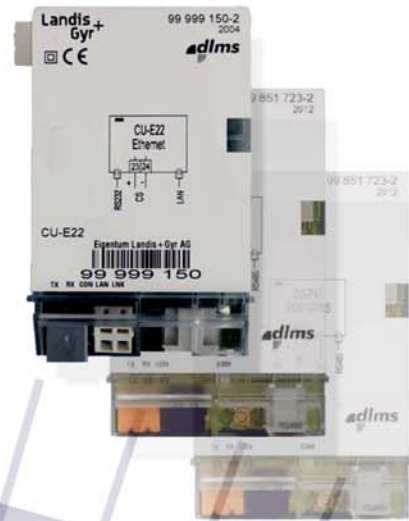


ZMD405 ZMD310 ZMD402



**CONTATORI DI ENERGIA APPROVATI DA ENEL DISTRIBUZIONE
ENERGY METERS APPROVED BY ENEL DISTRIBUZIONE**





Contatori di energia omologati Enel.

La famiglia CSEZMD... offre contatori ad alte prestazioni ed in classi di precisione differenti per soddisfare tutte le applicazioni industriali e commerciali di grandi e medie dimensioni.

Dispongono sempre di due uscite impulsive per la ritrasmissione dell'energia e hanno possibilità di espansione tramite moduli plug & play di semplice installazione, che offrono la possibilità di scegliere tra diversi tipi di comunicazione (RS485, RS232, CS, Ethernet, GSM ecc...).

Energy meters approved by Enel Distribuzione.

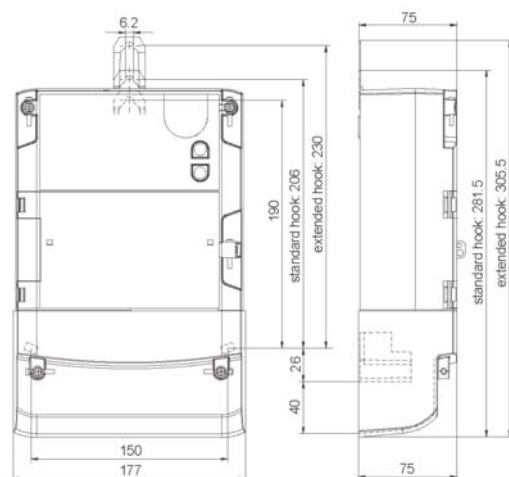
The CSEZMD... series is made of high performances counters available in different accuracy classes which cover medium and large industrial and commercial applications.

The CSEZMD... counters are always fitted with two pulse outputs for remote energy counting. Moreover plug & play communications module are available which will permit to choose among different communication types (RS485, RS232, CS, Ethernet, GSM etc ...).

DATI TECNICI - Technical data

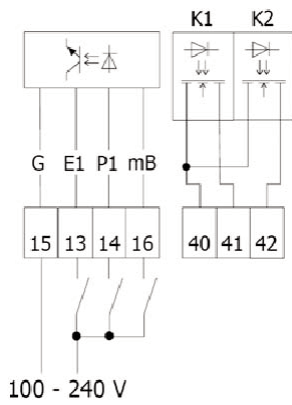
display	display	8 digit - 8mm (lettura / value field) 8 digit - 6mm (indice / index field)
classe di precisione energia attiva	accuracy class active energy	0,5S (IEC 62053-22) CSEZMD405 1 (IEC 62053-21) CSEZMD310 0,2S (IEC 62053-22) CSEZMD402
energia reattiva	reactive energy	1% (IEC 62053-23) CSEZMD405 1% (IEC 62053-23) CSEZMD310 0,5% (IEC 62053-23) CSEZMD402
tensione nominale ingresso Un	nominal input voltage Un	3x57,7/100V...240/415V CSEZMD405 3x230/400V CSEZMD310 3x57,7/100V CSEZMD402
range di tensione	input voltage range	0,8-1,15 Un
corrente nominale ingresso In	nominal input current In	0,05...5(10) A CSEZMD405 0,25...5(100) A CSEZMD310 5//1 (6) A CSEZMD402
frequenza di funzionamento	operating frequency	50Hz ±2%
alimentazione	power supply	autoalimentato /self supplied
temperatura di funzionamento	operating temperature	-40...+70°C (IEC 62052-11)
temperatura di magazzino	storage temperature	-40...+85°C (IEC 62052-11)
grado di protezione	protection	IP51 (IEC 60529)

DIMENSIONI - Dimension



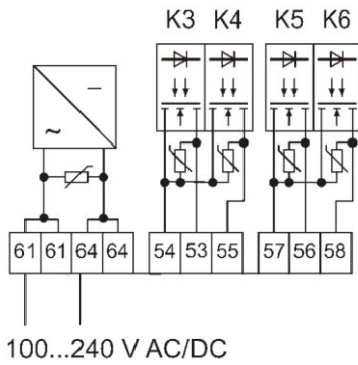
CODICE DI ORDINAZIONE - Ordering Code

TIPO - Type	BT-MT / LV-MV	100÷400 V	5 A	MID C	CSEZMD405
	BT / LV	400 V	100 A	MID B	CSEZMD310
	MT-AT / MV-HV	100 V	5//1 A	0,2S	CSEZMD402
	Kit cornice per montaggio ad incasso - Flush Mounting frame Kit				4CSEZMDK
	Software MAP110- MAP110 Software				6SFEMAP110



VERSIONE BASE
ingressi di controllo
 controllo tensione
 ingresso corrente
uscite impulsive
 tensione
 corrente massima
 durata impulso
 frequenza massima
 peso impulso

BASIC VERSION
control inputs
 control voltage
 input current
pulse outputs
 voltage
 max. current
 pulse length
 max. switching frequency
 pulse values
 K1 = 1000/kWh (+ A)
 K2 = 1000/kWh (- A)
 solo per / only for **CSEZMD402**
 K1 = Tm 15min
 K2 = non usato / disabled



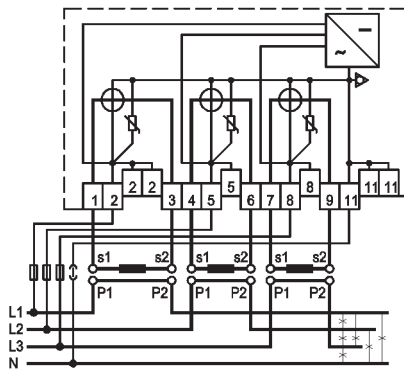
SCHEDA ADDIZIONALE
uscite impulsive
 tensione
 corrente massima
 durata impulso
 frequenza massima
 peso impulso

EXTENSION BOARD
pulse outputs
 voltage
 max. current
 pulse length
 max. switching frequency
 pulse values
 K3 = 1000/kWh (+ A)
 K4 = 1000/kWh (+ R)
 K5 = 1000/kWh (- A)
 K6 = 1000/kWh (- R)
 solo per / only for **CSEZMD402**

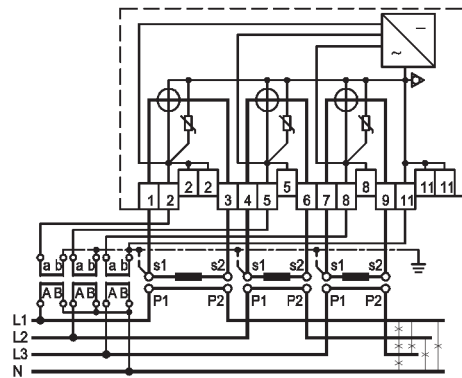
alimentazione aggiuntiva
 tensione nominale
 tolleranza
 consumo massimo

additional power supply
 nominal voltage range
 tolerance
 max. power consumption
 100÷240Vac/dc
 80...115% Un
 6,8 W

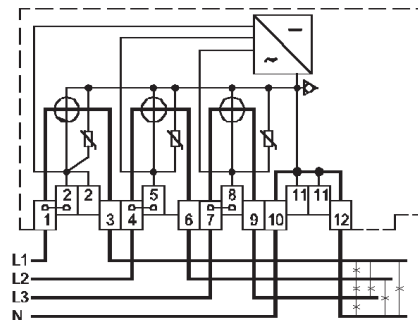
SCHEMI DI INSERIZIONE - Wiring diagrams



CSEZMD405



CSEZMD402 - CSEZMD405



CSEZMD310



I moduli di comunicazione Plug & Play per contatori della serie CSEZMD... permettono di espandere il contatore con diversi tipi di comunicazione in modo semplice e preciso.

Tra le possibili scelte abbiamo Modem GSM/GPRS, Ethernet, RS485, RS232, CS... con protocollo IEC62056-21 e DLMS.

E' anche possibile scambiare facilmente i moduli in qualsiasi momento.

Per la comunicazione Modbus Frer propone un gateway DLMS-MODBUS attraverso il quale è possibile leggere comunicando attraverso il protocollo Modbus RTU o Modbus TCP i dati forniti dai contatori (max.4 su RS485).

The Plug & Play communication modules for counters of CSEZMD series ... permit to improve the counter features with different types of communication in simple and precise manner.

The possible choices are GSM / GPRS modem, Ethernet, RS485, RS232, CS ... with IEC62056-21 and DLMS protocol.

It's also possible to exchange easily the modules at any time.

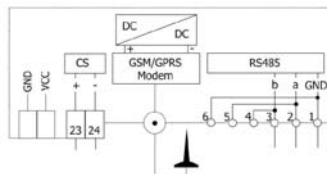
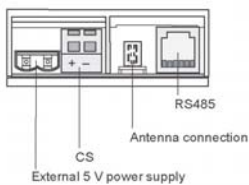
For Modbus communication Frer proposes the DLMS-MODBUS gateway by which is possible to read the data coming from the energy meters using the Modbus RTU or the Modbus TCP protocol (max.4 energy meters on RS485).

CODICE DI ORDINAZIONE - Ordering Code

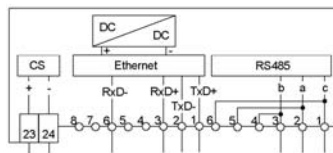
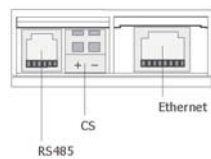
COMUNICAZIONE - Communication			
GSM/GPRS - RS485 - CS	Plug & Play		MCIZMDGSM
ETHERNET - RS485 - CS	Plug & Play		MCIZMDETH
RS485 - RS232	Plug & Play		MCIZMD485
MODBUS TCP/IP & RTU (RS232)	modulo esterno per 4 contatori su RS485 external module for 4 meters on RS485		MCIMRCMDB

SCHEMI DI INSERIZIONE - Wiring diagrams

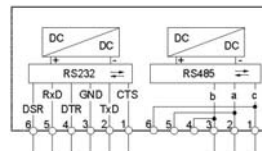
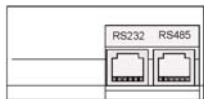
DIMENSIONI - Dimension



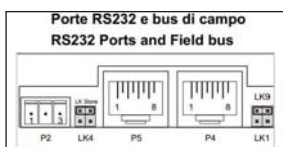
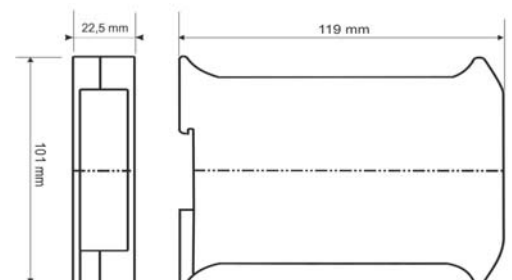
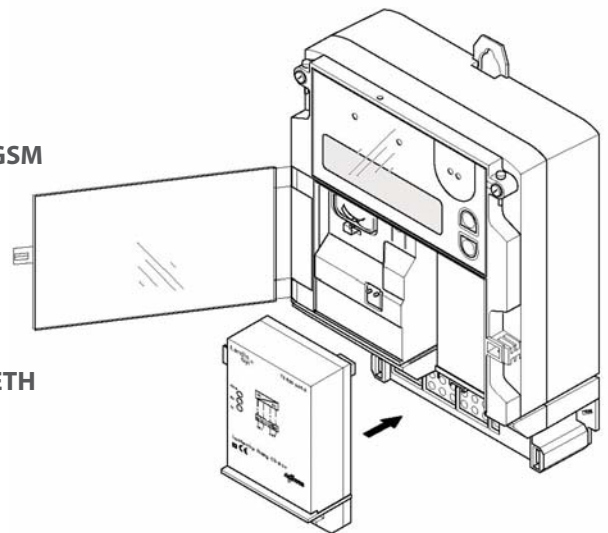
MCIZMDGSM



MCIZMDETH



MCIZMD485



AUX. 10÷30Vdc

Field Bus (P2)		RS232 (COM0 P4, COM1 P5)			
Pin	Signal	Pin	Signal	Pin	Signal
1	D+	1	Not connected	6	TX
2	D-	2	Not connected	7	CTS
3	Field GND	3	DTR	8	RTS
4	GND	4	GND		
5	RX	5	RX		

MCIMRCMDB