

# MTL4614D

## SWITCH/ PROXIMITY DETECTOR INTERFACE

1-channel, dual output, LFD, phase reversal

The MTL4614D enables two safe-area loads to be controlled, through relays, by a proximity detector or switch. When selected, open or short circuit conditions in the field wiring are detected by the line fault detect (LFD) facility and indicated on the top of the module. Switches are provided to select phase reversal and to enable the line fault detection.

### SPECIFICATION

See also common specification

#### Number of channels

One

#### Inputs

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

#### Voltage applied to sensor

7 to 9V dc from  $1k\Omega \pm 10\%$

#### 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:  $200\mu A$  ( $650\Omega$ ) nominal

#### Line fault detection (LFD) (when selected)

User-selectable via switches on the side of the unit. Line faults are indicated by an LED. The channel output relays are 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  $R_{in} < 100\Omega$

Short-circuit alarm off if  $R_{in} > 360\Omega$

Note: Resistors must be fitted when using the LFD facility with a contact input  
 $500\Omega$  to  $1k\Omega$  in series with switch  
 $20k\Omega$  to  $25k\Omega$  in parallel with switch

#### Output

Two, single pole relays with normally-open contacts

Note: reactive loads must be adequately suppressed

#### Relay characteristics

Contact rating: 10W, 0.5A, 35V dc

#### LED indicators

Green: power indication

Yellow: channel status, on when output energised

Red: LFD indication, on when line fault detected

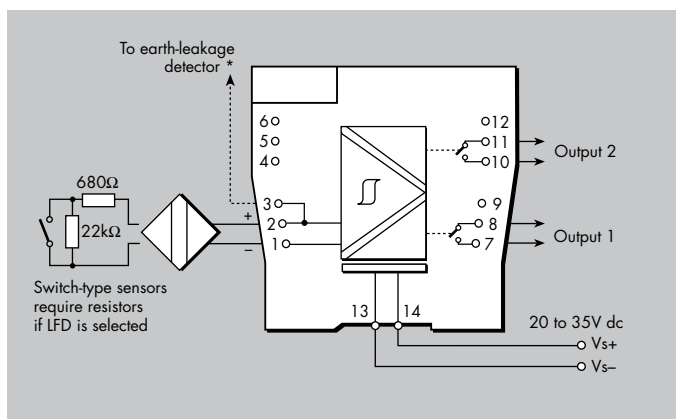
#### Maximum current consumption

29mA at 24V dc

#### Power dissipation within unit

0.7W at 24V

### MTL4614D



\* Signal plug SAF1-3 is required for access to this function

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



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