ABB ABB Series Service Manual

DO818

1. Description

The DO818 is a 32 channel 24 V digital output module for the S800 I/O. This module has 16 digital outputs. The output voltage range is 12 to 32 volt and the maximum continuous output current is 0.5 A. The outputs are protected against short circuits, over voltage and over temperature. The outputs are divided into two individually isolated groups with 16 output channels and one voltage supervision input in each group. Each output channel consists of a short circuit and over temperature protected

3. Product Information

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Features and benefits

32 channels for 24 V d.c.

2 isolated groups (RIV50V) with 16 channels and one process voltage supervision input in each group

The process voltage range is 12-32V dc (nominally 24V dc) and the maximum continuous output current is 0.5A per channel

MTUs that match this product

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TU818

General info

Article number 3BSE069053R1

Type Digital Output

Signal specification 24 V d.c. (12 - 32 V d.c.), 0.5 A

Number of channels 32

Signal type Current sourcing, current limiting

HART No

SOE No

Redundancy No

High integrity No

Intrinsic safety No

Mechanics S800

Detailed data

Isolation Groupwise isolated from ground

Output load < 0.32 Ω

Maximum field cable length 600 meters (656 yards)

Rated insulation voltage 50 V

Dielectric test voltage 500 V a.c.

Power dissipation Typ 2.8 W

Current consumption +5 V Modulebus Typ 70 mA

Current consumption +24 V Modulebus 0

Current consumption +24 V external 40 mA

Diagnostics

Front LED’s F(ault), R(un), O(SP), Channel 1-32 Status

Supervision 2 channels (1 per group)

Activated when process power drops below 12 V

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 TU818, TU819, TU830

Keying code EA

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.)