



PULSE LINKS

CLS-1 CURRENT LOOP RELAY

DESCRIPTION

The CLS-1 is a current loop switch relay designed to sense the current in a 4-20mA current loop and switch a normally-open relay when the loop current exceeds the setpoint. The CLS-1 is self-powered from the current loop and requires no external power supply to operate. One Normally-Open Solid State Dry Contact output is provided to switch a small load or control circuit up to 300mA at a voltage up to 120VAC/VDC.



Applications include controlling loads or signaling the status of the current loop.

The CLS-1 contains two high light output red and green LED's. The Green LED indicates that the CLS-1 has power applied from the loop power supply, while the Red LED indicates when the relay is energized. This allows a continuous display of the system's status at all times without requiring any additional test equipment. Provision is made to read the loop current with a DVM meter if desired.

The CLS-1's input and output circuit's terminal strip is a "Euro" type connector. When the stripped wire has been correctly installed in the terminal's slot, no conductive parts are exposed on the surface of the terminal strip. Due to the inherent current-limited nature of the design, no fusing is necessary on the input.

The CLS-1's relay output is rated at 500mA (.5A) and is fused to prevent damage to the relay under almost any conditions a user might encounter such as excessive current, incorrect wiring, etc. The CLS-1's output relay also has a built-in MOV transient protection for the solid-state relay contact. All component parts which have voltage applied to them, with the exception of the input-output terminal strip, are enclosed in a polycarbonate cover for maximum user protection. The mounting base plate is also made of polycarbonate and offers excellent electrical insulation between the circuit and the mounting surface. The CLS-1 is designed to mount inside another enclosure, suitable for the user's intended application.

FUNCTIONAL SUMMARY

	IN	OUT
#	1	1
TYPE	CL	2 Wire
FORM	CL	A

CLS-1



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SPECIFICATIONS

ELECTRICAL

Power Input:	No power supply required; powered by current loop.
Relay Contact On-State Resistance:	5 ohms maximum, 3.4 Ohms typical
Insulation Resistance:	50 megohms typical
Operate and Release Time:	Turn On Time - 5 mS typical; 20 mS MAX Turn Off Time - 1 mS typical; 5 mS MAX
Input/Output Isolation Voltage:	2500Vrms

MECHANICAL

Mounting:	Any position
Size:	3.27" wide, 5.7" high, 1.5" deep
Weight:	10 - 12 ounces

TEMPERATURE

Temperature Range:	-38° C to +70° C, -38.4° F to +158° F
Humidity:	0 to 98% non-condensing

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