

PVA-4CR12 Controller

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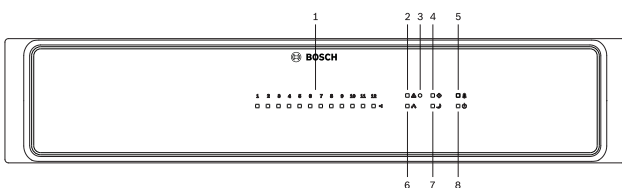


- ▶ Low power consumption in standby mode
- ▶ Extreme flexibility
- ▶ Excellent sound quality > 106 dB s/n ratio
- ▶ Up to 85 minutes internal digital message storage
- ▶ Up to four decentralized controllers using the OM-1 interface

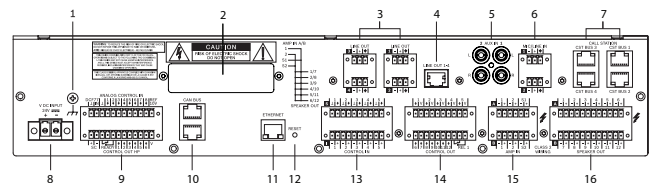
The PVA-4CR12 controller is the central paging manager for the PAVIRO system. Eight local audio inputs can be switched to four audio outputs. A two channel message manager is integrated. The controller provides all the audio processing, supervision and control functions for a complete PAVIRO system. A single controller supports up to 16 call stations and 492 paging zones. The controller is equipped with 12 zones, 18 GPIs and 19 GPOs. One controller can handle up to 2000 W loudspeaker load. Additional zones and power can be added by using up to 20 external routers and 40 amplifiers with each 2 X 500 W. The zone indicator lights on the front indicate the current status of every zone:

- Green: Zone in use for non-emergency purpose
- Red: Zone in use for emergency purpose
- Yellow: Zone fault detected
- Off: Zone in idle condition

System overview



- 1 Zone status indicator light
- 2 Combined fault warning indicator light
- 3 Recessed button
- 4 System fault indicator light
- 5 Voice alarm indicator light
- 6 Network indicator light
- 7 Standby indicator light
- 8 Power indicator light



- 1 Grounding screw
- 2 Blind cover for optional OM-1 Module
- 3 LINE OUT 1-4 ports (Euroblock)
- 4 LINE OUT 1-4 port (RJ-45)
- 5 AUX IN 1/2 ports (RCA)

- 6 MIC/LINE IN 1/2 ports (Euroblock)
- 7 CST BUS 1-4 ports (RJ-45, for connection of call station)
- 8 DC power input
- 9 CONTROL IN/OUT port (including pins for DCF77 and slave clock)
- 10 CAN BUS port
- 11 ETHERNET port
- 12 Reset button
- 13 CONTROL IN ports
- 14 CONTROL OUT ports
- 15 AMP IN ports
- 16 SPEAKER OUT ports

Certifications and approvals

- IEC 60065
- EN 61000-6-3
- EN 50130-4
- EN 60945
- EN 60950
- EN 54-16

Parts included

Quantity	Component
1	PVA-4CR12
2	CAN terminating resistor (120 ohm)
1	Euroblock connector 2-pole (Phoenix, PC 5/2-STF-7,62, 1975697, F.01U.108.398)
6	Euroblock connector 3-pole (Phoenix, MC 1,5/3-STF-3,81, Nr. 1827716, F.01U.104.680)
2	Euroblock connector 6-pole (Phoenix, MC 1,5/6-ST-3,81, 1827745, F.01U.104.179)
4	Euroblock connector 10-pole (Phoenix, MC 1,5/10-STF-3,81, 1827787, F.01U.301.445)
2	Euroblock connector 12-pole (Phoenix, MC 1,5/12-STF-3,81, 1827800, F.01U.108.397)
4	Foot stand (self-adhesive)
1	Operation manual
1	Important safety instructions

Technical specifications

Audio	8 audio inputs, 4 audio outputs
Safety/redundancy	Internal supervision, system monitoring, watchdog, fault output

PC configuration and control software	<ul style="list-style-type: none"> • Configuration Wizard: Easy system configuration. • IRIS-Net: Integration of controller, amplifiers, call stations, routers and peripheral control; configuration, control, and supervision for complete audio systems; programmable user control panels and access levels. • Hot Swapper (included in IRIS-Net package): Easy updating of messages during runtime.
Frequency response (ref. 1 kHz)	20 Hz to 20 kHz (-0.5 dB)
Signal-to-noise ratio (A-weighted)	Line in to line out: 106 dB typical
THD+N	< 0.05%
Crosstalk (line level)	Line in to line out (0 dB gain): < 100 dB at 1 kHz
Sample rate	48 kHz
DSP processing resolution	24-bit linear A/D and D/A conversion, 48-bit processing
Audio inputs (microphone/line level)	MIC/LINE: 2 × 3-pin port, electronically symmetric AUX: 2 × Stereo RCA
• Input level (nominal)	MIC/LINE: 15 dBu AUX: 9 dBu
• Input level (max. before clip)	MIC/LINE: 18 dBu AUX: 12 dBu
• Input impedances	MIC/LINE: 2.2 kΩ AUX: 8 kΩ
• Common mode rejection	MIC/LINE: > 50 dB
• Phantom power, switchable	MIC/LINE: 48 V DC
• A/D conversion	24 Bit, Sigma-Delta, 128 times oversampling
Audio inputs (100 V)	AMP IN: 2 × 6-pin port
• Max. voltage	120 V
• Max. current	7.2 A
• Max. power	500 W
Audio outputs (line level)	LINE OUT: 1 x RJ-45, 4 x 3-pin port
• Output level (nominal)	6 dBu
• Output level (max. before clip)	9 dBu

• Output impedance	<50 Ω
• Min. load impedance	400 Ω
• D/A conversion	24 Bit, Sigma-Delta, 128 times oversampling
Audio outputs (100 V)	SPEAKER OUT: 2 \times 12-pin port
• Max. voltage	120 V _{eff}
• Max. current	7.2 A
• Max. power	500 W
• Crosstalk (100 V)	AMP IN to SPEAKER OUT: < 100 dB at 1 kHz with 1 k Ω load
Call station bus (CST)	4 \times integrated power+CAN +audio interface, RJ-45
• Power	+24 V DC, electronic fuse
• CAN	10, 20 or 62.5 kbit/s
• Audio	electronically symmetric
• Max. length	1000 m
ANALOG CONTROL IN	1 \times 12-pin port
• Control inputs	<ul style="list-style-type: none"> • 8 (analog 0-10 V/logic control; low: $U \leq 5$ V DC; high: $U \geq 10$ V DC; $U_{\max} = 32$ V DC)
• Reference outputs	<ul style="list-style-type: none"> • +10 V, 100 mA • GND
• Time sync input	1 (DCF-77 receiver)
CONTROL OUT HP	1 \times 12-pin port
• Control outputs	<ul style="list-style-type: none"> • 6 High Power outputs (open collector, $U_{\max} = 32$ V, $I_{\max} = 1$ A)
• Reference output V	<ul style="list-style-type: none"> • +24 V, $I_{\max} = 200$ mA
• Ready/fault output	1 (NO/NC relay contacts, $U_{\max} = 32$ V, $I_{\max} = 1$ A)
• Slave clock output	1 (24 V DC, max. 1 A)
CONTROL IN	2 \times 10-pin port
• Control inputs	<ul style="list-style-type: none"> • 5 supervised inputs (0–24 V, $U_{\max} = 32$ V) • 5 isolated inputs (low: $U \leq 5$ V DC; high: $U \geq 10$ V DC; $U_{\max} = 32$ V)
CONTROL OUT	2 \times 10-pin port
• Control outputs	12 Low Power outputs (open collector, $U_{\max} = 32$ V, $I_{\max} = 40$ mA)

• Control relay	1 (NO/NC relay contacts, $U_{\max} = 32$ V, $I_{\max} = 1$ A)
Interfaces	
• Ethernet	1 \times RJ-45, 10/100 MB (for PC connection)
• CAN BUS port	2 \times RJ-45, 10 to 500 kbit/s (for amplifier, router connection)
• OM-1 interface Module (optional)	Ethernet connectors (Primary / Secondary) 100/1000 Mbit/s, RJ-45, integrated transformer isolation
DC power input	21–32 V DC
Power consumption	10 to 250 W
Operating temperature	-5 $^{\circ}$ C to +45 $^{\circ}$ C (+23 $^{\circ}$ F to +113 $^{\circ}$ F)
Storage and transport temperature	-40 $^{\circ}$ C to +70 $^{\circ}$ C (-40 $^{\circ}$ F to +158 $^{\circ}$ F)
Electromagnetic environment	E1, E2, E3
Product dimensions (Width \times Height \times Depth)	19", 2 HU, 483 x 88.2 x 391 mm
Net weight	8.0 kg
Shipping weight	9.5 kg

Ordering information

PVA-4CR12 Controller

Central paging manager for the PAVIRO system.
Order number **PVA-4CR12**

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