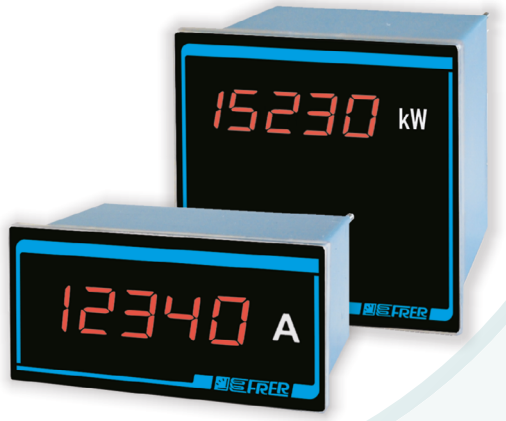


DATI TECNICI - *Technical data*

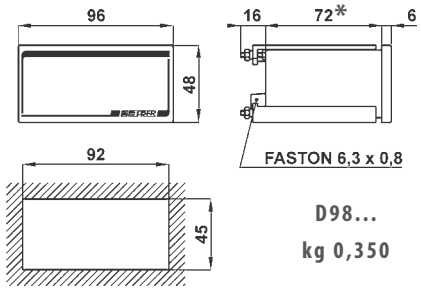
visualizzazione massima	*max indication*	±19990
display LED rossi	*red LED display*	h = 14 mm
indicatore CAP o IND (D9..P...3)	*CAP or IND* indication (D9...P...3)	LED frontali / *by frontal LED*
ingresso bidirezionale (c.c.)	*bidirectional input (d.c.)*	si/yes
frequenza di lavoro	*operating frequency*	45÷65 H
sovraccarico permanente	*continuous overload*	2 In, 1,2 Vn
sovraccarico istantaneo	*istantaneous overload*	10 In, 2 Vn
classe di precisione	*accuracy class*	0,5
aggiornamento lettura	*readings update*	2/s
segnalazione di fuori scala	*overrange indication*	
solo 1^ cifra accesa -	*- 1st digit only lighting*	D98...5 - D96...5
punto lampeggiante -	*- flashing dot*	D98P...3 - D96P...3
separazione galvanica	*galvanic insulation*	ingresso-alim./ input-aux. supply
categoria di sovratensione	*overvoltage category*	CAT III 300V, CAT II 600V P.D. 2
temperatura di magazzinaggio	*storage temperature*	−30 ÷ +70°C
temperatura di funzionamento	*operating temperature*	−10 ÷ +50°C
custodia in materiale	*self estinguishing*	
termoplastico autoestinguente	*thermoplastic material*	UL 94-V0
grado di protezione custodia	*protection for housing*	IP52
grado di protezione morsetti	*protection for terminals*	IP10
connessioni	*connections*	faston 6,3x0,8

TIPO - *Type*

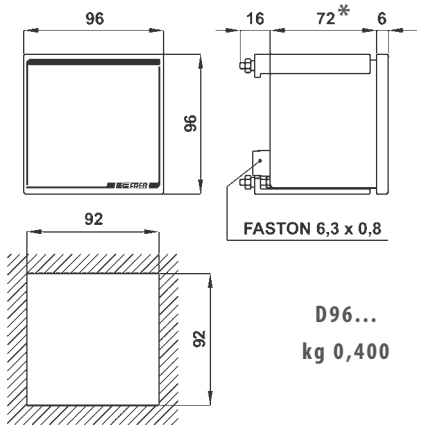
Descrizione - *Description*	Codice - *Code* 96x48	96x96
Amperometro Programmabile + Voltmetro per C.A. *A.C. Programmable Ammeter + Voltmeter*	D98EA5PROG...	D96EA5PROG...
Amperometro per corrente alternata *A.C. Ammeter*	D98EA5...	D96EA5...
Amperometro per C.A. TRMS *TRMS A.C. Ammeter*	D98RA5...	D96RA5...
Voltmetro per corrente alternata *A.C. Voltmeter*	D98EV5...	D96EV5...
Voltmetero per C.A. TRMS *TRMS A.C. Voltmeter*	D98RV5...	D96RV5...
Frequenzimetro - *Frequency meter*	Vedi pagina - *See page* 5.27	
Cosfimetro integrato e linearizzato * *Integrated linearized Power Factor meter **	D98P...3...	D96P...3...
Amperometro per corrente continua *D.C. Ammeter*	D98MA5...	D96MA5...
Voltmetro per corrente continua *D.C. Voltmeter*	D98MV5...	D96MV5...
Indicatori per segnali di processo (da convertitori) *D.C. Input indicator (from transducers)*	D98MS5...	D96MS5...
Indicatore di Velocità - *Tachometer*	Vedi pagina - *See page* 5.27	
Indicatori di Temperatura da PT100 *PT100 Temperature indicator*	D98C...5...	D96C...5...
Indicatori di Posizione o Livello da potenziometro *Potentiometer Position or Level indicator*	D98OH5...	D96OH5...

*Profondità 138mm - **Depth 138mm*

DIMENSIONI - *Dimensions*

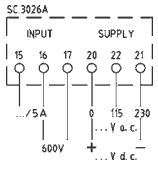


D98...
kg 0,350

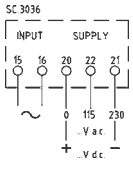


D96...
kg 0,400

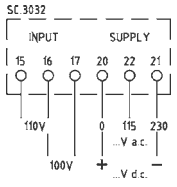
SCHEMI DI INSERZIONE - *Wiring diagrams*



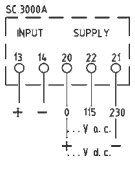
D9..EA5PROG...



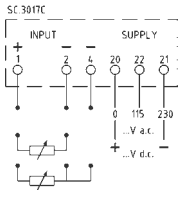
D9..E...
D9..R...



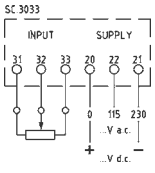
D9..EV5PROGC0



D9..M...



D9..C...



D9..0...

CODICI DI ORDINAZIONE. - *Ordering codes*

AMPEROMETRI C.A. - *A.C. AMMETERS*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		**D98**		
	96 x 96 mm		**D96**		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	A+V 0-1A (0-600V)	Programmabile - *Programmable* (TAB.3)		**EA5PROG01**	
	A+V 0-5A (0-600V)	Programmabile - *Programmable* (TAB.3)		**EA5PROG05**	
	0-10A	10.00A		**EA5010XSD**	
	0-1A TRMS (5÷120% In)	da precisare - *to be specified* (max. 19990)		**RA5YYYX01**	
	0-5A TRMS (5÷120% In)	da precisare - *to be specified* (max. 19990)		**RA5YYYX05**	
	0-10A TRMS (5÷120% In)	10.00 A		**RA5010XSD**	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				**S**
	20÷60Vac/dc - 3VA/2W				**L**
	80÷260Vac/dc - 5VA/2W				**H**

TAB. 3 - FONDO SCALA PROGRAMMABILE ½ DIP-SWITCH
TAB.3 - FULL SCALE PROGRAMMABLE BY DIP-SWITCH

0,200	0,250	0,300	0,400	0,500	0,600	0,750	0,800	1,000	1,200	1,250	1,500	1,600	1,999
2,00	2,50	3,00	4,00	5,00	6,00	7,50	8,00	10,00	12,00	12,50	15,00	16,00	19,99
20,0	25,0	30,0	40,0	50,0	60,0	75,0	80,0	100,0	120,0	125,0	150,0	160,0	199,9
200	250	300	400	500	600	750	800	1000	1200	1250	1500	1600	1999
2000	2500	3000	4000	5000	6000	7500	8000	10000	12000	12500	15000	16000	19990

VOLTMETRI C.A. - *A.C. VOLTMETERS*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		**D98**		
	96 x 96 mm		**D96**		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	A+V 0-600V + (0-5A)	600V		**EA5PROG05**	
	0-200V	199.9V		**EV5200XSD**	
	0-100V / 0-110V	Programmabile - *Programmable* (TAB.4)		**EV5PROGC0**	
	0-600V TRMS (5÷120% Vn)	600V		**RV5600XSD**	
	0-200V TRMS (5÷120% Vn)	199.9V		**RV5200XSD**	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				**S**
	20÷60Vac/dc - 3VA/2W				**L**
	80÷260Vac/dc - 5VA/2W				**H**

TAB. 4 - FONDO SCALA PROGRAMMABILE ½ DIP-SWITCH
TAB.4 - FULL SCALE PROGRAMMABLE BY DIP-SWITCH

0,200	0,220	0,240	0,360	0,380	0,400	0,500	0,630	0,660	1,000	1,100	1,320	1,500
2,00	2,20	2,40	3,60	3,80	4,00	5,00	6,30	6,60	10,00	11,00	13,20	15,00
20,0	22,0	24,0	36,0	38,0	40,0	50,0	63,0	66,0	100,0	110,0	132,0	150,0
200	220	240	360	380	400	500	630	660	1000	1100	1320	1500
2000	2200	2400	3600	3800	4000	5000	6300	6600	10000	11000	13200	15000

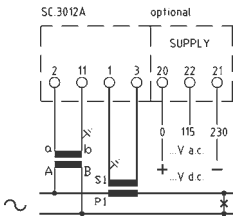
Nota: per valori differenti da quelli indicati in tabella contattare FRER per verifica fattibilità
Note: *please contact FRER to verify the feasibility in case of different values than the ones indicated in the table*

CODICI DI ORDINAZIONE. - *Ordering codes*

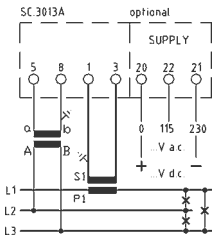
COSFIMETRI - *POWER FACTOR METERS*			D__	___	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		**D98**			
	96 x 96 mm		**D96**			
Sistema - *System:*	Monofase - *Single-phase*			**PS3**		
	Trifase - *Three-phase*			**PY3**		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***				
	100÷115 V - 1 A	0,1 CAP - 1 - 0,1 IND Cosφ			**111XC1**	
	100÷115 V - 5 A	0,1 CAP - 1 - 0,1 IND Cosφ			**111XC5**	
	220÷240 V - 1 A	0,1 CAP - 1 - 0,1 IND Cosφ			**111XD1**	
	220÷240 V - 5 A	0,1 CAP - 1 - 0,1 IND Cosφ			**111XD5**	
	380÷440 V - 1 A	0,1 CAP - 1 - 0,1 IND Cosφ			**111XQ1**	
	380÷440 V - 5 A	0,1 CAP - 1 - 0,1 IND Cosφ			**111XQ5**	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 6VA					**S**
	20÷60Vac/dc - 6VA/3W					**L**
	80÷260Vac/dc - 8VA/3W					**H**

Nota: per valori differenti da quelli indicati in tabella contattare FRER per verifica fattibilità
Note: *please contact FRER to verify the feasibility in case of different values than the ones indicated in the table*

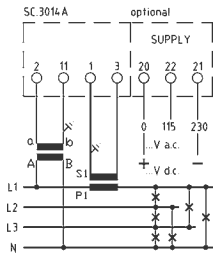
SCHEMI DI INSERZIONE - *Wiring diagrams*



D9..PS3...



D9..PY3...



D9..PS3...

CODICI DI ORDINAZIONE - *Ordering codes*

AMPEROMETRI C.C. - *D.C. AMMETERS*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		**D98**		
	96 x 96 mm		**D96**		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	±2 mA	1.999 mA		**MA502MXSD**	
	±20 mA	19.99 mA		**MA520MXSD**	
	±200 mA	199.9 mA		**MA52CMXSD**	
	±2 A	1.999 A		**MA5002XSD**	
	±10 A	10,00 A		**MA5010XSD**	
	±60 mV	Programmabile - *Programmable* (TAB.5)		**MA5PROG60**	
	±100 mV	Programmabile - *Programmable* (TAB.5)		**MA5PROGC0**	
	±150 mV	Programmabile - *Programmable* (TAB.5)		**MA5PROGC5**	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				**S**
	20÷60Vac/dc - 3VA/2W				**L**
	80÷260Vac/dc - 5VA/2W				**H**

TAB. 5 - FONDO SCALA PROGRAMMABILE ½ DIP-SWITCH
TAB.5 - FULL SCALE PROGRAMMABLE BY DIP-SWITCH

0,150	0,200	0,250	0,300	0,400	0,500	0,600	0,750	0,800	1,000	1,200	1,500	1,999
1,50	2,00	2,50	3,00	4,00	5,00	6,00	7,50	8,00	10,00	12,00	15,00	19,99
15,0	20,0	25,0	30,0	40,0	50,0	60,0	75,0	80,0	100,0	120,0	150,0	199,9
150	200	250	300	400	500	600	750	800	1000	1200	1500	1999
1500	2000	2500	3000	4000	5000	6000	7500	8000	10000	12000	15000	19990

VOLTMETRI C.C. - *D.C. VOLTMETERS*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		**D98**		
	96 x 96 mm		**D96**		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	±200 mV	199.9 mV		**MV52CMXSD**	
	±2 V	1.999 V		**MV5002XSD**	
	±20 V	19.99 V		**MV5020XSD**	
	±200 V	199.9 V		**MV5200XSD**	
	±600 V	600 V		**MV5600XSD**	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				**S**
	20÷60Vac/dc - 3VA/2W				**L**
	80÷260Vac/dc - 5VA/2W				**H**

Nota: per valori differenti da quelli indicati in tabella contattare FRER per verifica fattibilità
Note: *please contact FRER to verify the feasibility in case of different values than the ones indicated in the table*

CODICI DI ORDINAZIONE - *Ordering codes*

SEGNALI DI PROCESSO (da convertitori) - *D.C. INPUT INDICATORS (from transducers)*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		**D98**		
	96 x 96 mm		**D96**		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	±1 mA	Programmabile - *Programmable* (TAB.5)		**MS5PROG01**	
	±5 mA	Programmabile - *Programmable* (TAB.5)		**MS5PROG05**	
	±10 mA	Programmabile - *Programmable* (TAB.5)		**MS5PROG10**	
	±20 mA	Programmabile - *Programmable* (TAB.5)		**MS5PROG20**	
	4-20 mA	Programmabile - *Programmable* (TAB.5)		**MS5PROG42**	
	±10 V	Programmabile - *Programmable* (TAB.5)		**MS5PROG0D**	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				**S**
	20÷60Vac/dc - 3VA/2W				**L**
	80÷260Vac/dc - 5VA/2W				**H**

TAB. 5 - FONDO SCALA PROGRAMMABILE ½ DIP-SWITCH
TAB.5 - FULL SCALE PROGRAMMABLE BY DIP-SWITCH

0,150	0,200	0,250	0,300	0,400	0,500	0,600	0,750	0,800	1,000	1,200	1,500	1,999
1,50	2,00	2,50	3,00	4,00	5,00	6,00	7,50	8,00	10,00	12,00	15,00	19,99
15,0	20,0	25,0	30,0	40,0	50,0	60,0	75,0	80,0	100,0	120,0	150,0	199,9
150	200	250	300	400	500	600	750	800	1000	1200	1500	1999
1500	2000	2500	3000	4000	5000	6000	7500	8000	10000	12000	15000	19990

Nota: per valori differenti da quelli indicati in tabella contattare FRER per verifica fattibilità
Note: *please contact FRER to verify the feasibility in case of different values than the ones indicated in the table*

CODICI DI ORDINAZIONE - *Ordering codes*

TEMPERATURA DA PT100 - *PT100 TEMPERATURE INDICATOR*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		D98		
	96 x 96 mm		D96		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	PT100 2 fili/*wires*	-50.0 ÷ 199.9 °C		C2552CXSD	
	PT100 2 fili/*wires*	-50 ÷ 650 °C		C2555XSD	
	PT100 3 fili/*wires*	-50.0 ÷ 199.9 °C		C3552CXSD	
	PT100 3 fili/*wires*	-50 ÷ 650 °C		C3555XSD	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				S
	20÷60Vac/dc - 3VA/2W				L
	80÷260Vac/dc - 5VA/2W				H

POSIZIONE O LIVELLO- *POSITION OR LEVEL*			D__	_____	_
Dimensioni - *Dimension:*	96 x 48 mm		D98		
	96 x 96 mm		D96		
Dati - *Data:*	**Ingresso - *Input***	**Visualizzazione - *display***			
	1÷50 kΩ	da precisare - *to be specified* (max. 1999 ...)		0H5YYYX1C	
Alimentazione - *Aux. supply voltage*:	115/230Vac (±10% 47÷63Hz) - 3VA				S
	20÷60Vac/dc - 3VA/2W				L
	80÷260Vac/dc - 5VA/2W				H

Nota: per valori differenti da quelli indicati in tabella contattare FRER per verifica fattibilità
Note: *please contact FRER to verify the feasibility in case of different values than the ones indicated in the table*