AO810V2
Compact Product Suite hardware selector

The AO810/AO810V2 Analog Output Module has 8 unipolar analog output channels. To supervise the communication to the D/A-converters the serial data is read back and verified. The opencircuit diagnostic is received during the readback. The module performs self-diagnostic cyclically. The module diagnostics includes process power supply supervision, which is reported when supply voltage to output circuitry is to low. The error is reported as a channel error. The channel diagnostic includes fault detection of the channel (only reported on active channels). The error is reported if the output current is less than the output set value and the output set value is greater than 1 mA.

Features and benefits

- 8 channels of 0...20 mA, 4...20 mA outputs
- OSP sets outputs to predetermined state upon error detection
- Analog Output is to be short circuit secured to ZP or +24 V

General info	
Article number	3BSE038415R1
Type	Analog Output
Signal specification	0..20 mA, 4..20 mA
Number of channels	8
HART	No
SOE	No
Redundancy	No
High integrity	No
Intrinsic safety	No
Mechanics	S800

Detailed data

Resolution	14 bit
Isolation	Groupwise isolated from ground
Under/over range	- / +15%
Output load	≤ 500 Ω (supply connected to L1+ only) 250 - 850 Ω (with supply connected L2+ only)
Error	Max. 0.1% at 0 - 500 ohms (current)
Temperature drift	Typ. 30 ppm/°C, Max 60 ppm/°C
Rise Time	0.35 ms (PL = 500 Ω)
Update cycle time	≤ 2ms
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	2.3 W
Current consumption +5 V Modulebus	Max 70 mA
Current consumption +24 V Modulebus	0
Current consumption +24 V external	245 mA

Diagnostics

Front LED's	F(ault), R(un), W(arning), O(SP)
Supervision	Module Error: Output power low. Channel Error: Open circuit (for current >1 mA)
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 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	TU810, TU812, TU814, TU830, TU833
Keying code	AE

Dimensions

Width	45 mm (1.77")
Depth	102 mm (4.01"), 111 mm (4.37") including connector
Height	119 mm (4.7")
Weight	0.18 kg (0.4 lbs.)

Related products

	TU810V1		TU812V1
	TU814V1		TU830V1
	TU833		

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