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MCDOT-S model 1

safety-related digital output card, 16 output channels

D-Sub terminals



SIL3 / PLe

The MCDOT-S card is a digital output card for safety-related field signals. It is certified for use in safety functions up to SIL3.
The card has an internally redundant design with hardware fault tolerance HFT=1.

Safety application programs can run directly on this card.

Diagnostic functions with the redundant on-board micro-controllers include:
walking change of outputs with read-back of card outputs, relay state, secondary independent shut-down path, temperature monitoring, voltage monitoring, window watchdog, program flow control, background memory test, mutual monitoring of self-tests, ...

Technical data

- output channels:
  1x 16 (simplex) or
  2x 8 (redundant)
- input channels: 16 (for non-safety)
- analog diagnostic inputs
- signal detection: analog with 2x ADC
- resolution: 12-Bit
- precision of detection: +/- 0,2%
- output type: high-side switch, i.e. can drive a load against electrical ground
- nominal supply voltage: +24V DC
- max. supply voltage: +30V DC
- max. ripple of supply voltage: +/-2V
- electrical isolation between input-side and backplane interface
- outputs proof against short-cut (internal limiting of output current)
- supply voltage monitoring
- temperature monitoring
- hot-replaceable
- signals connected via DIN 41652 Sub-D multipoint female connector (50-pin) for 3 HE version

- dimensions for card with D-Sub connector:
  4 TE , 3 HE, 175mm (WxHxD)

- operating temperature range: -20°C ... 70°C
- relative humidity: 10 ... 90%, non-condensing
- shelf life: unlimited

applied standards:

IEC 61508, EN ISO 13849, IEC 62061, IEC 61511, IEC 61131-2, EN 50178, EN 50155, EN 50156, IEC 61326, EN 54, EN 50130, EN 298, EN 61373, NFPA 72

DATASHEET