

Siemens
EcoTech



digital monitoring relay speed monitoring from 0.1 to 6000 r/min overshoot and undershoot supply voltage 24 ... 240 V AC/DC, 50 .. 60 Hz ON delay and tripping delay 0.1..999.9 s 2 changeover contacts screw 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
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 • apparent power consumption at AC <ul style="list-style-type: none"> — at 24 V maximum — at 240 V maximum 	<p>4.2 VA</p> <p>5.8 VA</p> <p>8 VA</p>
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 	<p>690 V</p> <p>690 V</p> <p>690 V</p>
degree of pollution	3
type of voltage of the control supply voltage	AC/DC
surge voltage resistance rated value	4 kV
protection class IP	
<ul style="list-style-type: none"> • of the enclosure • of the terminal 	<p>IP20</p> <p>IP20</p>
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
Net Weight	0.185 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 AC	
• at 50 Hz rated value	24 ... 240 V
• at 60 Hz rated value	24 ... 240 V
control supply voltage at DC rated value	24 ... 240 V
operating range factor control supply voltage rated value at DC	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 50 Hz	
• initial value	0.85
• full-scale value	1.1
operating range factor control supply voltage rated value at AC at 60 Hz	
• initial value	0.85
• full-scale value	1.1
Measuring circuit	
measurable line frequency	50 ... 60 Hz
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	No
Auxiliary circuit	
number of NC contacts delayed switching	0
number of NO contacts delayed switching	0
number of CO contacts delayed switching	2
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	2
• 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
• at 400 V at 50/60 Hz	3 A
ampacity of the output relay at DC-13	
• at 24 V	1 A
• at 110 V	0.2 A
• at 125 V	0.2 A
• at 230 V	0.1 A
• at 250 V	0.1 A
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	
• due to burst according to IEC 61000-4-4	2 kV
• due to conductor-earth surge according to IEC 61000-4-5	2 kV
• due to conductor-conductor surge according to IEC 61000-4-5	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	
• between input and output	Yes
• between the outputs	Yes
• between the voltage supply and other circuits	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	screw terminal
• for auxiliary and control circuit	screw-type terminals
type of connectable conductor cross-sections	
• solid	1x (0.5 ... 4 mm ²), 2x (0.5 ... 2.5 mm ²)
• finely stranded with core end processing	1x (0.5 ... 4 mm ²), 2x (0.5 ... 1.5 mm ²)
• for AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
connectable conductor cross-section	
• solid	0.5 ... 4 mm ²
• finely stranded with core end processing	0.5 ... 4 mm ²
AWG number as coded connectable conductor cross section	
• solid	20 ... 12
• stranded	20 ... 12
tightening torque with screw-type terminals	0.6 ... 0.8 N·m
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	
• with side-by-side mounting	
— forwards	0 mm
— backwards	0 mm
— upwards	0 mm
— downwards	0 mm
— at the side	0 mm

- for grounded parts
 - forwards 0 mm
 - backwards 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

0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
0 mm
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

[Environmental Confirmations](#)



Siemens EcoTech



General Product Approval

Test Certificates

other



[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=3UG5651-1CW30>

Cax online generator

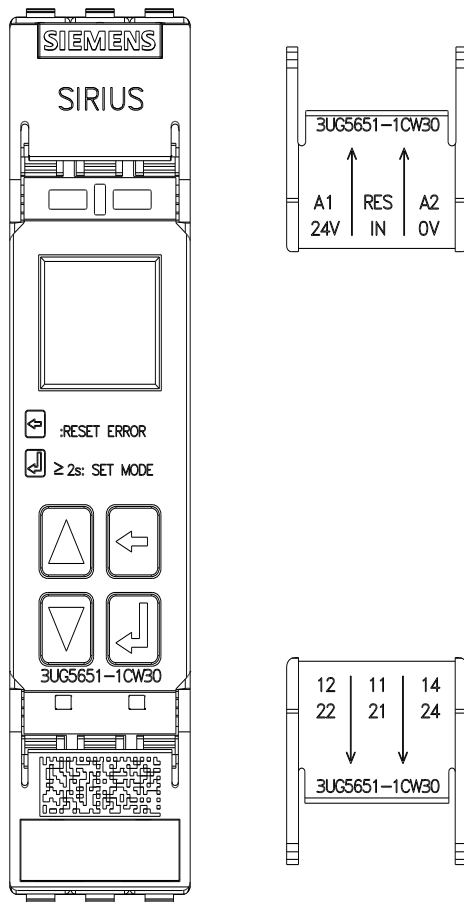
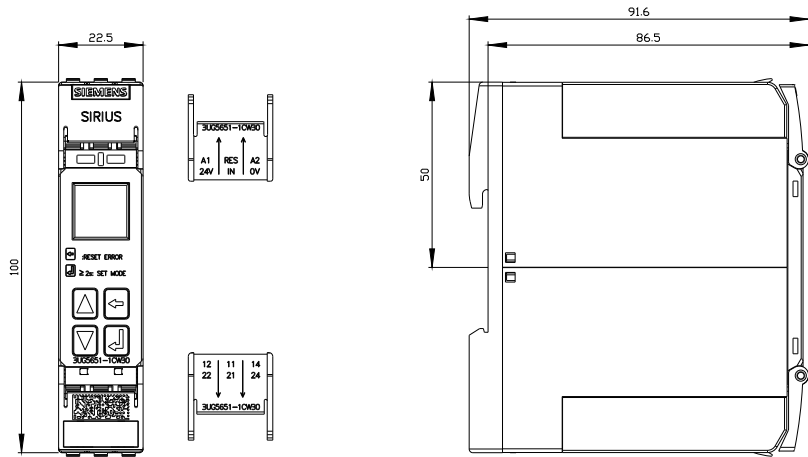
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG5651-1CW30>

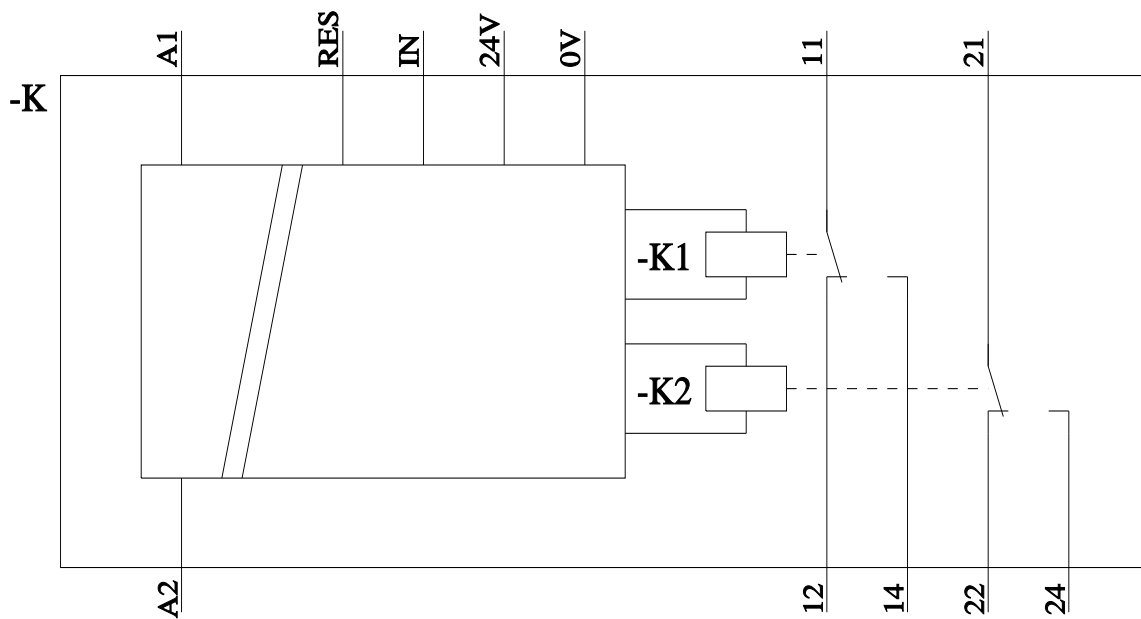
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3UG5651-1CW30>

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

https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG5651-1CW30&lang=en





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