



insulation monitoring relay for ungrounded (IT) networks up to 400 V AC, 50-60 Hz
measuring range 1-100 kohm supply voltage 24-240 V AC/DC 22.5 mm, 1
changeover contact screw terminal





product brand name	SIRIUS
product designation	Insulation monitoring relay with analog setting
product type designation	3UG4
General technical data	
product function	Insulation monitor
type of voltage	
• for monitoring	AC
• of the operating voltage for actuation	AC/DC
• of the control supply voltage	AC/DC
surge voltage resistance rated value	6 000 V
thermal current of the switching element with contacts maximum	4 A
reference code according to IEC 81346-2	K
Substance Prohibition (Date)	05/01/2012
Weight	0.165 kg
Product Function	
product function	
• error memory	Yes
• adjustable open/closed-circuit current principle	No
• manual RESET	Yes
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
measurable voltage at AC	0 ... 400 V

Auxiliary circuit	
number of NC contacts for auxiliary contacts	0
number of NC contacts delayed switching	0
number of NO contacts for auxiliary contacts	0
number of NO contacts delayed switching	0
number of CO contacts	
• delayed switching	1
Main circuit	
operating frequency rated value	50 ... 60 Hz
Electrical Safety	
protection class IP on the front according to IEC 60529	IP20
Connections/ Terminals	
product component removable terminal for auxiliary and control circuit	No
type of electrical connection	screw terminal
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 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• finely stranded without core end processing	1x (0.5 ... 2.5 mm ²), 2x (0.5 ... 1.5 mm ²)
• for AWG cables solid	1x (20 ... 12), 2x (20 ... 14)
• for AWG cables stranded	1x (18 ... 14), 2x (18 ... 16)
connectable conductor cross-section	
• solid	0.5 ... 4 mm ²
• finely stranded with core end processing	0.5 ... 2.5 mm ²
• finely stranded without core end processing	0.5 ... 2.5 mm ²
AWG number as coded connectable conductor cross section	
• solid	20 ... 12
• stranded	18 ... 14
tightening torque with screw-type terminals	0.6 ... 0.8 N·m
Installation/ mounting/ dimensions	
mounting position	any
fastening method	snap-on fastening on 35 mm DIN rail
height	78 mm
width	22.5 mm
depth	100 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
Ambient conditions	
ambient temperature during operation	-25 ... +60 °C
Environmental footprint	
Environmental Product Declaration(EPD)	Yes

global warming potential [CO2 eq] total	16.1 kg
global warming potential [CO2 eq] during manufacturing	3.51 kg
global warming potential [CO2 eq] during operation	13.7 kg
global warming potential [CO2 eq] after end of life	-1.12 kg

Approvals Certificates

General Product Approval	EMV
     	

EMV	Maritime application	other	Environment
KC	 		Confirmation 

Environment

[Environmental Confirmations](#)

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=3UG4581-1AW31>
- Cax online generator
<https://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3UG4581-1AW31>
- Service&Support (Manuals, Certificates, Characteristics, FAQs,...)
<https://support.industry.siemens.com/cs/ww/en/ps/3UG4581-1AW31>
- Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)
https://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3UG4581-1AW31&lang=en

