

Q: I occasionally need 4 – 20 mA loop splitters, isolators and re-scalers. What do you suggest?

Loop Splitter
Laurel QLS Quad Loop Splitter



Loop Splitter

Accepts a 4-20 mA, 1-5V, 0-5V or 0-10V input signal.
 Drives four (4) independent 4-20 mA outputs proportional to input
 Outputs can share a common ground
Grounds of input and outputs can differ up to $\pm 10V$
Opening any output loop does not affect other loops
 $\pm 10\%$ zero and span fine adjustments for each output loop
 Loop current test point for each output, where 200 mV = 20 mA
 Indicator LED for each connected output
 Powered by 85-264 VAC (Model QLS-1) or 10-48 VDC (Model QLS-2)
 Powers a 2- or 3-wire input transmitter at 24V with up to 30 mA
 22.5 mm (0.9") wide case snaps to 35 mm DIN rail
 Weighs only 159 g (5.6 oz)

Price: QS-1 (95 - 264 VAC)... \$ 200 QS-2 (10 – 48 VDC)...\$ 230

Loop Powered Isolator
Novus Loop-Powered Isolators - TxIsoLoop-1 & TxIsoLoop-2



Loop isolators provide signal protection by electrically isolating the input signal from the output.

TxIsoLoop-1 and TxIsoLoop-2 simplify avoid undesirable ground loops by providing single and dual loop galvanic isolation. The 4-20 mA input is measured and **an identical isolated signal is reproduced at the output**. Power is drawn from the 4-20 mA input loop, thus no auxiliary power or any external power supply needed. Note that there are 2 independent power channels in TxIsoLoop-2. These isolators do not rescale the 4 – 20 mA signal (see below).

Connecting 2 inputs in series makes an isolated loop splitter.

Isolation: 3000 VAC / 10 s; 240 VAC continuous

<http://www.novusautomation.com/catalogos/?ID=739150>

Price: TxIsoLoop-1... \$ 126 TxIsoLoop-2... \$ 224

Re-scaling and Signal Isolation Smart Transmitters - ISOLATED TxIsoRail



TxIsoRails are fully programmable isolated transmitters. Although you will mostly see them used for TC's and RTD's, their 4 – 20 mA input makes them ideal for 4 – 20 mA rescaling. The addition of isolation makes this module ideal for many 4 - 20 applications. Isolated transmitters protect the electrical instruments by eliminating ground loop effects and reduce substantially the undesirable interferences and instabilities in sensor measurements. Also for TCs and RTDs.

TxIsoRail is a DIN rail mount unit. The units can be easily user configured for input type and working range by means of an interface cable connected to a PC USB port. 2-wire loop powered, 4-20 mA or 20-4 mA output

Note that these transmitters do not provide input loop power. If required use the FTR Loop Power supply (\$ 55).

<http://www.novusautomation.com/catalogos/?ID=806373>

Price: \$ 149

Note: Prices as of Dec. 2012 and subject to change.

More A.I.S. Applications Notes: www.AdvIndSys.com/ApplicationsNotes.htm

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