

AO895

ABB Ability™ System 800xA® hardware selector



The AO895 Analog Output Module has 8 channels. The module includes Intrinsic Safety protection components and HART interface on each channel for connection to process equipment in hazardous areas without the need for additional external devices.

Each channel can drive up to 20 mA loop current into a field load such as an Ex certified current-to-pressure converter and is limited to 22 mA in overload conditions. All eight channels are isolated from the ModuleBus and power supply in one group. Power to the output stages is converted from the 24 V on the power supply connections.

Features and benefits

- 8 channels of 4...20 mA outputs.
- HART communication.
- 1 group of 8 channels isolated from ground.
- Power to drive Ex certified I/P actuators.

General info	
Article number	3BSC690087R1
Type	Analog Output
Signal specification	4...20 mA
Number of channels	8
Signal type	Unipolar single ended
HART	Yes
SOE	No
Redundancy	No
High integrity	No
Intrinsic safety	Yes
Mechanics	S800

Detailed data	
Resolution	12 bit
Isolation	Groupwise isolated from ground
Under/over range	2.5 / 22.4mA
Output load	<725 ohms at 20 mA, no over-range <625 ohms at up to 22 mA
Error	Typ. 0.05%, Max. 0.1% at 650 ohms
Temperature drift	Typ. 50 ppm/°C, Max. 100 ppm/°C
Rise Time	30 ms (10% to 90%)
Current limiting	Short circuit proof current limited output
Rated insulation voltage	50 V
Dielectric test voltage	500 V a.c.
Power dissipation	4.25 W
Current consumption +5 V Modulebus	Typ. 130 mA
Current consumption +24 V external	Typ. 250 mA, Max. <330 mA

Diagnostics	
Front LED's	F(ault), R(un), W(arning), O(SP), Tx (HART communiation)
Supervision	Internal process supply, Open wire if > 1 mA is set

Environment and certification	
CE mark	Yes
Electrical safety	EN 61010-1, EN 61010-2-201
Hazardous Location	ATEX/IECEx Zone 2 with interface to Zone 0, cFMus C1, Div 2/Zone 2 with interface to C1, C2, C3 Div 1/Zone 0
Marine certification	-
Temperature, Operating	0 to +55 °C (+32 to +131 °F)
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 and 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

Compatibility	
Use with MTU	TU890, TU891 and TU891Z
Keying code	AF

Intrinsic Safety parameters	
U0 (Groups CENELEC USA)	IIC
IO (Groups CENELEC USA)	IIB
P0 (Groups CENELEC USA)	IIA
U0 - C0 (uF)	0.087
U0 -L0 (mH)	4.1
U0 -L/R (uH/O)	55
IO - C0 (uF)	0.702
IO -L0 (mH)	16.4
IO -L/R (uH/O)	222
P0 - C0 (uF)	2.23
P0 -L0 (mH)	32.8
P0 -L/R (uH/O)	443

Dimensions	
Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")
Weight	0.2 kg (0.44lbs.)

Related products



TU890



TU891

solutions.abb/800xA
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