

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
General technical data	
product function	RPM monitoring relay
design of the display	LCD
<ul style="list-style-type: none"> Apparent power consumption at DC <ul style="list-style-type: none"> — at 24 V maximum 	2.6 VA
insulation voltage	
<ul style="list-style-type: none"> rated value for overvoltage category III according to IEC 60664 <ul style="list-style-type: none"> — with degree of pollution 2 rated value — with degree of pollution 3 rated value 	690 V 690 V 690 V
degree of pollution	3
type of voltage of the control supply voltage	DC
surge voltage resistance rated value	6 kV
protection class IP	
<ul style="list-style-type: none"> of the enclosure of the terminal 	IP20 IP20
shock resistance according to IEC 60068-2-27	sinusoidal half-wave 15 g / 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 ² ; 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
relative repeat accuracy	1 %
Substance Prohibitance (day/month/year)	06/01/2023
SVHC substance name	Lead CAS-No. 7439-92-1 Lead monoxide (lead oxide) CAS-No. 1317-36-8 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one CAS-No. 71868-10-5 Melamine CAS-No. 108-78-1 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol CAS-No. 119-47-1
Net Weight	0.163 kg
Product Function	

product function	
• standstill monitoring	No
• rotation speed monitoring	Yes
• error memory	Yes
• galvanic isolation	Yes
• adjustable open/closed-circuit current principle	Yes
• external reset	Yes
• auto-RESET	Yes
• manual RESET	Yes
suitability for use safety-related circuits	No
Control circuit/ Control	
control supply voltage at DC rated value	24 V
control supply voltage at DC rated value	24 V
operating range factor control supply voltage rated value at DC	
• initial value	0.75
• full-scale value	1.25
Measuring circuit	
adjustable operating delay time	0 ... 999.8 s
adjustable response delay time	
• when starting	0 ... 1 000 s
• with lower or upper limit violation	0 ... 1 000 s
buffering time in the event of power failure minimum	10 ms
accuracy of digital display	+/- 1 Digit
Precision	
relative metering precision	10 %
Communication/ Protocol	
protocol is supported IO-Link protocol	Yes
IO-Link transfer rate	COM2 (38,4 kBaud)
point-to-point cycle time between master and IO-Link device minimum	5 ms
type of voltage supply via input/output link master	Yes
data volume	
• of the address range of the inputs with cyclical transfer total	4 byte
• of the address range of the outputs with cyclical transfer total	2 byte
Auxiliary circuit	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts delayed switching	1
operating frequency with 3RT2 contactor maximum	5 000 1/h
Inputs/ Outputs	
design of input feedback input	No
number of outputs as contact-affected switching element	
• for signaling function — delayed switching	1
• safety-related — instantaneous contact	0
number of outputs as contact-less semiconductor switching element	
• for signaling function — delayed switching	0
— instantaneous contact	0
• safety-related — delayed switching	0
— instantaneous contact	0
ampacity of the output relay at AC-15	
• at 230 V at 50/60 Hz	3 A
• at 250 V at 50/60 Hz	3 A

<ul style="list-style-type: none"> • at 400 V at 50/60 Hz 	3 A
ampacity of the output relay at DC-13	
<ul style="list-style-type: none"> • at 24 V • at 110 V • at 125 V • at 230 V • at 250 V 	1 A 0.2 A 0.2 A 0.1 A 0.1 A
ampacity of the semiconductor output in SIO mode	200 mA
operational current at 17 V minimum	5 mA
continuous current of the DIAZED fuse link of the output relay	6 A
Electromagnetic compatibility	
conducted interference	
<ul style="list-style-type: none"> • due to burst according to IEC 61000-4-4 • due to conductor-earth surge according to IEC 61000-4-5 • due to conductor-conductor surge according to IEC 61000-4-5 	2 kV 2 kV 1 kV
field-based interference according to IEC 61000-4-3	10 V/m
electrostatic discharge according to IEC 61000-4-2	6 kV contact discharge / 8 kV air discharge
Galvanic isolation	
galvanic isolation	
<ul style="list-style-type: none"> • between input and output • between the voltage supply and other circuits 	Yes Yes
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	Yes
type of electrical connection	spring-loaded terminal (push-in)
<ul style="list-style-type: none"> • for auxiliary and control circuit 	spring-loaded terminals (push-in)
type of connectable conductor cross-sections	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing • for AWG cables solid • for AWG cables stranded 	1x (0.5 ... 4 mm ²) 1x (0.5 ... 2.5 mm ²) 0.5 ... 4 mm ² 1x (20 ... 12) 20 ... 12
connectable conductor cross-section	
<ul style="list-style-type: none"> • solid • finely stranded with core end processing • finely stranded without core end processing 	0.5 ... 4 mm ² 0.5 ... 2.5 mm ² 0.5 ... 1.5 mm ²
AWG number as coded connectable conductor cross section	
<ul style="list-style-type: none"> • solid • stranded 	20 ... 12 20 ... 12
Installation/ mounting/ dimensions	
mounting position	any
fastening method	screw and snap-on mounting
height	100 mm
width	22.5 mm
depth	90 mm
required spacing	
<ul style="list-style-type: none"> • with side-by-side mounting <ul style="list-style-type: none"> — forwards — backwards — upwards — downwards — at the side • for grounded parts <ul style="list-style-type: none"> — forwards — backwards 	0 mm 0 mm 0 mm 0 mm 0 mm 0 mm 0 mm

— upwards	0 mm
— at the side	0 mm
— downwards	0 mm
• for live parts	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm

Ambient conditions

installation altitude at height above sea level maximum	2 000 m
ambient temperature	
• during operation	-25 ... +60 °C
• during storage	-40 ... +80 °C
• during transport	-40 ... +80 °C

Approvals Certificates

Environment	General Product Approval
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[Environmental Confirmations](#)



Test Certificates	Maritime application	other
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[Type Test Certificates/Test Report](#)



[Confirmation](#)



[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

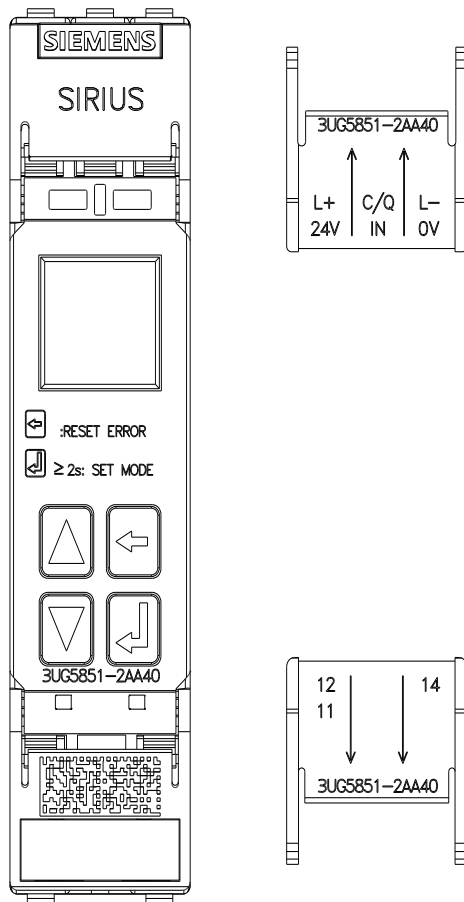
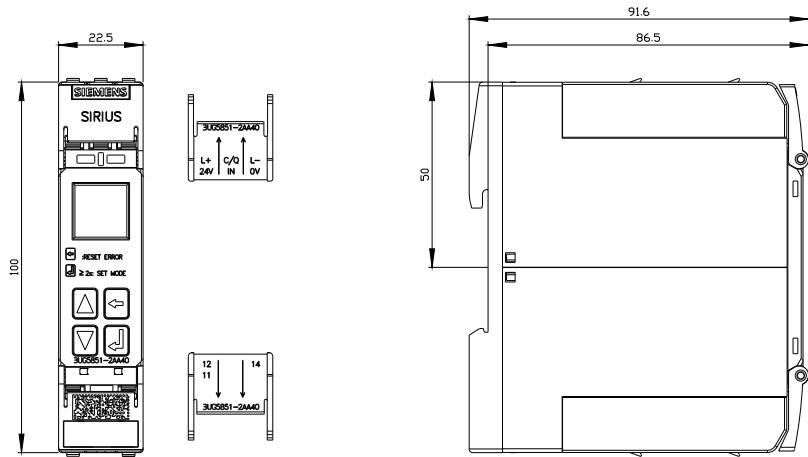
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5851-2AA40>

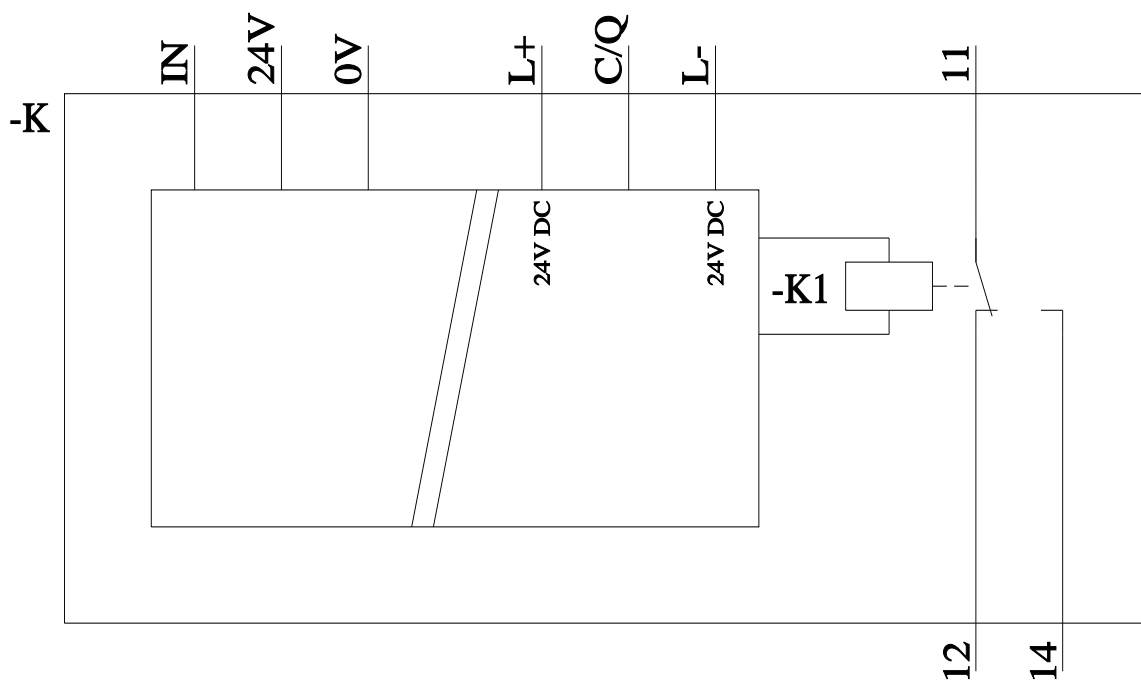
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<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





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