ELECTRONSYSTEM MD
Design and products for safety problem solving in medium and high voltage electrical installations
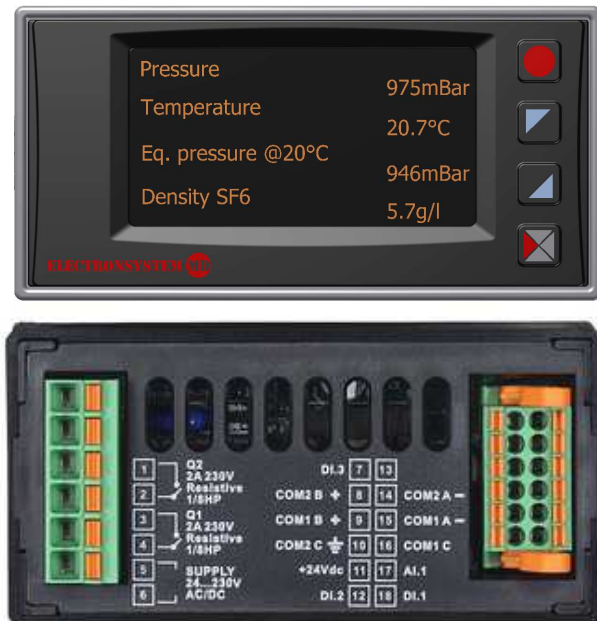
PANEL INDICATOR
type PI modbus

ELECTRONSYSTEM MD   TECHNICAL SHEET

Revision 0 of 02 October 2019

HIGHLIGHTS

- **Visualizations up to 4 for page**
- **Alarms**
- **Signal re-transmission**
- **Multi voltage range input**
- **Digital inputs**
- **Serial communications Modbus RTU slave and master**

APPLICATIONS

This model is a **highly flexible interface and display for sensors**, I/O modules, **signal converters** and generally for Modbus : allows reading/writing of **up to eight variables on**Modbus slave devices, with numeric ot text representation of the variables. It is possible to set the description and the measuring units with text or alphanumerical characters for each variable and also to rescale data on display.
The number of variables shown per page can be set from 1 to 4, with auto-rescaling of the character sizes and of the consequent number of pages.

Digital inputs allow the connection of a rotative encoder that further simplifies navigation of the data displayed and the parameters, or connection to panel buttons with programmable functions. In addition to the galvanically isolated **master serial port** with Modbus RTU/ASCII protocol, a second slave serial port enables polling from another Master device.
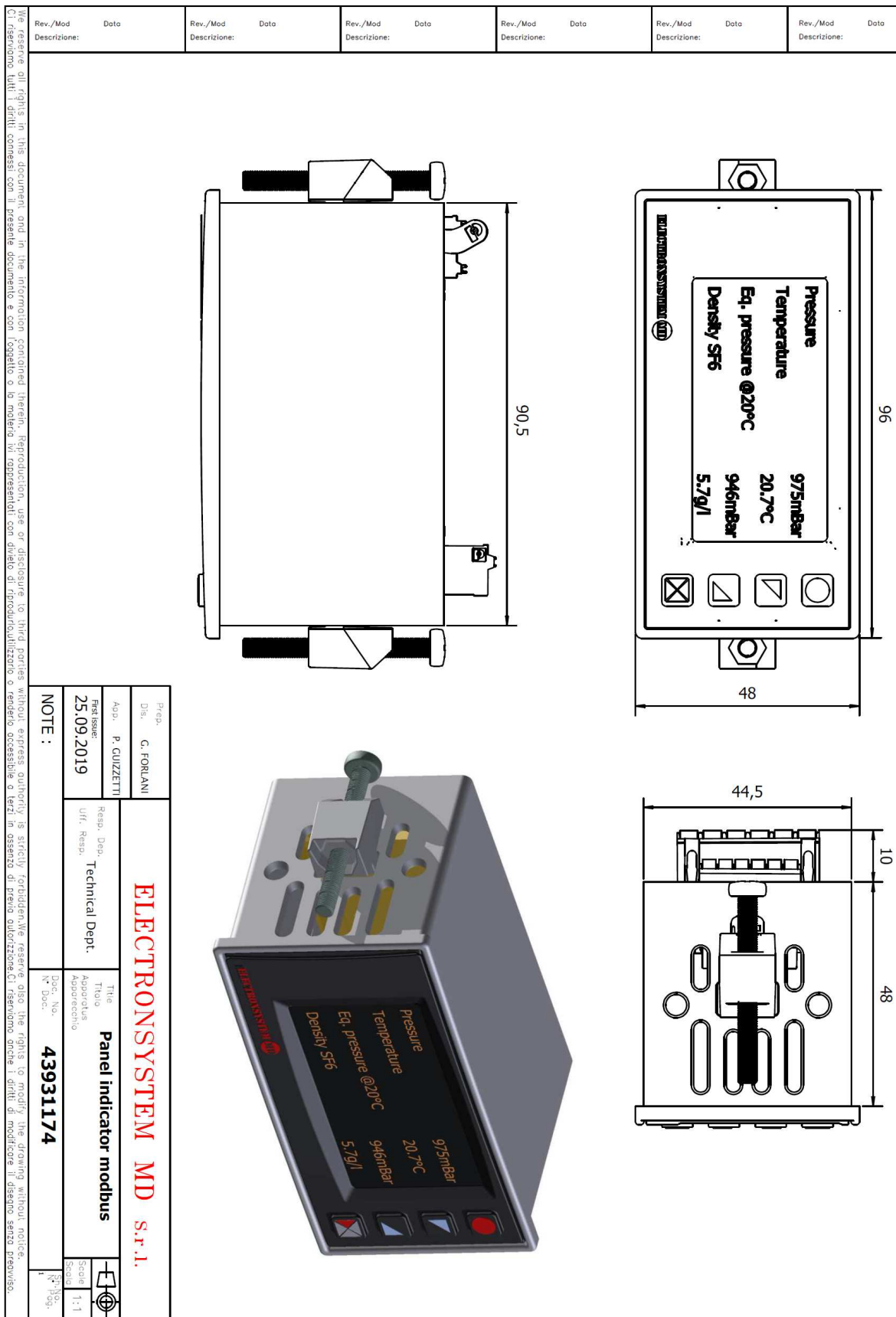Distinctive feature of the entire PI series is the innovative **multilingual interface**, with text menus allowing intuitive and quick navigation of parameters and visualization pages.
The text menus are available in five languages and considerably reduce the need to consult technical manuals for initial set-up.

An additional programming tool is the dedicated App relying on RFID/NFC connectivity and allowing straightforward programming without wirings by Android devices *(option)

ELECTRONSYSTEM MD

Design and products for safety problem solving in medium and high voltage electrical installations

ELECTRONSYSTEM MD   TECHNICAL SHEET

Revision 0 of 02 October 2019

Pressure	975mBar
Temperature	20.7°C
Eq. pressure @20°C	946mBar
Density SF6	5.7g/l

90,5

96

48

44,5

10

48

NOTE :

Prep.	Dis.	G. FORLANI
App.		P. GUIZZETTI
First Issue:	25.09.2019	

Resp. Dep. / Uff. Resp. Technical Dept.

ELECTRONSYSTEM MD S.r.l.

Title / Titolo: **Panel indicator modbus**

Apparatus / Apparecchio

Doc. No. / N° Doc. **43931174**

Scale / Scala 1:1

All specs are subject to change without notice

Via Madonna delle Rose, 72 24061 Albano S.Alessandro (BG) ITALY - Phone +39035584000, Fax +39035584099 E-mail: info@elecmd.it Web www.elecmd.it

Page 2/3

ELECTRONSYSTEM MD — *Design and products for safety problem solving in medium and high voltage electrical installations*

ELECTRONSYSTEM MD TECHNICAL SHEET

Revision 0 of 02 October 2019

Main features

Box	96x48 (front panel) x 48 mm / or (1/8Din)
Power supply	24...230V AC/DC ±10% 50/60 Hz (galvanical isolation) 2500V
Power consumption	6 VA
Operating conditions	Temperature 0-45°C, humidity 35..95 RH% (non condensing)
Material	Box: polycarbonate V0
Sealing	Front panel:IP54 (IP65 with gasket) - Box and terminal blocks:IP20
Weight	Approx. 165 g
Wiring	Extractable terminal blocks and spring locking
Quick set-up options	Memory Card microUSB
Display	OLed (monochromatic yellow)

Inputs

3 Digital	2 digital PNP/NPN inputs programmable to enable outputs, reset alarms, configuration lock, increase/decrease value, front panel encoder for input data. 1 PNP input programmable to select values
1 Potentiometer	1 potentiometer input (min 1KΩ, 4096 points) to set variable value

Outputs

2 relays	Contacts 2A - 250 VAC (resistive charge)
1 Auxiliary	24 VDC / 30mA for external sensors supply

Communication

2 Serial	1 RS485 Modbus RTU/Ascii master / multimaster galvanically isolated to communicate with slave devices, 1 RS485 Modbus RTU Slave.
1 USB	1 USB Virtual COM port for configuration and firmware upgrade

Software Features

8 Variables	Up to 8 variable data management, programmable visualization from 1 to 4 variables each page, editable text description field for each variable (max 16 characters), editable measure unit for each variable (max 5 characters), 1, 16, or 32 bit data format, mnemonics text visualization (value from 0 to 4), different type of processing visualized data (offset, gain, limits, rescale).
2 Alarms	Absolute / threshold, band with instantaneous / delayed / retentive / by digital input activation, activation by serial line
Alarm mode	ON-OFF with hysteresis
Multimaster	Connect up to 16 master devices on the same serial line
Interface	text menus (English/ Italian/ German/ French/ Spanish)
Option	Optional front panel encoder to facilitate input of data

SUPPLY 24..230V AC/DC
[5] [6]

Switching supply with extended range 24...230 Vac/dc ±15% 50/60Hz – 8 VA (galvanic isolated)

For connection to a Modbus master device
- RS485 interface
- 1/4 line load (up to 128 nodes on bus)
- Common mode power supply +/-25V
- Protection from failure +/-60V
- Modbus slave RTU protocol

[8] COM2 B+
[14] COM2 A- RS485
[10] COM2 C –
[9] COM1 B+
[15] COM1 A- RS485
[16] COM1 C
Shield/Schermo

For connection to Modbus slave devices
- RS485 interface
- 1/4 line load (up to 128 nodes on bus)
- Common mode power supply +/-25V
- Protection from failure +/-60V
- Modbus master or multimaster protocol
- RTU and Ascii mode.

Prep. Dis. G. FORLANI
App. P. GUIZZETTI
First issue: 25.09.2019
NOTE :

Resp. Dep. Technical Dept.

ELECTRONSYSTEM MD S.r.l.

Title/Titolo: Panel indicator modbus

Doc. No./N° Doc. 43931174

Scale/Scala 1:1

All specs are subject to change without notice

Via Madonna delle Rose, 72 24061 Albano S.Alessandro (BG) ITALY - Phone +39035584000, Fax +39035584099 E-mail: info@elecmd.it Web www.elecmd.it

Page 3/3