



AES1337-24VAC/DC

- 1 Signalling output
- 3 safety contacts, STOP 0
- Monitoring of BNS range magnetic safety sensors

Data

Ordering data

Note (Delivery capacity)	Phased-out product
Product type description	AES 1337
Article number (order number)	101172210
EAN (European Article Number)	4250116201839
eCl@ss number, Version 9.0	27-37-18-19

Certifications

Certificates	cULus CCC EAC
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General data

Product name	AES 1337
Standards	IEC 61508 IEC/EN 60204-1 IEC 60947-5-3 ISO 13849-1 BG-GS-ET-14
Climatic stress	EN 60068-2-78
Enclosure material	Glass-fibre reinforced thermoplastic, ventilated
Material of the contacts, electrical	AgSn0, self-cleaning, positive drive
Gross weight	250.000 g

General data - Features

Stop-Category	0
Electronic Fuse	Yes
Wire breakage detection	Yes
Short-circuit recognition	Yes
Start input	Yes
Feedback circuit	Yes
Automatic reset function	Yes
Reset edge detection	Yes
Earth connection detection	Yes

Integral System Diagnostics, status	Yes
Number of auxiliary contacts	1
Number of LEDs	4
Number of openers	1
Number of shutters	1
Number of safety contacts	3

Safety appraisal

Standards	EN 60947-5-1 IEC 61508
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Safety appraisal - Relay outputs

Performance level, up to	e
Control category to EN13849	4
Diagnostic Coverage (DC) Level	$\geq 99\%$
PFH-value	$2.00 \times 10^{-8} / \text{h}$
Safety Integrity Level (SIL), applicable for	3
Mission time	20 Year(s)
Common Cause Failure (CCF), minimum	65

Mechanical data

Mounting	Snaps onto standard DIN rail to EN 60715
Mechanical life, minimum	10,000,000 Operations

Mechanical data - Connection technique

Terminal Connector	Screw connection rigid or flexible
Terminal designations	IEC/EN 60947-1
Cable section, minimum	0.25 mm ²
Cable section, maximum	2.5 mm ²
Tightening torque of Clips	0.6 Nm

Mechanical data - Dimensions

Width	22.5 mm
Height	100 mm
Depth	121 mm

Ambient conditions

Protection class of the enclosure	IP40
Protection class of the Clearance	IP54
Protection class of Clips or Terminals	IP20
Ambient temperature, minimum	-25 °C
Ambient temperature, maximum	+45 °C
Storage and transport temperature, minimum	-40 °C

Storage and transport temperature, maximum	+85 °C
Resistance to vibrations to EN 60068-2-6	10 ... 55 Hz, Amplitude 0.35 mm
Resistance to shock	10 g / 11 ms

Ambient conditions - Insulation value

Overvoltage category	III
Degree of pollution to VDE 0100	2

Electrical data

Frequency range	50 Hz 60 Hz
Thermal test current	6 A
Rated AC voltage for controls, 50 Hz, minimum	20.4 VAC
Rated control voltage at AC 50 Hz, maximum	26.4 VAC
Rated AC voltage for controls, 60 Hz, minimum	20.4 VAC
Rated control voltage at AC 60 Hz, maximum	26.4 VAC
Rated AC voltage for controls at DC minimum	20.4 VDC
Rated control voltage at DC, maximum	28.8 VDC
Electrical power consumption	2.1 W
Electrical power consumption	3.5 VA
Contact resistance, maximum	0.1 Ω
Note (Contact resistance)	in new state
Drop-out delay in case of power failure, typically	80 ms
Drop-out delay in case of emergency, typically	20 ms
Pull-in delay at automatic start, maximum, typically	100 ms
Pull-in delay at RESET, typically	20 ms

Electrical data - Safe relay outputs

Voltage, Utilisation category AC15	230 VAC
Current, Utilisation category AC-15	6 A
Voltage, Utilisation category DC13	24 VDC
Current, Utilisation category DC13	6 A
Switching capacity, minimum	10 VDC
Switching capacity, minimum	10 mA
Switching capacity, maximum	250 VAC
Switching capacity, maximum	8 A

Electrical data - Digital inputs

Conduction resistance,	40 Ω
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maximum

Electrical data - Relay outputs (auxiliary contacts)

Switching capacity, maximum 24 VDC

Switching capacity, maximum 2 A

Electrical data - Electromagnetic compatibility (EMC)

EMC rating EMC-Directive

Status indication

Indicated operating states
 Position relay K2
 Position relay K1
 Internal operating voltage U_{i}

Other data

Note (applications)
 Safety sensor
 Guard system

Notes

Note (General) Inductive loads (e.g. contactors, relays, etc.) are to be suppressed by means of a suitable circuit.

Circuit example

Note (Wiring diagram)
 The wiring diagram is shown with guard doors closed and in de-energised condition.
 Monitoring 1 guard door(s), each with a magnetic safety sensor of the BNS range
 The feedback circuit monitors the position of the contactors K3 and K4.
 To secure a guard door up to PL e and Category 4
 Automatic start: The automatic start is programmed by connecting the feedback circuit to the terminals X1/X3. If the feedback circuit is not required, establish a bridge.
 Start button (S) with edge detection

Pictures

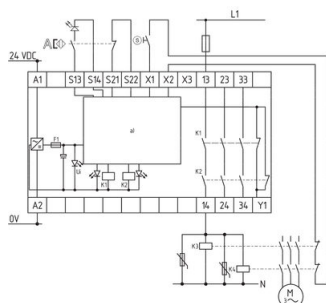
Product picture (catalogue individual photo)



ID: kaes1f23

| 831,7 kB | .jpg | 265.994 x 625.122 mm - 754 x 1772 Pixel - 72 dpi
 | 103,5 kB | .png | 74.083 x 173.919 mm - 210 x 493 Pixel - 72 dpi

Wiring example



ID: kaes1l39

| 148,0 kB | .jpg | 352.778 x 334.081 mm - 1000 x 947 Pixel - 72 dpi

Symbol (technical standard)

K	n-op/y	t-cycle
20 %	525.600	1,0 min
40 %	210.240	2,5 min
60 %	75.087	7,0 min
80 %	30.918	17,0 min
100 %	12.223	43,0 min

ID: kformm02

| 191,1 kB | .jpg | 352.778 x 246.592 mm - 1000 x 699 Pixel - 72 dpi

K.A. Schmersal GmbH & Co. KG, Möddinghofe 3, D-42279 Wuppertal

The details and data referred to have been carefully checked. Images may diverge from original. Further technical data can be found in the manual. Technical amendments and errors possible.

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