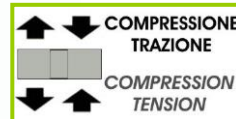


## Accessori Accessories

A

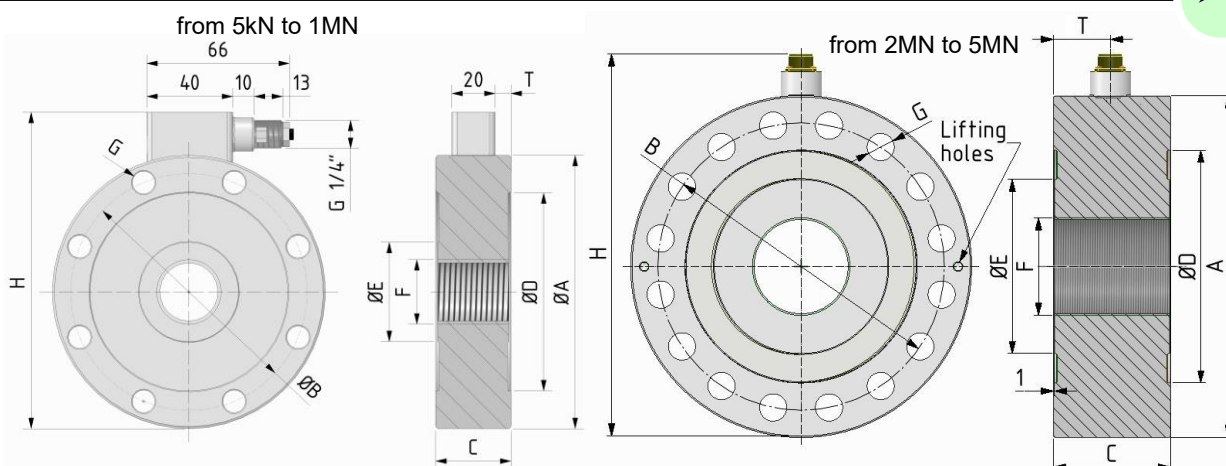


WIMOD

Trasmissione WIRELESS  
WIRELESS transmission

## Dimensioni Dimensions

[mm]



| CODE                        | LOAD                 | CODE                         | LOAD                 | ØA  | B   | C   | ØD  | ØE  | F       | G    | n°G | H   | T   | KHz <sup>(2)</sup> |
|-----------------------------|----------------------|------------------------------|----------------------|-----|-----|-----|-----|-----|---------|------|-----|-----|-----|--------------------|
| CTC4100250K5                | 250 kg               | CTC41002KN5I15               | 2,5 kN               | 100 | 86  | 35  | 72  | 32  | M20×1.5 | 9    | 6   | 121 | 7.5 | 2.5                |
| CTC4100500K5                | 500 kg               | CTC41005KNI15                | 5 kN                 |     |     |     |     |     |         |      |     |     |     | 2.5                |
| CTC41001T5                  | 1 t                  | CTC410010KNI15               | 10 kN                |     |     |     |     |     |         |      |     |     |     | 2.5                |
| CTC41002T55                 | 2.5t                 | CTC410025KNI15               | 25 kN                |     |     |     |     |     |         |      |     |     |     | 4.8                |
| CTC41005T5                  | 5 t <sup>(3)</sup>   | CTC410050KNI15               | 50 kN <sup>(3)</sup> | 127 | 110 | 35  | 92  | 47  | M30×2   | 10.5 | 8   | 149 | 7.5 | 8.6                |
| CTC41275T5                  | 5 t                  | CTC412750KNI15               | 50 kN                |     |     |     |     |     |         |      |     |     |     | 3.8                |
| CTC412710T5                 | 10 t                 | CTC4127100KNI15              | 100 kN               |     |     |     |     |     |         |      |     |     |     | 5.8                |
| CTC416520T5                 | 20 t                 | CTC4165200KNI15              | 200 kN               |     |     |     |     |     |         |      |     |     |     | 5.7                |
| CTC416530T5                 | 30 t                 | CTC4165300KNI15              | 300 kN               | 165 | 138 | 50  | 108 | 62  | M42×3   | 17   | 12  | 188 | 15  | 7.3                |
| CTC416550T5                 | 50 t                 | CTC4165500KNI15              | 500 kN               |     |     | 60  |     |     |         |      |     |     | 20  | 9.8                |
| CTC423075T5                 | 75 t                 | CTC4230750KNI15              | 750 kN               | 230 | 185 | 80  | 145 | 98  | M60×3   | 25   | 12  | 254 | 30  | 3.2                |
| CTC4230100T5                | 100 t                | CTC42301MNI15                | 1 MN                 |     |     |     |     |     |         |      |     |     |     |                    |
| <sup>(1)</sup> CTC4300200T5 | 200 t                | <sup>(1)</sup> CTC43002MNI15 | 2 MN                 | 300 | 250 | 100 | 198 | 132 | M100×3  | 25   | 16  | 339 | 50  | 2.7                |
| <sup>(1)</sup> CTC4350300T5 | 300 t <sup>(4)</sup> | <sup>(1)</sup> CTC43503MNI15 | 3 MN <sup>(4)</sup>  | 350 | 294 | 120 | 238 | 168 | M100×3  | 28   | 16  | 389 | 60  | 2.8                |
| <sup>(1)</sup> CTC4350500T5 | 500 t <sup>(4)</sup> | <sup>(1)</sup> CTC43505MNI15 | 5 MN <sup>(4)</sup>  |     |     | 130 |     | 178 |         |      |     |     | 65  |                    |

<sup>(1)</sup> La taratura ACCREDIA in **TRAZIONE** NON può essere eseguita dal Centro LAT N° 093, a richiesta può essere commissionata ad altri centri accreditati.  
ACCREDIA certification in **TENSION** can NOT be performed by LAT n° 93 Laboratory, on request it can be ordered to other accredited laboratories.

<sup>(2)</sup> Frequenza naturale / Natural frequency

## Dati Tecnici

## Technical Data



| Classe di precisione: <b>ISO 376</b>                                                                                                                                                    | Accuracy class: <b>ISO 376</b>                                                                                                                                                   | <b>1</b>                                                                                                   |                   |                    |                    |                    |                                    |                                            |  |
|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------|-------------------|--------------------|--------------------|--------------------|------------------------------------|--------------------------------------------|--|
| CARICO NOMINALE                                                                                                                                                                         | NOMINAL LOAD                                                                                                                                                                     | 2.5 - 5 kN<br>10 - 25 kN<br>50 <sup>(3)</sup> kN                                                           | 50 kN<br>100 kN   | 200 kN<br>300 kN   | 500 kN             | 750kN<br>1 MN      | 2 MN                               | 3 MN <sup>(4)</sup><br>5 MN <sup>(4)</sup> |  |
| ERRORI RELATIVI (al valore letto)<br>a) riproducibilità 0°-120°-240° (b)<br>b) interpolazione (fc)<br>c) reversibilità (v)<br>d) zero (fo)                                              | RELATIVE ERRORS (at reading)<br>a) reproducibility 0°-120°-240° (b)<br>b) interpolation (fc)<br>c) reversibility (v)<br>d) zero (fo)                                             | ≤ ± 0.145 % <sup>(5)</sup><br>≤ ± 0.090 % <sup>(5)</sup><br>≤ ± 0.240 % <sup>(5)</sup><br>≤ ± 0.030 % F.S. |                   |                    |                    |                    |                                    |                                            |  |
| LINEARITA'<br>ISTERESI                                                                                                                                                                  | LINEARITY<br>HYSTERESIS                                                                                                                                                          | ≤ ± 0.05 % F.S.<br>≤ ± 0.05 % F.S.                                                                         |                   |                    |                    |                    | ≤ ± 0.10 % F.S.<br>≤ ± 0.10 % F.S. |                                            |  |
| EFFETTO DELLA TEMPERATURA (10°C)<br>a) sullo zero<br>b) sulla sensibilità<br>EFFETTO CARICO TRASVERSALE:<br>a) al 10% del carico nominale                                               | TEMPERATURE EFFECT (10°C)<br>a) on zero<br>b) on sensitivity<br>EFFECT OF TRANSVERSE LOAD:<br>a) at 10% of nominal load                                                          | ≤ ± 0.028 % F.S.<br>≤ ± 0.024 % F.S.<br>≤ ± 0.030 % F.S.                                                   |                   |                    |                    |                    |                                    |                                            |  |
| SENSIBILITA' NOMINALE<br>TOLLERANZA DI CALIBRAZIONE                                                                                                                                     | NOMINAL SENSITIVITY<br>SENSIVITY TOLERANCE                                                                                                                                       | 2 mV/V <sup>(6)</sup><br>≤ ± 0.1 % F.S.                                                                    |                   |                    |                    |                    |                                    |                                            |  |
| CARICO NOMINALE<br>RESISTENZA DI INGRESSO<br>RESISTENZA DI USCITA                                                                                                                       | NOMINAL LOAD<br>INPUT RESISTANCE<br>OUTPUT RESISTANCE                                                                                                                            | 2.5 - 5 - 10 - 25 - 50 - 100 - 200 - 300 - 500 kN<br>800 ± 20 Ω<br>705 ± 2 Ω                               |                   |                    |                    |                    |                                    |                                            |  |
| CARICO NOMINALE<br>RESISTENZA DI INGRESSO<br>RESISTENZA DI USCITA                                                                                                                       | NOMINAL LOAD<br>INPUT RESISTANCE<br>OUTPUT RESISTANCE                                                                                                                            | 750 - 1000 - 2000 - 3000 - 5000 kN<br>430 ± 20 Ω<br>352 ± 2 Ω                                              |                   |                    |                    |                    |                                    |                                            |  |
| RESISTENZA DI ISOLAMENTO<br>BILANCIAMENTO DI ZERO<br>ALIMENTAZIONE DI RIFERIMENTO<br>ALIMENTAZIONE NOMINALE<br>ALIMENTAZIONE MAX.                                                       | INSULATION RESISTANCE<br>ZERO BALANCE<br>RECOMENDED SUPPLY VOLTAGE<br>NOMINAL SUPPLY VOLTAGE RANGE<br>MAXIMUM SUPPLY VOLTAGE                                                     | > 5 GΩ<br>≤ ± 1% F.S.<br>10 V<br>1-15 V<br>18 V                                                            |                   |                    |                    |                    |                                    |                                            |  |
| VALORI MECCANICI LIMITE RIFERITI AL CARICO NOMINALE:<br>a) carico di servizio<br>b) carico limite<br>c) carico di rottura<br>d) massimo carico trasversale<br>e) carico dinamico limite | MECHANICAL LIMIT VALUES REFERRED TO NOMINAL LOAD:<br>a) service load<br>b) max permissible load<br>c) breaking load<br>d) max transverse load<br>e) max permissible dynamic load | 120 %<br>150 %<br>> 300 %<br>100 %<br>75 % <sup>(7)</sup>                                                  |                   |                    |                    |                    |                                    |                                            |  |
| Freccia max. al carico nominale (mm)                                                                                                                                                    | Displacement at nominal load (mm)                                                                                                                                                | ~0.06                                                                                                      | ~0.09             | ~0.17              | ~0.17              | ~0.23              | ~0.21                              | ~0.21                                      |  |
| TEMPERATURA DI RIFERIMENTO<br>CAMPO NOMINALE DI TEMPERATURA<br>TEMPERATURA DI ESERCIZIO<br>TEMPERATURA DI STOCCAGGIO                                                                    | REFERENCE TEMPERATURE<br>TEMPERATURE NOMINAL RANGE<br>SERVICE TEMPERATURE<br>STORAGE TEMPERATURE                                                                                 | +23 °C<br>-10 / +40 °C<br>-10 / +70 °C<br>-20 / +80 °C                                                     |                   |                    |                    |                    |                                    |                                            |  |
| PESO (kg)                                                                                                                                                                               | WEIGHT (kg)                                                                                                                                                                      | ~1.6                                                                                                       | ~2.5              | ~5.8               | ~6.8               | ~16.5              | ~35                                | ~63                                        |  |
| CLASSE DI PROTEZIONE (EN 60529)<br>MATERIALE DINAMOMETRO<br>LUNGHEZZA CAVO                                                                                                              | PROTECTION CLASS (EN 60529)<br>EXECUTION MATERIAL<br>CABLE LENGTH                                                                                                                | IP67<br>Acciaio Inox / Stainless Steel<br>5 m (on request 10 m)                                            |                   |                    |                    |                    |                                    |                                            |  |
| VITI DI FISSAGGIO:<br>a) diametro<br>b) classe di resistenza<br>c) coppia di serraggio (Nm)                                                                                             | FIXING SCREWS:<br>a) diameter<br>b) resistance class<br>c) tightening torque (Nm)                                                                                                | M8<br>12.9<br>40                                                                                           | M10<br>12.9<br>70 | M16<br>12.9<br>368 | M16<br>12.9<br>368 | M24<br>12.9<br>460 | M24<br>12.9<br>460                 | M27<br>12.9<br>1500                        |  |

(3) Il trasduttore di forza da **50 kN Ø100** viene garantito in **TRAZIONE** fino a **25 kN**.

*The force transducer 50 kN Ø100 is guaranteed in TENSION up to 25 kN.*

(4) I trasduttori di forza da **3 MN** e **5 MN** sono garantiti in **TRAZIONE** fino a **2,5 MN**.

*The force transducers 3 MN and 5 MN are guaranteed in TENSION up to 2,5 MN.*

(5) Errori percentuali calcolati al valore letto, min. 1/10 del carico nominale.

*Percentage errors referred to reading, min. 1/10 of nominal load.*

(6) Test e calibrazioni eseguite in **COMPRESSIONE** con il trasduttore montato al supporto e viti di fissaggio correttamente serrate.

*Tests and calibrations performed in COMPRESSION with the transducer mounted on a bearing support with correctly tightened clamping screws.*

(7) Il carico dinamico deve essere applicato al filetto centrale del trasduttore e non sulla corona esterna di fissaggio.

*The dynamic load must be applied to the transducer central thread and not to the external fixing rim.*

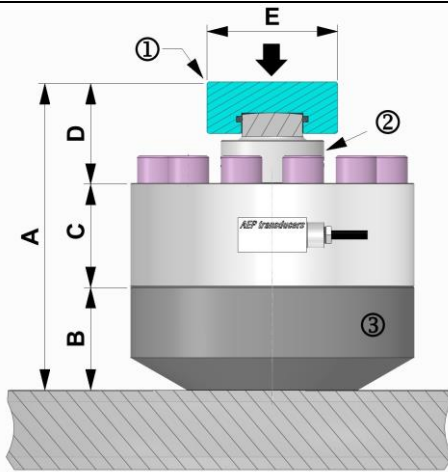
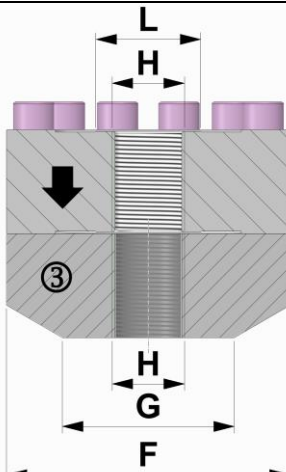
A richiesta calibrazioni in kg.

*kg calibration on request.*

A richiesta classificazioni secondo **ASTM E74**.

*Classifications according ASTM E74 on request.*

## Applicazioni Applications

| COMPRESSIONE COMPRESSION                                                                                                                                                                 |  | TRAZIONE TENSION                                                                                                                                                                 |  |
|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--|
|                                                                                                         |  |                                                                                                |  |
| <b>ATTENZIONE:</b><br> Verificare che le viti di fissaggio e gli accessori siano correttamente serrati. |  | <b>WARNING:</b><br> Check that the fixing screws and the accessories are correctly tightened. |  |
| Materiale accessori:<br>da 2.5 a 200 kN<br>da 300 kN a 5 MN                                                                                                                              |  | Accessories execution material:<br>from 2.5 to 200 kN<br>from 300 kN to 5 MN                                                                                                     |  |
| Acciaio inox<br>Rm ≥ 90 kg/mm <sup>2</sup><br>Rm ≥ 130 kg/mm <sup>2</sup>                                                                                                                |  | Stainless Steel<br>Rm ≥ 90 kg/mm <sup>2</sup><br>Rm ≥ 130 kg/mm <sup>2</sup>                                                                                                     |  |

### Dimensioni Dimensions

[mm]



| TC4:                  | A   | B   | C   | D   | E     | F     | G     | H          | L     | M     |
|-----------------------|-----|-----|-----|-----|-------|-------|-------|------------|-------|-------|
| 2.5, 5, 10, 25, 50 kN | 108 | 37  | 35  | 36  | ∅ 57  | ∅ 100 | ∅ 70  | M 20 × 1.5 | ∅ 32  | ~ 170 |
| 50, 100 kN            | 108 | 37  | 35  | 36  | ∅ 76  | ∅ 127 | ∅ 100 | M 30 × 2   | ∅ 47  | ~ 200 |
| 200 kN                | 169 | 60  | 50  | 59  | ∅ 76  | ∅ 165 | ∅ 100 | M 42 × 3   | ∅ 62  | ~ 224 |
| 300 kN                | 169 | 60  | 50  | 59  | ∅ 76  | ∅ 165 | ∅ 100 | M 42 × 3   | ∅ 62  | ~ 465 |
| 500 kN                | 179 | 60  | 60  | 59  | ∅ 76  | ∅ 165 | ∅ 100 | M 42 × 3   | ∅ 62  | ~ 513 |
| 750 kN, 1 MN          | 252 | 85  | 80  | 87  | ∅ 126 | ∅ 230 | ∅ 180 | M 60 × 3   | ∅ 98  | /     |
| 2 MN                  | 309 | 85  | 100 | 124 | ∅ 129 | ∅ 300 | ∅ 250 | M100 × 3   | ∅ 132 | /     |
| 3 MN                  | 384 | 120 | 120 | 144 | ∅ 168 | ∅ 350 | ∅ 330 | M100 × 3   | ∅ 178 | /     |
| 5 MN                  | 394 | 120 | 130 | 144 | ∅ 168 | ∅ 350 | ∅ 330 | M100 × 3   | ∅ 178 | /     |

| TC4:                       | CODE           | ACCESSORIES (optional):                    | ACCESSORI (opzionali):                    |
|----------------------------|----------------|--------------------------------------------|-------------------------------------------|
| 2.5, 5, 10 kN<br>25, 50 kN | CTIC22         | ① Loading head.                            | Testa di carico.                          |
|                            | CTC425M20      | ② Spherical loading head M20×1.5.          | Testa di carico sferica M20×1.5           |
|                            | CPBTC4D100     | ③ Mounting plate ∅100 mm.                  | Piastra base ∅ 100 mm.                    |
|                            | CACCEM20       | ④ Knuckle joints.                          | Teste a snodo sferico.                    |
| 50, 100 kN                 | CTIC28         | ① Loading head.                            | Testa di carico.                          |
|                            | CTC445M30      | ② Spherical loading head M30×2.            | Testa di carico sferica M30×2.            |
|                            | CPBTC4D127     | ③ Mounting plate ∅127 mm.                  | Piastra base ∅ 127 mm.                    |
|                            | CACCEM30       | ④ Knuckle joints.                          | Teste a snodo sferico.                    |
| 200, 300, 500 kN           | CTIC35         | ① Loading head.                            | Testa di carico.                          |
|                            | CTS62M42TC4    | ② Spherical loading head M42×3 (200-300kN) | Testa di carico sferica M42×3 (200-300kN) |
|                            | CTS62M42TC450T | ② Spherical loading head M42×3 (500kN)     | Testa di carico sferica M42×3 (500kN)     |
|                            | CPBTC4D165     | ③ Mounting plate ∅165 mm.                  | Piastra base ∅ 165 mm.                    |
|                            | CACCEM42       | ④ Knuckle joints. (max 200kN)              | Teste a snodo sferico. (max 200kN)        |
|                            | CACCEM4230T    | ④ Knuckle joints. (max 300kN)              | Teste a snodo sferico. (max 300kN)        |
| 750 kN, 1 MN               | CACCEM4250T    | ④ Knuckle joints. (max 500kN)              | Teste a snodo sferico. (max 500kN)        |
|                            | CTIC60         | ① Loading head.                            | Testa di carico.                          |
|                            | CTS96M60       | ② Spherical loading head M60×3.            | Testa di carico sferica M60×3.            |
|                            | CPBTC4D230     | ③ Mounting plate ∅230 mm.                  | Piastra base ∅ 230 mm.                    |
| 2 MN                       | CTIC106        | ① Loading head.                            | Testa di carico.                          |
|                            | TS160M100      | ② Spherical loading head M100×3 (2MN)      | Testa di carico sferica M100×3 (2MN)      |
|                            | CPBTC4D300     | ③ Mounting plate ∅300 mm.                  | Piastra base ∅ 300 mm.                    |
| 3 MN, 5 MN                 | CTIC140        | ① Loading head.                            | Testa di carico.                          |
|                            | CTS170M100     | ② Spherical loading head M100×3.           | Testa di carico sferica M100×3.           |
|                            | CPBTC4D350     | ③ Mounting plate ∅350 mm.                  | Piastra base ∅ 350 mm.                    |

## OPZIONI

Da acquistare separatamente

## OPTIONS

To be purchased separately

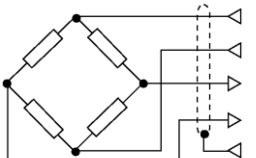
|                                                                                    | CODE       | (8) OPZIONE                                                                                     | (8) OPTION                                                                                 |
|------------------------------------------------------------------------------------|------------|-------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------|
|   | CMIL6MF    | Uscita diretta connettore MIL6M                                                                 | Direct output connector MIL6M                                                              |
|   | CMIL6FV5   | CONNETTORE MIL6M femmina 6 poli dritto completo di CAVO PVC schermato lunghezza 5 m.            | Female 6 poles straight MIL6M CONNECTOR complete PVC CABLE, shielded, length 5 m.          |
|                                                                                    | CODE       | (9) OPZIONE                                                                                     | (9) OPTION                                                                                 |
|   | CONNM12MF  | Uscita diretta connettore M12                                                                   | Direct output connector M12                                                                |
|   | CONNM12FV5 | CONNETTORE M12x1 femmina 5 poli dritto completo di CAVO PVC costampato schermato lunghezza 3 m. | Female 5 poles straight M12x1 CONNECTOR complete PVC molded CABLE, shielded, length 3 m.   |
|                                                                                    | CODE       | OPZIONE (2, 3 e 5 MN)                                                                           | OPTION (2, 3 and 5 MN)                                                                     |
|  | CMIL7FV5   | CONNETTORE MIL7M femmina 7 poli dritto completo di CAVO PVC schermato, 6 fili, lunghezza 5 m.   | Female 7 poles straight MIL7M CONNECTOR complete PVC CABLE, shielded, 6 wires, length 5 m. |

### Collegamenti Elettrici per trasduttori da 2.5 kN a 1MN

Electrical connection for transducers from 2.5 kN to 1 MN

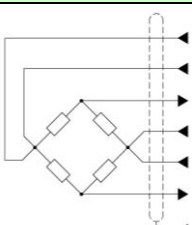
**USCITA STANDARD:** cavo schermato PVC 105°C, Ø 5.2 mm a 4x Ø 0.35mm<sup>2</sup> conduttori stagnati. Schermo collegato al corpo del trasduttore.

**STANDARD OUTPUT:** PVC 105°C shielded cable, Ø 5.2mm with 4x Ø 0.35mm<sup>2</sup> tinned conductors. Shield connected to the body of the transducer.

| Transducer                                                                          | OUTPUT                                               | CABLE                                     | CAVO                                         | MIL6M (8)<br>(optional) | M12 (9)<br>(optional) |
|-------------------------------------------------------------------------------------|------------------------------------------------------|-------------------------------------------|----------------------------------------------|-------------------------|-----------------------|
|  | EXCITATION +<br>EXCITATION -<br>OUTPUT +<br>OUTPUT - | Red<br>Black<br>White<br>Yellow<br>Shield | Rosso<br>Nero<br>Bianco<br>Giallo<br>Schermo | A<br>B<br>D<br>C<br>F   | 1<br>3<br>2<br>4<br>5 |

### Collegamenti Elettrici per trasduttori da 2 MN a 5 MN

Electrical connection for transducers from 2 MN to 5 MN

| Transducer                                                                          | OUTPUT                                                                     | MIL7M                           | CABLE                                                       | CAVO                                                             |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------|---------------------------------|-------------------------------------------------------------|------------------------------------------------------------------|
|  | EXCITATION +<br>SENSE +<br>OUTPUT +<br>EXCITATION -<br>SENSE -<br>OUTPUT - | C<br>F<br>A<br>B<br>G<br>D<br>E | Red<br>Orange<br>White<br>Black<br>Blue<br>Yellow<br>Shield | Rosso<br>Arancione<br>Bianco<br>Nero<br>Blu<br>Giallo<br>Schermo |

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IQ-1100-01



**ATEX** 

Production Quality  
Assurance Notification  
TÜV CY 17 ATEX 0205891 Q

E-mail: aep@aep.it www.aep.it

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