

# DO818

## ABB Ability™ System 800xA® hardware selector



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 high side driver, 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 through the ModuleBus.

### 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

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.)

## Related products



**TU818**



**TU819**



**TU830V1**



**TU833**

---

**[solutions.abb/800xA](https://solutions.abb/800xA)**  
**[solutions.abb/controlsystems](https://solutions.abb/controlsystems)**

---

800xA and Symphony Plus is a registered trademark of ABB. All rights to other trademarks reside with their respective owners.

We reserve the right to make technical changes to the products or modify the contents of this document without prior notice. With regard to purchase orders, the agreed particulars shall prevail. ABB does not assume any responsibility for any errors or incomplete information in this document.

We reserve all rights to this document and the items and images it contains. The reproduction, disclosure to third parties or the use of the content of this document – including parts thereof – are prohibited without ABB's prior written permission.

Copyright© 2024 ABB All rights reserved