

Advant® OCS

Open Control System

Advant Controller 250

The Powerful, Compact and Modular Advant Controller



The Advant Controller 250 is a compact, modular controller system, built around small backplanes, which can be connected to suit the desired system configuration.

The Advant Controller 250 is configured and programmed using the Advant Control Builder, a Windows NT® application.

The Advant Controller 250 has interface units for communication to other systems and devices.

The basic hardware consists of controller unit, power supply unit, backplanes and associated cables.

- Compact and modular design makes it simple to expand.
- Optimization for any specific application, through a choice of controller units delivering a comprehensive range of performance.
- Remote programming via Ethernet network or serial channel.
- I/O support for S200 I/O and S200L I/O centrally via the serial I/O bus and remotely via PROFIBUS-DP or ControlNet
- I/O support for S800 I/O remotely via PROFIBUS-DP
- Communication alternatives to other control systems: MMS, Sattlink, COMLI, SattBus, 3964R, and user-defined protocols (via serial channels).
- Units connect to screw terminal blocks and terminal bases, thereby simplifying installation and improving reliability.
- Reduced installation and maintenance costs through DIN rail mounting.
- Mechanical code keys prevent the units from being damaged during replacement.



Technical Data

General specifications		Status indicators	
Power supply	24 V DC (19.2–30 V DC) incl. 5% ripple according to IEC 61131-2 standard i.e. +20%, –15% and max. 5% ripple.	PM253 and PM254	Green LEDs for Power, SattBus signals (SB TD0, SB RD0), serial channel signals (TD0, TD1, RD0 and RD1). Red LEDs for Fail and Stop
Temperature		PM255	Green LEDs for Power, serial channel signals TD0 and RD0. Red LEDs for Fail and Stop. Red/green LED for battery status
Operating	+5°C to +55°C	Communication channels	
Non-operating	–25°C to +70°C	Serial channels	Max. cable length: 15 meters.
Humidity	Max 90%, non-condensing	Baudrate	75, 110, 134, 150, 300, 600, 1200, 2400, 4800, 9600 (default), 19200 and 38400 baud.
Protection rating	IP20	PM253 and PM254	2 RS232 channels. Channel 0 for TD, RD, RTS, CTS, DCD and DTR. Available protocols for channel 0 is MMS (SattLink). Channel 1 for RD and TD. Data bits 7 or 8 (default). Parity odd, even or none. Stop bits 1 (default) or 2. Available protocols for channel 1, see 200-CI232
Approvals (when product or packaging is marked)	CE marked and meets EMC directive 89/336/EEC according to the following standards: EN 50081-2 and EN 50082-2. Low Voltage Directive 73/23/EEC with supplement 93/68/EEC according to the following standard: IEC 61131-2 (only applicable for units connected to 50–1000 V AC and/or 75–1500 V DC). UL listed for US and Canada according to UL 508, with the exception for 200-CIPB/DP.	PM255	1 RS232 channel. Channel 0 for TD, RD, RTS and CTS. Available protocol for channel 0 is MMS (SattLink).
Package volume for the central system units		SattBus	1 channel, supervisor (not available on PM255). Available protocol, see 200-CISB
1–2 units	H279 x W360 x D90 mm (9 dm ³)	Real-time clock	Yes
3–8 units	H265 x W265 x D175 mm (12 dm ³)	Accuracy, normal mode	
		PM253 and PM254	10 ppm (approx. 6 min/year)
		PM255	100 ppm (approx. 60 min/year)
		Accuracy, battery backup mode	50 ppm (approx. 0.2 s/hour)
		Backup battery	Batteries are to be replaced every 3rd year. Note that for all PM254 units, the battery lifetime is max. 3000 h when the system is not powered.
		PM253 and PM254	A lithium battery for the memory and real time clock (3.6 V, 1.75 Ah, size AA/R6/UM-3) incl. connection cable.
		PM255	A NiMH rechargeable battery for the memory and real time clock (4.8 V, 200 mAh, size 4 x V250H). Backup time is about 1 hour.
		Connectors	One 200-BPP screw terminal block. One 9-pin female D-type connector at the front.
		Earthing	Directly connected via the 200-BPN backplane.
		Power supply	From 200-PSMG/PSSG Power supply unit.
		Internal current consumption (from 200-PSMG/PSSG)	Max. 0.6 A
		Backplane key code	5.
		Weight	0.43 kg excl. packaging 0.50 kg incl. packaging
		Dimensions	H 163 x W 45 x D 91 mm (excl. connectors and snap locks)
		Order codes	PM253V01 PM253V02 PM254V04 PM254V08 PM255V04 PM255V08

Controller units	
Processor type	
PM253	Motorola MC68020
PM254	Motorola MC68020
PM255	Motorola MC68060
Clock frequency	
PM253	16.7 MHz
PM254	28.8 MHz
PM255	50 MHz
Floating point co-processor	Yes
Memory and I/O unit support for system and application program	
PM253V01	1 Mbyte RAM, 32 I/O units
PM253V02	2 Mbyte RAM, 64 I/O units
PM254V04	4 Mbyte RAM, 128 I/O units
PM254V08	8 Mbyte RAM, 256 I/O units
PM255V04	4 Mbyte RAM, 256 I/O units
PM255V08	8 Mbyte RAM, 512 I/O units