Product data sheet
Characteristics

BMEP584040S
standalone safety processor, Modicon M580, 16MB, 61 Ethernet devices, 16 remote IO racks of X80 and Quantum, 64 CIP safety devices



Main

Range of product	Modicon M580
Product or component type	Processor module
Impregnation material	Conformal coated

Complementary

Number of racks	8
Discrete I/O processor capacity	4096 I/O
Analogue I/O processor capacity	1024 I/O
Number of application specific channel	144
Application specific I/O	Counter Motion control SSI encoder Accurate time stamping Serial link HART
Checks	Safety control Process control
Control channels	Programmable loops
Integrated connection type	1 Ethernet TCP/IP for service port 2 Ethernet TCP/IP for device network USB type mini B
Number of remote I/O station	16 - 2 rack(s) per remote drop
Number of distributed equipment	64
Discrete I/O number	64
Communication module processor capacity	16 AS-Interface module 4 Ethernet communication module
Communication service	RIO scanner DIO scanner
Memory description	Expandable flash, 4 GB for data storage Integrated RAM, 10 kB for system memory Integrated RAM, 16 MB for program process Integrated RAM, 2048 kB for data process Integrated RAM, 4 MB for program safety Integrated RAM, 1024 kB for data safety
Application structure	2 auxiliary tasks 1 periodic safe task 128 event tasks 1 periodic fast task 1 cyclic/periodic master task

Cybersecurity	Achilles certified DoS prevention IPSec SNMP logging Syslog protocol support Audit trail Embedded firewall Firmware signature Password protection Port hardening Security log
Number of instructions per ms	30 Kinst/ms 65 % Boolean + 35 % fixed arithmetic 40 Kinst/ms 100 % Boolean
Current consumption	295 mA at 24 V DC
MTBF reliability	775000 H
Marking	CE

Environment

Vibration resistance	3 gn
Shock resistance	15 gn
Ambient air temperature for operation	-25…60 °C
Ambient air temperature for storage	-40…85 °C
Operating altitude	0...2000 m 2000...5000 m with derating factor
Relative humidity	5…95 % at 55 °C without condensation
IP degree of protection	IP20
Directives	2014/30/EU - electromagnetic compatibility 2006/42/EC - machinery 2014/34/EU - ATEX directive
Product certifications	CE[RETURN]UL[RETURN]CSA[RETURN]RCM[RETURN]EAC[RETURN]Merchant Navy[RETURN
Standards	IEC 61131-2 IEC 61010-2-201 UL 61010-2-201 CSA C22.2 No 61010-2-201 IACS E10 EN/IEC 61000-6-5, interface type 1 and type 2 EN/IEC 61850-3, location G IEC 60079-0 IEC 61508 EN 50129
Environmental characteristic	Hazardous location class I division 2 Gas resistant class Gx conforming to ISA S71.04 Gas resistant class 3C4 conforming to IEC 60721-3-3 Dust resistant class 3S4 conforming to IEC 60721-3-3 Sand resistant class 3S4 conforming to IEC 60721-3-3 Salt resistant level 2 conforming to IEC 68252 Mold growth resistant class 3B2 conforming to IEC 60721-3-3 Fungal spore resistant class 3B2 conforming to IEC 60721-3-3
Protective treatment	Conformal coating
Safety level	SIL 3 conforming to IEC 61508 SIL 3 conforming to IEC 61511 SILCL 3 conforming to IEC 62061 SILCL 3 conforming to ISO 13849-1 category 4 SIL 4 conforming to EN 50126 SIL 4 conforming to EN 50128 SIL 4 conforming to EN 50129
Supply	Internal power supply via rack
Status LED	1 LED (green) processor running (RUN) 1 LED (red) processor or system fault (ERR) 1 LED (red) I/O module fault (I/O) 1 LED (green) download in progress (DL) 1 LED (red) memory card or CPU flash fault (BACKUP) 1 LED (green/red) ETH MS (Ethernet port configuration status) 1 LED (green/red) Eth NS (Ethernet network status) 1 LED (green) processor in safety mode (SRUN) 1 LED (green) processor in maintenance mode (SMOD) 1 LED (red) I/O values overrided by user (FORCED IO)
Net weight	0.849 Kg

Packing Units

Unit Type of Package 1	PCE
Number of Units in Package 1	1
Package 1 Height	8.900 Cm
Package 1 Width	17.800 Cm
Package 1 Length	25.200 Cm
Package 1 Weight	880.000 G
Unit Type of Package 2	S03
Number of Units in Package 2	6
Package 2 Height	30.000 Cm
Package 2 Width	30.000 Cm
Package 2 Length	40.000 Cm
Package 2 Weight	5.758 Kg

Offer Sustainability

Total lifecycle Carbon footprint	246 kg CO2 eq.
Carbon footprint of the manufacturing phase [A1 to A3]	64.4816901408
Carbon footprint of the manufacturing phase [A1 to A3]	64 kg CO2 eq.
Carbon footprint of the distribution phase [A4]	0.113542723
Carbon footprint of the distribution phase [A4]	0.1 kg CO2 eq.
Carbon footprint of the installation phase [A5]	0.0032166479
Carbon footprint of the installation phase [A5]	0 kg CO2 eq.
Carbon footprint of the use phase [B2, B3, B4, B6]	180.84
Carbon footprint of the use phase [B2, B3, B4, B6]	181 kg CO2 eq.
Mercury free	Yes
Sustainable packaging	No
Carbon footprint of the end-of-life phase [C1 to C4]	0.3716967136
Carbon footprint of the end-of-life phase [C1 to C4]	0.4 kg CO2 eq.
Environmental Disclosure	Product Environmental Profile
Total lifecycle Carbon footprint	246
Packaging made with recycled cardboard	Yes
Packaging without single use plastic	No
SCIP Number	4eb70ab0-978b-4773-a441-0cc20d6144a1
REACh Regulation	Reference contains Substances of Very High Concern above the threshold
EU RoHS Directive	Compliant By Exemption
California proposition 65	WARNING: This product can expose you to chemicals including: Lead and lead compounds, w
End of life manual availability	End Of Life Information
Take-back	No

Contractual warranty

Warranty (in months)	18

Product Life Status : Commercialised