MTL4216 SWITCH OPERATED RELAY

two-channel IS-output

CE

The MTL4216 enables two separate IS circuits in a hazardous area to be relay-contact controlled by two on-off switches or logic signals in a safe area. Applications include the calibration of strain-gauge bridges; changing the polarity (and thereby the tone) of an IS sounder; the testing of IS fire alarms; and the transfer of safe-area signals into an annunciator with IS input terminals not segregated from each other. The output-relay contacts are certified as non-energy-storing apparatus, and can be connected to any IS circuit without further certification, provided that separate IS circuits are such that they would remain safe if connected together.

SPECIFICATION

See also common specification, cable parameters and approvals

Number of channels
Two, fully floating

Location of control circuit
Safe area

Input/output characteristics
Inputs suitable for switch contacts, an open-collector transistor or logic drive

Relay energised if	<27kΩ or <1V applied
Relay de-energised if	>54kΩ or >2V applied (50V maximum)
Hysteresis, nominal	15kΩ or 0.5V

Power supply failure protection
Relays de-energised if supply fails

Response time
25ms nominal

Contacts (suitable for connection to IS circuits)
1-pole changeover per channel

Contact rating
100V dc, limited to 30V dc for IS applications, 250mA
5VA (reactive loads must be suppressed)
<150mΩ contact resistance

Contact life expectancy
2 x 10^5 operations at maximum load

LED indicators
Amber: one provided for each channel, ON when relay is energised
Green: one provided for power indication

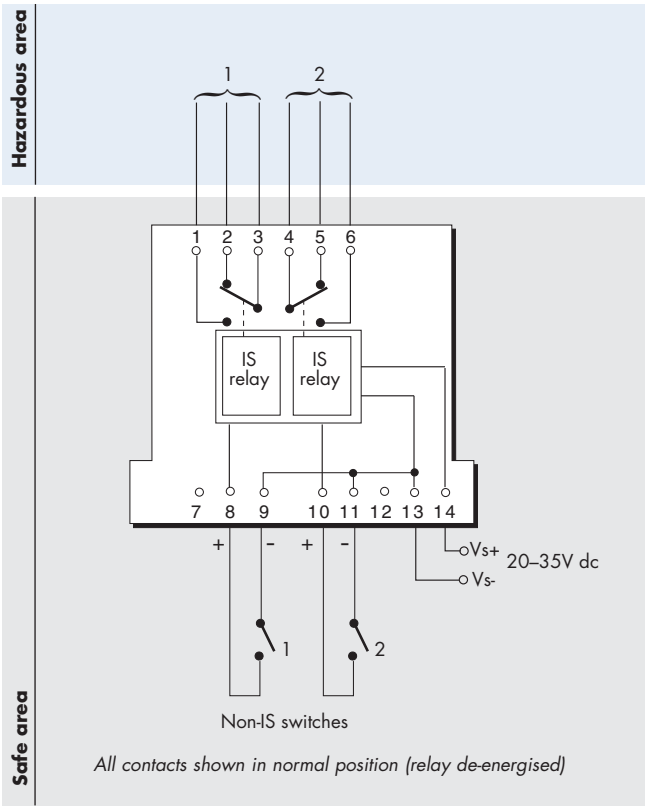
Power requirement, Vs
25mA at 24V dc
20mA at 20V dc
40mA at 35V dc

Power dissipation within unit
0.6W maximum at 24V
1.4W worst case

Isolation
250V ac between safe- and hazardous-area circuits

Safety description (each channel)
Non-energy-storing apparatus: relay contacts may be connected to any IS circuit without further consideration

FM entity parameters
V_{oc} = 0V, I_{sc} = 0mA, C_a = 10,000µF, L_a = 1.0H



All contacts shown in normal position (relay de-energised)

Terminal	Function
1	IS relay output 1 (normally open)
2	IS relay output 1 (normally closed)
3	IS relay output 1 (common)
4	IS relay output 2 (common)
5	IS relay output 2 (normally closed)
6	IS relay output 2 (normally open)
8	Relay 1 control +ve
9	Relay 1 control –ve
10	Relay 2 control +ve
11	Relay 2 control –ve
13	Supply –ve
14	Supply +ve

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