

Loop-Powered Accessories

Four Easy-to-Use Solutions for Current-Loop Applications
Solve Common Loop Problems

GDS-51 Loop Powered Isolator

- * Continuous 1500V common-mode voltage isolation between input and output
- * Output isolated current loop is capable of driving 20mA into 750 ohm load
- * Contributes less than 1.75V of loop voltage drop
- * Requires no calibration



The GDS-51 Loop-Powered Isolator eliminates problems often encountered when terminating field current loops to control room instrumentation. A chopper amplifier and inductive coupling transformer provide complete electrical isolation, eliminating ground loops and protecting expensive DCS input circuitry.

GDS-55 Loop Powered Alarm

- * Single Fail Safe SPDT Form C relay with 2A dry contacts
- * Multi-turn alarm setpoint adjustment
- * Alarm trip-on-high or trip-on-low set by DIP-switch
- * Latching or non-latching operation
- * Contributes less than 7.5V of loop voltage drop



The GDS-54 Loop-Powered Alarm is designed to initiate actions, such as turn on a horn, motor or indicator light when the monitored loop current rises above or falls below a fixed setpoint. It may be installed in any 4-20mA current loop where a fail safe, completely isolated SPDT dry contact relay is needed for switching AC or DC loads.

GDS-54 Loop Powered Indicator

- * Full 3 1/2 digit LCD display with large 0.6" characters
- * Square root extract option available (GDS-54SR)
- * Contributes less than 2.5V of loop voltage drop
- * Panel mount, NEMA 4X and Explosion-Proof versions



The GDS-54 Loop-Powered Indicator displays 4-20mA variables in their correct engineering units. The GDS-54 has a single 3-1/2 digit LCD readouts with optional trailing "0" for readings up to 19990. Decimal points are DIP-switch selectable. Non-interacting ZERO and SPAN potentiometers allow precise display in any desired engineering unit value.

GDS-56 Loop Powered Indicator

- * High resolution 6-digit display with alphanumeric tag
- * Linearization table for square root, custom response curves
- * Contributes less than 4.0V of loop voltage drop
- * On-board real time clock and event log track alarms



The GDS-56 Loop-Powered Indicator displays loop variables in their correct engineering units, as 30-minute trends and bargraphs. Two trailing dummy "0" characters allow readings up to 999900. All configuration is done using magnetic wands; there are no analog potentiometers or DIP switches to adjust. An optional totalizer function displays up to 10-digit values.

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GDS-51 Loop-Powered Isolator SPECIFICATIONS	
Power Input	4-20mA Current Loop Max voltage drop of 1.75V Screw terminal contacts for current loop input and output
Display	None
Output	4-20mA into a maximum 750 ohm load
Protection	250mA forward, 500mA reverse 1500V continuous common mode voltage isolation
Temperature	-20 to +60C operating
Housing	General purpose high-density DIN rail 3.13" Height x 3.33" Depth x 0.9" Width
Warranty	Two years from date of purchase



GDS-55 Loop-Powered Alarm SPECIFICATIONS	
Power Input	4-20mA Current Loop Max voltage drop of 7.5V Screw terminal contacts for current loop and relay output
Display	Single alarm status LED
Alarm Setpoint	0 - 100% of full scale, measured as 20 to 100mV reading (ex: 60mV = 50% of scale)
Latching Mode	User must acknowledge alarm by depressing local pushbutton. May be disabled by DIP switch
Alarm Deadband	Set for 1%, 3% or 6% of scale by DIP switch
Relay Contacts	SPDT Form C dry contacts rated for 2A 30VDC or 125VAC resistive loads
Temperature	- 10 to +60C operating
Housing	GDS-55DN for DIN rail mount GDS-55N4 for NEMA 4x wall mount GDS-55XP for NEMA 7 explosion proof rated enclosure (C1, D1, Grps B, C, D)
Warranty	Two years from date of purchase



GDS-54 Loop-Powered Display SPECIFICATIONS	
Power Input	4-20mA Current Loop Max voltage drop of 2.5V Max voltage drop of 5.0V for GDS-54SR Screw terminal contacts for current loop
Display	4 1/2 digit 0.6" high-contrast LCD
Protection	250mA forward, 500mA reverse
Accuracy	+/- 0.1% of full scale
Temperature	-10 to +60C operating
Housing	GDS-54PC for circuit assembly only GDS-54PM for general purpose panel mt GDS-54N4 for NEMA 4x wall mount GDS-54XP for NEMA 7 explosion proof rated enclosure (C1, D1, Grps B, C, D)
Warranty	Two years from date of purchase



GDS-56 Loop Powered Display w/ Totalizer SPECIFICATIONS	
Power Input	4-20mA Current Loop Max voltage drop of 4.0V 2.5mA minimum allowable loop current for proper operation
Display	Large 64 x 128 LCD shows trend, bargraph and engineering units
Protection	Resettable solid-state fuse trips at 100mA; electronics are designed to withstand direct application of +24VDC
Accuracy	GDS-56: +/- 0.1% of full scale GDS-54T: +/- 0.03% of full scale
Temperature	- 30 to +60C operating
Housing	GDS-56XP for NEMA 7 explosion proof rated enclosure (C1, D1, Grps B, C, D)
Warranty	Two years from date of purchase