

InstaLink™-GLF Ground Loop Filter



- Eliminates ground loops caused by differential ground voltages up to 120V
- Make-before-break test jack for temporary connection of a meter
- 2 wire input, 3 wire output
- Fast response time
- Plug-in jumpers for 24Vdc supply reduces installation time (jumpers included)
- Mounts on 32 and 35mm DIN rails

It acts like a current loop isolator up to a point but doesn't use a transformer or optocoupler for isolation! Maybe we could call it a "non-galvanic isolator" but we can't think of any other type of isolation other than galvanic. Since it tolerates ground differential voltages up to 120V we even considered naming it "The Tolerator" but to avoid controversy we opted for "Ground Loop Filter" or "GLF" for short.

This module interfaces a field transmitter producing 4-20mA to a PLC or DCS input. Where analog isolators can provide optical or transformer isolation up to 2KV or higher the InstaLink™-GLF provides a very high impedance between the input and output loops but does not

actually isolate the signals. This acts as a barrier for currents caused by ground differentials. The barrier is rated 120V - above 140V it can break down and a ground loop current would be produced. 120 volts represents a sizeable ground differential voltage and much lower values are typical.

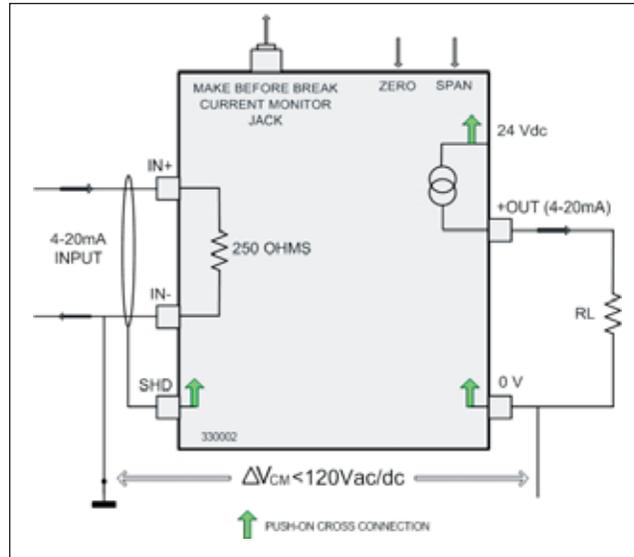
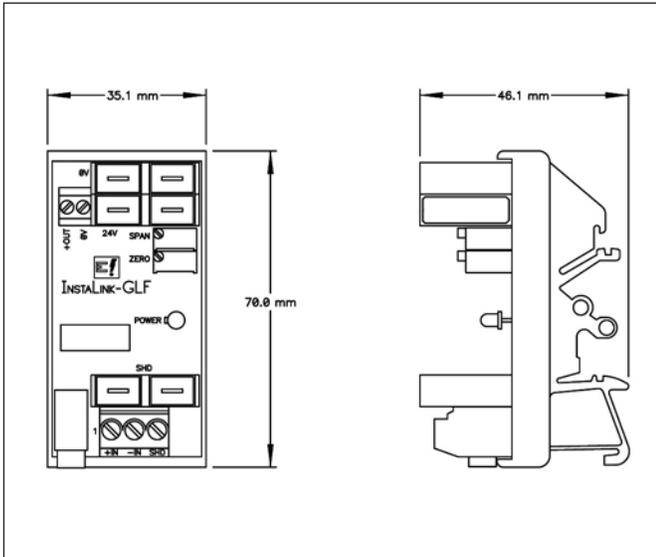
A unique feature of the InstaLink™-GLF is the make-before-break connector that allows a meter to be inserted into the input loop and removed without causing a momentary interruption of the loop. This makes calibration very easy. A test cable is available. Other features include very fast response time and plug-in jumpers for easy distribution of 24Vdc (included with each module).

Best of all, the low price allows you to install one in each of your current loops as insurance against errors caused by ground loops.

If you are only concerned with ground loops the InstaLink™-GLF is the solution. If you are also trying to prevent overvoltage transients from reaching your PLC or DCS then the InstaLink™-CLI isolator might be a better solution.

Ordering Information

| | |
|-----------------------|---------------|
| InstaLink™-GLF | 330002 |
| Test Cable | 330035 |



SPECIFICATIONS

| | InstaLink™ -GLF |
|---|---|
| Catalog Number | 330002 |
| Input range: | 4-20mA |
| Impedance: | 250Ω |
| Configuration: | 2 wire, sinking or sourcing field transmitter |
| Connections: | screw terminals, 5.08mm pitch |
| Meter connection: | make-before-break jack (3.5mm phono) |
| Output range: | 4-20mA |
| Output loop impedance: | 0-500Ω @ 12Vdc supply, 0-1KΩ @ 24Vdc supply |
| Connections: | screw terminals, 3.5mm pitch |
| Configuration: | module sources output loop (PLC or DCS input has common negative) |
| Supply range: | 12-28Vdc depending on output loop impedance |
| Consumption: | output current +10mA typical |
| Connection: | 0.187" push-in for +24 and 0V (jumpers included) |
| Accuracy: | 0.08% typical @ 25°C 2% absolute worst case (120V ground differential over complete temp. range) |
| Response time: | 2.5ms typical |
| Input-output ground differential voltage: | 120V rated, 140V absolute maximum |
| Operating / storage temperature: | -20 to +70°C |
| Wire sizes: | Input: 26-12 AWG Output: 28-14 AWG Jumpers: 16-14 AWG, 0.187" push-on |
| Dimensions: | 35 x 70 x 43mm (requires 35mm of DIN rail) |
| Mounting: | 32 or 35mm DIN rails |
| Approvals: | UL LISTED, E236770 |
| Additonal jumpers: | 330114 |