DATA SHEET

DO828

ABB Ability™ System 800xA® hardware selector

The DO828 is an 16 channel 125V d.c. / 250V a.c. relay output module for the S800 I/O. The maximum output voltage is 125V d.c. / 250V a.c. and the maximum continuous output current is 2A. All outputs are individually isolated.

Each output channel consists of optical isolation barrier, output state indication LED, relay driver, relay and EMC protection components.

The relay supply voltage supervision, derived from the 12 V distributed on the ModuleBus, gives an error signal if the voltage disappears, and the Warning LED turns on. The error signal can be read through the ModuleBus. This supervision can be enabled/disabled with a parameter.

Features and benefits

- 16 channels for 125V d.c. / 250V a.c. relay outputs
- 16 isolated channels
- Output status indicators
- OSP sets outputs to predetermined state uponerror detection

General info	
Article number	3BSE069055R1
Type	Digital Output
Signal specification	125 V d.c. / 250 V a.c., (5 - 125 V d.c. / 5 - 250 V a.c.), 2 A
Number of channels	16
Signal type	Relay (NO)
HART	No
SOE	No
Redundancy	No
High integrity	No
Intrinsic safety	No
Mechanics	S800

Detailed data	
Isolation	Individually isolated, channel-to-channel and to circuit common
Maximum field cable length	600 meters (656 yards)
Rated insulation voltage	250 V
Dielectric test voltage	2000 V a.c.
Power dissipation	Typ. 3.5 W
Current consumption +5 V Modulebus	45 mA
Current consumption +24 V Modulebus	80 mA
Current consumption +24 V external	0

Diagnostics	
Front LED's	F(ault), R(un), O(SP) Channel 1-16 Status
Supervision	12 V Relay power converter monitor
Status indication of supervision	Module Error, Module Warning, Channel Error

Environment and certification	
CE mark	Yes
Electrical safety	EN 61010-1, UL 61010-1, EN 61010-2-201, UL 61010-2-201
Hazardous Location	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Marine certification	DNV
Temperature, Operating	0 to +55 °C (+32 to +131 °F), approvals are issued for +5 to +55 °C
Temperature, Storage	-40 to +70 °C (-40 to +158 °F)
Pollution degree	Degree 2, IEC 60664-1
Corrosion protection	ISA-S71.04: G3
Relative humidity	5 to 95 %, non-condensing
Max ambient temperature	55 °C (131 °F), for vertical mounting in compact MTU 40 °C (104 °F)
Protection class	IP20 according to IEC 60529
Mechanical operating conditions	IEC/EN 61131-2
EMC	EN 61000-6-4, EN 61000-6-2
Overvoltage categories	IEC/EN 60664-1, EN 50178
Equipment class	Class I according to IEC 61140; (earth protected)
RoHS compliance	DIRECTIVE/2011/65/EN (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Compatibility	
Use with MTU	TU851
Keying code	ED

Dimensions	
Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")
Weight	0.18 kg (0.4 lbs.)

Related products

TU851

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