

ABB DO820 Manual

Brand	ABB
Product Series	ABB
Product Type	Digital Output

Description

The DO820 is an 8 channel 230 V a.c./d.c. relay (NO) output module for the S800 I/O. The maximum output voltage is 250 V a.c./d.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 through 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 Open (NO) outputs

8 isolated channels

Output status indicators

OSP sets outputs to predetermined state upon error detection

MTUs that match this product

TU811V1

General info

Article number 3BSE008514R1

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 (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

Current limiting Can be current limited by the MTU

Maximum field cable length 600 meters (656 yards)

Event recording accuracy -0 ms / +1.3 ms

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, TU833, TU837, TU851
 Keying code AD
 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.)