

PERTRONIC INDUSTRIES LTD

DATASHEET

Light Pipe LED Display Units

PDB12, PDB8



Overview

Pertronic Light Pipe LED Display Units (PDB12 and PDB8) are repeater / mimic displays that connect to the RS-485 Mimic Bus of the following Pertronic products:

- » F220 fire panel
- » F100A & F120A fire panels
- » F16e fire panel
- » F4-RMAX
- » F220 & Net2 Network Card (NET2CARD)
- » F100/F120 Network Card (NETCARD)

The PDB12 provides:

- » Four LED global indicators (Sprinkler, Fire, Defect and Normal)
- » Eight 8 LED zone indicators
- » Ancillary TPIC Bus for driving 8-Way LED display units (PDB8) and 8-Way Relay Boards (F100ZDRLY)

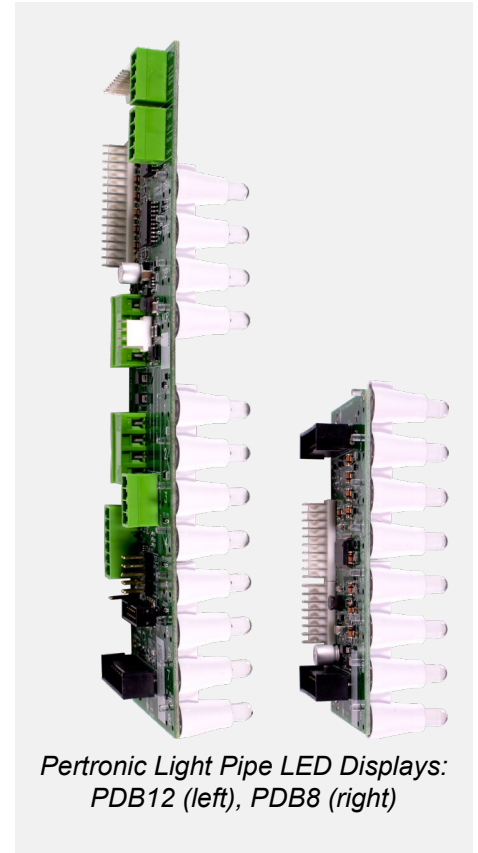
Eight-way display boards (PDB8) and eight-way relay boards (F100ZDRLY) may be daisy-chained to the ancillary TPIC bus, expanding the number of LEDs up to the maximum capacity of the fire panel or network card. LED and relay outputs are mapped in

the fire panel configuration as LED outputs. (Please refer to the relevant datasheet for details.)

The Ancillary TPIC Bus is supervised for faults, and supplies DC power to daisy-chained LED and relay boards.

Pertronic Light Pipe LED Display Units are designed for two configurations. The boards may be installed in Pertronic fire panels or Pertronic mimic cabinets with the light pipes protruding through holes in a display board, to create a local or remote index display. In this configuration, unused LEDs may be covered with individual blanking plugs. Pertronic Industries provide a range of cabinets for remote index displays (Please refer to the "Slimline LED Mimics", and "Slim LCD & LED Combination Mimics", datasheets for more information.)

Alternatively, Pertronic Light Pipe LED Display Units may be used in custom-built LED displays. Each display unit provides a set of open drain (pull-down) outputs for driving remote mounted LEDs, via a header connector on the PCB.



Pertronic Light Pipe LED Displays: PDB12 (left), PDB8 (right)

A cable assembly is available for remote mounted LEDs. The assembly includes 500 mm of cable, LEDs, and mounting bezels, and is available with green, yellow, or green LEDs.

Features

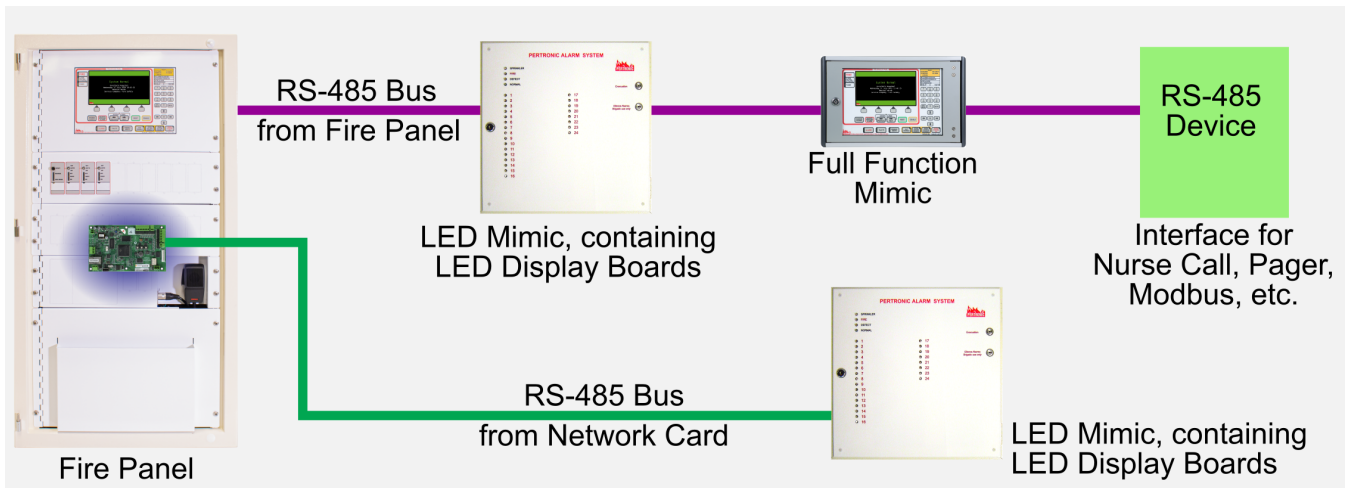
- » PDB12 can drive multiple PDB8 or F100ZDRLY output/display units
- » Fault supervision
- » Optional steady or flashing display
- » Configured in panel configuration as LED Mimic
- » Address on RS485 bus set by jumpers
- » Pulldowns for external LEDs:
 - » F100PDB12: 12 x LED pull downs
 - » F100PDB: 8 x LED pull downs
- » Onboard system function inputs (PDB12 only):
 - » Evacuation, BCO, Acknowledge, Door Interlock, Door Switch, External Defect
- » Four onboard system function outputs (PDB12 only)
 - » Evacuation, Silence Alarms, Bells, Buzzer
- » Onboard fault diagnostic LED indicator
- » Supplied complete with mounting stand-offs
- » The 8-way display board (PDB8) is supplied complete with one TPIC bus ribbon lead

Specification

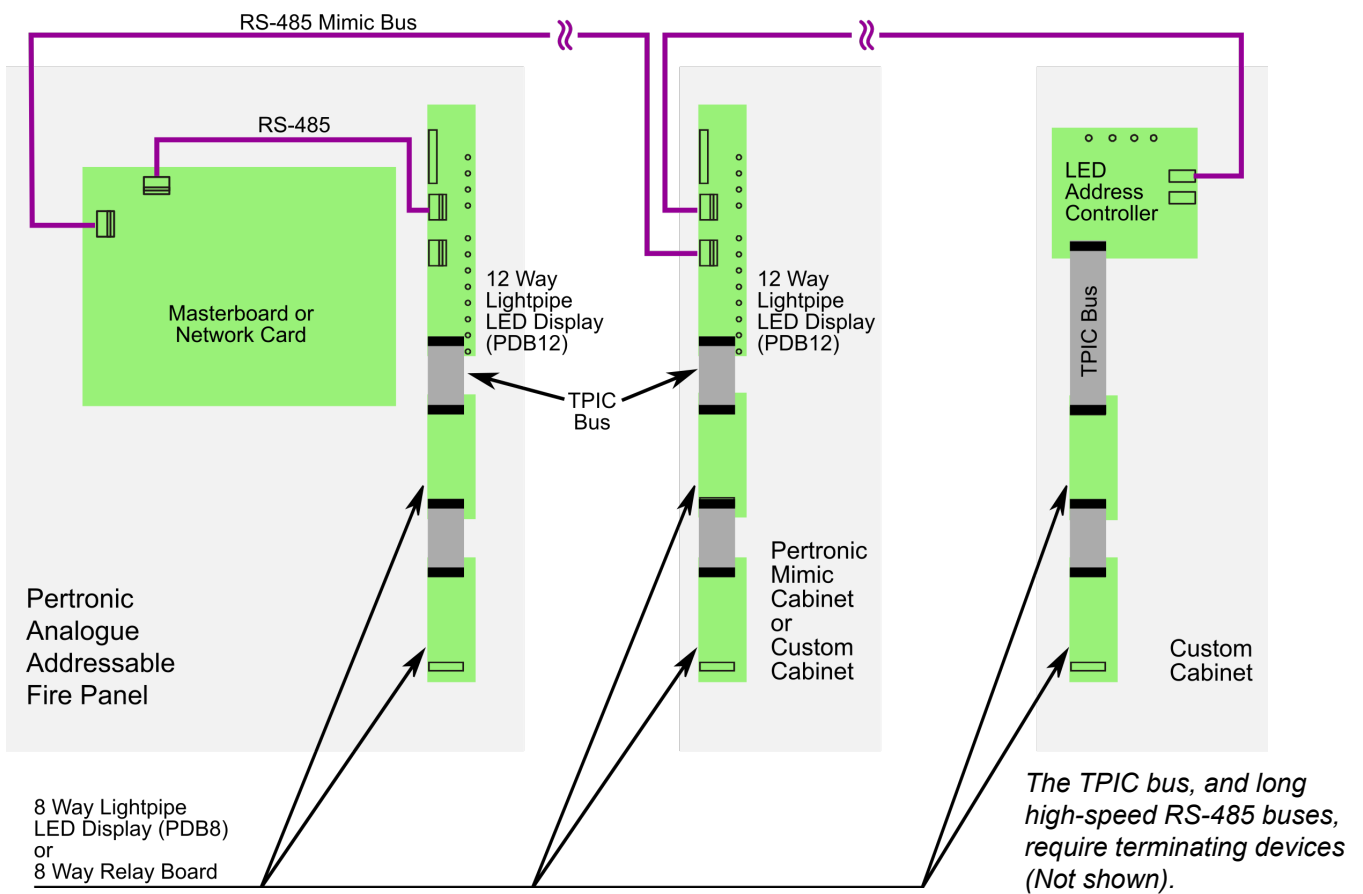
12 Way Light Pipe LED Display (PDB12)	
Quiescent Current	2 mA @ 24 V dc
LED Current	5 mA per active LED
External Pull-Down Capacity	20 mA per LED (see note)
Dimensions	197 x 40 (H x W mm)
Weight	100 g
8 Way Light Pipe LED Display (PDB8)	
Quiescent Current	1 mA @ 24 V dc
LED Current	5 mA per active LED
External Pull-Down Capacity	20 mA per LED (see note)
Dimensions	98 x 40 (H x W mm)
Weight	50 g
General Specification	
Operating Voltage	9.6 to 30 Vdc
Operating Temperature	0 to +40 °C
Humidity (non-condensing)	10 to 90% RH

Note: The LED Pull-down inputs are designed for LEDs connected to an external 24 Vdc battery-backed power supply.

System Diagram



Typical Connections



Ordering Information

Product Code	Description	Product Code	Description
PDB12	12 Way Light Pipe LED Display	F100ZDRLY	8 Way Relay Extender Board
PDB8	8 Way Light Pipe LED Display	L485LAC	LED Address Controller (Pulsing Display)
LEDREMOTE-G	Remote LED and 500mm Lead with Bezel; Green	L485LAC-S	LED Address Controller (Steady Display)
LEDREMOTE-R	Remote LED and 500mm Lead with Bezel; Red		
LEDREMOTE-Y	Remote LED and 500mm Lead with Bezel; Yellow		

The information in this document must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements.

Unless explicitly stated otherwise, this document provides typical specifications and nominal dimensions. Actual product performance and dimensions may vary.

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