

# DO801

## ABB Ability™ System 800xA® hardware selector



The DO801 is a 16 channel 24 V digital output module for the S800 I/O. The output voltage range is 10 to 30 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 in one isolated 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.

### Features and benefits

- 16 channels for 24 V d.c. current sourcing outputs
- 1 isolated groups of 16 channels
- Output status indicators
- OSP sets outputs to predetermined state upon communication error
- Short-circuit protection to ground and 30 V
- Over-voltage and overtemperature protection
- Process and power connection via detachable connectors

General info	
Article number	3BSE020510R1
Type	Digital Output
Signal specification	24 V d.c. (12 - 32 V d.c.), 0.5 A
Number of channels	16
Signal type	Current sourcing, current limiting
HART	No
SOE	No
Redundancy	No
High integrity	No
Intrinsic safety	No
Mechanics	S800L

<b>Detailed data</b>	
Isolation	Groupwise isolated from ground
Output load	< 0.4 Ω
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
Current consumption +24 V Modulebus	0
Current consumption +24 V external	0
Supported wire size	Solid: 0.05-2.5 mm <sup>2</sup> , 30-12 AWG Stranded: 0.05-1.5 mm <sup>2</sup> , 30-12 AWG Recommended torque: 0.5-0.6 Nm Stripping length 6-7.5mm, 0.24-0.30 inch

<b>Diagnostics</b>	
Front LED's	S(tatus), Channel 1-16 Status
Status indication of supervision	Module Error, Module Warning, Channel Error

<b>Environment and certification</b>	
CE mark	Yes
Electrical safety	IEC 61131-2, UL 61010-1, UL 61010-2-201
Hazardous Location	C1 Div 2 cULus, C1 Zone 2 cULus, ATEX Zone 2
Marine certification	ABS, BV, DNV-GL, LR
Protection rating	IP20 according to IEC 60529
Corrosive atmosphere ISA-S71.04	G3
Climatic operating conditions	0 to +55 °C (Storage -40 to +70 °C), RH=5 to 95 % no condensation, IEC/EN 61131-2
Pollution degree	Degree 2, IEC 60664-1
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)
Max ambient temperature	Horizontal 55 ° (131 °F), Vertical 40° (104 °F)
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

<b>Dimensions</b>	
Width	86.1 mm (3.4")
Depth	58.5 mm (2.3")
Height	110 mm (4.33")
Weight	0.24 kg (0.53 lbs.)

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