

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 |

| Detailed data | |
|-------------------------------------|---|
| 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 ² , 30-12 AWG Stranded: 0.05-1.5 mm ² , 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 1-16 Status |
| 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 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.) |

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