AO895
ABB Ability™ System 800xA® hardware selector

The AO895 Analog Output Module has 8 channels. The module includes Intrinsic Safety protection components and a 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	EU RoHS, UAE RoHS, CN RoHS
WEEE compliance	DIRECTIVE/2012/19/EU

Compatibility

Use with MTU	TU890, TU891 and TU891Z
Keying code	AF

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 (0.44 lbs.)

Related products

TU890

TU891