

LPC Fire Pump Control Panels

The Murphy LPC control panel range has been designed for use in both diesel and electric driven fire pump applications. The panels may be used in conjunction with suitable engine or electric motor equipment to meet the requirements of the Loss Prevention Council and BS5306 specifications.

The panels are a direct derivation of our successful EEC family of automatic engine controls, with a proven track record of quality and reliability. Independent automatic and emergency manual control is provided.

Diesel Controls

Automatic starting

A front of panel switch allows selection of either engine battery A or B for automatic starting. A start sequence initiates on momentary opening of a sprinkler pressure switch (with adjustable delay, 0 – 60 seconds) or closing of a remote start contact. Cranking then commences from the selected battery: Crank A and Crank B outputs are designed to control remotely mounted engine start solenoids (not supplied).

Each start sequence comprises a maximum of six cranks of 15 seconds each, with crank rests of 10 seconds. Engine speed is detected using an engine mounted magnetic pickup (supplied) and cranking is automatically discontinued when the engine starts.

The controls also include the ability to confirm that the starter has successfully engaged. If the battery fails during the six crank attempts, the remaining crank attempts are automatically taken from the other battery. The appropriate battery healthy lamp will be extinguished and a remote 'common fault' signal will be initiated.

Manual test starting

After each automatic start the Manual Test Start Due indicator is illuminated, signalling the requirement for a manual test start. Operation of the Manual Test Start button uses the battery *not* selected for auto start. Once the pump has started, this indicator is extinguished and the button made inoperative until after the next automatic start.

Remote starting

Manual, remote initiation of an automatic start is available by the simple connection of any number of remote push button stations. Momentary closure of the contacts will initiate the start sequence; engine stopping must be carried out manually.

Emergency Starting

The front facia also features an emergency start button, protected by a quick access cover. When this button is operated, the engine is cranked using power from both sets of batteries.

Battery Charging

Two battery chargers are provided, each of 5 Amps output rating. The chargers are for use with 220/240 VAC power supply and are fitted complete with a door interlocked isolator and 10 Amp charge ammeters.



Product Specifications

Diesel Controls

Power supply:

DC supply voltage 12V or 24V nominal
AC charger supply voltage 220/240VAC nominal

Inputs:

low oil press, high eng. temp Close to negative DC to activate

Outputs:

start A, start B Switched positive DC, 5 Amp max.
on demand, engine running, Single pole contacts, volt free
common fault, audible alarm 5 Amp max. @ 24VDC

Physical:

dimensions (h x w x d) 600 x 600 x 210 mm
enclosure colour Signal red BS 381 C 537
enclosure sealing IP55
magnetic pickup (standard) Thread: 5/8" UNF; length: 76.5mm

Electric Motor Controls

Outputs:

on demand, motor running, Single pole contacts, volt free
mains fail, space heater 5 Amp max. @ 24VDC

Physical:

dimensions variable – please enquire
enclosure colour beige RAL 7032
enclosure sealing IP55

In order to consistently bring you the highest quality, full-featured products, we reserve the right to change our specifications and designs at any time.

Fault Indication

Inputs are provided for the connection of engine low oil pressure and high engine temperature fault switches. The appropriate warning indicator will light, and the audible alarm will sound, when either of these inputs is externally switched to battery negative.

Fault indicators are also provided for 'failed to start', 'battery charger A failed' and 'battery charger B failed'. A front panel 'reset' pushbutton allows the fault indication to be cleared.

Electric Motor Controls

These controllers are designed for use with three phase and neutral AC supplies (415VAC phase to phase).

Automatic motor starting is initiated by the opening of a (normally closed) remote pressure contact. Start-delta motor starting consists of a 5 second (adjustable) closure of the star contactor followed by closure of the delta contactor.

Manual, operator initiated motor start is also available using the front facia Emergency Start pushbutton, fitted inside a quick access protective cover.

In the event that the motor is no longer required, the operator may stop the motor by pressing the front facia Stop/Reset pushbutton.

Other features

All panels are manufactured from sheet steel and sealed to IP55. Lugs are provided for mounting on a bulkhead or suitable skid framework.

External electrical connection is made through an unpunched gland plate in the base of the controller to a clearly labelled terminal strip inside. Full circuit diagrams are supplied with each panel.

This product is supplied with a two year limited warranty on materials and workmanship. Full warranty details are available on request and are supplied with each panel.

Control and Instrumentation Features

Diesel Controllers

Panel Indicators:-

- AC healthy (green)
- Engine Running (green)
- Battery A healthy (green)
- Battery B healthy (green)
- Low oil pressure (amber)
- High engine temperature (amber)
- Battery charger A failed (amber)
- Battery charger B failed (amber)
- Manual test start due (amber)
- On demand (red)
- Auto start off (red)
- Failed to start (red)

Operator controls:-

- Auto battery selector switch (A or B)
- Manual test start pushbutton
- Emergency manual start pushbutton
- Reset pushbutton

Additional Instrumentation:-

- Tacho/hours run counter
- 2 x charge ammeters, 0 – 10A
- Audible annunciator

Inputs:-

- Starting pressure switch
- Remote start
- Low oil pressure
- High engine temperature
- Magnetic pickup

Outputs:-

- Crank A (+ DC, 5A)
- Crank B (+ DC, 5A)
- On demand (volt free, 5A)
- Engine running (volt free, 5A)
- Common fault (volt free, 5A)
- Audible alarm (volt free, 5A)

Enclosure:-

- IP55 sealed enclosure, red
- Door interlocked isolator
- Anti-condensation space heater

Electric Motor Controllers

- AC healthy x 2 (green)

- Emergency manual start pushbutton
- Stop / Reset pushbutton

- AC supply ammeter

- Starting pressure switch

- On demand (volt free, 5A)
- Motor running (volt free, 5A)
- Mains failure (volt free, 5A)
- Space Heater (volt free, 5A)

- IP55 sealed enclosure, beige
- Door interlocked isolator
- Anti-condensation space heater

When ordering, please specify:-

For price and availability, please contact our UK sales office:-

Tel: +44 (0)1722 410055
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Email: sales@fwmurphy.co.uk

Diesel Pump controllers (note: these stock numbers include supply of 1 x standard 5/8" UNF, 76.5mm (3") magnetic pickup)

Stock number	Description
B3933	LPC diesel control panel, 12V (lead acid)
B3791	LPC diesel control panel, 12V (10 cell NiCd)
B3807	LPC diesel control panel, 24V (lead acid)
B3670	LPC diesel control panel, 24V (20 cell NiCd)

Electric Motor Pump controllers

Stock number	Description
B5257	11 kW electric motor fire pump controller
B4840	15 kW electric motor fire pump controller
B5170	18.5 kW electric motor fire pump controller
B5484	22 kW electric motor fire pump controller
B5103	30 kW electric motor fire pump controller
B5572	37 kW electric motor fire pump controller
B5661	45 kW electric motor fire pump controller
B5702	55 kW electric motor fire pump controller
B5906	75 kW electric motor fire pump controller
B5960	90 kW electric motor fire pump controller
B5610	110 kW electric motor fire pump controller
B5701	132 kW electric motor fire pump controller
B5692	160 kW electric motor fire pump controller



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