

TR FO RS485L

Strain gauge interface to analogic or BUS

Ref : FP3580

Rev : A



DESCRIPTION

This weight transmitter has many on-board functions:

- Weight transmitter suitable for back panel mounting on Omega/DIN rail
- Space-saving vertical shape
- Dimensions : 115x25x120 mm.
- 6-digit semi-alphanumeric red LED display (8 mm height).
- 6 signalling LED
- Four buttons for the system calibration
- Removable screw terminal blocks
- RS485 serial port for communication via protocols ModBus RTU, ASCII Laumas or continuous one-way transmission
- 3 relay outputs controlled by the setpoint values or via protocols
- 2 optoisolated PNP digital inputs: status reading via serial communication protocols
- 1 load cell dedicated input

TECHNICAL CHARACTERISTICS

Power supply and consumption	12÷24 VDC ±10%; 5 W
Number of load cells • Load cells supply	Up to 8 (350 Ω) - 4/6 wires • 5 VDC/120 mA
Linearity • Analog output linearity	<0.01% FS • <0.01% FS
Thermal drift • Analog output thermal drift	<0.0005% FS/°C • <0.003% FS/°C
A/D Converter	24 bit (16000000 points) - 4.8 kHz
Divisions (with measurement range ±10 mV and sensitivity 2 mV/V)	±999999 • 0.01 μV/d
Measurement range	±39 mV
Usable load cells sensitivity	±7 mV/V
Conversions per second	300/s
Display range	±999999
Decimals • Display increments	0÷4 • x1 x2 x5 x10 x20 x50 x100
Display filter • Reading per second	10 levels • 5÷300 Hz
Relay outputs	3 - max 115 VAC/150 mA
Optoisolated digital inputs	2 - 5÷24 VDC PNP
Serial ports	RS485
Baud rate	2400, 4800, 9600, 19200, 38400, 115200 (bit/s)
Optoisolated analog output	16 bit = 65535 divisions. 0÷20 mA; 4÷20 mA (up to 300 Ω) 0÷10 V; 0÷5 V; ±10 V; ±5 V (min 10 kΩ)
Humidity (condensate free)	85%
Storage temperature	-30 °C +80 °C
Working temperature	20 °C +60 °C
Relay outputs	3 - max 30 VAC, 60 VDC/150 mA
Working temperature	-20 °C +60 °C
Equipment to be powered by 12-24 VDC LPS or class 2 power source	

COMMUNICATION OPTIONS

RS485 serial port

Baud rate: 2400, 4800, 9600, 19200, 38400, 115200 (bit/s).

CANopen port

Baud rate: 10, 20, 25, 50, 100, 125, 250, 500, 800, 1000 (kbit/s).

The instrument works as *slave* in a synchronous CANopen network.

Equipped with RS485 serial port.

DeviceNet port

Baud rate: 125, 250, 500 (kbit/s).

The instrument works as *slave* in a DeviceNet network.

Equipped with RS485 serial port.

CC-Link port

Baud rate: 156, 625, 2500, 5000, 10000 (kbit/s).

The instrument works as Remote Device Station in a CC-Link network and occupies 3 stations.

Equipped with RS485 serial port.

Profibus DP port

Baud rate: up to 12 Mbit/s.

The instrument works as *slave* in a Profibus DP network.

Equipped with RS485 serial port.

Modbus/TCP port

Type: RJ45 10Base-T ou 100Base-TX (auto-sensing).

The instrument works as *slave* in a Modbus/TCP network.

Equipped with RS485 serial port.

Ethernet TCP/IP port

Type: RJ45 10Base-T ou 100Base-TX (auto-sensing).

The instrument works in an Ethernet TCP/IP network and it is accessible via web browser.

Equipped with RS485 serial port.

2x Ethernet/IP ports

Type: RJ45 10Base-T ou 100Base-TX (auto-sensing).

The instrument works as adapter in an Ethernet/IP network.

Equipped with RS485 serial port.

2x Profinet IO ports

Type: RJ45 100Base-TX.

The instrument works as device in a Profinet IO network.

Equipped with RS485 serial port.

2x EtherCAT ports

Type: RJ45 10Base-T ou 100Base-TX (auto-sensing).

The instrument works as *slave* in an EtherCAT network.

Equipped with RS485 serial port.

2x POWERLINK ports

Type: RJ45 10Base-T or 100Base-TX (auto-sensing).

The instrument works as *slave* in a Powerlink network.

Equipped with RS485 serial port.

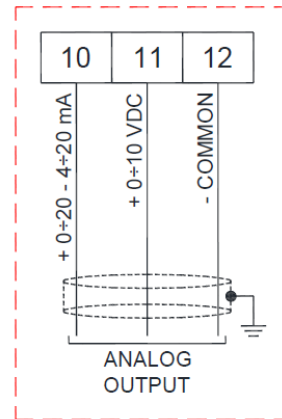
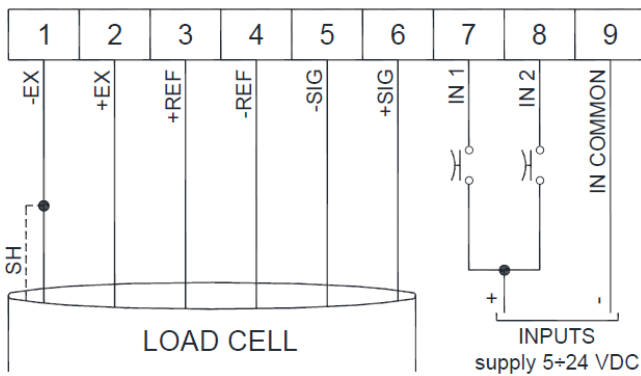
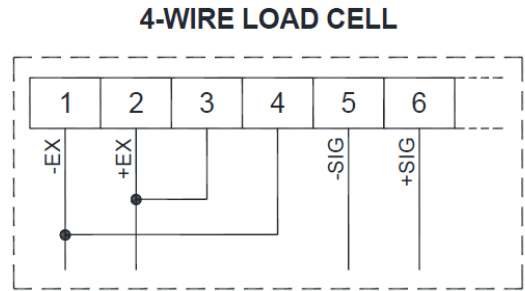
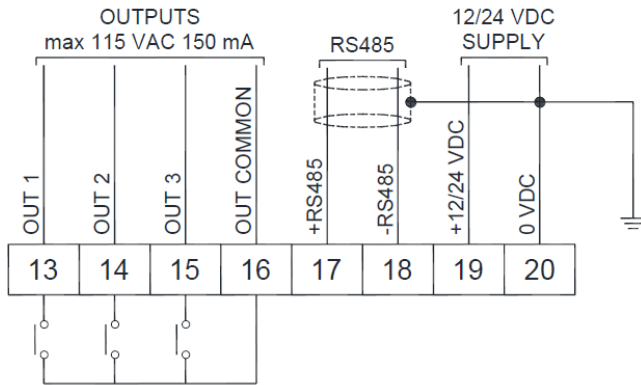
2x SERCOS III ports

Type: RJ45 10Base-T ou 100Base-TX (auto-sensing).

The instrument works as *slave* in a Sercos III network.

Equipped with RS485 serial port.

CABLING



1	- Load cell supply (-EX)	11	+ Analog output 0÷10V
2	+ Load cell supply (+EX)	12	- Analog output common
3	+ Load cell REF / SENSE (+REF)	13	Output N.1
4	- Load cell REF / ENSE (-REF)	14	Output N.2
5	- Load cell signal (-SIG)	15	Output N.3
6	+ Load cell signal (+SIG)	16	Output common
7	Input N. 1 (+VDC min 5V max 24V)	17	RS485: +
8	Input N. 2 (+VDC min 5V max 24V)	18	RS485: -
9	Input Common (-VDC 0V)	19	+ Supply (12/24 VDC)
10	+ Analog output 0÷20 or 4÷20 mA	20	- Supply (12/24 VDC) RS485: Shield, GND

CONTACT

MESUREX
 13 Rue des Corroyés
 78730 Saint Arnoult en Yvelines (France)

Tel : +33 (0) 1 30 41 23 62
 Mail : mesurex@mesurex.fr
 Web : www.mesurex.fr