

EMB01S-CIO

ABB Ability™ Symphony® Plus Hardware Selector



The EMB01S-CIO Evolution Module Base provides the mounting of an AD11e Analog Drive module to an EMC-_B0x Evolution Mounting Chassis. The base connects the I/O module to the HN800 I/O bus and the I/O cable to the field termination.

The base supports all of the functions of the AD11e module. This includes HART on the Analog I/O, SOE timestamping on digital inputs, and optional I/O module redundancy.

Features and benefits

- Mounts AD11e to EMC-_B0x Evolution Mounting Chassis
- Connects AD11e to redundant HN800 I/O bus
- Connects AD11e to NTCS04 TU via NKTU01 cables
- Connects AD11e to NICS01 TM via NKTU02 or NKTM01 cables
- Mounts AD11e to EMC-_B0x Evolution Mounting Chassis
- Connects AD11e to redundant HN800 I/O bus
- Connects AD11e to NTCS04 TU via NKTU01 cables
- Connects AD11e to NICS01 TM via NKTU02 or NKTM01 cables

General info

Article number	7PAA005092R1 (EMB01S-CIO)
Life cycle status	Active
Line redundancy	Yes
Channels	13
Hot swap	No
Supported IO modules	AD11e
Singular or redundant	Singular
Form factor	EMC-_B0_ Evolution Mounting Chassis
Mounting	EMC-DB01, EMC-DB02, EMC-SB01, EMC-SB02
HN800 bus length	190 mm
MTBF (per MIL-HDBK-217-FN2)	PR C: 1,384,953 Hours @ 30 °C, 1,350,557Hours @ 40 °C, 1,231,591 Hours @ 70 °C
MTTR (Hours)	8 Hrs

Detailed data	
Overvoltage category	Category 1 for power. Tested according to IEC/EN 61010-1
Process signal connections	Thirteen (13) Total: 4-AI, 2-AO, 3-DI, 4-DO
Field power connection	Thirteen (13) Total: 4-AI, 2-AO, 3-DI, 4-DO
Field power fusing	@ I/O Termination (TU or TM)
Signal connection	Terminable Blocks on NTC504, NICS01 or HDIOT-CIO-01
Max current	250 mA
Galvanic isolation test voltage	1500 V for up to 1 minute

Environment and certification	
Temperature, Operating	-40 to +70 °C Tested according to IEC/EN 60068-2-1, IEC/EN 60068-2-2
Temperature, Storage	-40 to +85 °C Tested according to MIL-STD-810G
Relative humidity	20% to 95% @ 40°C non-condensing. Tested according to IEC/EN 60068-2-78, IEC/EN 61298-3
Vibration (operational sinusoidal)	5 to 60 Hz 0.137 mm (0.0054 in.), 60 to 150 Hz 1.0 G. Tested according to IEC/EN 60068-2-6
Vibration (transportation)	10 to 500 Hz. Tested according to MIL-STD-810G
Shock (storage)	15 G, 11 msec. Tested according to IEC/EN 60068-2-27
Drop	100 mm. Tested according to IEC/EN 60068-2-31
Protection class	IP20 according to EN 60529
Altitude (operational)	Sea level to 3,048 meters (10,000 ft.) Tested according to MIL-STD-810G
Altitude (storage)	Sea level to 12,192 meters (40,000 ft.) Tested according to MIL-STD-810G
Air quality	Standard = ISA S71.04 G1, ISA S71.04 G3 compliant versions SPCxxxA also available
ESD immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-2, Severity level 3
Surge immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-5, Severity level 3
Electrical fast transient immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-4, Severity level 3
Radiated RFI immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-3, Severity level 3
Conducted Immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-6, Severity level 3
Magnetic field immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-8, Severity level 4
Radiated emission	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-6, Severity level 3
Conducted emission	Tested according to IEC/EN 61000-6-4, CISPR 11 + A1, CISPR 16-1-1, Group 1, Class A, ISM equipment
Voltage dips and interruption immunity	Tested according to IEC/EN 61000-6-2, IEC/EN 61000-4-11
CSA non-hazardous locations	Certified for use as process control equipment in an ordinary (non-hazardous) location
CSA hazardous, nonincendive locations	Class I, Division 2, Groups A, B, C, D
CE Mark	CE Mark EMC directive 2004/108/EC & Low Voltage Directive 2006/95/EC
RoHS compliance	RoHS Directive 2015/863
WEEE compliance	DIRECTIVE/2012/19/EU

Dimensions	
Width	35.5 mm
Depth	173.46 mm
Height	177 mm
Weight	204 grams

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