

P-WI 2 SET
P-WI CARICO
P-WI SCARICO

OPZIONI A RICHIESTA :

- Alimentazione 12 Vcc
- Versione da parete IP64
- Versione da parete IP64 con pulsante NETTO/LORDO .
- Convertitore TTL/RS232 per collegam. di un P-WI a PC
- Nodi di comunicazione RS485
- Convertitore per collegamento in rete di più P-WI al PC .

OPTIONS ON REQUEST :

- Power supply 12 Vdc
- Wall mounting version IP64
- Wall mounting version IP64 with NET-GROSS button
- TTL/RS232 converter for one P-WI and PC connection
- RS485 communication system
- Converter for net connection among P-WI and PC



versione da parete IP 64
 dimensioni: 98 x 125 x 75 mm
 wall mounting version IP64

Il sistema è composta da :

Microprocessore in custodia a norme DIN (96 x 96 x 65 mm, foratura 91 x 91 mm); grado di protezione del frontale IP64.
 Punto decimale selezionabile: xxxx xxx,x xx,xx x,xxx.
 Display semialfanumerico a 4 cifre da 20 mm a 7 segmenti.

Caratteristiche principali

Azzeramento, Calibrazione, impostazione dei set-point effettuabili da tastiera.
 Possibilità di collegamento a stampante 24 colonne (vedi pag. 100).
 Possibilità di collegamento in rete di massimo 128 strumenti P-WI mediante nodo di comunicazione RS485, allacciamento a PC mediante convertitore RS485 / RS232 velocità 1200 o 9600 Baud.
 Possibilità di lettura tramite PC del peso e lettura-scrittura dei parametri interni.

The system is composed of :

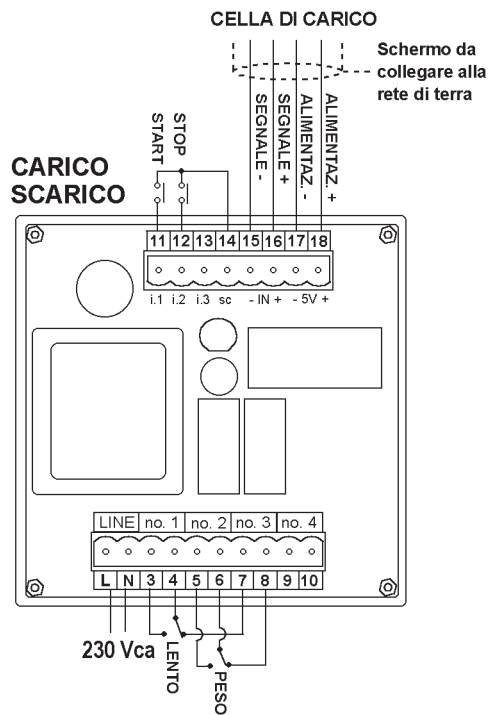
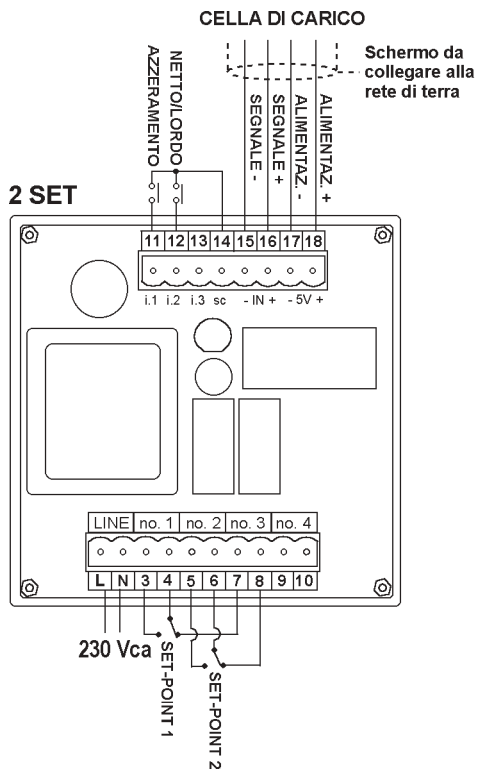
Microprocessor in DIN box (96x96x65 mm, hole 91x91 mm); front panel IP 64 protection rating.
 Decimal point: possible positions xxxx xxx,x xx,xx x,xxx.
 Four-digit semi-alphanumeric display, 7 segment LED.

Main features

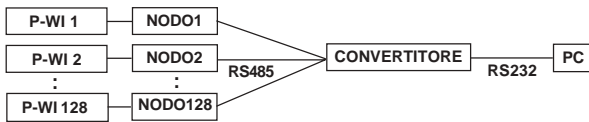
Zero-setting, calibration, set-point programming are performed by means of the keyboard.
 It is possible to connect P-WI to 24 column printer (page 100).
 Network connection up to 128 P-WI instruments by means of the RS485 communication system, PC connection using the RS485-RS232 converter with 1200 or 9600 Baud. From the PC it is possible to read the weight and to read and write the internal parameters.

ALIMENTAZIONE	230Vca +/-10% 50/60Hz	POWER SUPPLY
POTENZA ASSORBITA	5 VA	POWER CONSUMPTION
N° CELLE DI CARICO IN PARALLELO	4 - 350 Ohm	NUMBER OF LOAD CELLS IN PARALLEL
ALIMENTAZIONE CELLE DI CARICO	5 Vcc +/- 3%	LOAD CELL SUPPLY
DIVISIONI VISUALIZZABILI	* 19999	DISPLAY RESOLUTION (DIVISIONS)
RISOLUZIONE DI LETTURA	x 1 x 2 x 5	READING RESOLUTION
VELOCITA' DI CONVERSIONE AL SECONDO	10 / sec.	CONVERSION RATE
USCITE LOGICHE A RELE'	n.2 - 115Vca/2A	LOGICAL OUTPUTS
INGRESSI LOGICI	n. 2	LOGICAL INPUTS
UMIDITA' NON CONDENSANTE	10 - 90 %	HUMIDITY (condensate free)
TEMPERATURA DI STOCCAGGIO	- 20 + 70 °C	STORAGE TEMPERATURE
TEMPERATURA DI LAVORO	- 10 + 50 °C	WORKING TEMPERATURE

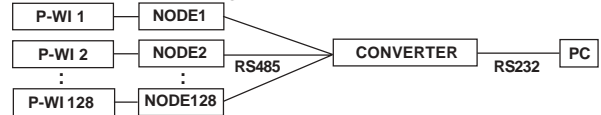
* oltre le 10.000 divisioni le 4 cifre lampeggiano / over 10,000 divisions the 4 digits flash



P-WI 2SET / LOAD / UNLOAD COMMUNICATION PROTOCOL



The Protocol enables routing of up to 128 instruments :



The Protocol is identical for all the models of the P-WI instruments: obviously for the Load and Unload models is possible to have more information with respect to the 2 set model.

All the parameters and strings are expressed in hexadecimals.

The Protocol has two different communication strings depending on whether a reading or writing operation is required.

The Question string has the following format:

NODE+COMMAND+ADDRESS+[DATA]+CHECKSUM

Node is a data byte representing the number of the routed instrument (1-128); **Command** is a data byte specifying which operation will be executed (reading or writing) and the number of bytes to be read or written; **Address** comprises two data bytes representing the address of the instrument in which the reading or writing operation is to be performed; **Data** (only in writing operation) comprising the number of bytes indicated in Command, represents the data to be written in the instrument; **Checksum** is a control byte obtained from the bit to bit sum of Node, Command, Address and Data.

The Answer string has the following format:

RESULT+DATA+CHECKSUM

RESULT: is a byte representing the result of the writing or reading operation; **DATA**: comprises bytes containing the parameters for which reading has been requested, or echo of bytes for which writing has been requested; **CHECKSUM**: is a byte equal to RESULT + DATA sum.

P-WI 2SET: via the PC/PLC the user can set and read the values of the two set points, hysteresis, full scale, load cell sensitivity, unit of measurement (Kg or Tons), number of decimals, and weight oscillation filter; it is also possible to read the weight indicated by the instrument.

P-WI LOAD: via the PC/PLC the user can set and read the slow value, fall, the weight to be loaded, maximum weight, full scale, load cell sensitivity, unit of measurement (Kg or Tons), number of decimals, and the weight oscillation filter; it is also possible to read the weight indicated by the instrument and consumption values.

P-WI UNLOAD: via the PC/PLC the user can set and read the slow value, fall, the weight to be loaded, minimum weight, full scale, load cell sensitivity, unit of measurement (Kg or Tons), number of decimals, and the weight oscillation filter; it is also possible to read the weight indicated by the instrument and consumption values.

Example of writing operation:

To build a communication string in Visual Basic suitable for writing of the value 100 in the first P-WI2SET set-point located in the node number 2, the transmission tx command would be as follow:

tx= chr\$(&H01) & chr\$(&H43) & chr\$(&H0) & chr\$(&H0C) & chr\$(&H03) & chr\$(&H0) & chr\$(&H64) & chr\$(&AA) & chr\$(&H61)

in which:

NODE = chr\$(&H01) (number of node -1).

COMMAND = chr\$(&H43) (bit 6 = 1 ≥ writing; bits 5-0 = 3 ≥ 4 bytes to write).

ADDRESS = chr\$(&H00) & chr\$(&H0C) (RAM address to execute a writing EEPROM).

DATA = chr\$(&H03) & chr\$(&H00) & chr\$(&H64) & chr\$(&HAA). **CHECKSUM** = chr\$(&H61) (H01+H43+H00+H0C+H03+H00+H64+HAA 8bit module).

The instrument answer with the following rx string:

rx = \$43 \$03 \$00 \$64 \$AA \$54

in which:

RESULT = \$43 (echo of COMMAND). **DATA** = \$03 \$00 \$64 \$AA (echo of DATA). **CHECKSUM** = \$54 (\$43+\$03+\$00+\$64+\$AA, 8bit module)

Example of reading operation:

To build a communication string in Visual Basic suitable for reading of the weight value of a P-WI 2SET located in the node number 1, the transmission tx command would be as follow:

tx = chr\$(&H0) & chr\$(&H01) & chr\$(&H0) & chr\$(&HD3) & chr\$(&HD4)

in which:

NODE = chr\$(&H00) (number of node -1).

COMMAND = chr\$(&H01) (bit 6 = 0 ≥ reading; bits 5-0 = 1 ≥ 2 bytes to read).

ADDRESS = chr\$(&H00) & chr\$(&HD3) (address of the PWI2SET memory location).

CHECKSUM = chr\$(&HD4) (H00+H01+H00+HD3, 8bit module)

The instrument answer with the following rx string:

rx = \$01 \$xx \$yy \$zz

in which:

RESULT = \$01 (echo of COMMAND). **DATA** = \$xx \$yy (weight value).

CHECKSUM = \$zz (\$01+\$xx+\$yy, 8bit module).

Esempio di operazione di scrittura:

Volendo costruire la stringa di comunicazione in Visual Basic per la scrittura del valore 100 nel primo setpoint di un P-WI 2SET che si trovi al nodo 2, si avrà un comando trasmesso Tx del tipo:

tx= chr\$(&H01) & chr\$(&H43) & chr\$(&H0) & chr\$(&H0C) & chr\$(&H03) & chr\$(&H0) & chr\$(&H64) & chr\$(&AA) & chr\$(&H61)

in cui:

NODO = chr\$(&H01) (numero nodo -1).

COMANDO = chr\$(&H43) (bit 6 = 1 > scrittura; bits 5-0 = 3 > 4 bytes da scrivere).

INDIRIZZO = chr\$(&H00) & chr\$(&H0C) (indirizzo RAM per eseguire una scrittura EEPROM).

DATI = chr\$(&H03) & chr\$(&H00) & chr\$(&H64) & chr\$(&HAA). **CHECKSUM** = chr\$(&H61) (H01+H43+H00+H0C+H03+H00+H64+HAA a modulo 8 bit).

Se la comunicazione avrà esito positivo lo strumento risponderà con:

rx = \$43 \$03 \$00 \$64 \$AA \$54

in cui:

RISULTATO = \$43 (eco di COMANDO). **DATI** = \$03 \$00 \$64 \$AA (eco di DATI). **CHECKSUM** = \$54 (\$43+\$03+\$00+\$64+\$AA a modulo 8 bit).

Esempio di operazione di lettura:

Volendo costruire la stringa di comunicazione in Visual Basic per la lettura del peso di un P-WI 2SET che si trovi al nodo 1, si avrà il seguente comando:

tx = chr\$(&H0) & chr\$(&H01) & chr\$(&H0) & chr\$(&HD3) & chr\$(&HD4)

in cui:

NODO = chr\$(&H00) (numero nodo -1).

COMANDO = chr\$(&H01) (bit 6 = 0 > lettura; bits 5-0 = 1 > 2 bytes da leggere).

INDIRIZZO = chr\$(&H00) & chr\$(&HD3) (indirizzo della locazione di memoria del peso in un P-WI 2SET).

CHECKSUM = chr\$(&HD4) (H00+H01+H00+HD3 a modulo 8 bit)

Se la comunicazione avrà esito positivo lo strumento risponderà con:

rx= \$01 \$xx \$yy \$zz

in cui:

RISULTATO = \$01 (eco di COMANDO). **DATI** = \$xx \$yy (valore di peso).

CHECKSUM = \$zz (\$01+\$xx+\$yy a modulo 8 bit).