FDI302
FIELD DEVICE INTERFACE

Features

- Compatible with all field device of 302 FOUNDATION™ Fieldbus series;
- Powered by the personal computer, it does not need external power supply;
- Electrically isolated between the field device and the port EIA-RS232C;
- Female DB9 standard serial connector;
- Easy and quick installation.

Description

FDI302 Smar Interface, Field Device Interface 302, allow firmware updated of the FOUNDATION™ Fieldbus field devices through a PC compatible with IBM® and Smar FBTools application software.

Used Signals

TxD (Pin # 3): TRANSMITTED DATA. PC output signal and FDI302 interface input. This signal defines the serial data that will be transmitted. The nominal baud rate is 115200 bps.

RxD (Pin #2): RECEIVED DATA. PC input signal and FDI302 interface output. This signal defines the serial data that will be read from the device. The nominal baud rate is 115200 bps.

DTR (Pin #4): DATA TERMINAL READY. PC output signal and FDI interface input. This signal with the RTS signal gives the voltage that supplies the interface electronic circuit.

RTS (Pin #7): REQUEST TO SEND. PC output signal and FDI302 interface input. This signal with the DTR signal gives the voltage that supplies the electronic interface.

GND (Pin #5): SIGNAL GROUND. This signal is connected to the FDI302 interface circuit ground.
**Obs**.: This ground is isolated from the field device.

Operation

We can update any field device firmware of the 302 series, Foundation™ Fieldbus, when this is connected and powered through the communication bus, or powered directly by a 24V power supply.

Fit the interface DB9 female connector into the serial port, COM1 or COM2, of the PC. Directly afterwards retire the field device front cover that will receive the new firmware. If the field device have display, IT IS NOT necessary to retire it.

Fit, with care, the other device housing lateral interface extremity according to Figure 1. Fit the two interface polarized pins in the two holes of the device circuit board. Turn the screw the clockwise to hold it.

After setting the interface and connecting it to PC, execute the FBTools application software, in Windows NT environment.

Choose device type.
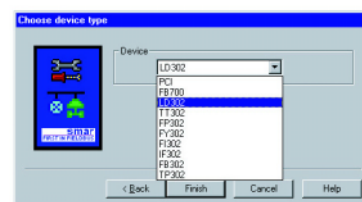
Choose serial port, abs file and start download.
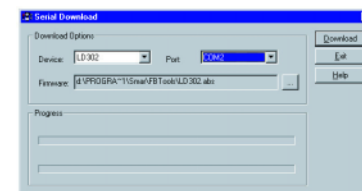
The program will erase the Flash memory and load the new firmware, verifying as follows:
Obs.: This process will take from 2 to 3 minutes to be concluded.

Finished the downloading just removes the device interface, turn off and turn on the device to initialize the new firmware. The display will show the "init" message. Place the frontal cover to close it.

Physical Specifications

Communication Baud Rate	115200 bps (maximum).
Power Consumption	10 mA (maximum).
Electrical Isolation	1000 Vdc (typical).
Firmware Download Time	2.5 min (average).