



Main

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| Range of product | Interface for discrete signals |
| Product or component type | Slim solid state output interface module |
| Contacts type and composition | 1 NC |
| [Uc] control circuit voltage | 24 V |
| Control circuit type | DC |
| Maximum [In] rated current | 13.6 mA |
| Reverse polarity protection | Control circuit: internal Output circuit: internal |
| Short-circuit protection | 3.15 A external fuse fast blow (Ik <= 1 kA AC and Ik <= 100 A DC) |
| [Ith] conventional free air thermal current | 3 A at 40 °C |
| Local signalling | Green mechanical indicator for position of contacts and 1 green LED control signal state |
| Sale per indivisible quantity | 1 |
| Width pitch dimension | 17.5 mm |

Complementary

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| Control circuit voltage limits | 28.8 V |
| Voltage state 1 guaranteed | 16.9 V |
| Current state 1 guaranteed | 8.3 mA |
| Voltage state 0 guaranteed | 5.3 V |
| Current state 0 guaranteed | 2 mA |
| [Ue] rated operational voltage | 24...240 V |
| Output circuit type | AC |
| Rated operational voltage limits | <= 264 V |
| [Ie] rated operational current | 1 A AC-15 vertical position, single product conforming to IEC 60947-5-1 1 A AC-15 vertical position, touching product conforming to IEC 60947-5-1 1.6 A AC-13 vertical position, single product conforming to IEC 60947-5-1 1.6 A AC-14 vertical position, single product conforming to IEC 60947-5-1 2.1 A AC-12 vertical position, single product conforming to IEC 60947-5-1 1.5 A AC-12 vertical position, touching product conforming to IEC 60947-5-1 1.5 A AC-13 vertical position, touching product conforming to IEC 60947-5-1 1.5 A AC-14 vertical position, touching product conforming to IEC 60947-5-1 |
| Minimum switching current | 10 mA |
| Maximum residual current | 2.5 mA |
| Drop-out voltage | 3 V 1.5 V |
| DV/dt | 500 V/μs |
| 0 crossing voltage | 50 V peak |
| Response time | <= 10 ms from state 0 to state 1 at 50 Hz <= 10 ms from state 1 to state 0 at 50 Hz <= 8 ms from state 0 to state 1 at 60 Hz <= 8 ms from state 1 to state 0 at 60 Hz |
| Switching frequency | <= 0.7 Hz AC-13 module alone duty cycle: 40 % <= 0.7 Hz AC-14 module alone duty cycle: 40 % <= 0.7 Hz AC-15 module alone duty cycle: 40 % <= 50 Hz on resistive load duty cycle: 50 % |

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| [Ui] rated insulation voltage | 250 V conforming to VDE 0110 group C 300 V conforming to IEC 60947-1 |
| Flame retardance | V0 conforming to UL 94 |
| Cable cross section | 0.6...2.5 Mm², 1 or 2 wires flexible without cable end screw clamp terminal 0.27...4 Mm², 1 wire rigid 0.34...2.5 mm², 1 or 2 wires flexible with cable end |
| Operating position | Any position |
| Installation category | II conforming to IEC 60947-1 |
| Mounting support | Asymmetrical DIN rail Combination rail Symmetrical DIN rail |
| Net weight | 0.44 kg |

Environment

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|---------------------------------------|---|
| Dielectric strength | 2500 V between wired interface and earth for 1 minute 4000 V between I/O for 1 minute |
| Standards | IEC 60947-5-1 |
| Product certifications | CSA UL DNV BV LROS (Lloyds register of shipping) |
| IP degree of protection | IP20 conforming to IEC 60529 |
| Protective treatment | TC |
| Fire resistance | 960 °C conforming to IEC 60695-2-1 |
| Shock resistance | 30 gn for 11 ms conforming to IEC 60068-2-27 |
| Vibration resistance | 5 gn conforming to IEC 60068-2-6 (f = 10...150 Hz) |
| Electromagnetic compatibility | Electromagnetic field immunity test: level 3 10 V/m between 27...1000 MHz conforming to IEC 61000-4-3 Electrostatic discharge immunity test: level 3 8 kV conforming to IEC 61000-4-2 Fast transients immunity test: level 3 on input/output 1 kV conforming to IEC 61000-4-4 Fast transients immunity test: level 3 on power supply 2 kV conforming to IEC 61000-4-4 1.2/50 µs shock waves immunity test conforming to IEC 60947-1 |
| Ambient air temperature for operation | -25...70 °C at Us -5...55 °C unrestricted operation |
| Ambient air temperature for storage | -40...80 °C |
| Operating altitude | <= 3000 m |
| Pollution degree | 2 conforming to IEC 60947-1 |

Packing Units

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|------------------------------|----------|
| Unit Type of Package 1 | PCE |
| Number of Units in Package 1 | 1 |
| Package 1 Weight | 47 g |
| Package 1 Height | 7.2 cm |
| Package 1 width | 9 cm |
| Package 1 Length | 10.8 cm |
| Unit Type of Package 2 | BB1 |
| Number of Units in Package 2 | 5 |
| Package 2 Weight | 237 g |
| Package 2 Height | 7.2 cm |
| Package 2 width | 9 cm |
| Package 2 Length | 10.8 cm |
| Unit Type of Package 3 | S01 |
| Number of Units in Package 3 | 25 |
| Package 3 Weight | 1.375 kg |
| Package 3 Height | 15 cm |
| Package 3 width | 15 cm |
| Package 3 Length | 40 cm |

Offer Sustainability

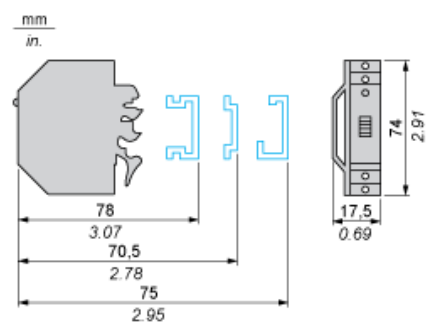
| | |
|----------------------------|--|
| REACH Regulation | REACH Declaration |
| EU RoHS Directive | Pro-active compliance (Product out of EU RoHS legal scope) EU RoHS Declaration |
| Mercury free | Yes |
| RoHS exemption information | Yes |
| China RoHS Regulation | China RoHS Declaration |

Contractual warranty

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| Warranty | 18 months |
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Slim Solid-State Interface Module

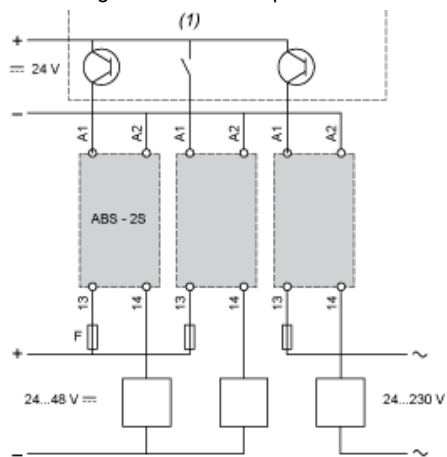
Dimensions



Slim Solid-State Interface Module

Example of Application with PLC

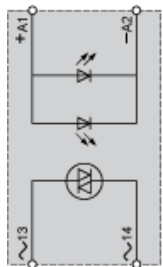
Interfacing PLC discrete outputs



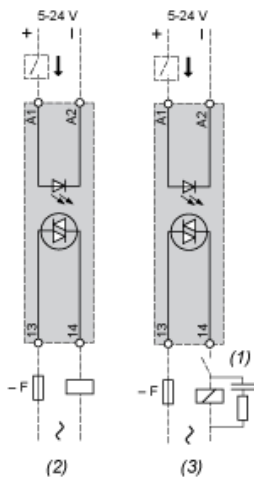
(1) PLC positive logic transistor (or relay) outputs

Solid-State Output Module

Circuit Diagram



Wiring Diagrams



F fuse DF1 SS133.2

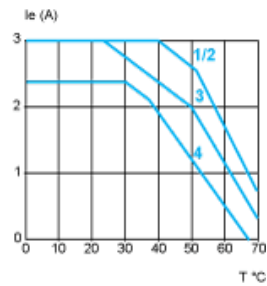
(1) or peak limiter

(2) Resistive load

(3) Inductive load

Temperature Derating Curves - $U_c = U_s = 24\text{ V}$

AC Loads



- (1) Vertical module alone or adjacent to modules with low heat dissipation
- (2) Horizontal module alone or adjacent to modules with low heat dissipation
- (3) Vertical module mounted with 2 modules with identical heat dissipation on both sides
- (4) Horizontal module mounted with 2 modules with identical heat dissipation on both sides

NOTE: T°C is the ambient temperature.