

ABB DO814 Manual

Brand	ABB
Product Series	ABB
Product Type	Digital Output

Description

The DO814 is a 16 channel 24 V digital output module with current sinking for the S800 I/O. The output voltage range is 10 to 30 volt and the maximum continuous current sinking is 0.5 A. The outputs are protected against short circuits and over temperature. The outputs are divided into two individually isolated groups with eight output channels and one voltage supervision input in each group.

Each output channel consists of a short circuit and over temperature protected low side switch, EMC protection components, inductive load suppression, output state indication LED and optical isolation barrier. The process voltage supervision input give channel error signals if the voltage disappears. The error signal can be read via the ModuleBus.

Features and benefits

16 channels for 24 V d.c. current sinking outputs
2 isolated groups of 8 channels with process voltage supervision
Output status indicators
OSP sets outputs to predetermined state upon error detection
Short-circuit protection to ground and 30 V
Over-voltage and over-temperature protection
MTUs that match this product

TU810V1

General info

Article number 3BUR001455R1
Type Digital Output
Signal specification 24 V d.c. (12-32 V d.c.), 0.5 A
Number of channels 16
Signal type Current sinking, current limiting
HART No
SOE No
Redundancy No
High integrity No
Intrinsic safety No
Mechanics S800
Detailed data
Isolation Groupwise isolated from ground
Current limiting Short circuit proof current limited output
Maximum field cable length 600 meters (656 yards)
Rated insulation voltage 50 V
Dielectric test voltage 500 V a.c.
Power dissipation Typ. 2.1 W
Current consumption +5 V Modulebus 80 mA

Diagnostics

Front LED's F(ault), R(un), W(arning), O(SP), Channel 1-16 Status

Supervision Process voltage, 1 per group

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 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 TU810, TU812, TU814, TU830, TU833 or TU838

Keying code BE

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.)