

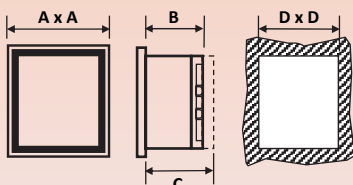


E cl. 1.5

Amperometri elettromagnetici per CA scala 90° intercambiabile AC moving iron ammeters, 90° interchangeable scale



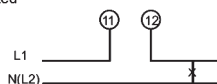
Dimensioni di ingombro e foratura pannello (mm)
Dimensions and panel cut-out (mm)



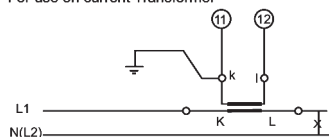
| Codice code | A x A | B | C | D x D |
|-------------|---------|----|----|---------|
| E48 | 48x48 | 54 | 63 | 45x45 |
| E72 | 72x72 | 54 | 63 | 68x68 |
| E96 | 96x96 | 54 | 63 | 92x92 |
| E144 | 144x144 | 54 | 63 | 138x138 |

Schemi di inserzione Wiring diagrams

Direct - connected



For use on current Transformer



Dati Tecnici

| | |
|--|---|
| - Precisione | ± 1.5 % del valore di fondo scala |
| - Autoconsumo | 1 VA circa (portata 5 A) |
| - Tensione di riferimento per isolamento | 0,6 kV |
| - Tensione di prova | 2 kV (1' a 50 Hz) |
| - Frequenza di normale funzionamento | 45 ÷ 65 Hz |
| - Sovraccarico permanente | 1,2 In |
| - Sovraccarico Istantaneo | 10 In |
| - Temperatura di funzionamento | -25°C ÷ +50°C |
| - Temperatura di magazzino | -40°C ÷ +80°C |
| - Grado di protezione custodia | IP52 |
| - Grado di protezione morsetti | IP00 senza coprimorsetti / IP20 con coprimorsetti |
| - Costruzione a norme | CEI, IEC, DIN, VDE |

Technical Data

| | |
|--------------------------------|--|
| - Accuracy | ± 1.5 % of full scale value |
| - Self-consumption | 1 VA approx. (range 5 A) |
| - Insulation reference voltage | 0.6 kV |
| - Test voltage | 2 kV (1' at 50 Hz) |
| - Operating frequency | 45 ÷ 65 Hz |
| - Continuous overload | 1,2 In |
| - Instantaneous overload | 10 In |
| - Operating temperature | -25°C ÷ +50°C |
| - Storage temperature | -40°C ÷ +80°C |
| - Protection for housing | IP52 |
| - Protection for terminals | IP00 without terminals cover / IP20 with terminals cover |
| - Manufactured according to | CEI, IEC, DIN, VDE |

INSERZIONE DIRETTA / DIRECT INSERTION

| PORTATA RANGE | CODICE / CODE | | | |
|---------------|---------------|----------|----------|-----------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X144 |
| 1 A | E48001AD | E72001AD | E96001AD | E144001AD |
| 5 A | E48005AD | E72005AD | E96005AD | E144005AD |
| 10 A | E48010AD | E72010AD | E96010AD | E144010AD |
| 15 A | E48015AD | E72015AD | E96015AD | E144015AD |
| 20 A | E48020AD | E72020AD | E96020AD | E144020AD |
| 25 A | E48025AD | E72025AD | E96025AD | E144025AD |
| 30 A | E48030AD | E72030AD | E96030AD | E144030AD |
| 40 A | E48040AD | E72040AD | E96040AD | E144040AD |
| 50 A | - | E72050AD | E96050AD | E144050AD |
| 60 A | - | E72060AD | E96060AD | E144060AD |
| 80 A | - | E72080AD | E96080AD | E144080AD |
| 100 A | - | E72100AD | E96100AD | E144100AD |

Per fondo scala 1 In, 2 In o 5 In, aggiungere 1, 2 o 5 alla fine del codice in tabella (Es: E48050AD2, E96100AD5)
For end scale 1 In, 2 In or 5 In, add 1, 2 or 5 at the end of table code (Ex: E48050AD2, E96100AD5)

INSERZIONE SU TA / INSERTION ON CT

| PORTATA RANGE | CODICE / CODE | | | |
|-------------------|---------------|-----------|-----------|------------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X144 |
| 1 A ÷ 10 kA / 5 A | E48...A5C | E72...A5C | E96...A5C | E144...A5C |
| 1 A ÷ 10 kA / 1 A | E48...A1C | E72...A1C | E96...A1C | E144...A1C |

AMPEROMETRI SENZA SCALA / AMMETERS WITHOUT SCALE

| PORTATA RANGE | CODICE / CODE | | | |
|---------------|---------------|----------|----------|-----------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X144 |
| .../5 A | E48SSC5C | E72SSC5C | E96SSC5C | E144SSC5C |
| .../1 A | E48SSC1C | E72SSC1C | E96SSC1C | E144SSC1C |

SCALE INTERCAMBIABILI / INTERCHANGEABLE SCALE

| PORTATA RANGE | CODICE / CODE | | | |
|-------------------|---------------|------------|------------|-------------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X144 |
| 1 A ÷ 10 kA / 5 A | SE48...A5C | SE72...A5C | SE96...A5C | SE144...A5C |
| 1 A ÷ 10 kA / 1 A | SE48...A1C | SE72...A1C | SE96...A1C | SE144...A1C |

"..." = valore portata (Es: 50/5 A = E72050A5C, 2000/1 A = E1442K0A1C, 500/5 A = SE96500A5C)

"..." = range value (Ex: 50/5 A = E72050A5C, 2000/1 A = E1442K0A1C, 500/5 A = SE96500A5C)

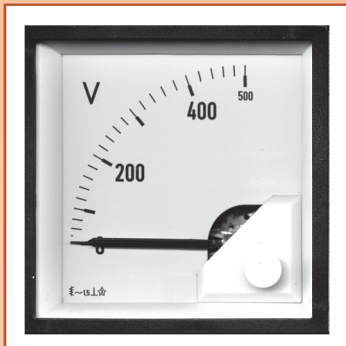
Per fondo scala 1 In, 2 In o 5 In, aggiungere 1, 2 o 5 alla fine del codice in tabella (Es: E48600A5C2, E964K0A1C1)

For end scale 1 In, 2 In or 5 In, add 1, 2 or 5 to the end of table code (Ex: E48600A5C2, E964K0A1C1)

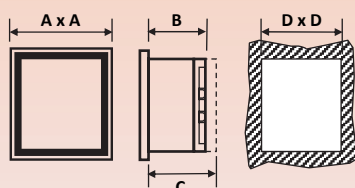


E cl. 1.5

Voltmetri elettromagnetici per CA scala 90° intercambiabile
AC moving iron voltmeter, 90° interchangeable scale

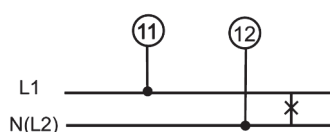


Dimensioni di ingombro e foratura pannello (mm)
Dimensions and panel cut-out (mm)



| Codice code | A x A | B | C | D x D |
|-------------|---------|----|----|---------|
| E48 | 48x48 | 54 | 63 | 45x45 |
| E72 | 72x72 | 54 | 63 | 68x68 |
| E96 | 96x96 | 54 | 63 | 92x92 |
| E144 | 144x144 | 54 | 63 | 138x138 |

Schemi di inserzione
Wiring diagrams



Dati Tecnici

- Precisione ± 1.5 % del valore di fondo scala
- Autoconsumo 1,5 VA circa (portata 100 V)
- Tensione di riferimento per isolamento 0,6 kV
- Tensione di prova 2 kV (1' a 50 Hz)
- Frequenza di normale funzionamento 45 ÷ 65 Hz
- Sovraccarico permanente 1,2 Vn
- Sovraccarico Istantaneo 2 Vn
- Temperatura di funzionamento -25°C ÷ +50°C
- Temperatura di magazzino -40°C ÷ +80°C
- Grado di protezione custodia IP52
- Grado di protezione morsetti IP00 senza coprimorsetti / IP20 con coprimorsetti
- Costruzione a norme CEI, IEC, DIN, VDE

Technical Data

- Accuracy ± 1.5 % of full scale value
- Self-consumption 1,5 VA approx. (range 100 V)
- Insulation reference voltage 0.6 kV
- Test voltage 2 kV (1' at 50 Hz)
- Operating frequency 45 ÷ 65 Hz
- Continuous overload 1,2 Vn
- Instantaneous overload 2 Vn
- Operating temperature -25°C ÷ +50°C
- Storage temperature -40°C ÷ +80°C
- Protection for housing IP52
- Protection for terminals IP00 without terminals cover / IP20 with terminals cover
- Manufactured according to CEI, IEC, DIN, VDE

INSERZIONE DIRETTA / DIRECT INSERTION

| PORTATA RANGE | CODICE / CODE | | | |
|---------------|---------------|----------|----------|-----------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X 144 |
| 15 V | E48015VD | E72015VD | E96015VD | E144015VD |
| 40 V | E48040VD | E72040VD | E96040VD | E144040VD |
| 50 V | E48050VD | E72050VD | E96050VD | E144050VD |
| 60 V | E48060VD | E72060VD | E96060VD | E144060VD |
| 100 V | E48100VD | E72100VD | E96100VD | E144100VD |
| 150 V | E48150VD | E72150VD | E96150VD | E144150VD |
| 200 V | E48200VD | E72200VD | E96200VD | E144200VD |
| 250 V | E48250VD | E72250VD | E96250VD | E144250VD |
| 300 V | E48300VD | E72300VD | E96300VD | E144300VD |
| 400 V | E48400VD | E72400VD | E96400VD | E144400VD |
| 500 V | E48500VD | E72500VD | E96500VD | E144500VD |
| 600 V | E48600VD | E72600VD | E96600VD | E144600VD |

INSERZIONE SU TV / INSERTION ON TV

| PORTATA (scala) RANGE (scale) | CODICE / CODE | | | |
|-------------------------------|---------------|------------|------------|-------------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X 144 |
| 220/100 V (250 V) | E48220100V | E72220100V | E96220100V | E144220100V |
| 230/100 V (250 V) | E48230100V | E72230100V | E96230100V | E144230100V |
| 380/100 V (500 V) | E48380100V | E72380100V | E96380100V | E144380100V |
| 400/100 V (500 V) | E48400100V | E72400100V | E96400100V | E144400100V |
| 440/100 V (500 V) | E48440100V | E72440100V | E96440100V | E144440100V |
| 500/100 V (600 V) | E48500100V | E72500100V | E96500100V | E144500100V |
| 600/100 V (800 V) | E48600100V | E72600100V | E96600100V | E144600100V |
| 690/100 V (800 V) | E48690100V | E72690100V | E96690100V | E144690100V |
| 800/100V (1000V) | E48800100V | E72800100V | E96800100V | E144800100V |
| 1000/100V (1200V) | E481K0100V | E721K0100V | E961K0100V | E1441K0100V |
| A richiesta on request | E48.....V | E72.....V | E96.....V | E144.....V |

Realizzabili altre portate a richiesta
Other ranges available on request

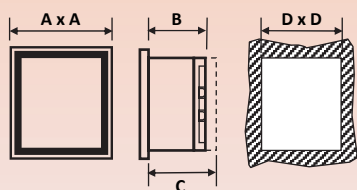
W cl. 1.5

Amperometri a bobina mobile per CC scala 90° intercambiabile DC moving coil ammeters, 90° interchangeable scale



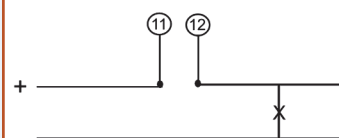
Dimensioni di ingombro e foratura pannello (mm)

Dimensions and panel cut-out (mm)



| Codice code | A x A | B | C | D x D |
|----------------|---------|----|----|---------|
| W48 | 48x48 | 54 | 63 | 45x45 |
| W72 | 72x72 | 54 | 63 | 68x68 |
| W96 | 96x96 | 54 | 63 | 92x92 |
| W144 | 144x144 | 54 | 63 | 138x138 |

Schemi di inserzione Wiring diagrams



Dati Tecnici

- Precisione $\pm 1.5\%$ del valore di fondo scala
- Autoconsumo 150 mV (50 μ A); 60 mV (10 mA a 40 A)
- Tensione di riferimento per isolamento 0,6 kV
- Tensione di prova 2 kV (1' a 50 Hz)
- Sovraccarico permanente 1,2 In
- Sovraccarico Istantaneo 10 In
- Temperatura di funzionamento $-25^{\circ}\text{C} \div +50^{\circ}\text{C}$
- Temperatura di magazzino $-40^{\circ}\text{C} \div +80^{\circ}\text{C}$
- Grado di protezione custodia IP52
- Grado di protezione morsetti IP00 senza coprimorsetti / IP20 con coprimorsetti
- Costruzione a norme CEI, IEC, DIN, VDE

Technical Data

- Accuracy $\pm 1.5\%$ of full scale value
- Self-consumption 150 mV (50 μ A); 60 mV (10 mA a 40 A)
- Insulation reference voltage 0.6 kV
- Test voltage 2 kV (1' at 50 Hz)
- Continuous overload 1,2 In
- Instantaneous overload 10 In
- Operating temperature $-25^{\circ}\text{C} \div +50^{\circ}\text{C}$
- Storage temperature $-40^{\circ}\text{C} \div +80^{\circ}\text{C}$
- Protection for housing IP52
- Protection for terminals IP00 without terminals cover / IP20 with terminals cover
- Manufactured according to CEI, IEC, DIN, VDE

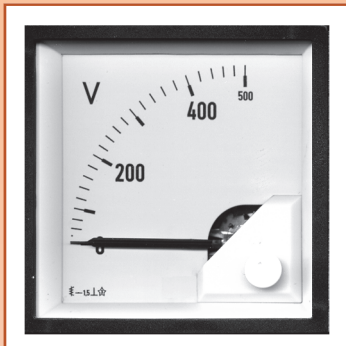
| PORTATA RANGE | CODICE / CODE | | | |
|---|---------------|--------------|--------------|---------------|
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X 144 |
| 15 μ A | W48015UA | W72015UA | W96015UA | W144015UA |
| 25 μ A | W48025UA | W72025UA | W96025UA | W144025UA |
| 50 μ A | W48050UA | W72050UA | W96050UA | W144050UA |
| 100 μ A | W48100UA | W72100UA | W96100UA | W144100UA |
| 150 μ A | W48150UA | W72150UA | W96150UA | W144150UA |
| 250 μ A | W48250UA | W72250UA | W96250UA | W144250UA |
| 400 μ A | W48400UA | W72400UA | W96400UA | W144400UA |
| 600 μ A | W48600UA | W72600UA | W96600UA | W144600UA |
| 1 mA | W48001MA | W72001MA | W96001MA | W144001MA |
| 5 mA | W48005MA | W72005MA | W96005MA | W144005MA |
| 10 mA | W48010MA | W72010MA | W96010MA | W144010MA |
| 20 mA | W48020MA | W72020MA | W96020MA | W144020MA |
| 4-20 mA | W48420MA | W72420MA | W96420MA | W144420MA |
| 100 mA | W48100MA | W72100MA | W96100MA | W144100MA |
| 150 mA | W48150MA | W72150MA | W96150MA | W144150MA |
| 250 mA | W48250MA | W72250MA | W96250MA | W144250MA |
| 600 mA | W48600MA | W72600MA | W96600MA | W144600MA |
| 1 A | W48001AD | W72001AD | W96001AD | W144001AD |
| 1,5 A | W48105AD | W72105AD | W96105AD | W144105AD |
| 2,5 A | W48205AD | W72205AD | W96205AD | W144205AD |
| 4 A | W48004AD | W72004AD | W96004AD | W144004AD |
| 5 A | W48005AD | W72005AD | W96005AD | W144005AD |
| 6 A | W48006AD | W72006AD | W96006AD | W144006AD |
| 10 A | W48010AD | W72010AD | W96010AD | W144010AD |
| 15 A | W48015AD | W72015AD | W96015AD | W144015AD |
| 20 A | W48020AD | W72020AD | W96020AD | W144020AD |
| 25 A | W48025AD | W72025AD | W96025AD | W144025AD |
| 30 A | W48030AD | W72030AD | W96030AD | W144030AD |
| 40 A | W48040AD | W72040AD | W96040AD | W144040AD |
| 50 A | W48050AD | W72050AD | W96050AD | W144050AD |
| 60 A | W48060AD | W72060AD | W96060AD | W144060AD |
| 80 A | - | W72080AD | W96080AD | W144080AD |
| 100 A | - | W72100AD | W96100AD | W144100AD |
| 1 A \div 15 kA / 60 mV | W48...A60MV | W72...A60MV | W96...A60MV | W144...A60MV |
| $\pm(1 \text{ A} \div 15 \text{ kA}) / \pm 60 \text{ mV}$ | W48...A60MVB | W72...A60MVB | W96...A60MVB | W144...A60MVB |
| 1 A \div 15 kA / 100 mV | W48...A100MV | W72...A100MV | W96...A100MV | W144...A100MV |
| 1 A \div 15 kA / 150 mV | W48...A150MV | W72...A150MV | W96...A150MV | W144...A150MV |

"..." = valore portata (Es: 10 A/60 mV = W48010A60MV, 2000 A/100 mV = W961K0A100MV, $\pm 500 \text{ A} \div \pm 60 \text{ mV} = \text{W72500A60MVB}$)

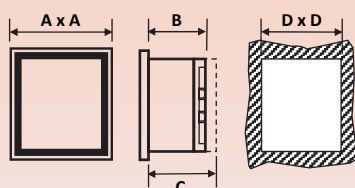
"..." = range value (Ex: 10 A/60 mV = W48010A60MV, 2000 A/100 mV = W961K0A100MV, $\pm 500 \text{ A} \div \pm 60 \text{ mV} = \text{W72500A60MVB}$)

Realizzabili altre portate a richiesta

Other ranges available on request

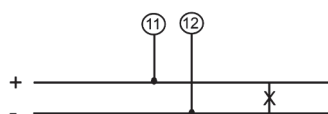


Dimensioni di ingombro e foratura pannello (mm)
Dimensions and panel cut-out (mm)



| Codice code | A x A | B | C | D x D |
|----------------|---------|----|----|---------|
| W48 | 48x48 | 54 | 63 | 45x45 |
| W72 | 72x72 | 54 | 63 | 68x68 |
| W96 | 96x96 | 54 | 63 | 92x92 |
| W144 | 144x144 | 54 | 63 | 138x138 |

Schemi di inserzione
Wiring diagrams



Dati Tecnici

- Precisione ± 1.5 % del valore di fondo scala
- Autoconsumo 1 mA (1000 Ω / V) circa
- Tensione di riferimento per isolamento 0,6 kV
- Tensione di prova 2 kV (1' a 50 Hz)
- Sovraccarico permanente 1,2 Vn
- Sovraccarico Istantaneo 2 Vn
- Temperatura di funzionamento -25°C ÷ +50°C
- Temperatura di magazzino -40°C ÷ +80°C
- Grado di protezione custodia IP52
- Grado di protezione morsetti IP00 senza coprimorsetti / IP20 con coprimorsetti
- Costruzione a norme CEI, IEC, DIN, VDE

Technical Data

- Accuracy ± 1.5 % of full scale value
- Self-consumption 1 mA (1000 Ω / V) circa
- Insulation reference voltage 0.6 kV
- Test voltage 2 kV (1' at 50 Hz)
- Continuous overload 1,2 Vn
- Instantaneous overload 2 Vn
- Operating temperature -25°C ÷ +50°C
- Storage temperature -40°C ÷ +80°C
- Protection for housing IP52
- Protection for terminals IP00 without terminals cover / IP20 with terminals cover
- Manufactured according to CEI, IEC, DIN, VDE

| PORTATA RANGE | INSERZIONE DIRETTA / DIRECT INSERTION | | | |
|------------------|---------------------------------------|-----------|-----------|------------|
| | CODICE / CODE | | | |
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X 144 |
| 25 mV | W48025MVD | W72025MVD | W96025MVD | W144025MVD |
| 40 mV | W48040MVD | W72040MVD | W96040MVD | W144040MVD |
| 60 mV | W48060MVD | W72060MVD | W96060MVD | W144060MVD |
| 100 mV | W48100MVD | W72100MVD | W96100MVD | W144100MVD |
| 150 mV | W48150MVD | W72150MVD | W96150MVD | W144150MVD |
| 300 mV | W48300MVD | W72300MVD | W96300MVD | W144300MVD |
| 500 mV | W48500MVD | W72500MVD | W96500MVD | W144500MVD |
| 1 V | W48001VD | W72001VD | W96001VD | W144001VD |
| 2,5 V | W48002VD | W72002VD | W96002VD | W144002VD |
| 5 V | W48005VD | W72005VD | W96005VD | W144005VD |
| 10 V | W48010VD | W72010VD | W96010VD | W144010VD |
| 15 V | W48015VD | W72015VD | W96015VD | W144015VD |
| 25 V | W48025VD | W72025VD | W96025VD | W144025VD |
| 40 V | W48040VD | W72040VD | W96040VD | W144040VD |
| 60 V | W48060VD | W72060VD | W96060VD | W144060VD |
| 100 V | W48100VD | W72100VD | W96100VD | W144100VD |
| 150 V | W48150VD | W72150VD | W96150VD | W144150VD |
| 250 V | W48250VD | W72250VD | W96250VD | W144250VD |
| 400 V | W48400VD | W72400VD | W96400VD | W144400VD |
| 500 V | W48500VD | W72500VD | W96500VD | W144500VD |
| 600 V | W48600VD | W72600VD | W96600VD | W144600VD |

| PORTATA (scala) RANGE (scale) | INSERZIONE SU DIVISORE / INSERTION ON VOLTAGE DIVIDER (100 V - 1 mA) | | | |
|----------------------------------|--|------------|------------|-------------|
| | CODICE / CODE | | | |
| | 48 X 48 | 72 X 72 | 96 X 96 | 144 X 144 |
| 500/100 V (500 V) | W48500100V | W72500100V | W96500100V | W144500100V |
| 700/100 V (700 V) | W48700100V | W72700100V | W96700100V | W144700100V |
| 1000/100 V (1000 V) | W481K0100V | W721K0100V | W961K0100V | W1441K0100V |
| 1500/100 V (1500 V) | W481K5100V | W721K5100V | W961K5100V | W1441K5100V |
| 2000/100 V (2000V) | W482K0100V | W722K0100V | W962K0100V | W1442K0100V |
| 2500/100 V (2500V) | W482K5100V | W722K5100V | W962K5100V | W1442K5100V |
| 3000/100 V (3000 V) | W483K0100V | W723K0100V | W963K0100V | W1443K0100V |
| 4000/100 V (4000V) | W484K0100V | W724K0100V | W964K0100V | W1444K0100V |
| 5000/100 V (5000V) | W485K0100V | W725K0100V | W965K0100V | W1445K0100V |
| A richiesta on request | W48...100V | W72...100V | W96...100V | W144...100V |

"..." = valore portata (Es: 800/100 V= W48800100V, 1200/100V= W961K2100V)

"..." = range value (Ex: 800/100V= W48800100V, 1200/100V= W961K2100V)

Realizzabili altre portate a richiesta

Other ranges available on request