MTL4616

SWITCH/ PROXIMITY DETECTOR INTERFACE

2-channel, with line fault detection

The MTL4616 enable two loads to be controlled by a switch or proximity detector. When selected, open or short circuit conditions in the field wiring are detected by the line-fault-detect (LFD) facility and also indicated on the top of the module. Phase reversal for each channel is selected by a switch on the side of the module and output is provided by changeover relay contacts.

SPECIFICATION

See also common specification

Number of channels

Two

Inputs

Inputs conforming to BS EN60947–5–6:2001 standards for proximity detectors (NAMUR)

Voltage applied to sensor

7 to 9V dc from 1k Ω ±10%

Input/output characteristics

Normal phase

Outputs closed if input > 2.1mA (< $2k\Omega$ in input circuit) Outputs open if input < 1.2mA (> $10k\Omega$ in input circuit)

Hysteresis: 200μA (650Ω) nominal

Line fault detection (LFD) (when selected)

User-selectable via switches on the side of the unit. Line faults are indicated by an LED for each channel. The channel output relay is de-energised if an input line fault is detected.

Open-circuit alarm on if I_{in} < $50\mu A$ Open-circuit alarm off if I_{in} > $250\mu A$ Short-circuit alarm on if R_{in} < 100Ω

Short-circuit alarm off if $R_{in} > 360\Omega$ Note: Resistors must be fitted when using the LFD facility with a contact input 500Ω to $1k\Omega$ in series with switch

 $20k\Omega$ to $25k\Omega$ in parallel with switch

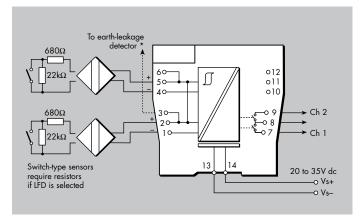
Output

Two single-pole relays with changeover contacts Note: reactive loads must be adequately suppressed

Relay characteristics

Response time: 10ms maximum 10W, 0.5A, 35V dc

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LED indicators

Green: power indication

Yellow: two: channel status, on when output energised Red: two: LFD indication, on when line fault detected

Maximum current consumption

35mA at 24V

Power dissipation within unit

0.84W at 24V

The given data is only intended as a product description and should not be regarded as a legal warranty of properties or auarantee. In the interest of further technical developments, we reserve the right to make design changes

