



Figure similar

DC load monitoring relay for PROFINET, max. 1x63 A DC, max. 800 V  
 Width: 45.0 mm Monitoring for violation of upper and lower limit of current, voltage and power; Energy consumption counter, energy recovery counter, switching cycle counter, operating hours counter, warning and alarm thresholds, automatic or manual reset, ON delay 0-999.0 sec, OFF delay 0-999.0 sec, automatic reclosing delay 0-999.0 sec Supply voltage: 24 V DC  
 1 changeover contact, screw terminal

<b>product brand name</b>	SIRIUS
<b>product designation</b>	DC load monitoring relay
<b>design of the product</b>	for PROFINET
<b>product type designation</b>	3UG5
<b>General technical data</b>	
<b>type of current for monitoring</b>	DC
<b>product function</b>	DC load monitoring relay
<b>power loss [W] maximum</b>	3 W
<b>insulation voltage</b>	
<ul style="list-style-type: none"> <li>for overvoltage category II according to IEC 60664 with degree of pollution 3 rated value</li> </ul>	600 V
<ul style="list-style-type: none"> <li>for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value</li> </ul>	300 V
<ul style="list-style-type: none"> <li>of the auxiliary and control circuit for overvoltage category III according to IEC 60664 with degree of pollution 3 rated value</li> </ul>	30 V
<b>type of voltage for monitoring</b>	DC
<b>surge voltage resistance rated value</b>	8 kV
<b>maximum permissible voltage for safe isolation</b>	
<ul style="list-style-type: none"> <li>between auxiliary and auxiliary circuit</li> </ul>	24 V
<ul style="list-style-type: none"> <li>between control and auxiliary circuit</li> </ul>	24 V
<b>protection class IP</b>	
<ul style="list-style-type: none"> <li>on the front</li> </ul>	IP20
<ul style="list-style-type: none"> <li>of the terminal</li> </ul>	IP00
shock resistance acc. to IEC 60068-2-27	sinusoidal half-wave 15g / 11 ms
vibration resistance acc. to IEC 60068-2-6	1 ... 6 Hz: 15 mm, 6 ... 500 Hz: 2g
mechanical service life (switching cycles) typical	10 000 000
<b>electrical endurance (switching cycles) for relay outputs maximum</b>	100 000
<ul style="list-style-type: none"> <li>note</li> </ul>	0.5 A 125 V AC, with resistive load up to 40 °C
<b>thermal current of the switching element with contacts maximum</b>	1 A
<b>certificate of suitability</b>	CE
<b>reference code acc. to IEC 81346-2</b>	K
<b>Substance Prohibitance (Date)</b>	31.05.2019 00:00:00
<b>Product Function</b>	
<b>product function</b>	
<ul style="list-style-type: none"> <li>overvoltage detection DC</li> </ul>	Yes
<ul style="list-style-type: none"> <li>undervoltage detection DC</li> </ul>	Yes
<ul style="list-style-type: none"> <li>overcurrent detection DC</li> </ul>	Yes

<ul style="list-style-type: none"> <li>• undercurrent detection DC</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
<b>Supply voltage</b>	
<b>type of voltage of the supply voltage</b>	DC
<b>supply voltage 1 at DC rated value</b>	24 V
operating range factor supply voltage rated value at DC	0.85 ... 1.15
<b>Measuring circuit</b>	
<b>measurable current</b>	-63 ... +63 A
<b>measurable voltage at DC</b>	0 ... 800 V
<b>adjustable voltage range</b>	0 ... 800 V
<b>adjustable current response value current</b>	
<ul style="list-style-type: none"> <li>• 1</li> </ul>	-63 ... +63 A
<b>adjustable response delay time</b>	
<ul style="list-style-type: none"> <li>• when starting</li> </ul>	0 ... 999 s
<ul style="list-style-type: none"> <li>• with lower or upper limit violation</li> </ul>	0 ... 999 s
<b>response time maximum</b>	100 ms
<b>relative temperature-related measurement deviation</b>	0.5 %
<b>internal resistance of the measuring circuit</b>	10 mΩ
<b>Communication/ Protocol</b>	
<b>protocol is supported</b>	
<ul style="list-style-type: none"> <li>• PROFINET IO protocol</li> </ul>	Yes
<ul style="list-style-type: none"> <li>• Address Resolution Protocol (ARP)</li> </ul>	Yes
design of the interface Fast Ethernet interface	Yes
number of interfaces acc. to PROFINET	1
product function at the Ethernet interface Autocrossover	Yes
interface design 1 RJ45 (Ethernet)	Yes
product function at the 1st interface PROFINET IO device	Yes
<b>number of ports at the 1st interface</b>	1
service for open IE communication LLDP	Yes
<b>transmission mode for Industrial Ethernet</b>	PROFINET with 100 Mbps full duplex (100BASE-TX)
<b>PROFINET conformity class</b>	A
<b>network load class acc. to PROFINET</b>	1
<b>Auxiliary circuit</b>	
number of CO contacts for auxiliary contacts	1
<b>Outputs</b>	
<b>ampacity of the output relay at DC-13</b>	
<ul style="list-style-type: none"> <li>• at 24 V</li> </ul>	1 A
<b>ampacity for overcurrent duration &lt; 1 s maximum permissible</b>	1 A
<b>continuous current of the DIAZED fuse link of the output relay</b>	2 A
<b>Electromagnetic compatibility</b>	
<b>conducted interference</b>	
<ul style="list-style-type: none"> <li>• due to burst acc. to IEC 61000-4-4</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-earth surge acc. to IEC 61000-4-5</li> </ul>	2 kV
<ul style="list-style-type: none"> <li>• due to conductor-conductor surge acc. to IEC 61000-4-5</li> </ul>	1 kV
<b>field-based interference acc. to IEC 61000-4-3</b>	10 V/m
<b>electrostatic discharge acc. to IEC 61000-4-2</b>	6 kV contact discharge / 8 kV air discharge
<b>Galvanic isolation</b>	
<b>design of the electrical isolation</b>	Protective separation
<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>Safety related data</b>	
<b>electromagnetic compatibility</b>	IEC 60947-1 / IEC 61000-6-2 / IEC 61000-6-4
<b>Connections/ Terminals</b>	
<b>product component removable terminal for main circuit</b>	No

<b>product component removable terminal for auxiliary and control circuit</b>	Yes
<b>type of electrical connection</b>	screw-type terminals
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for main contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— stranded</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG cables for main contacts</li> </ul>	2x (1 ... 16 mm <sup>2</sup> ), 1x (1 ... 16 mm <sup>2</sup> ) 2x (1 ... 16 mm <sup>2</sup> ), 1x (1 ... 16 mm <sup>2</sup> ) 2x (1 ... 25 mm <sup>2</sup> ), 1x (1 ... 35 mm <sup>2</sup> ) 1x (18 ... 1), 2x (18 ... 2)
<b>type of connectable conductor cross-sections</b>	
<ul style="list-style-type: none"> <li>• for auxiliary contacts <ul style="list-style-type: none"> <li>— solid</li> <li>— finely stranded with core end processing</li> </ul> </li> <li>• at AWG cables for auxiliary contacts</li> </ul>	1x (0.5 ... 4 mm <sup>2</sup> ), 2x (0.5 ... 2.5 mm <sup>2</sup> ) 2x (0,5 ... 1,5 mm <sup>2</sup> ), 1x (0,5 ... 4 mm <sup>2</sup> ) 1x (20 ... 12), 2x (20 ... 14)
<b>tightening torque</b>	
<ul style="list-style-type: none"> <li>• for main contacts with screw-type terminals</li> <li>• for auxiliary contacts with screw-type terminals</li> </ul>	3 ... 4.5 N·m 0.6 ... 0.8 N·m

### Installation/ mounting/ dimensions

<b>mounting position</b>	any
<b>fastening method</b>	screw and snap-on mounting onto 35 mm standard mounting rail
<b>height</b>	100 mm
<b>width</b>	45 mm
<b>depth</b>	141.6 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>	0 mm 0 mm 50 mm 50 mm 0 mm  0 mm 0 mm 50 mm 3 mm 50 mm  0 mm 0 mm 50 mm 50 mm 3 mm

### 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>	-25 ... +60 °C -40 ... +80 °C -40 ... +80 °C

### Certificates/ approvals

<b>General Product Approval</b>	<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>other</b>
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[Type Test Certificates/Test Report](#)

[Declaration of Conformity](#)

[Confirmation](#)

other



## Further information

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=3UG5462-1AA40>

Cax online generator

<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5462-1AA40>

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

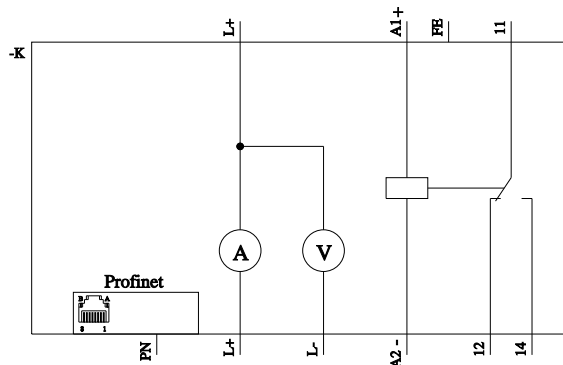
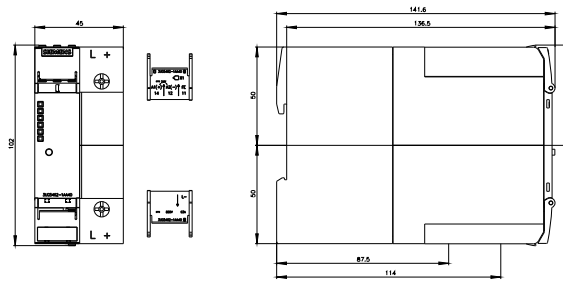
<https://support.industry.siemens.com/cs/ww/en/ps/3UG5462-1AA40>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3UG5462-1AA40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG5462-1AA40&lang=en)

Characteristic: Derating

<https://support.industry.siemens.com/cs/ww/en/ps/3UG5462-1AA40/manual>



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