

Technical data

Arc monitor

Current sensing unit

Arc monitor

Triac outputs (Static outputs)	disconnectible terminals
Largest load current:	
Continuously	0.7 A
For 200 ms	30 A
Smallest recommended load current	
(temperature $\geq 25^\circ\text{C}$)	DC 45 mA at stated polarity AC 80 mA
(temperature $\geq -25^\circ\text{C}$)	DC 80 mA at stated polarity
Residual current, I_r at 220	8 mA
at DC	0.5 mA
	The output is connected in parallel with 10 ohm in series with 0.1 μF
For other voltages	$I_r = V \times f \times 0.0006 \text{ (mA)}$ $V = \text{voltage}$ $f = \text{frequency}$
Peak withstand voltage	600 V
Power supply voltage	Max. 250 V
Signal relay outputs	
Thermal rated current, I_{th}	5 A
Rated operational current, I_e	
Utilization category per IEC 947-5-1:	
AC 15 $V_e = 250\text{ V}$	1.5 A
DC 13 $V_e = 48\text{ V}$	1.0 A
110 V	0.4 A
220 V	0.2 A
Optical inputs	Quantity
For light detectors	9
From Current Sensing Unit or other Arc Monitor	1
Optical outputs	
To other Arc Monitor	1
Indications	
Operating voltage available	Decimal point on digital display lights up relay K2 energizes.
Upon tripping	Digital display lights up. The display shows which detector was activated (1 – 9). Relay K1 energizes
Control devices/settings:	
<i>External (on door)</i>	
Pushbutton	
- Reset button	Manual resetting
<i>Internal (on the printed circuit board)</i>	
Change-over switch	
- Switching on and off of Current sensing unit	On/Off
- Manual reset of signal relay	On/Off
Trimming potentiometers	
- Sensitivity setting	<i>Normally not to be adjusted</i>
Supply voltage:	See ordering information
Permitted variation	+/-20 % at DC +/-10 % at AC
Internal fuse	0.8 A delayed (5 x 20 mm)
Main fuse	max 10 A fast
Power consumption	6 W
Ambient temperature	-25°C thru +55 °C
Operating times:	
From detection to switched on triac outputs	approx. 1 ms (dependent on light intensity)
From detection to making relay contact	< 10 ms
Current conditions from input to output	< 0.3 ms (with 1 m optical cable)
Degree of protection	NEMA 1 / IP54
Start-up time for power on	< 50 ms at 60V for AGS-AM240 < 50 ms at 24V for AGS-AM48

Current sensing unit

Rated current	
Reconnectible, for connection of external current transformers with secondary rated current	1, 2 or 5 A
Load on the external current transformers	0.2 VA connected for 1 A 0.7 VA connected for 5 A
The current sensing unit withstands a maximum of:	
Continuously	1 x rated current
For 1 second	15 x rated current
Optical outputs:	
To arc monitor/current sensing unit	Quantity: 2
Optical inputs:	
From other current sensing unit	Quantity: 1
Indications:	
• Signal to arc monitor or current sensing unit	Green LED lights up for normal current level (< set overcurrent level)
• Pre-warning	Yellow LED lights up for normal current, switched off at > 70% of set overcurrent level
• Test position	Red LED
Control devices/settings:	
(on the printed circuit board)	
Change-over switch	
Test position	On/Off
Optical input is used or not	On/Off
Trimming potentiometers	
Setting of overcurrent level	0.5 – 4.5 x rated current
Simulation of overcurrent level in test position	
Supply voltage	See ordering information
Permitted variation	+/-20 % at DC +/-10 % at 110-127 VAC +10 % -15 % at 230 VAC
Power consumption	1 W at 24 V 11 W at 220 V
Ambient temperature	-25°C thru + 55 °C
Operating times	
From overcurrent occurring to actuating optical outputs:	
At currents $\geq 2 \times$ set overcurrent level	
3-phase supply.	< 2 ms
1-phase supply.	< 8 ms
Current conditions from optical input to optical outputs	< 0.3 ms
Degree of protection	NEMA 1 / IP54
Detector spectrum	400 – 850 nm, short plastic fiber 400 – 720 nm, long plastic fiber
Interference testing	According to EMC publications IEC1000 and Low Voltage Directive 73/23/EEC, the product is CE-marked.

Technical data

Detector and optical fiber cable



Detector and optical fiber cable

Ambient temperature

Continuous	-25...+70 °C
Short-time	-25...+85 °C

Smallest bending radius

Optical cable of plastic fiber	
after installation	45 mm
while handling	10 mm

Material

PMMA with a sheath of PE and PVC

Terminals

	Terminal	Cross section of connectible cables AWG ① / mm ²
Arc monitor	13, 14, 25 – 30 20 – 23	10 / 4 12 / 2.5
Current sensing unit	1 – 6 10 – 14	10 / 4 12 / 2.5

① AWG estimated.