MTL4215 SWITCH OPERATED RELAY

IS-output

CE

The MTL4215 enables either one or two separate IS circuits in a hazardous area to be relay-contact controlled by a single on/off switch or logic signal 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 still remain safe if connected together.

SPECIFICATION

See also common specification, cable parameters and approvals

Number of channels
One, fully floating

Location of control circuit
Safe area

Input/output characteristics
Input 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
Relay de-energised if supply fails

Response time
25ms nominal

Contacts (suitable for connection to IS circuits)
2-pole changeover

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 relay status, ON when relay energised
Green: one provided for power indication

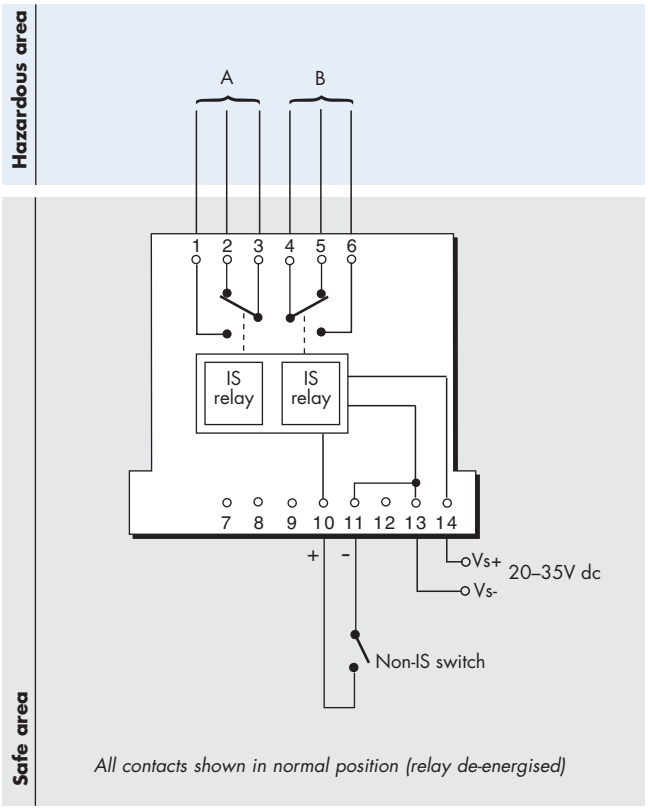
Power requirement, Vs
25mA at 24V dc
20mA at 20V dc
40mA at 35V dc

Power dissipation within unit
0.6W maximum at 24V dc
1.4W maximum at 35V dc

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 = 1.0mH



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

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

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