

PROMATRIX 6000 Controller

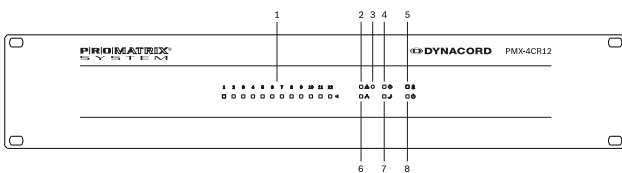


- Low power consumption in standby mode
- Extreme flexibility
- Excellent sound quality >106 dB s/n ratio
- Up to 85 minutes internal digital message storage

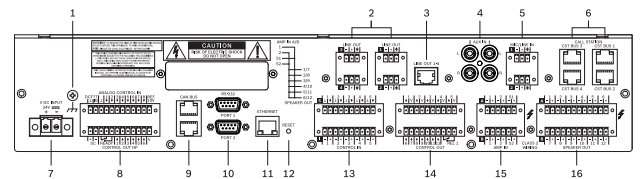
The PMX-4CR12 controller is the central paging manager for the PROMATRIX 6000 system. Eight local audio inputs can be switched to four audio outputs. A two channel message manager is integrated. The controller provides all the audio processing, supervision and control functions for a complete PROMATRIX 6000 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 General 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 LINE OUT 1-4 ports (Euroblock)
- 3 LINE OUT 1-4 port (RJ-45)
- 4 AUX IN 1/2 ports (RCA)
- 5 MIC/LINE IN 1/2 ports (Euroblock)
- 6 CST BUS 1-4 ports (RJ-45, for connection of call station)

7	DC power input
8	CONTROL IN/OUT port (including pins for DCF77 and slave clock)
9	CAN BUS port
10	RS-232 ports
11	ETHERNET port
12	Reset button
13	CONTROL IN ports
14	CONTROL OUT ports
15	AMP IN ports
16	SPEAKER OUT ports

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.

Parts included

Quantity	Component
1	PMX-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

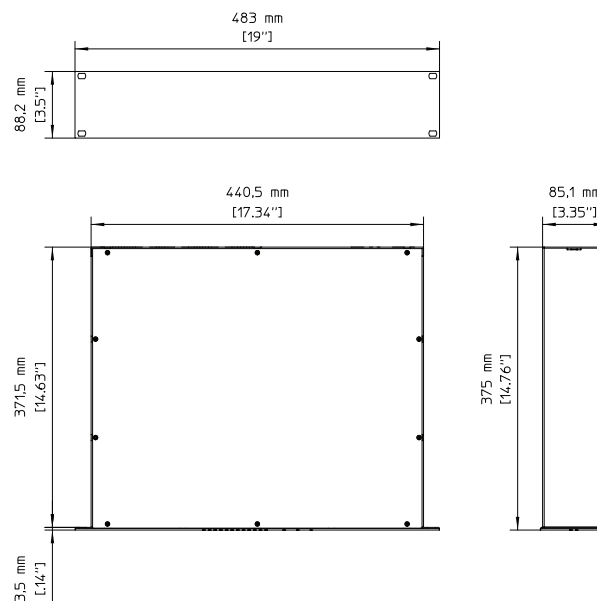
Technical specifications

PMX-4CR12 Controller	PROMATRIX 6000 controller including signal processing, routing, system control and supervision
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,

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 × 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 kΩ load
Call station bus (CST)	4 × 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 × 12-pin port
• Control inputs	• 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	• +10 V, 100 mA • GND
• Time sync input	1 (DCF-77 receiver)
CONTROL OUT HP	1 × 12-pin port
• Control outputs	• 6 High Power outputs (open collector, $U_{\max} = 32$ V, $I_{\max} = 1$ A)
• Reference output V	• +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 × 10-pin port
• Control inputs	• 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 × 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 × RJ-45, 10/100 MB (for PC connection)
• CAN BUS port	2 × RJ-45, 10 to 500 kbit/s (for amplifier, router connection)
• RS-232	2 × 9-pin DSUB (port 1 for PROMATRIX 4000, port 2 for service only)
DC power input	21–32 V DC

Power consumption	10 to 250 W
Operating temperature	-5 °C to +45 °C
Electromagnetic environment	E1, E2, E3
Product dimensions (Width × Height × Depth)	19", 2 HU, 483 × 88.2 × 375 mm
Net weight	8.0 kg
Shipping weight	9.5 kg



Dimensions

Installation/configuration notes

Warning!



Risk of explosion if battery is not replaced correctly. Must be replaced only with the same or equivalent type of battery.

Certifications and approvals

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

Ordering information

PMX-4CR12 Promatrix 6000 Controller
Order number **F.01U.298.642**

NRS 90193

DCF77 receiver

Order number **F.01U.119.063**

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