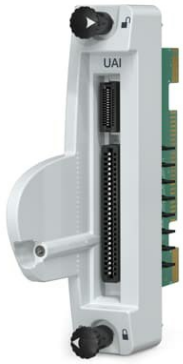
DATA SHEET

EMB01S-UAI

ABB Ability™ Symphony® Plus Hardware Selector



The EMB01S-UAI Evolution Module Base provides the mounting of an AI16e Universal Analog Input 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 AI16e module. This includes support for all AI signal types (e.g. RTD, TC, mV, mA, and VDC) and optional module redundancy.

Features and benefits

- Mounts DO05e to EMC-_B0x Evolution Mounting Chassis
- Connects DO05e to redundant HN800 I/O bus
- Connects DO05e to NTDI0x TU via NKTU01 cables
- Connects DO05e to NIDI01 TM via NKTU02 or NKTM01 cables

General info	
Article number	7PAA005094R11
Life cycle status	Active
Line redundancy	Yes
Channels	16
Hot swap	No
Supported IO modules	AI16e
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: 73,572 Hours @ 30˚C, 73,473 Hours @ 40˚C, 73,089 Hours @ 70˚C
MTTR (Hours)	8Hrs

Detailed data	
Overvoltage category	Category 1 for power. Tested according to IEC/EN 61010-1
Process signal connections	Sixteen (16) Universal AI
Field power connection	@ I/O Termination (TU or TM)
Field power fusing	@ I/O Termination (TU or TM)
Signal connection	Terminable Blocks on NTAI06, NIAI05 or HDIOT-UAI-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	ISA S71.04 G3 compliant
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	218 grams

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