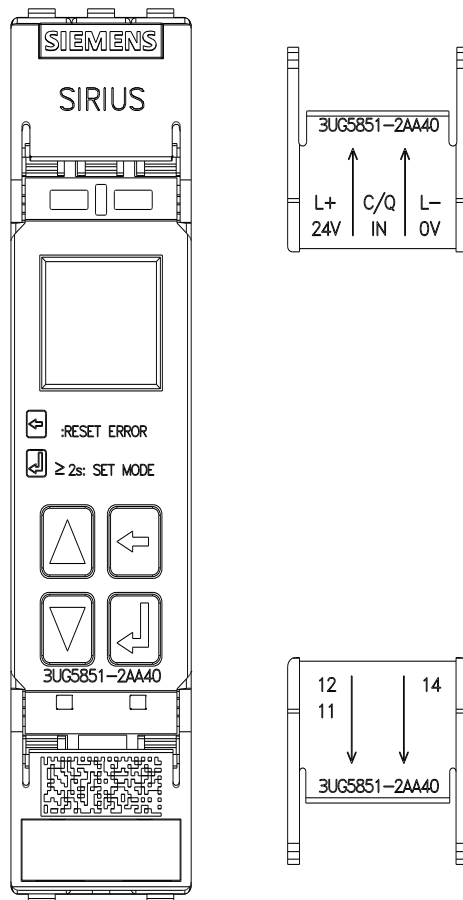
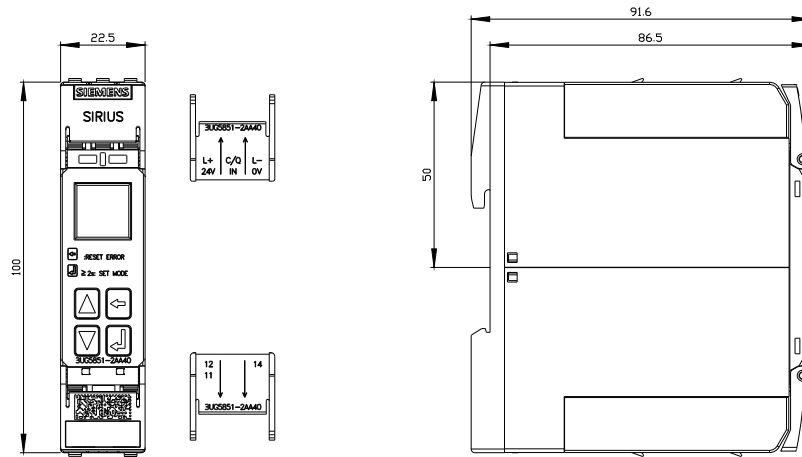
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5851-2AA40>

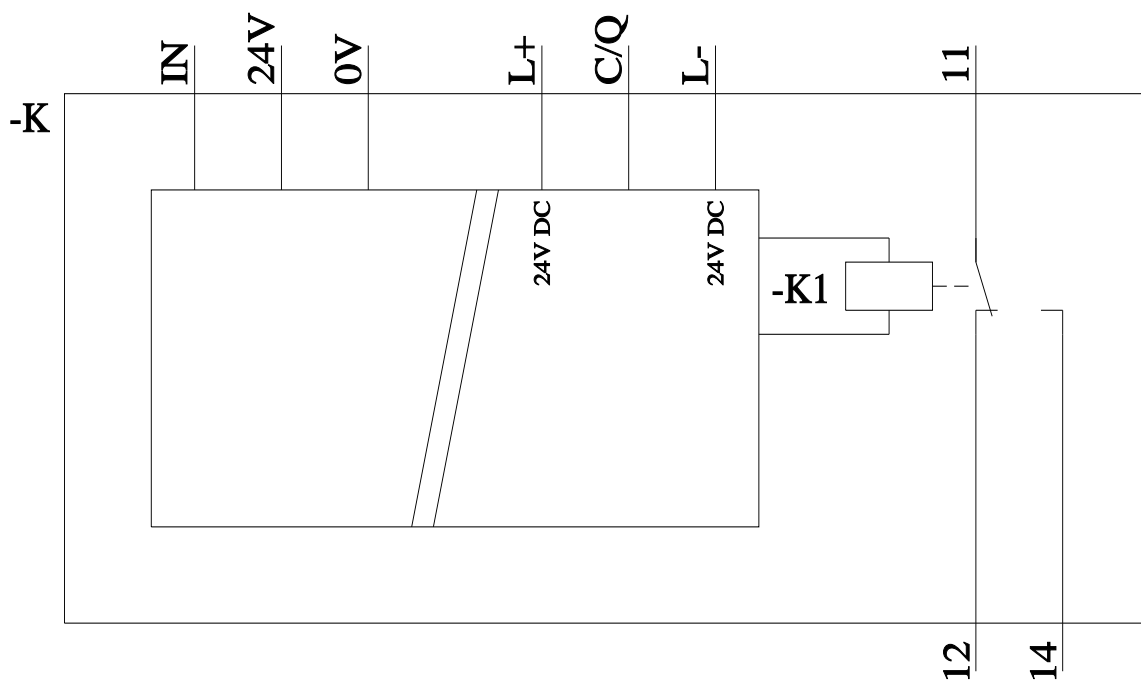
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG5851-2AA40>

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

[https://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG5851-2AA40&lang=en](https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG5851-2AA40&lang=en)





last modified:

10/27/2025 