sbc✛
SAIA BURGESS CONTROLS
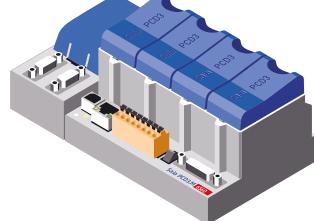
Saia PCD3.M6560 Profibus DP Master, Ethernet – Controller

Profibus DP is a well known standard as mulitmaster fieldbus in industrial applications with high baudrates (Up to 12 MBit/s). It allows the use of a mixture of participants from different manufacturers on the same bus. This compact modular PLC comes with integrated Ethernet, RS-232 and all S-Net, S-Web features. SBC offers a full range of external memory too for Backup or data logging.

Latest CPU technology

▶ Sustainable processor technology with 2 MByte RAM for User Program Memory and 1 MByte SRam as Backup Memory on board

▶ Compact PLC in combination with the new Saia PCD® COSinus operating system

▶ USB, RS-232, RS-485, Profibus DP-V0 and Ethernet-interface in the base unit. Integrated Web server

Maximum peripheral connections

▶ Up to 1023 central inputs/outputs with expansion module holder

▶ Additional remote inputs/outputs via Profi-S-IO with same I/O modules

PCD3 I/O modules in cassette form

(PCD3.Axxx/ .Exxx/ .Wxxx/ .Bxxx/ .Hxxx)

▶ More than 50 I/O modules available with different functionalities

▶ Status of digital signals indicated via LEDs

▶ Consistent PG5 support in all CPUs and RIOs via FBs and FBoxes

Efficient SBC programming tools, for more details see TI PP26-362 or better download software demo version under www.sbc-support.com/en/product-index/pg5-controls-suite

▶ PG5 from SBC with integrated DP Network Configurator and comprehensive application components make programming convenient and efficient

▶ A coordinating combination of operating system and programming tool achieves maximum speed, reliability and functionality

General technical data / Operating conditions

Power supply

Supply voltage (according EN / IEC 61 131-2)	24 VDC –20 / +25%, incl. 5% ripples
Current / Power consumption	typ. 175 mA / 4.2 W, max. 500 mA / 12 W
Load-carrying ability 5 V / 24 V internal	max. 600 mA / 100 mA
Short voltage interruption (according EN / IEC 61 131-2)	≤ 10 ms with interval ≥ 1 s
Watchdog relay closing contact	48 VAC or VDC [1], 1 A

Environmental influences

Storage temperature (according EN / IEC 61 131-2)	–25…+70 °C
Ambient temperature operating (according EN / IEC 61 131-2)	0…+55 °C [2] or 0…+40 °C (depending on mounting situation)
Relative air humidity (according EN / IEC 61 131-2)	10…95 % r.h., non condensing

Mechanical data

Type of mounting	Top-hat rail according to DIN EN 60 715 TH35 (formerly DIN EN 50 022) (1 × 35 mm)
Protection level	IP 20
Flame resistance	UL 94 V0
Vibration (according EN / IEC 61 131-2)	3.5 mm / 1.0 g sinusoidally
Shock (according EN / IEC 61 131-2)	15 g / 11 ms sinus half wave

[1] mount a free-wheeling diode over the load when switching DC tension
[2] when assembling on vertical surface, all other mounting methods 0…40 °C

Communication interfaces

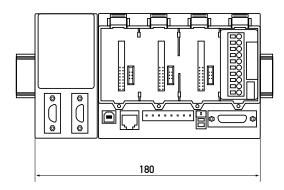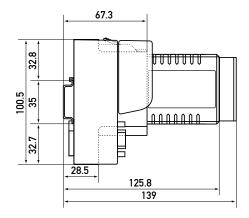|	RS-232/PGU Port #0		Profibus DP (9-pole D-Sub socket) Port #10		
	D-Sub Pin	Signal	D-Sub Pin	Signal	Explanation
	1	DCD	1	nc	not connected
	2	RXD	2	GND*	PCD GND
	3	TXD	3	B red	Receive/transmit data positive
	4	DTR	4	En	Transmit/receive signal
	5	GND	5	GND_BUS	0 V Data communication potential
	6	DSR	6	+5V_BUS	5 V Data communication potential
	7	RTS	7	+24V*	PCD Supply
	8	CTS	8	A green	Receive/transmit data negative
	9	nc	9	nc	not connected

*) Not galvanic isolated signals
Pins 5 and 6 are for termination only

PCD3.M6560 is a CPU that provide a galvanic isolated high-speed 12 MBit/s Profibus DP-V0 interface. This CPU has the same functions as a PCD3.M5560 CPU except that the S-Net/MPI interface is replaced by DP functionality, for more details see Profibus DP Manual (26-765).

This data sheet only specifies differences. Please refer to existing PCD3 Hardware Manual (26-789) for the whole feature set.

Dimension Drawing

Ordering information

Type	Short description	Description	Weight
PCD3.M6560	CPU base units for 4 plug-in I/O modules	PCD3 processor unit with Profibus DP Master and Ethernet TCP/IP, web and FTP server, file system, CPU with 2 MByte user program, 1 MByte SRam extension memory, 128 MByte user Flash memory with file system, USB port for PG5, up to 1024 I/O, 2 interrupt inputs, RS-232, RS-485 for Profi-S-Net/MPI/S-Bus, data protection 1-3 years	820 g

Accessories

Type	Short description	Description	Weight
4 405 4995 0	8-pin spring terminal block	Pluggable spring block, 8-pin up to 2.5 mm² (orange terminal block), for power supply to PCD3.Mxxx0	12 g
4 507 4817 0	Lithium battery for PCD Base CPU	Lithium battery for PCD processor units (RENATA button type CR 2032)	3 g
4 104 7515 0	Slot cover for unused PCD3 I/O slots	Slot cover for unused PCD3 I/O slots (with SBC logo)	8 g