LOOP ISOLATOR TRANSMITTER — USD-2C

- *HIGH ACCURACY*
- *CURRENT INPUT*
- *3 1/2 DIGITS LED DISPLAY*
- *GALVANIC ISOLATION*
- *DRY CONFIGURATION™*
- *LOW COST*
- *3 YEAR WARRANTY*

The USD-2 is a computerized, PC rogrammable, galvanically isolated two-wire smart transmitter.

The unit converts DC currents into process current loop.

Integral 3 ½ digits LED display forms a monitor - transmitter unit which is visiable in dark installations. Special red filter is provided for optimal view.
24 bit A/D converter and two microprocessors are the heart of the outstanding performance.

The output current can be set to be 4 to 20 or 20 to 4mA - or any other range within these limits. The current is limited to 3.95 and 20.5mA.

The USD-2 samples and updates the output current in a rate of 2 - 3 samples per second.

The transmitter is fully configurable in Dry- Configuration™ mode by which the communication to PC is performed with no external power source. The configuration parameters are stored in a non-volatile memory.

The USD-2 is housed in a plastic enclosure mounted on a standard DIN rail.

ConLAB

Input

DC current	0-30mA
InIput Impedance	<40Ω (INCLUDING PROTECTIVE DIODE)
Maximum input current	< 30mA
Sampling Rate	Up to 4 samples/sec.

Output

Output Signal	Proportional dc current 4-20mA or 20-4mA (user configurable)
Under Range	Linear to 3.97mA
Over Range	Linear to 20.8mA
Burnout	~ 3.6mA or ~22.5mA (user configurable)
Isolation	>1500V between input and output
Long Term Stability	< ± 0.1% of span for 12 months
Maximum Loop Resistance	According to: Rmax.(Ω) = (Vsupply-13)/0.02
Calibration Accuracy	At 24V supply, at room temperature : 0.05%[1]
Damping Factor	1 - 60 seconds
Analog Step-Response	200-500mS (depends on the sensor and the mode of operation)
Set-Up Time	10 seconds after power on
Output Ripple	< ±0.06%[1]
Load Effect	Negligible for 0<Rload< Rmax

Supply

Supply Voltage	13 to 36 Vdc
Supply Variation Effect	Negligible (<1μA/V)
Polarity Protection	Yes
CMR	> 110 db

Environmental Influence

Operating Temperature Range	-40 to +80°C / -40 to185°F
Storage Temperature Range	-50 to +90°C / -45 to185°F
Temperature Stability	< ±0.005%/1°C[1]
Humidity	10 to 90 % RH, non condensing

Housing

Material	Plastic Polycarbonate
Screw Connection	6 terminals
Mounting	Standard 35 mm DIN rail
Protection Level	IP20
	UL-94-V0 flame retardant
Weight	75 gr.

Programming

Software Package	CONCAL
Modem Cord	CON-USB - Length: 1.50m
Configured Parameters	Tag information, Input range, Display range Output offset, Output curve correction, Damping factor, Burnout type, Output current mode,

[1]. Of span
[2]. The full resolution digital readout can be accessed via the programming communication port.

Transmitter Configuration

The CONCAL configuration and calibration software is a PC-based software package.

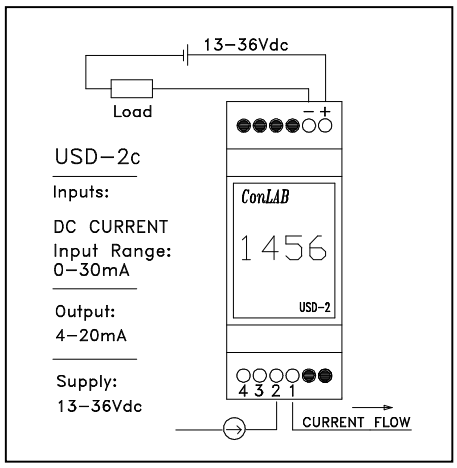
The transmitter is connected to PC USB port via CON-USB, communication cable. This communication cables contains the electronic interface circuitry for DRY CONFIGURATION™.

The DRY CONFIGURATION™ feature makes the configuration process very easy, as it does not require the transmitter to be powered by external power supply.

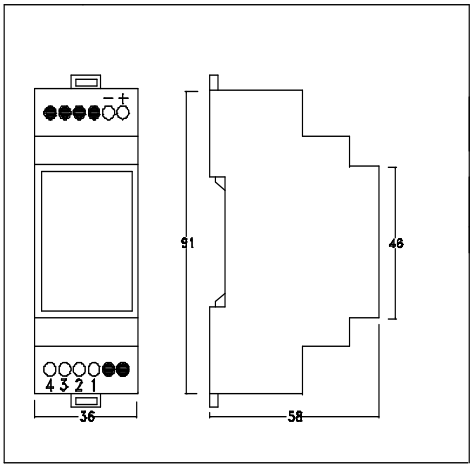
The Windows based software conducts the user to the configuration steps in a friendly and simple interactive way.

The PC requirements are:
PC Operating System: Windows 7®, and up
Free Disk Space: 15 MB

Connection Diagram



Dimensions



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