RTK P725LO

MTL display facia

Description

The RTK P725LO range of display facias has been designed to complement the our range of MTL alarm annunciators and instrumentation products. In particular the RTK P725 alarm annunciator with which it shares many common components and is identical in appearance from the front.

The P725LO range is modular in design and can be supplied in any overall size comprising different window sizes. Switches, pushbuttons and audible sounders can also be integrated to provide a complete solution for plant status monitoring.

The outer frame on the P725LO is designed for panel mounting and is supplied with suitable clamps. Illumination is available with either bulbs rated at 28VDC or 48VDC or 24VDC ultra-high brightness LED's for low current applications.

Installation

The P725LO is supplied with rising clamp terminal blocks on the rear of the unit to accept pin crimps or ferrules. The rear of the unit is marked with the channel numbers corresponding to the windows on the front. Separate terminals are also provided for the power input and lamp test functions.

Refer to the specification section to calculate the cut-out dimensions to fit the unit into a panel. Use the clamps provided around the perimeter of the unit to secure it into place.

On the rear of the unit, each module will have up to 8 rising clamp terminals fitted. Each terminal has the following function:

0V – 0V supply to power the unit
+V – 24VDC supply to power the unit
LT – Lamp test function
HN – Horn function
1 – Illuminate the first window in that cell
2 – Illuminate the second window in that cell
3 – Illuminate the third window in that cell
4 – Illuminate the forth window in that cell

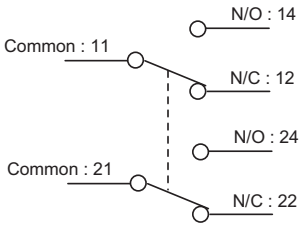
Electrical connections
On the rear of the unit, locate the terminals for 0V and +V. Connect these to your power supply. Note on larger units, more than one set of terminals may be provided to share the power. Ensure all are connected to the common power supply

Window illumination with common connection
Each window may be illuminated by connecting to the appropriate terminal on the rear of the unit. The polarity of this connection must be specified at the time of ordering.

Refer to page 2 for individual connection diagrams depending on window size and input polarity.

Switches, pushbuttons and audible sounders
If specified at the time of ordering, the unit will be supplied with DPDT pushbuttons, DPDT switches or audible sounders, and these are normally fitted in the bottom right hand corner of the unit. To connect refer to the diagrams below.

Pushbuttons and switches:



WARNING!
Hazardous voltages may be present on rear terminals.

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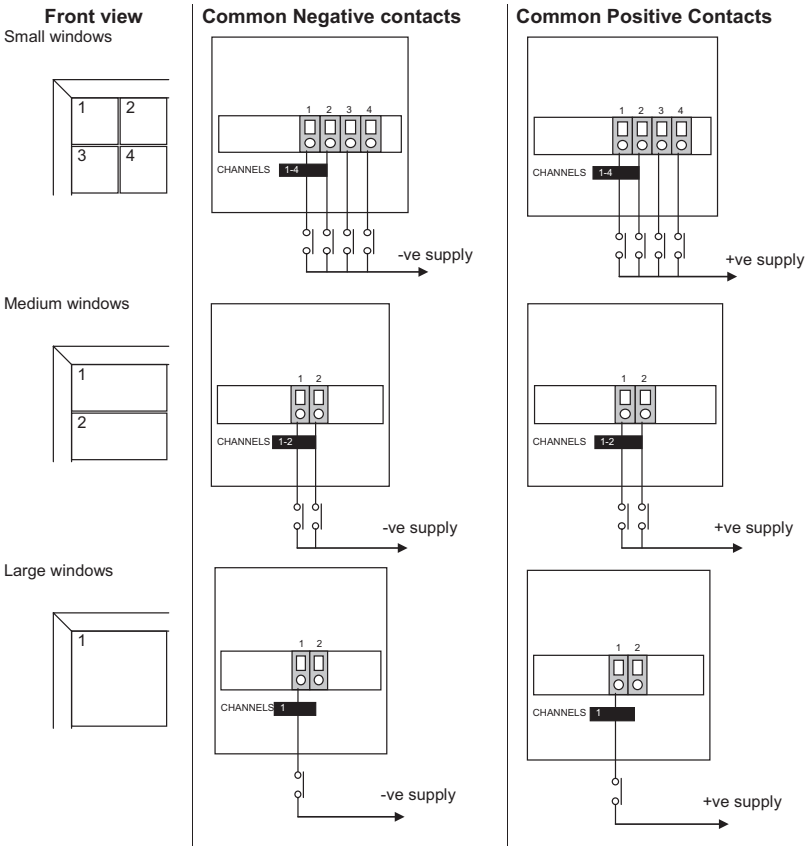
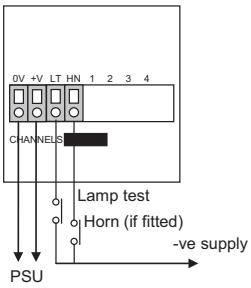
Audible sounders:
If specified at the time ordering an integral horn is fitted and driven from terminals on the back. See the connection diagrams below.

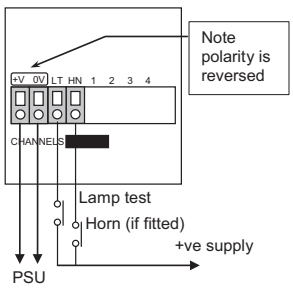
Example connection diagrams

Since the design of the P725LO unit is modular, please refer to the example connection diagrams below.



Power supply, lamp test and horn connections





Specification

Window size
Small: 30x30mm
Medium: 30x60mm (H x W)
Large: 60x60mm

Bulb illumination
28VDC bulb rated at 50mA per bulb (24VDC units)
48VDC bulb rated at 30mA per bulb (48VDC units)
Small windows have 1 bulb
Medium windows have 2 bulbs in parallel
Large windows have 4 bulbs in parallel

LED illumination (24VDC only)
LED modules are available in the following colours: Red, Amber, Yellow, White, Green and Blue
Small windows have 1 LED module
Medium windows have 2 LED modules in parallel
Large windows have 4 LED modules in parallel

Environmental
Operating temperature: -20°C to 50°C (bulb units)
Operating temperature: -20°C to 60°C (LED units)
Storage temperature: -20°C to 80°C
Humidity: 0-95% RH non-condensing
Protection (front of panel): IP41
Protection (rear of panel): IP20

Audible module (24VDC only)
Sound level: 95dB @ 30cm at 24VDC
Frequency: 3.3kHz
Current consumption: 25mA at 24VDC

Connection
Rear mounted, rising clamp, screw terminals suitable for 2.5mm^2 solid or stranded cable for bulbs or LED's and 1.25mm^2 for switches and pushbuttons
Recommended torque:
0.6 to 1.0Nm (M3.5 Switches and pushbuttons)
1.0 to 1.3Nm (M3 Bulb and LED holders)

Pushbuttons and switches
Maximum switch voltage: 250VAC/DC
Thermal current: 5A
Operating voltage / and current (resistive load):
125VAC/3A, 250VAC/2A
30VDC/2A, 125VDC/0.4A
Contact type: Silver
Insulation resistance: 100MΩ min (500VDC Megger)
Dielectric strength: 2500VAC for 1 minute (Between terminals of the same pole: 1000VAC for 1 minute)

Overall dimensions and panel cut-out
P725LO with small windows:
Height = 24 + (rows x 30)
Width = 24 + (columns x 30)

P725LO with medium windows:
Height = 24 + (rows x 30)
Width = 24 + (columns x 60)

P725LO with large windows:
Height = 24 + (rows x 60)
Width = 24 + (columns x 60)

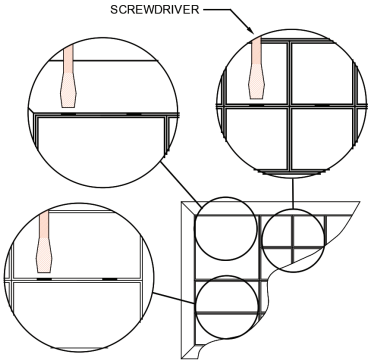
For cut-out size, subtract 10mm from each dimension.

Operating instructions

After installation and testing, the unit may be operated according to the wiring configuration. To eliminate any potential wiring faults, please ensure all the switches and windows are fully tested in all conditions prior to use.

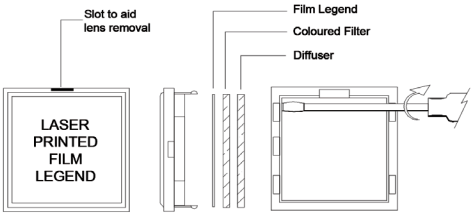
Maintenance

For P725LO facias with bulb illumination it is important to ensure all the bulbs are in working order. If the unit incorporates a lamp-test function, it should be used periodically. Any bulbs found to be defective should be replaced by carefully levering out the corresponding window and removing the bulb using a bulb extractor tool. Refer to the diagram below.



Adding or changing film legends

Each lens assembly has a small slot in the upper ridge of the surround bezel, which allows a flat blade terminal screwdriver to be used to gently lever the assembly forward. Once the assembly has been removed the diffuser, coloured filter and film legend can be accessed using a flat blade screwdriver to gently lever the lens clear of the associated parts as indicated in the diagram below. This MUST be levered on the side NOT the top or bottom.



Recommended spares

For bulb illumination it is recommended that 10% of the total number of bulbs in the system are kept as spares. No other spare parts are recommended.

Part number: LP-28V-004- 28VDC bulb (for 24VDC units) and LP-48V-001 (For 48VDC units).

Due to our policy of continuous product development, we reserve the right to amend these specifications without notice.

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