

SERIAL LINK INTERFACE

USER GUIDE

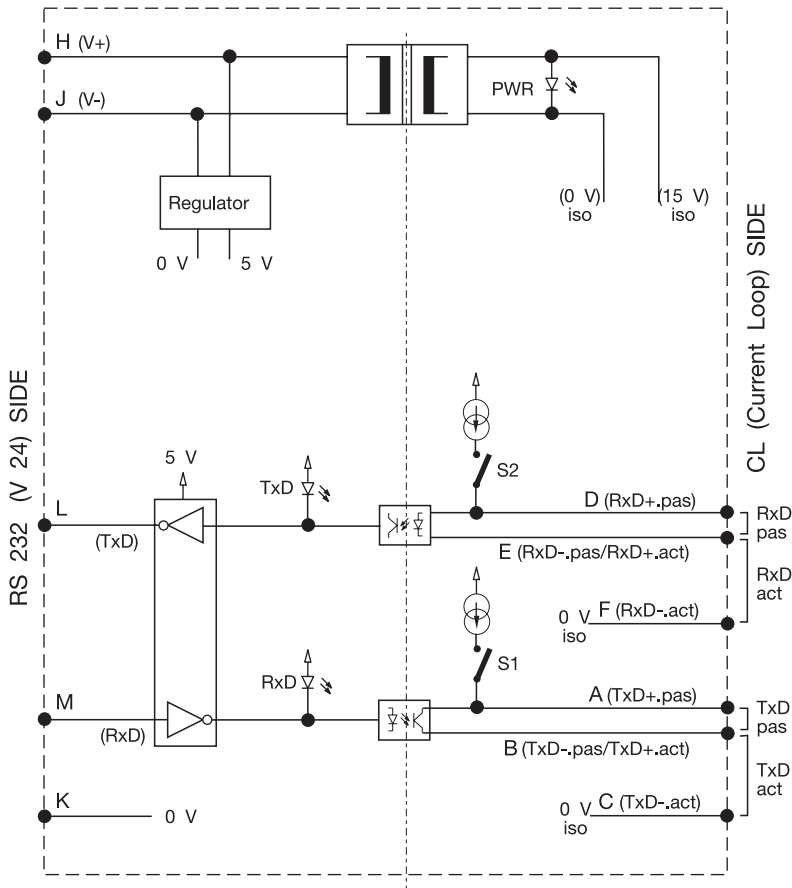
MODEL ILPH RS232/CL (Current Loop)

Part/Number	Black body ENT	0084 202.23
	Grey body ABB V0	1SNA 684 202 R0100

1. GENERAL

Interface between an RS232 serial link and a CL (Current Loop) serial link, Transmission Reception in active or passive mode with 500 VDC insulation (active Current Loop Transmission or Reception) or 2000 VDC insulation (passive Current Loop Transmission and Reception).
Extends transmission distance beyond the 15 m limit of the RS232 serial link, allows to cross "noisy" environments, to isolate the 2 systems, to perform multipointing (network), and so on...

2. SCHEMATIC DIAGRAM



Legend :

E (RxD-.pas/RxD+.act) means:

E = RxD-.pas	ReceptionRxD-	ILPH	passive mode
E = RxD+.act	ReceptionRxD+	ILPH	active mode

3. TECHNICAL SPECIFICATIONS

3.1 POWER SUPPLY

- Power supply voltage : 24 VDC
- Voltage tolerance : +/- 10%
- Protection : polarity inversion
- Power requirement : 120 mA maxi.
- Galvanic isolation :
 - Power supply/Current Loop : 500 VDC (active)
2000 VDC (passive)
- 1 yellow "Power On" led.
- Screw-type connectors.

3.2 RS232 LINK

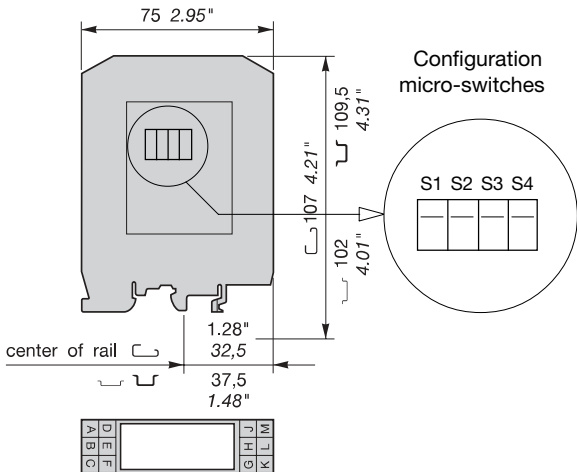
- EIA RS 232 C / CCITT V24 / V28
- I/O protection : over-voltage
- Speed/Distance : 38400 Bauds / 15 m
- Galvanic isolation :
 - RS 232 / Current Loop : 500 VDC (active)
2000 VDC (passive)
- 2 green leds (Rx D, Tx D).
- Screw-type connectors.

3.3 CL (Current Loop) LINK

- Transmission Reception in active or passive mode
- Current Loop type 0-20 mA or 4-20 mA.
- Negative logic (1 logic = 20 mA)
- or Positive logic (0 logic = 20 mA)
- Speed/Distance : 38400 Bauds / 1200m
- Galvanic isolation :
 - Current Loop/Power Supply : 500 VDC (active)
2000 VDC (passive)
 - Current Loop/RS232 : 500 VDC (active)
2000 VDC (passive)
- Screw-type connectors.

3.4 PHYSICAL CHARACTERISTICS

- Box series 11000 ABB Entelec, snaps onto DIN rail.
- Temperature :
 - operation : 0 to 40° C
 - storage : - 20 to 70° C



4. CONFIGURATION

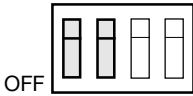
The various configurations can be selected using the 4 micro-switches located inside the box.

4.1 ACTIVE OR PASSIVE MODE

The Current Loop's Transmission and Reception can be independently in active or passive mode.

Selection using **S1** and **S2** micro-switches.

S1 S2 S3 S4



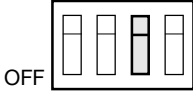
S1 Transmission(TxD) ON = Active / OFF = Passive
S2 Reception (RxD) ON = Active / OFF = Passive

4.2 TYPE OF THE SIGNAL

Select signal 4-20 mA or 0-20 mA.

Selection using **S3** micro-switch

S1 S2 S3 S4



S3 ON = 4-20 mA / OFF = 0-20 mA

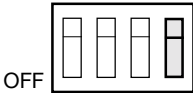
Note : It is not possible to select a 4-20 mA signal when the Reception is in active mode.

4.3 LOGIC OF THE SIGNAL

Selection : positive logic (0 logic = 20 mA)
 or negative logic (1 logic = 20 mA)

Selection using **S4** micro-switch

S1 S2 S3 S4



S4 ON = (1 = 20 mA) / OFF = (0 = 20 mA)

5. CONNECTIONS

Example of connection with a CL (Current Loop) product, Transmission (TxD) in active mode and Reception (RxD) in passive mode. Then, the ILPH must be configured and connected Reception (RxD) in passive mode and Transmission (TxD) in active mode.

Note : For any other configuration, see schematic diagram or front sticker of the product.

