ABB ABB Series Service Manual

DO802

1. Description

The DO802 is an 8 channel 110 V d.c./250 V a.c. relay (NO) output module for the S800 I/O. The maximum voltage range is 250 V and the maximum continuous output current is 2 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.

3. Product Information

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The relay supply voltage supervision, derived from the 24 V distributed on the ModuleBus, gives a channel signal error and a module warning signal if the voltage disappears. The error signal and warning signal can be read through the ModuleBus. This supervision can be enabled/disabled with a parameter.

Features and benefits

8 channels for 110 V d.c. / 250 V a.c. relay Normally Open (NO) outputs

8 isolated channels

Process connection via detachable connectors

General info

Article number 3BSE022364R1

Type Digital Output

Signal specification 24...110 V d.c. / 250 V a.c. (max 2 A)

Number of channels 8

Signal type Relay (NO)

HART No

SOE No

Redundancy No

High integrity No

Intrinsic safety No

Mechanics S800L

Detailed data

Isolation Individually isolated, channel-to-channel and to circuit common

Maximum field cable length 600 meters (600 yards)

Rated insulation voltage 250 V

Dielectric test voltage 2000 V a.c.

Power dissipation Typ. 2.2 W

Current consumption +5 V Modulebus 70 mA

Current consumption +24 V Modulebus 80 mA

Current consumption +24 V external 0

Supported wire size Solid: 0.05-2.5 mm², 30-12 AWG

Stranded: 0.05-1.5 mm², 30-12 AWG

Recommended torque: 0.5-0.6 Nm

Stripping length 6-7.5mm, 0.24-0.30 inch

Diagnostics

Front LED’s S(tatus), 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 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/EU (EN 50581:2012)

WEEE compliance DIRECTIVE/2012/19/EU

Dimensions

Width 86.1 mm (3.4”)

Depth 58.5 mm (2.3”)

Height 110 mm (4.33”)

Weight 0.24 kg (0.53 lbs.)