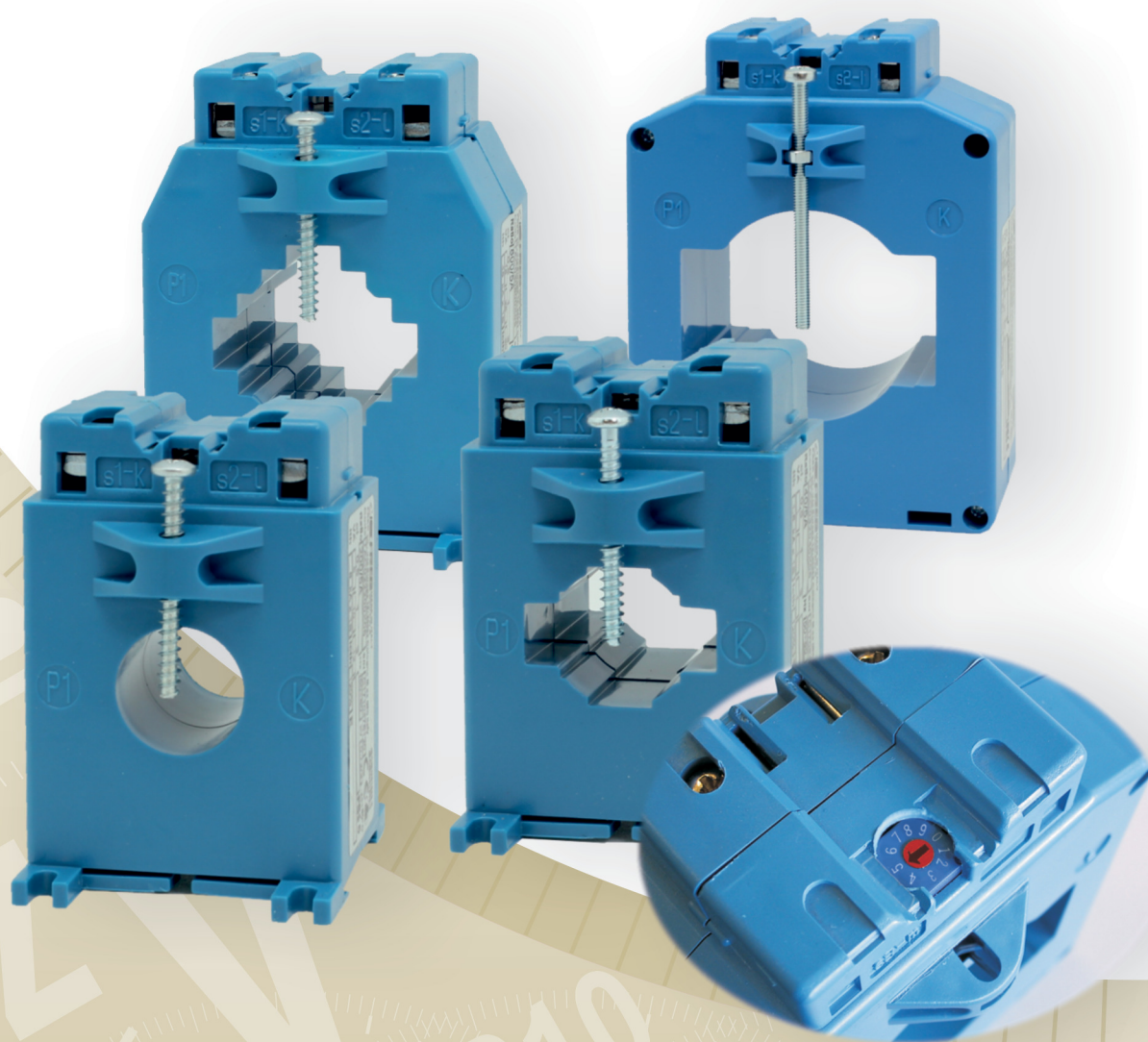


# TRASFORMATORI DI CORRENTE CON CONVERTITORE INTEGRATO

*Current transformers with integrated transducer*



 **SFRER**



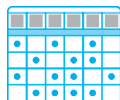


TABELLA SELEZIONE RAPIDA

8.4

*Selection Table*



TA CON PORTATA SELEZIONABILE  $5 \div 6000$  A / uscita 4-20mA passiva (2fili)

8.6

*CT with  $5 \div 6000$ A selectable range - passive output 4-20mA (2 wires)*



CONVERTITORI DI CORRENTE CON TA INTEGRATO  $5 \div 100$  A / uscita attiva (4fili)

8.14

*Current Transducers with integrated CT - active output (4 wires)*

OPT

SOVRAPPREZZI PER ESECUZIONI SPECIALI

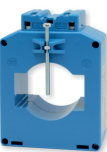
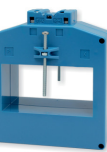
8.16

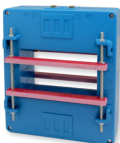
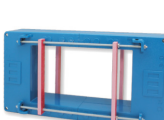
*Special executions extraprices*



# TABELLA RIASSUNTIVA TA CON CONVERTITORE INTEGRATO

## CT WITH INTEGRATED TRANSDUCER SELECTION TABLE

|                                                                                | CORRENTE PRIMARIO SELEZIONABILE - SELECTABLE PRIMARY CURRENT                      |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
|--------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Pagina - Page                                                                  | 8.6                                                                               | 8.7                                                                               | 8.8                                                                               | 8.9                                                                                | 8.10                                                                                | 8.11                                                                                |
| TA CON<br>CONVERTITORE<br>INTEGRATO<br><br>CT WITH<br>INTEGRATED<br>TRANSDUCER |  |  |  |  |  |  |
| Codice - Code                                                                  | MAC022 - MRC022                                                                   | MAC017 - MRC017                                                                   | MAC032 - MRC032                                                                   | MAC040 - MRC040                                                                    | MAT061 - MRT061                                                                     | MAT101 - MRT101                                                                     |
| cavo - cable                                                                   | Ø 22 mm                                                                           | Ø 17 mm                                                                           | Ø 23 mm                                                                           | Ø 32 mm                                                                            | Ø 51 mm                                                                             |                                                                                     |
| barra - busbar                                                                 | 20 x 5 mm                                                                         | 15 x 5 mm                                                                         | 32 x 10 mm                                                                        | 40 x 10 mm                                                                         | 61 x 31 mm                                                                          | 101 x 55 mm                                                                         |
| larghezza - width                                                              | 56 mm                                                                             | 56 mm                                                                             | 56 mm                                                                             | 70 mm                                                                              | 68 mm                                                                               | 115 mm                                                                              |
| A                                                                              | PORTATA - RANGE                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 5 A                                                                            | ●                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 6 A                                                                            | ●                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 7,5 A                                                                          | ●                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 10 A                                                                           | ●                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 15 A                                                                           | ●                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 20 A                                                                           | ●                                                                                 | ●                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 25 A                                                                           | ●                                                                                 |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 30 A                                                                           | ●                                                                                 | ●                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 40 A                                                                           |                                                                                   | ●                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 50 A                                                                           |                                                                                   | ●                                                                                 | ●                                                                                 |                                                                                    |                                                                                     |                                                                                     |
| 60 A                                                                           |                                                                                   | ●                                                                                 | ●                                                                                 |                                                                                    |                                                                                     |                                                                                     |
| 75 A                                                                           |                                                                                   |                                                                                   | ●                                                                                 |                                                                                    |                                                                                     |                                                                                     |
| 80 A                                                                           |                                                                                   | ●                                                                                 |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 100 A                                                                          |                                                                                   | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     |                                                                                     |
| 120 A                                                                          |                                                                                   | ●                                                                                 |                                                                                   | ●                                                                                  |                                                                                     |                                                                                     |
| 125 A                                                                          |                                                                                   |                                                                                   | ●                                                                                 |                                                                                    |                                                                                     |                                                                                     |
| 150 A                                                                          |                                                                                   |                                                                                   | ●                                                                                 | ●                                                                                  |                                                                                     |                                                                                     |
| 200 A                                                                          |                                                                                   |                                                                                   | ●                                                                                 | ●                                                                                  | ●                                                                                   |                                                                                     |
| 250 A                                                                          |                                                                                   |                                                                                   | ●                                                                                 | ●                                                                                  |                                                                                     |                                                                                     |
| 300 A                                                                          |                                                                                   |                                                                                   | ●                                                                                 | ●                                                                                  | ●                                                                                   |                                                                                     |
| 400 A                                                                          |                                                                                   |                                                                                   |                                                                                   | ●                                                                                  | ●                                                                                   | ●                                                                                   |
| 500 A                                                                          |                                                                                   |                                                                                   |                                                                                   | ●                                                                                  | ●                                                                                   |                                                                                     |
| 600 A                                                                          |                                                                                   |                                                                                   |                                                                                   | ●                                                                                  | ●                                                                                   | ●                                                                                   |
| 750 A                                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 800 A                                                                          |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | ●                                                                                   |
| 1000 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | ●                                                                                   |
| 1200 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | ●                                                                                   |
| 1250 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 1500 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 1600 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ●                                                                                   |
| 2000 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ●                                                                                   |
| 2400 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | ●                                                                                   |
| 2500 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 3000 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 4000 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 5000 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |
| 6000 A                                                                         |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     |                                                                                     |

| CORRENTE PRIMARIO NON SELEZIONABILE - NOT SELECTABLE PRIMARY CURRENT              |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | Pagina - Page                                                              |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|
| 8.12                                                                              | 8.13                                                                              | 8.13                                                                              | 8.13                                                                              | 8.13                                                                               | 8.14                                                                                | TA CON<br>CONVERTITORE<br>INTEGRATO<br>CT WITH<br>INTEGRATED<br>TRANSDUCER |
|  |  |  |  |  |  | Codice - Code                                                              |
| MAT127 - MRT127                                                                   | MAT128 - MRT128                                                                   | MAT129 - MRT129                                                                   | MAT165 - MRT165                                                                   | MAT225 - MRT225                                                                    | MCOAD1 - MROAD1                                                                     |                                                                            |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | Ø 13 mm                                                                             | cavo - cable                                                               |
| 127 x 55 mm                                                                       | 127 x 85 mm                                                                       | 127 x 105 mm                                                                      | 167 x 127 mm                                                                      | 225 x 127 mm                                                                       |                                                                                     | barra - busbar                                                             |
| 156 mm                                                                            | 156 mm                                                                            | 156 mm                                                                            | 238 mm                                                                            | 298 mm                                                                             | 45 mm                                                                               | larghezza - width                                                          |
| PORTATA - RANGE                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | A                                                                          |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 5 A                                                                        |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 6 A                                                                        |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 7,5 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 10 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 15 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 20 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 25 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 30 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 40 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 50 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 60 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 75 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 80 A                                                                       |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    | ●                                                                                   | 100 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 120 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 125 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 150 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 200 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 250 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 300 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 400 A                                                                      |
| ●                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 500 A                                                                      |
| ●                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 600 A                                                                      |
| ●                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 750 A                                                                      |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 800 A                                                                      |
| ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 1000 A                                                                     |
|                                                                                   | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 1200 A                                                                     |
| ●                                                                                 |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 1250 A                                                                     |
| ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 1500 A                                                                     |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 1600 A                                                                     |
| ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 2000 A                                                                     |
|                                                                                   |                                                                                   |                                                                                   |                                                                                   |                                                                                    |                                                                                     | 2400 A                                                                     |
| ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 2500 A                                                                     |
| ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 3000 A                                                                     |
|                                                                                   | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 4000 A                                                                     |
|                                                                                   | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 5000 A                                                                     |
|                                                                                   | ●                                                                                 | ●                                                                                 | ●                                                                                 | ●                                                                                  |                                                                                     | 6000 A                                                                     |



# TA Ø22 CON USCITA 4-20mA Ø22 CT with 4-20mA Output

# MAC022



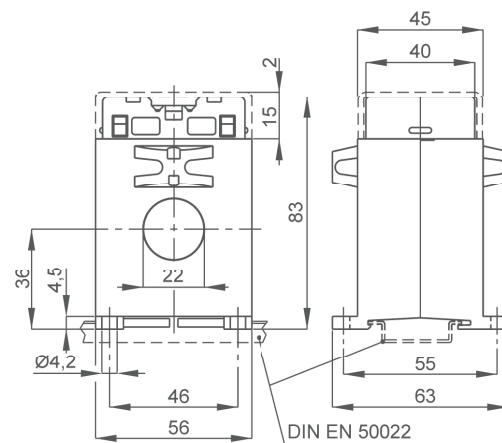
## DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | conforme a                           |
| conforme a                    | according to                 | EN 60688                             |

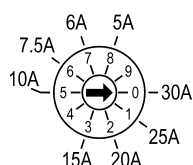
## CODICI DI ORDINAZIONE - Ordering codes

## DIMENSIONI - Dimensions

| Portate selezionabili<br>Selectable range | Codice - Code            |                     |
|-------------------------------------------|--------------------------|---------------------|
|                                           | Sinusoidale - Sinusoidal | TRMS                |
| 5 A                                       | <b>MAC022PROG42</b>      | <b>MRC022PROG42</b> |
| 6 A                                       |                          |                     |
| 7,5 A                                     |                          |                     |
| 10 A                                      |                          |                     |
| 15 A                                      |                          |                     |
| 20 A                                      |                          |                     |
| 25 A                                      |                          |                     |
| 30 A                                      |                          |                     |



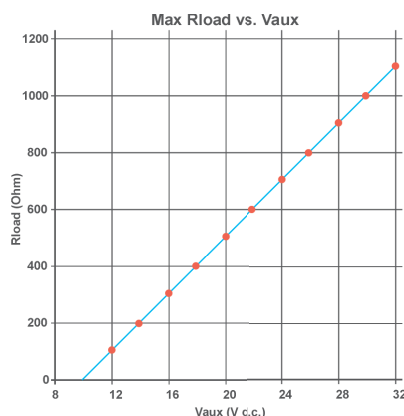
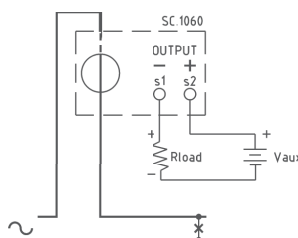
kg 0,25 ...0,30



Selettore portate  
Range selector

## SCHEMI DI INSERIZIONE - Wiring diagrams

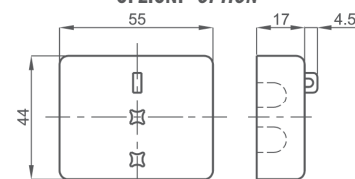
## NOTE - Note



ACCESSORI IN DOTAZIONE  
- viti per fissaggio TA alla barra  
- cappuccio di protezione per vite fissaggio

SUPPLIED ACCESSORY  
- CT fixing set for busbar mounting  
- protective caps for CT fixing

## OPZIONI - OPTION



Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**



# TA Ø17 CON USCITA 4-20mA Ø17 CT with 4-20mA Output

# MAC017



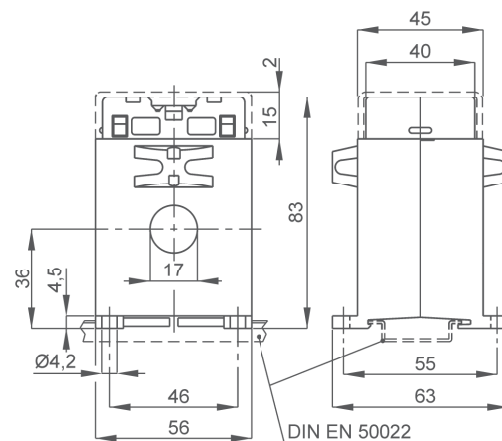
## DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | EN 60688                             |
| conforme a                    | according to                 |                                      |

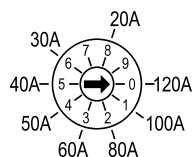
## CODICI DI ORDINAZIONE - Ordering codes

## DIMENSIONI - Dimensions

| Portate selezionabili<br>Selectable range | Codice - Code            |                     |
|-------------------------------------------|--------------------------|---------------------|
|                                           | Sinusoidale - Sinusoidal | TRMS                |
| 20 A                                      | <b>MAC017PROG42</b>      | <b>MRC017PROG42</b> |
| 30 A                                      |                          |                     |
| 40 A                                      |                          |                     |
| 50 A                                      |                          |                     |
| 60 A                                      |                          |                     |
| 80 A                                      |                          |                     |
| 100 A                                     |                          |                     |
| 120 A                                     |                          |                     |



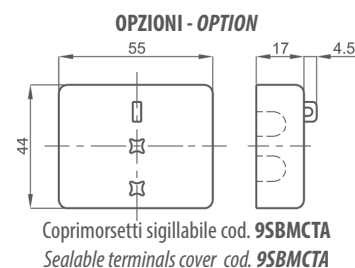
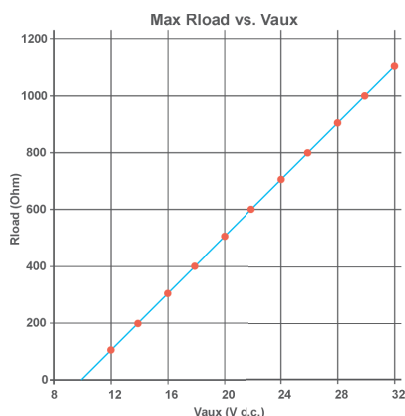
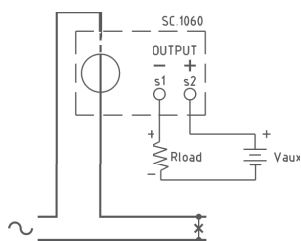
kg 0,25 ...0,30



Selettore portate  
Range selector

## SCHEMI DI INSERIZIONE - Wiring diagrams

## NOTE - Note



Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**





# TA 32x10 CON USCITA 4-20mA 32x10 CT with 4-20mA Output

## MAC032



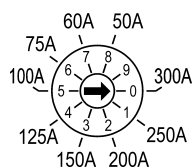
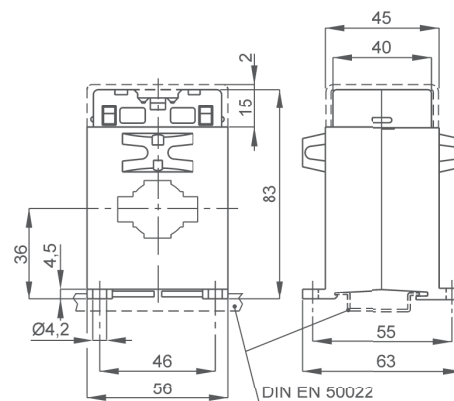
### DATI TECNICI - Technical data

|                               |                              |                                       |
|-------------------------------|------------------------------|---------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2filii/wires) |
| classe di precisione          | accuracy class               | 1                                     |
| tempo di risposta             | response time                | <200msec                              |
| ondulazione residua           | residual ripple              | <1%p.p.                               |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                    |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)              |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                              |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                                |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                 |
| temperatura di magazzino      | storage temperature          | -30...+70°C                           |
| custodia in materiale         | self extinguishing           | UL 94-V0                              |
| termoplastico autoestinguente | thermoplastic material       | completo/full                         |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2      |
| categoria di sovratensione    | overvoltage category         | EN 60688                              |
| conforme a                    | according to                 |                                       |

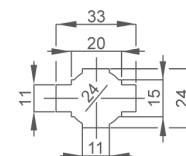
### CODICI DI ORDINAZIONE - Ordering codes

### DIMENSIONI - Dimensions

| Portate selezionabili<br>Selectable range | Codice - Code            |                     |
|-------------------------------------------|--------------------------|---------------------|
|                                           | Sinusoidale - Sinusoidal | TRMS                |
| 50 A                                      | <b>MAC032PROG42</b>      | <b>MRC032PROG42</b> |
| 60 A                                      |                          |                     |
| 75 A                                      |                          |                     |
| 100 A                                     |                          |                     |
| 125 A                                     |                          |                     |
| 150 A                                     |                          |                     |
| 200 A                                     |                          |                     |
| 250 A                                     |                          |                     |
| 300 A                                     |                          |                     |



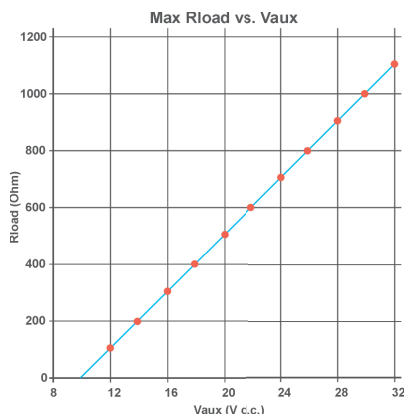
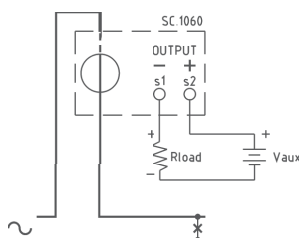
Selettore portate  
Range selector



kg 0,25 ...0,30

### SCHEMI DI INSERZIONE - Wiring diagrams

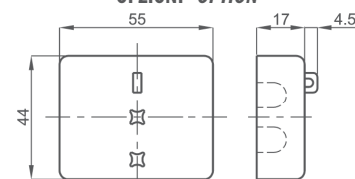
### NOTE - Note



ACCESSORI IN DOTAZIONE  
- viti per fissaggio TA alla barra  
- cappuccio di protezione per vite fissaggio

SUPPLIED ACCESSORY  
- CT fixing set for busbar mounting  
- protective caps for CT fixing

### OPZIONI - OPTION



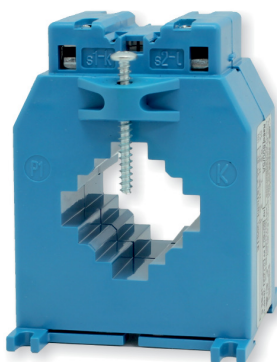
Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**





# TA 40x10 CON USCITA 4-20mA 40x10 CT with 4-20mA Output

## MAC040



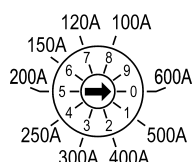
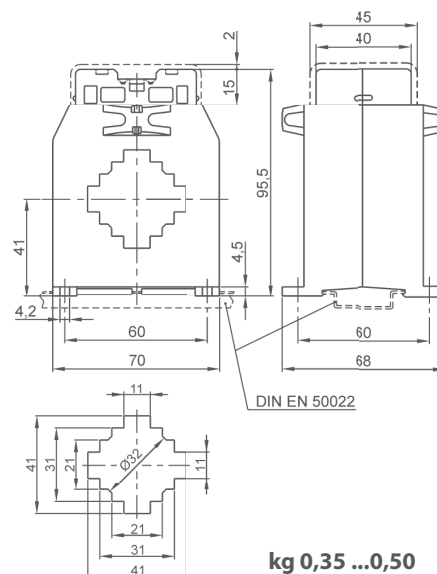
### DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | EN 60688                             |
| conforme a                    | according to                 |                                      |

### CODICI DI ORDINAZIONE - Ordering codes

### DIMENSIONI - Dimensions

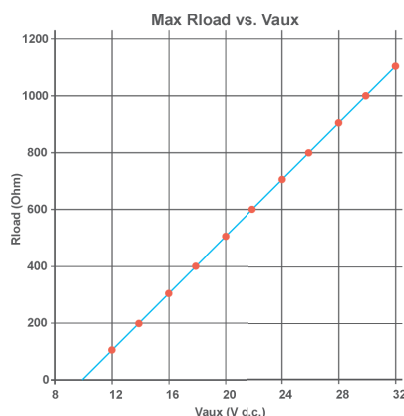
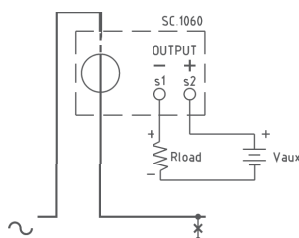
| Portate selezionabili<br>Selectable range | Codice - Code            |                     |
|-------------------------------------------|--------------------------|---------------------|
|                                           | Sinusoidale - Sinusoidal | TRMS                |
| 100 A                                     | <b>MAC040PROG42</b>      | <b>MRC040PROG42</b> |
| 120 A                                     |                          |                     |
| 150 A                                     |                          |                     |
| 200 A                                     |                          |                     |
| 250 A                                     |                          |                     |
| 300 A                                     |                          |                     |
| 400 A                                     |                          |                     |
| 500 A                                     |                          |                     |
| 600 A                                     |                          |                     |



Selettore portate  
Range selector

### SCHEMI DI INSERZIONE - Wiring diagrams

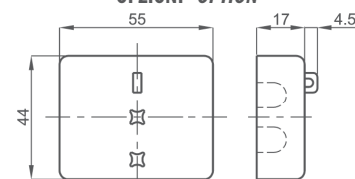
### NOTE - Note



ACCESSORI IN DOTAZIONE  
- viti per fissaggio TA alla barra  
- cappuccio di protezione per vite fissaggio

SUPPLIED ACCESSORY  
- CT fixing set for busbar mounting  
- protective caps for CT fixing

### OPZIONI - OPTION

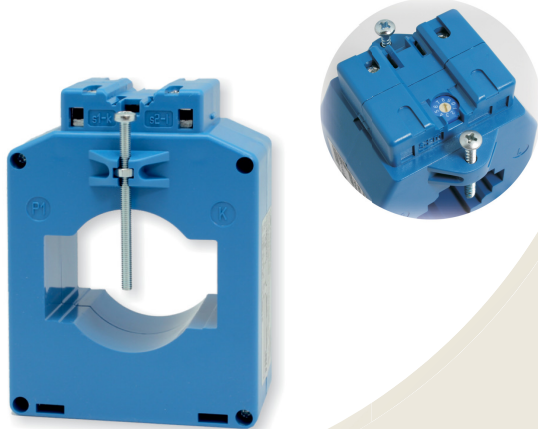


Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**



# TA 61x31 Ø51 CON USCITA 4-20mA 61x31 Ø51 CT with 4-20mA Output

## MAT061



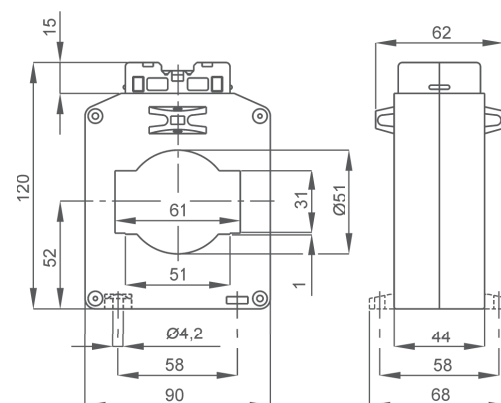
### DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | conforme a EN 60688                  |
| conforme a                    | according to                 |                                      |

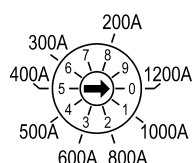
### CODICI DI ORDINAZIONE - Ordering codes

### DIMENSIONI - Dimensions

| Portate selezionabili<br>Selectable range | Codice - Code            |                     |
|-------------------------------------------|--------------------------|---------------------|
|                                           | Sinusoidale - Sinusoidal | TRMS                |
| 200 A                                     | <b>MAT061PROG42</b>      | <b>MRT061PROG42</b> |
| 300 A                                     |                          |                     |
| 400 A                                     |                          |                     |
| 500 A                                     |                          |                     |
| 600 A                                     |                          |                     |
| 800 A                                     |                          |                     |
| 1000 A                                    |                          |                     |
| 1200 A                                    |                          |                     |



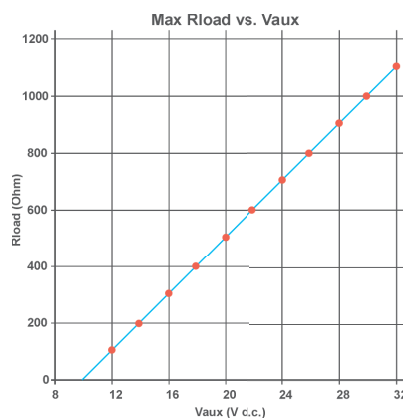
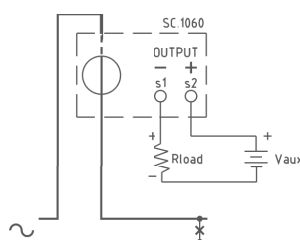
kg 0,5 ...1,0



Selettore portate  
Range selector

### SCHEMI DI INSERIZIONE - Wiring diagrams

### NOTE - Note

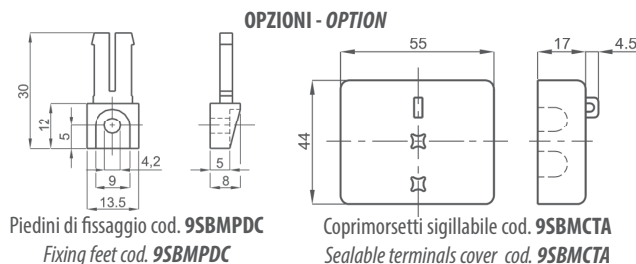


#### ACCESSORI IN DOTAZIONE

- viti per fissaggio TA alla barra
- cappuccio di protezione per vite fissaggio

#### SUPPLIED ACCESSORY

- CT fixing set for busbar mounting
- protective caps for CT fixing



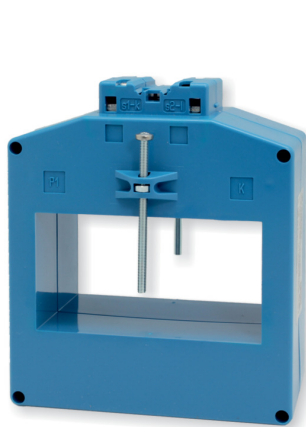
Piedini di fissaggio cod. **9SBMPDC**  
Fixing feet cod. **9SBMPDC**

Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**



# TA 102x55 CON USCITA 4-20mA 102x55 CT with 4-20mA Output

# MAT101



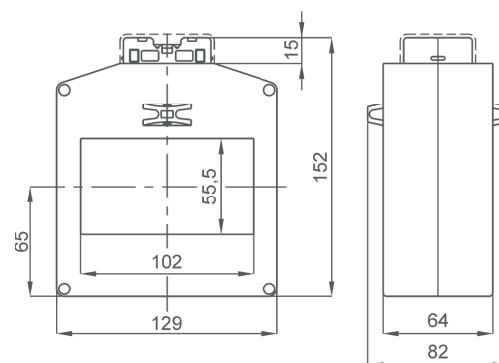
## DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | conforme a                           |
| conforme a                    | according to                 | EN 60688                             |

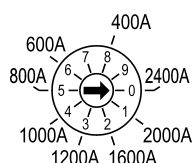
## CODICI DI ORDINAZIONE - Ordering codes

## DIMENSIONI - Dimensions

| Portate selezionabili<br>Selectable range | Codice - Code            |                     |
|-------------------------------------------|--------------------------|---------------------|
|                                           | Sinusoidale - Sinusoidal | TRMS                |
| 400 A                                     | <b>MAT101PROG42</b>      | <b>MRT101PROG42</b> |
| 600 A                                     |                          |                     |
| 800 A                                     |                          |                     |
| 1000 A                                    |                          |                     |
| 1200 A                                    |                          |                     |
| 1600 A                                    |                          |                     |
| 2000 A                                    |                          |                     |
| 2400 A                                    |                          |                     |



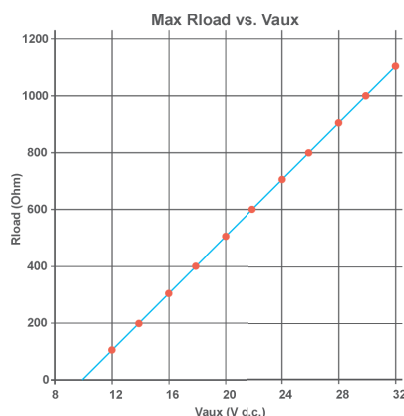
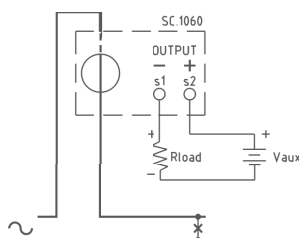
kg 1,5 ...3,0



Selettore portate  
Range selector

## SCHEMI DI INSERIZIONE - Wiring diagrams

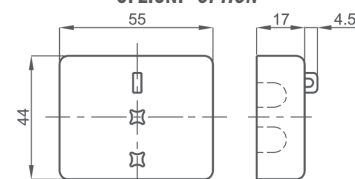
## NOTE - Note



ACCESSORI IN DOTAZIONE  
- viti per fissaggio TA alla barra  
- cappuccio di protezione per vite fissaggio

SUPPLIED ACCESSORY  
- CT fixing set for busbar mounting  
- protective caps for CT fixing

## OPZIONI - OPTION



Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**



# TA 127x55 CON USCITA 4-20mA 127x55 CT with 4-20mA Output

# MAT127



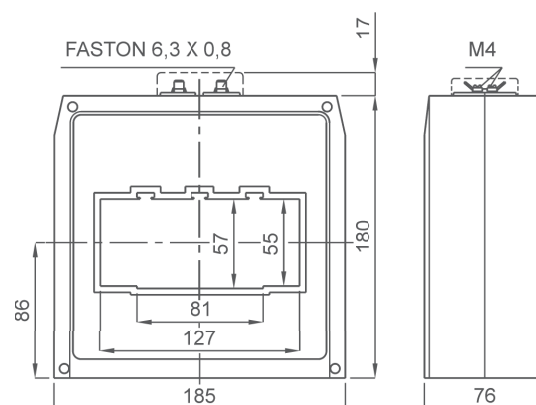
## DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | EN 60688                             |
| conforme a                    | according to                 |                                      |

## CODICI DI ORDINAZIONE - Ordering codes

## DIMENSIONI - Dimensions

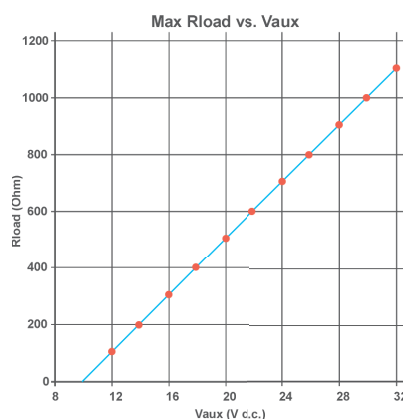
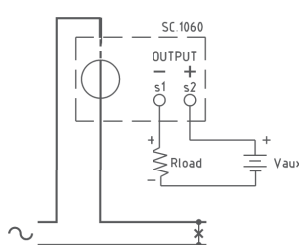
| Portate<br>Range | Codice - Code            |                     |
|------------------|--------------------------|---------------------|
|                  | Sinusoidale - Sinusoidal | TRMS                |
| 500 A            | <b>MAT127500X42</b>      | <b>MRT127500X42</b> |
| 600 A            | <b>MAT127600X42</b>      | <b>MRT127600X42</b> |
| 750 A            | <b>MAT127750X42</b>      | <b>MRT127750X42</b> |
| 1000 A           | <b>MAT1271K0X42</b>      | <b>MRT1271K0X42</b> |
| 1250 A           | <b>MAT12712CX42</b>      | <b>MRT12712CX42</b> |
| 1500 A           | <b>MAT1271K5X42</b>      | <b>MRT1271K5X42</b> |
| 2000 A           | <b>MAT1272K0X42</b>      | <b>MRT1272K0X42</b> |
| 2500 A           | <b>MAT1272K5X42</b>      | <b>MRT1272K5X42</b> |
| 3000 A           | <b>MAT1273K0X42</b>      | <b>MRT1273K0X42</b> |



kg 2,5 ...3,3

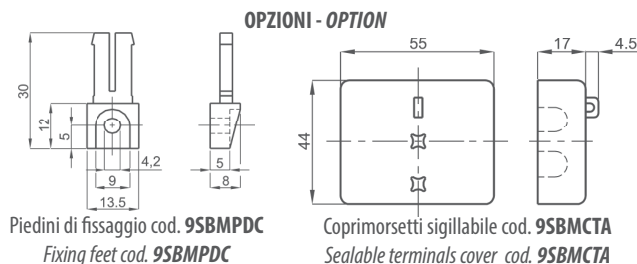
## SCHEMI DI INSERZIONE - Wiring diagrams

## NOTE - Note



ACCESSORI IN DOTAZIONE  
- 2 staffe per fissaggio cavo o barra  
- cappuccio di protezione per vite fissaggio

SUPPLIED ACCESSORY  
- cable or busbar fixing set  
- protective caps for CT fixing



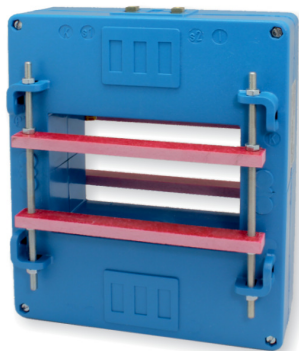
Piedini di fissaggio cod. **9SBMPDC**  
Fixing feet cod. **9SBMPDC**

Coprimorsetti sigillabile cod. **9SBMCTA**  
Sealable terminals cover cod. **9SBMCTA**



# TA 127x85-105-165-225 CON USCITA 4-20mA 127x85-105-165-225 CT with 4-20mA Output

**MAT...**



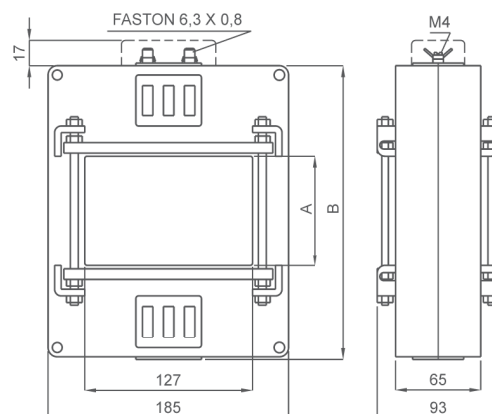
## DATI TECNICI - Technical data

|                               |                              |                                      |
|-------------------------------|------------------------------|--------------------------------------|
| uscita                        | output                       | 4-20mA passiva/passive (2fili/wires) |
| classe di precisione          | accuracy class               | 1                                    |
| tempo di risposta             | response time                | <200msec                             |
| ondulazione residua           | residual ripple              | <1%p.p.                              |
| sovraccarico permanente       | continuous overload          | 1,2 I <sub>n</sub>                   |
| sovraccarico di breve durata  | short-time overload          | 20 I <sub>n</sub> (1sec)             |
| frequenza di riferimento      | reference frequency          | 45÷65 Hz                             |
| consumo circuiti di corrente  | current circuits consumption | <0,5VA                               |
| temperatura di funzionamento  | operating temperature        | -10...0...+45...+50°C                |
| temperatura di magazzino      | storage temperature          | -30...+70°C                          |
| custodia in materiale         | self extinguishing           | UL 94-V0                             |
| termoplastico autoestinguente | thermoplastic material       | completo/full                        |
| isolamento galvanico          | galvanic insulation          | CAT III 300V, CAT II 600V P.D. 2     |
| categoria di sovratensione    | overvoltage category         | EN 60688                             |
| conforme a                    | according to                 |                                      |

## CODICI DI ORDINAZIONE - Ordering codes

## DIMENSIONI - Dimensions

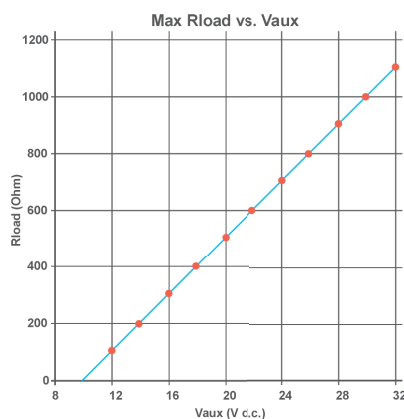
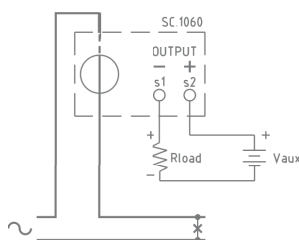
| TA CON USCITA 4-20mA - CT WITH 4-20MA OUTPUT |                          | M   |  |  | X42 |
|----------------------------------------------|--------------------------|-----|--|--|-----|
| Tipo ingressi - Input type                   | Sinusoidale - Sinusoidal | MAT |  |  |     |
|                                              | TRMS                     | MRT |  |  |     |
| Barra - Busbar:                              | 127 x 85 mm              | 128 |  |  |     |
|                                              | 127 x 105 mm             | 129 |  |  |     |
|                                              | 127 x 165 mm             | 165 |  |  |     |
|                                              | 127 x 225 mm             | 225 |  |  |     |
| Portata - Range:                             | 1000 A                   | 1K0 |  |  |     |
|                                              | 1200 A                   | 1K2 |  |  |     |
|                                              | 1500 A                   | 1K5 |  |  |     |
|                                              | 2000 A                   | 2K0 |  |  |     |
|                                              | 2500 A                   | 2K5 |  |  |     |
|                                              | 3000 A                   | 3K0 |  |  |     |
|                                              | 4000 A                   | 4K0 |  |  |     |
|                                              | 5000 A                   | 5K0 |  |  |     |
|                                              | 6000 A                   | 6K0 |  |  |     |



| Code    | A   | B   | kg  |
|---------|-----|-----|-----|
| M..T128 | 85  | 226 | 3.5 |
| M..T129 | 105 | 246 | 3.7 |
| M..T165 | 165 | 308 | 4.0 |
| M..T225 | 225 | 368 | 5.0 |

## SCHEMI DI INSERZIONE - Wiring diagrams

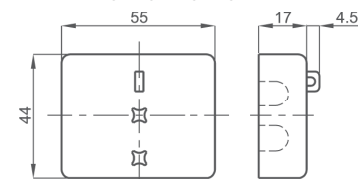
## NOTE - Note



ACCESSORI IN DOTAZIONE  
- sistema di fissaggio barre incorporato

SUPPLIED ACCESSORY  
- built-in busbar fixing system

## OPZIONI - OPTION



Coprimorsetti cod. 9SBMCTA50  
Coprimorsetti sigillabile cod. 9SBMCTA50S

Terminals cover cod. 9SBMCTA50  
Sealable terminals cover cod. 9SBMCTA50S



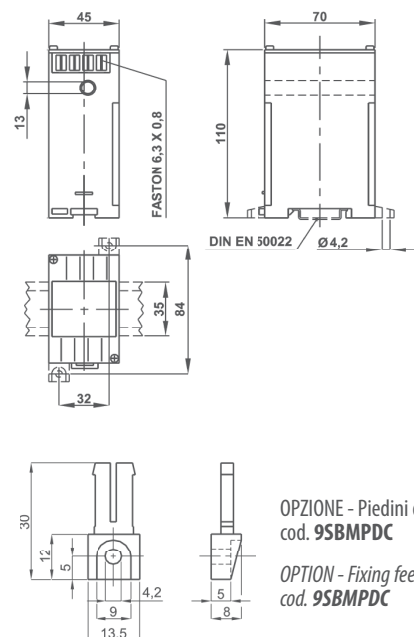
### DATI TECNICI - Technical data

|                                                     |                                           |                                              |
|-----------------------------------------------------|-------------------------------------------|----------------------------------------------|
| classe di precisione                                | accuracy class                            | 1 (0,5 a richiesta/on request)               |
| campo di ingresso                                   | input range                               | 0...120% In                                  |
| tempo di risposta                                   | response time                             | <200msec                                     |
| ondulazione residua                                 | residual ripple                           | <1%p.p.                                      |
| sovraccarico permanente                             | continuous overload                       | 2 In                                         |
| sovraccarico di breve durata                        | short-time overload                       | 20 In (1sec)                                 |
| frequenza di riferimento                            | reference frequency                       | 45÷65 Hz                                     |
| consumo circuiti di corrente                        | current circuits consumption              | <0,5VA                                       |
| temperatura di funzionamento                        | operating temperature                     | -10...0...+45...+50°C                        |
| temperatura di magazzino                            | storage temperature                       | -30...+70°C                                  |
| custodia in materiale termoplastico autoestinguente | self extinguishing thermoplastic material | UL 94-V0                                     |
| categoria di sovratensione conforme a               | overvoltage category according to         | CAT III 300V, CAT II 600V P.D. 2<br>EN 60688 |

### TIPO - Type

### DIMENSIONI - Dimensions

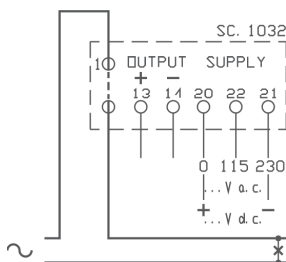
| Descrizione - Description | Codice - Code | Vecchio Codice - Old Code |
|---------------------------|---------------|---------------------------|
| Sinusoidale - Sinusoidal  | <b>MCOAD1</b> | MCOEAQ...                 |
| TRMS                      | <b>MROAD1</b> | MCOEAR...                 |



OPZIONE - Piedini di fissaggio  
cod. **9SBMPDC**

OPTION - Fixing feet  
cod. **9SBMPDC**

### SCHEMI DI INSERZIONE - Wiring diagrams



## CODICI DI ORDINAZIONE - Ordering codes

| CONVERTITORE DI CORRENTE C.A. CON TA INTEGRATO - A.C. CURRENT TRANSDUCER WITH INTEGRATED C.T. |                                        | M      |     | X |    |   |
|-----------------------------------------------------------------------------------------------|----------------------------------------|--------|-----|---|----|---|
| Tipo ingressi - Input type                                                                    | Sinusoidale - Sinusoidal               | MCOAD1 |     |   |    |   |
|                                                                                               | TRMS                                   | MROAD1 |     |   |    |   |
| Ingresso - Input :                                                                            | 0-5 A                                  |        | 005 |   |    |   |
|                                                                                               | 0-10 A                                 |        | 010 |   |    |   |
|                                                                                               | 0-15 A                                 |        | 015 |   |    |   |
|                                                                                               | 0-20 A                                 |        | 020 |   |    |   |
|                                                                                               | 0-25 A                                 |        | 025 |   |    |   |
|                                                                                               | 0-30 A                                 |        | 030 |   |    |   |
|                                                                                               | 0-40 A                                 |        | 040 |   |    |   |
|                                                                                               | 0-50 A                                 |        | 050 |   |    |   |
|                                                                                               | 0-60 A                                 |        | 060 |   |    |   |
|                                                                                               | 0-80 A                                 |        | 080 |   |    |   |
|                                                                                               | 0-100 A                                |        | 100 |   |    |   |
| Uscita - Output:                                                                              | 0-5 mA (3k $\Omega$ )                  |        |     |   | 05 |   |
|                                                                                               | 0-20 mA (750 $\Omega$ )                |        |     |   | 20 |   |
|                                                                                               | 4-20 mA (750 $\Omega$ )                |        |     |   | 42 |   |
|                                                                                               | 0-10 V (>2k $\Omega$ )                 |        |     |   | 0D |   |
|                                                                                               | RS485 Modbus RTU                       |        |     |   | MB |   |
| Alimentazione - Aux. supply voltage:                                                          | 115/230Vac ( $\pm 10\%$ 47÷63Hz) - 4VA |        |     |   |    | S |
|                                                                                               | 20÷60Vac/dc - 5VA/2W                   |        |     |   |    | L |
|                                                                                               | 80÷260Vac/dc - 7VA/2W                  |        |     |   |    | H |
|                                                                                               | 380÷415Vac (47÷63Hz) - 6VA             |        |     |   |    | 3 |

**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





## Special executions extraprices

I prodotti presentati in questa sezione possono essere realizzati in diverse esecuzioni speciali. Nella tabella sotto riportata troverete indicato:

- la descrizione dell'opzione
  - il codice del sovrapprezzo presente nei listini FRER
  - il codice del prodotto su cui è possibile realizzare l'opzione (Applicazione)
  - come completare il codice di ordinazione indicato nelle precedenti pagine
- Per opzioni non presenti in elenco contattare il servizio vendite FRER per valutazione di fattibilità.

The products in this catalogue section can be manufactured in various different special executions. In the table below it is indicated:

- the option description
  - the extra price code available in the FRER price lists
  - the product type code where the option is available
  - how to fill-in the ordering code mentioned in the previous pages
- For all options which are not listed in the table please contact the FRER sales staff.

## CODICI DI ORDINAZIONE - Ordering codes

| OPZIONI - OPTIONS                                                                                                       | Codice sovrapprezzo<br>Overprice Code | Applicazione<br>Available for type Code | M _ _ _ _ _ | _ | _ | _ |
|-------------------------------------------------------------------------------------------------------------------------|---------------------------------------|-----------------------------------------|-------------|---|---|---|
| Morsetti a vite M3<br>M3 screw terminals                                                                                | OPTE5M                                | M...OAD1...                             |             | M |   |   |
| Classe di precisione 0,5%<br>Accuracy class 0,5%                                                                        | OPTE5J                                | M...OAD1...                             |             | J |   |   |
| Frequenza di funzionamento 400Hz<br>Operating frequency 400Hz                                                           | OPTE5H                                | Tutti/A//                               |             | H |   |   |
| Tempo di risposta 50msec<br>Response time 50msec                                                                        | OPTE5S                                | Tutti/A//                               |             | S |   |   |
| Isolamento 4kV<br>Insulation level 4kV                                                                                  | OPTE5K                                | Tutti/A//                               |             | K |   |   |
| Regolazione 0 e fondo scala<br>Zero and Full Scale setting                                                              | OPTE5T                                | M...OAD1...                             |             | T |   |   |
| Nessuna<br>None                                                                                                         | -                                     | Tutti/A//                               |             | X |   |   |
| Esecuzione Tropicalizzata<br>Tropicalization                                                                            | OPTE6T                                | Tutti/A//                               |             |   | T |   |
| Esecuzione Navale<br>Ship mounting                                                                                      | OPTE6N                                | Tutti/A//                               |             |   | N |   |
| Nessuna<br>None                                                                                                         | -                                     | Tutti/A//                               |             |   | X |   |
| Esecuzione per ambienti H <sub>2</sub> S, NH <sub>3</sub><br>Version for H <sub>2</sub> S, NH <sub>3</sub> applications | OPTX7H                                | Tutti/A//                               |             |   |   | H |
| Nessuna<br>None                                                                                                         | -                                     | Tutti/A//                               |             |   |   | X |