PIS SYSTEM CONTROLLER (PSC)

ON-BOARD PASSENGER INFORMATION SYSTEM

FEATURES

- VoIP, ETH and analog audio support
- Extendable rack solution i.e. for storage or I/Os
- ETH bypass relais and redundant power

ORGANIZING YOUR PASSENGER INFORMATION THE RIGHT WAY

The PIS System Controller (PSC) is the core of Luminator's PIS audio and visual system rail solution. It coordinates the incoming information stream from the rail operator and coordinates that the relevant information from remote or internal is provided to the fitting entities regardless of voice announcements or visual passenger information. PSC organizes VoIP functionality as well as UIC568 fallback analog voice and takes care that the installed displays (i.e. destination, infotainment, seat reservation, advertisement) will show the right information.

It contains storage for route databases, pre-recorded audio announcements, LED and TFT display database content and diagnostic information. The PSC streams the pre-recorded audio files to the amplifiers and streams the visual content to the display according to operator's command (received from the HMI) or GPS position (received from IM). The PSC is a metal enclosure designed for rack mount and easily extendable for further actuators and sensors as well as for additional storage needs.

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TECHNICAL DATA

Electrical properties	
Operating Voltage	Nominal Voltages: EN50155 :2017 - 110V; Other voltages available in option
Insulation and voltage withstand	Compliant to EN50155:2017: Voltage withstand 1000VAC or 1500VDC; Insulation: >20MΩ at 500VDC
Reverse polarity protection	Yes
Voltage interruptions Class	EN50155:2017 – Class S2
Supply changeover class	EN50155:2017 – Class C1
Inrush current	Limited to 5x the nominal current
Interfaces	
Status Indicator	Ethernet 1; Ethernet 2; Ethernet 3; Status
Power In	3-pin male Phoenix Combicon
ID Input	2 x (located in Power Connector)
Ethernet	3 x M12 X-coded connectors (socket) for Ethernet 10/100/1000Mbps: • Connector 1 and 2: Integrated IP switch for two external ports with access to one internal Ethernet interface. • Connector 3: Second Independent Ethernet interface available (not connected to the internal IP switch). • USB 2.0 to Gigabit Ethernet bridge with maximum throughput of 480Mb/s
USB	1 x USB 2.0 service port
UIC 568	1 x USB 2.0 service port
Mechanical properties	
Dimensions	Rack 19 inches 42HP Eurocard, height 3U
Environment	
Operating Temperature	Class OT4 as per EN50155 :2017, equivalent to Class TX as per 50125-1 :2014 inside a vehicle compartment: -40°C to +70°C
Storage Temperature	-40°C to +85°C.
Rapid Temperature Variation	EN50155:2017 Class H2
Ingress Protection	IP20
Shock and Vibration	Compliant to EN 61373 performance for Category 1 body mounted equipment. Class B. (complies to EN50155:2017)
Standards	
DIN EN 45545-2	Compliant (HL2)
DIN EN 50121-3-2	Compliant (2016)
DIN EN 50155	Compliant (2017)
NFPA130	Compliant