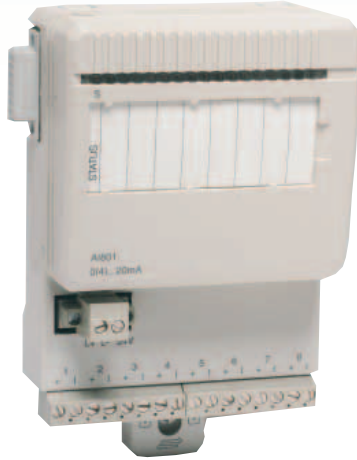


Analog modules in S800L mechanics



S800 I/O is a comprehensive, distributed and modular process I/O system that communicates with parent controllers and PLCs over industry-standard field buses. Thanks to its broad connectivity it fits a wide range of process controllers and PLCs from ABB and others. By permitting installation in the field, close to sensors and actuators, S800 I/O reduces the installation cost by reducing the cost of cabling. And thanks to features such as “hot swap” of modules, on-line reconfiguration and redundancy options, it contributes to keeping production – and thereby profits – up.

Feature	AI801	AO801
Number of channels	8	8
Type of signal	Unipolar single ended	Unipolar single ended
Range	0...20 mA, 4... 20 mA	0... 20 mA, 4...20 mA
Under/over range	-0% / +15%	15%
Input impedance at current input (including PTC)	≥230 Ω, ≤270 Ω	
Output load		Max 850 ohms (external 24 V > 24 V) (2), (24 V external - 7) /0.02 (external 24 V < 24 V)
Rise time		10 μs
Front LED's	S(tatus)	S(tatus)
Output Set as Predetermined (OSP) timer		256, 512, 1024 ms
Status indication of supervision	Module Error, Module Warning, Channel error	Module Error, Module Warning, Channel error
Profibus parameters bytes CI801, CI840 (User/Input/Output)	7/20/4	16/4/18
Execution time per scan using CI801 or CI840	3.00 ms	1.20 ms
Number of scan cycles per value update	4	4
Maximum field cable length	600 meters, (656 yd.)	600 meters (656 yd.)
Voltage input, maximum non-destructive	30 V d.c.	
NMRR, 50 Hz, 60 Hz	>40 dB	
Error	Max. 0.1%	Max. 0.1%

Feature	AI801	AO801
Resolution	12 bit	12 bit
Temperature drift	Typ. 50 ppm/°C. Max. 80 ppm/°C	Typ. 30 ppm/°C. Max. 60 ppm/°C
Input filter cut off frequency Second order filter	3.5 Hz	
Input filter (rise time 0-90%)	140 ms	
Update cycle time	1 ms	1 ms
Current consumption 24 V (external supply), maximum	30 mA	200 mA
Current consumption 5 V, maximum	70 mA	70 mA
Power dissipation	1.1 W	3.8 W
Maximum ambient temperature (1)	55/40°C, (131/104°F)	55/40°C, (131/104°F)
Dielectric test voltage	500 V a.c.	500 V a.c.
Isolation	Groupwise isolated from ground (RIV=50 V)	Groupwise isolated from ground (RIV=50 V)
Rated insulation voltage	50 V	50 V
Equipment class	Class I according to IEC 61140; (earth protected)	Class I according to IEC 61140; (earth protected)
Protection rating	IP20 according to IEC 60529	IP20 according to IEC 60529
Width	86.1 mm (3.4")	86.1 mm (3.4")
Depth	58.5 mm (2.3")	58.5 mm (2.3")
Height	110 mm (4.33")	110 mm (4.33")
Weight	0.24 kg (0.53 lbs.)	0.24 kg (0.53 lbs.)
Corrosive atmosphere ISA-71.04	G2	G2
CE mark	Yes	Yes
El. safety, Haz loc, C1 Zone 2	cULus	cULus
El. safety, Haz loc, C1 Div 2	FM, CSA	FM, CSA
ATEX 100A Zone 2 Category 3 (1) G	No	No
GOST certificates	CoC, GGTN	CoC, GGTN
Electrical safety	EN 3810, EN 50178, IEC 601131-2, UL 508, CSA 22.2 No.142-M1987	
Hazardous Classified Locations	CSA 22.2 No.213-M1987, FM 3600, FM 3611, UL 1604	
Climatic operating conditions	0 to +55 °C (Storage -25 to +70 °C), RH=5 to 95 % no condensation, IEC/EN 61131-2	
Pollution degree	Degree 2, IEC 60664-1	
Mechanical operating conditions	IEC/EN 61131-2	
EMC	EN 55011, CISPR 11	
Immunity	IEC/EN 61000-4-2 to -8	
Overvoltage Categories	IEC/EN 60664-1, EN 50178	

(1) 40° C (104° F) applies to compact MTUs with I/O modules or S800L modules mounted on vertical DIN rail.

Available S800 I/O Data Sheets

- Communication interfaces
- Uni- and Bipolar, RTD and TC Analog Inputs
- Uni- and Bipolar Analog Outputs
- Digital Inputs
- Digital Outputs
- Pulse, Frequency and NAMUR inputs
- Redundant and High Integrity Analog modules
- Redundant and High Integrity Digital modules
- Digital inputs with SOE
- Analog modules with intrinsic-safety interface
- Digital modules with IS interface
- Analog modules in S800L mechanics
- Digital modules in S800L mechanics
- Power supplies and voters



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