DATA SHEET

DO821

ABB Ability™ System 800xA® hardware selector

The DO821 is an 8 channel 230 V a.c./d.c. relay (NC) output module for the S800 I/O. The maximum output voltage is 250 V a.c. and the maximum continuous output current is 3 A. 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 24 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 via the ModuleBus. This supervision can be enabled/disabled with a parameter.

Features and benefits

- 8 channels for 230 V a.c./d.c. relay Normal Closed (NC) outputs
- 8 isolated channels
- Output status indicators
- OSP sets outputs to predetermined state upon error detection

General info	
Article number	3BSE013250R1
Type	Digital Output
Signal specification	230 V a.c./d.c. (5-250 V a.c./d.c.), 3 A
Number of channels	8
Signal type	Relay (NC)
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
Current limiting	Can be current limited by the MTU
Maximum field cable length	600 meters (656 yards)
Rated insulation voltage	250 V
Dielectric test voltage	2000 V a.c.
Power dissipation	Typ. 2.9 W
Current consumption +5 V Modulebus	60 mA
Current consumption +24 V Modulebus	140 mA
Current consumption +24 V external	0

Diagnostics	
Front LED's	F(ault), R(un), W(arning), O(SP), Channel 1-8 Status
Supervision	24 / 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	-
Marine certification	ABS, BV, DNV, LR
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	TU811, TU813, TU831, TU836, TU837, TU851
Keying code	CA

Dimensions	
Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")
Weight	0.23 kg (0.5 lbs.)

Related products

	TU811V1		TU813
	TU831V1		TU836V1
	TU837V1		

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