

# DOS885

## System 800xA hardware selector



Select I/O is an Ethernet networked, single channel granular I/O system for the ABB Ability™ System 800xA automation platform. Select I/O helps decouple project tasks, minimizes the impact of late changes and supports standardization of I/O cabinetry ensuring automation projects are delivered on-time and under budget. A Signal Conditioning Module (SCM) performs the necessary signal conditioning and powering of the connected field device for one I/O channel.

The DOS885 is a Digital Output (24V / 3A) Signal Conditioning Module for use in High Integrity applications (certified for SIL3) supporting 2-wire devices such as solenoids, horns, beacons.

### Features and benefits

- Digital output for 2-wire field devices
- 24 V/3 A current sourcing
- Can be used in hazardous areas
- Certified for Functional safety
- Field power sourced from the power injection
- Short circuit proof, electronically current limited to 3 A
- Built-in inductive load suppression, free-wheeling diode
- Galvanic isolation
- Protected against wrong wiring
- Diagnostics:
  - Loop supervision (open circuit and short circuit)
  - Hardware error supervision
  - Communication supervision
  - Internal power supervision
  - Power injection supervision
- Single loop granularity - each SCM handles a single channel
- Supports hot swap
- Mechanical locking slider which turns off field device power and/or output before removal.
- Field disconnect function which can galvanically separate the field loop wiring from the SCM during commissioning and maintenance.
- All SCMs have electronic current limitation
- Mechanical keying to prevent insertion of wrong module type after commissioning.
- 24V DC powered through Modulebus
- Configurable through parameters
- LED indicators on the SCM indicate the operational state of the module
- Certified for SIL3

General info	
Article number	3BSE074061R1
Type	Digital Output, SIL 3
Signal specification	24V DC / 3 A
HART	N/A
SOE	N/A
Redundancy	Yes
Hot swap	Yes
High integrity	Yes
Intrinsic safety	No
Mechanics	Select I/O

Detailed data	
Supported field devices	2-wire Solenoids, Horns and Beacons
Isolation	Galvanic isolation to system. Routine tested at factory with 3060 VDC.
Field power	Current limited
Diagnostics	- Loop supervision (short circuit and open circuit) - Internal hardware supervision - Communication supervision - Internal power supervision
Calibration	Factory calibration
Power dissipation	0.61 W
Installation in Hazardous Locations	ATEX – II 3G Ex nA/eC IIC T4 Gc Class I, Zone 2, IIC T4 Class I, Div 2, Groups A, B, C, D T4 Non-arcing Field wiring acc. to Division model
IS barrier	No
Output load. Max inductor time constant (L/R)	8 - 5000 $\Omega$ , 10 ms
Field Input Robustness	$\pm 35$ V between all terminals
Input voltage range	19.2 ... 30 V

Environment and certification	
Temperature, Operating	-40°C (-40°F) to +70°C (158°F)
Temperature, Storage	-40°C (-40°F) to +85°C (185°F)
Pollution degree	Pollution Degree 2 acc. to IEC 60664-1
Functional Safety	IEC 61508 (SIL3), IEC 62061 (SIL3), IEC 60204-1, EN 50156-1, IEC 61511-1, EN ISO 13850, NFPA 72, NFPA 85
Relative humidity	5 to 95 % no condensation
Altitude	-1000 to 3000 m, (-100 ... 2000 m for Zone 2/Class I Div 2)
Mechanical operating conditions	IEC 61131-2
EMC	IEC/EN 61000-6-4, IEC/EN 61000-6-2
Overvoltage categories	Category II, IEC 60664-1
Protection class	IP20 according to IEC 60529
CE-marking	Yes
Electrical Safety	IEC/EN 61010-1, IEC 61010-2-201, UL 61010-2-201, CSA C22.2 No. 61010-2-201
Hazardous Area	EN 60079-0, EN60079-7, EN60079-15, UL 12.12.01 / CSA C22.2 No. 213-17
Marine certification	DNV-GL, ABS
Corrosive atmosphere	G3 (ISA-S71.04)
RoHS compliance	DIRECTIVE/2011/65/EU (EN 50581:2012)
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	77.9 mm (3.06 in.)
Depth	105 mm (4.13 in.)
Height	9.8 mm (0.39 in.)
Weight (including base)	73 g (0.16 lbs)

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

800xA is a registered or pending 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© 2022 ABB All rights reserved