

IN-CLL Current Loop Limiter

Current Loop Limiter.

Features.

- Compact Din Rail Mount Enclosure.
- High Accuracy.
- Low Cost.
- Easy to Install.
- Reverse Polarity Protection.
- Setpoint Adjustment Externally Accessible.
(By 20 Turn potentiometer.)



Description.

The IN-CLL is a loop powered transmitter designed to limit the maximum current that can flow in a 0~20mA or 4~20mA loop. Requiring only 3V (equivalent to 150Ω @ 20mA) out of the loop supply. The setpoint can be adjusted anywhere from 1 to 22mA, has excellent cut-off with no effect on calibration.

Ordering Information.

IN-CLL Setpoint, eg 20.00mA → IN-CLL 20.00mA

Other types of DIN rail or wall mounting enclosure configurations available on request.

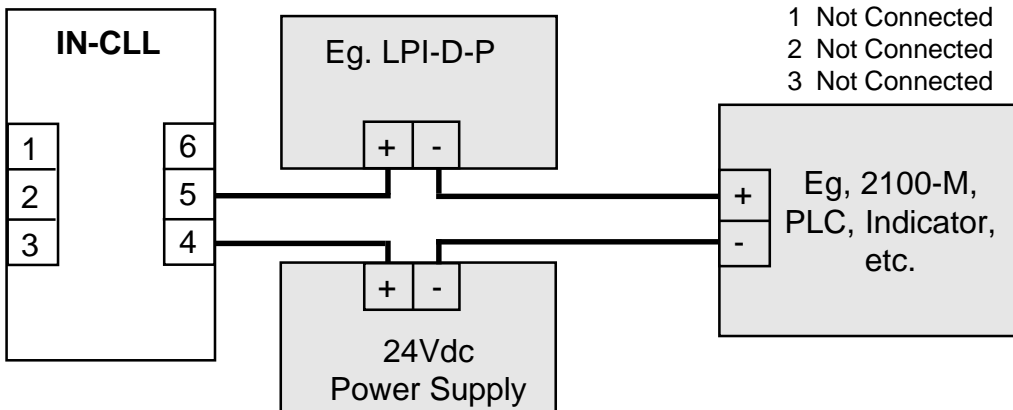
Specifications.

Connections	2 Wire Loop Powered.
Adjustable Range	1~22mA.
Power Supply	3~32Vdc.
Output Load Resistance	1050Ω @ 24Vdc. (50Ω/V Above 3Vdc.)
Accuracy & Repeatability	<±0.1% FSO Typical.
Ambient Drift	<±0.01%/C FSO Typical.
Supply Sensitivity	<±0.01%/V FSO.
Operating Temperature	0~70C.
Storage Temperature	-20~80C.
Operating Humidity	5~85%RH Max. Non-Condensing.
Dimensions	L=79, W=22.5, H=85mm.

Product Liability. This information describes our products. It does not constitute guaranteed properties and is not intended to affirm the suitability of a product for a particular application. Due to ongoing research and development, designs, specifications, and documentation are subject to change without notification. Regrettably, omissions and exceptions cannot be completely ruled out. No liability will be accepted for errors, omissions or amendments to this specification. Technical data are always specified by their average values and are based on Standard Calibration Units at 25C, unless otherwise specified. Each product is subject to the 'Conditions of Sale'.

Warning: These products are not designed for use in, and should not be used for patient connected applications. In any critical installation an independent fail-safe back-up system must always be implemented.

Example of Connections.



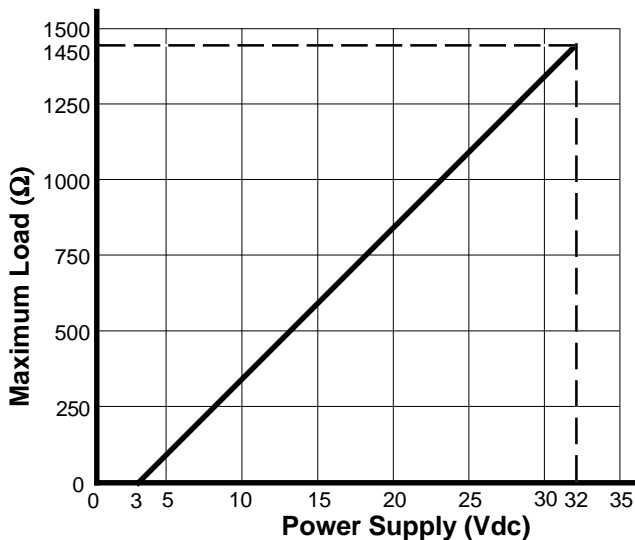
IN-CLL Terminations.

- | | |
|-----------------|-----------------|
| 1 Not Connected | 4 +mA |
| 2 Not Connected | 5 -mA |
| 3 Not Connected | 6 Not Connected |

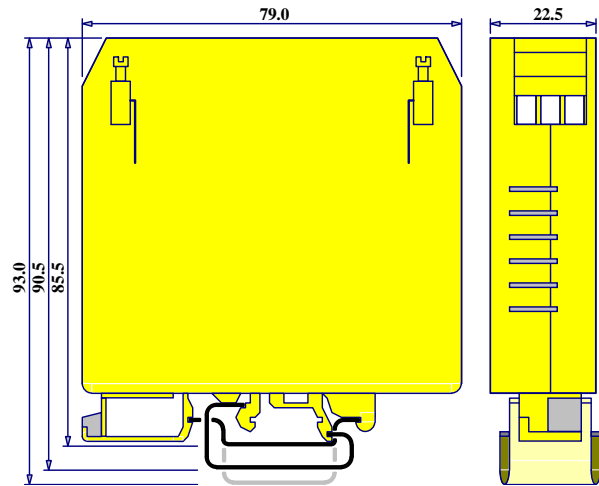
Quality Assurance Programme.

The modern technology and strict procedures of the ISO9001 Quality Assurance Programme applied during design, development, production and final inspection grant long term reliability of the instrument.

Graph Of Maximum Load Versus Power Supply.



Enclosure Dimensions.



The Proper Installation & Maintenance of IN-CLL.

All power and signals must be de-energised before connecting any wiring, or altering any Jumpers or Dip Switches.

MOUNTING.

- (1) Mount in a clean environment in an electrical cabinet on DIN or EN rail.
- (2) Draft holes must have minimum free air space of 20mm. Foreign matter must not enter or block draft holes.
- (3) Do not subject to vibration or excess temperature or humidity variations.
- (4) Avoid mounting in cabinets with power control equipment.
- (5) To maintain compliance with the EMC Directives, the IN-CLL must be mounted in a fully enclosed, metal, electrical cabinet. The cabinet must be properly earthed, with appropriate input \ output entry points, cabling and filtering.

WIRING.

- (1) All cables should be good quality overall screened INSTRUMENTATION CABLE with the screen earthed at one end only.
- (2) Signal cables should be laid a minimum distance of 300mm from any power cables.
- (3) For 2 wire current loops Austral Standard Cables B5102ES is recommended. For three wire transmitters and RTD's Austral Standard Cables B5103ES is recommended.
- (4) It is recommended that you do not ground current loops and use power supplies with ungrounded outputs.
- (5) Lightning arrestors should be used when there is a danger from this source.
- (6) Refer to diagrams for connection information.

COMMISSIONING.

Caution

If any units can be damaged by currents higher than set on the IN-CLL check the IN-CLL separately before applying power to the whole loop.

- (1) Once all the above conditions have been carried out and the wiring checked, apply power to the IN-CLL loop and allow 5 minutes for it stabilize.
- (2) Place a high impedance dc voltmeter across an instrument in the loop with a known fixed resistance input. For example the EXPO-3I has an input resistance of 100Ω on each channel. With 20.00 mA flowing in the loop the voltage across an EXPO-3I input would equal 2.000V.
- (3) Increase the reading of the variable being measured by the transducer supplying the 0~20mA or 4~20mA loop, until it exceeds the IN-CLL setpoint. Check that the dc voltmeter has stopped at the voltage equivalent IN-CLL mA setpoint. Adjust for any difference using the setpoint Pot on top of the IN-CLL enclosure with a small screwdriver. (Clockwise to decrease the setpoint value and anticlockwise to increase the setpoint value.)
- (4) Remove the high impedance dc voltmeter.

MAINTENANCE.

- (1) Repeat 2,3,4 of Commissioning.
- (2) Do it regularly - at least once every 12 months.

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