DATA SHEET

PIO800K02

ABB Ability™ Symphony® Plus Hardware Selector

PDP800 is a redundant, high performance & capacity PROFIBUS DP master interface for SPCxxx controllers.

PDP800 PROFIBUS DP Master enables seamless integration of intelligent field devices.

PDP800 supports PROFIBUS PA natively, and PROFIBUS PA using 3rd party DP/PA linking devices.

Features and benefits

- PDP800 PROFIBUS DP Master module features include:
- Module and Line Redundancy
- PROVIBUS DP V0, V1, V2
- PROFIBUS DP line speeds up to 12 MBps
- PROVIBUS DP links up to 15 km using fiber optic lines & repeaters
- Up to 125 PROVIBUS slave devices

General info	
Article number	PIO800K02
Protocol	PROFIBUS DP V0, V1, V2
Communication type	Master
Capacity	Up to 125 slave devices
Transmission speed	From 9.6 kBps to 12 MBps
Diagnostics port	Mini USB on PDP800 module front plate
Line redundancy	Yes
Module redundancy	Yes
Hot Swap	Yes
Form factor	xA Style (186mm)
Mounting	Horizontal Row
HN800 bus length	175 mm
MTBF (per MIL-HDBK-217-FN2)	PDP800 PR: K = 261,051 hours, PTU810 PR: C = 2,583,516 hours
MTTR (Hours)	PDP800 MTTR = 1 hour, PTU810 MTTR = 8 hours

Detailed data	
Processor type	MCF54418 @ 160 MHz
Memory	128 MB DRAM, 4MB Flash ROM
Module power requirements	150mA @ 24 VDC +/- 10% = 3.6W per module
Module power connection(s)	POWER TB on cHBX01L
Overvoltage category	Category 1 for power. Tested according to IEC/EN 61010-1
Mounting details	PTU810 mounting base, 1 = A, 2 = A

Environment and certification	
Temperature, Operating	0 to +55 °C
Temperature, Storage	-40 to +85 °C
Relative humidity	20% to 95% @ 40°C (104°F) non-condensing. Tested according to IEC/EN 60068-2-78, IEC/EN 61298-3
Protection class	IP20 according to EN 60529, IEC 529
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
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 G1 (Standard), cRBX01A (Enhanced) ISA S71.04 G3 compliant version modules are 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 61000-6-4, CISPR 11 + A1, CISPR 16-1-1, Group 1, Class A, ISM equipment
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	124 mm
Height	186 mm
Depth	127 mm
Weight (include base)	790 g

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