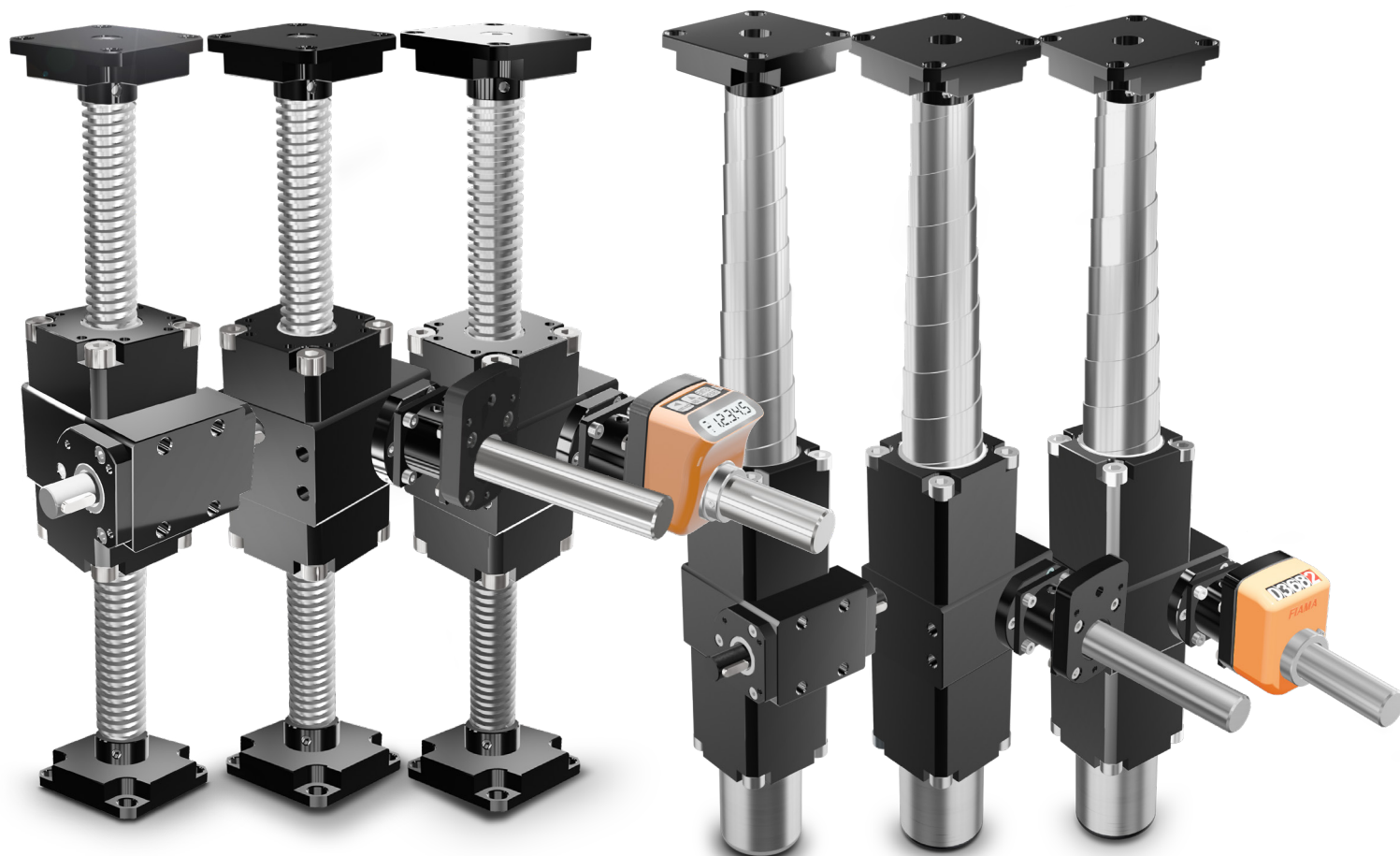




## MARTINETTI MECCANICI «sistemi di sollevamento e azionamento»

### SCREW JACKS «lifting and actuation systems»

#### Martinetti Meccanici – Precisi, Affidabili, Modulari

- Trasformano il moto rotatorio in movimento lineare preciso.
- Componenti di alta qualità e lubrificazione lunga durata per un funzionamento regolare e senza manutenzione.
- Design modulare per movimenti sincronizzati e facile integrazione negli impianti.
- Utilizzabili singolarmente o in gruppo tramite alberi, giunti e rinvii angolari.
- Azionamento manuale o motorizzato.

#### Caratteristiche principali

- Vite trapezia in acciaio inox **TPN Ø25 – passo 5 mm**
- Carter in alluminio anodizzato, leggero e resistente alla corrosione
- Alberi e ingranaggi in acciaio indurito con trattamento superficiale ad alta resistenza
- Carico assiale sull'albero in ingresso: **200 kg**
- Corse standard: 100 – 1000 mm

#### Versioni e accessori disponibili

- Montaggio con flangia e prolunga albero per indicatori digitali "OP7" o programmabili "EP7" (MAR60 FL-OP7)
- Protezione rigida in acciaio inox con molla a spirale, **fino a 650 mm** di corsa

#### Mechanical Jacks – Precise, Reliable, Modular

- Convert rotary motion into precise linear movement.
- High-quality components and long-life lubrication for smooth, maintenance-free operation.
- Modular design for synchronized motion and easy system integration.
- Use individually or in groups via shafts, couplings, and bevel gear drives.
- Manual or motorized operation.

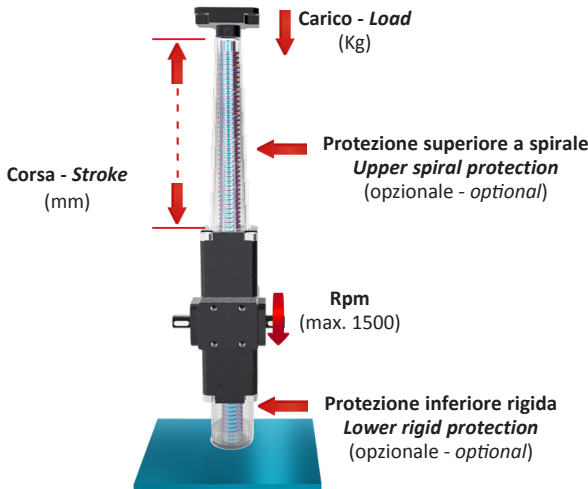
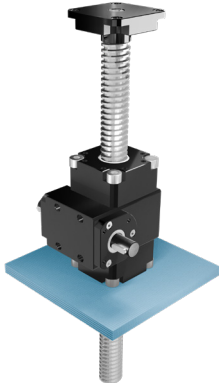
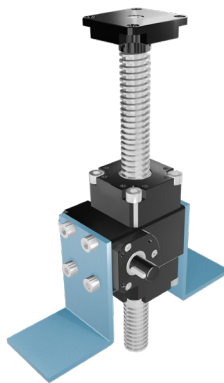
#### Key Features

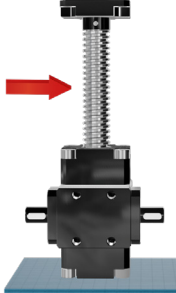
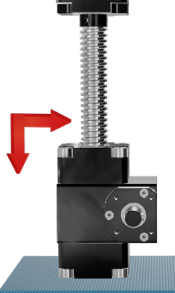
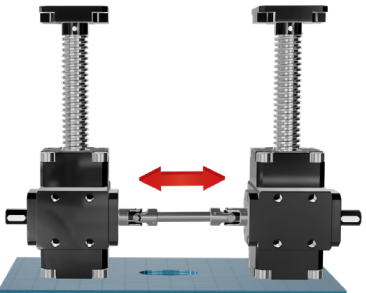
- Stainless steel trapezoidal screw **TPN Ø25 – pitch 5 mm**
- Lightweight, corrosion-resistant anodized aluminum housing
- Hardened steel shafts and gears with high-resistance surface treatment
- Axial load on input shaft: **200 kg**
- Standard strokes: 100 – 1000 mm

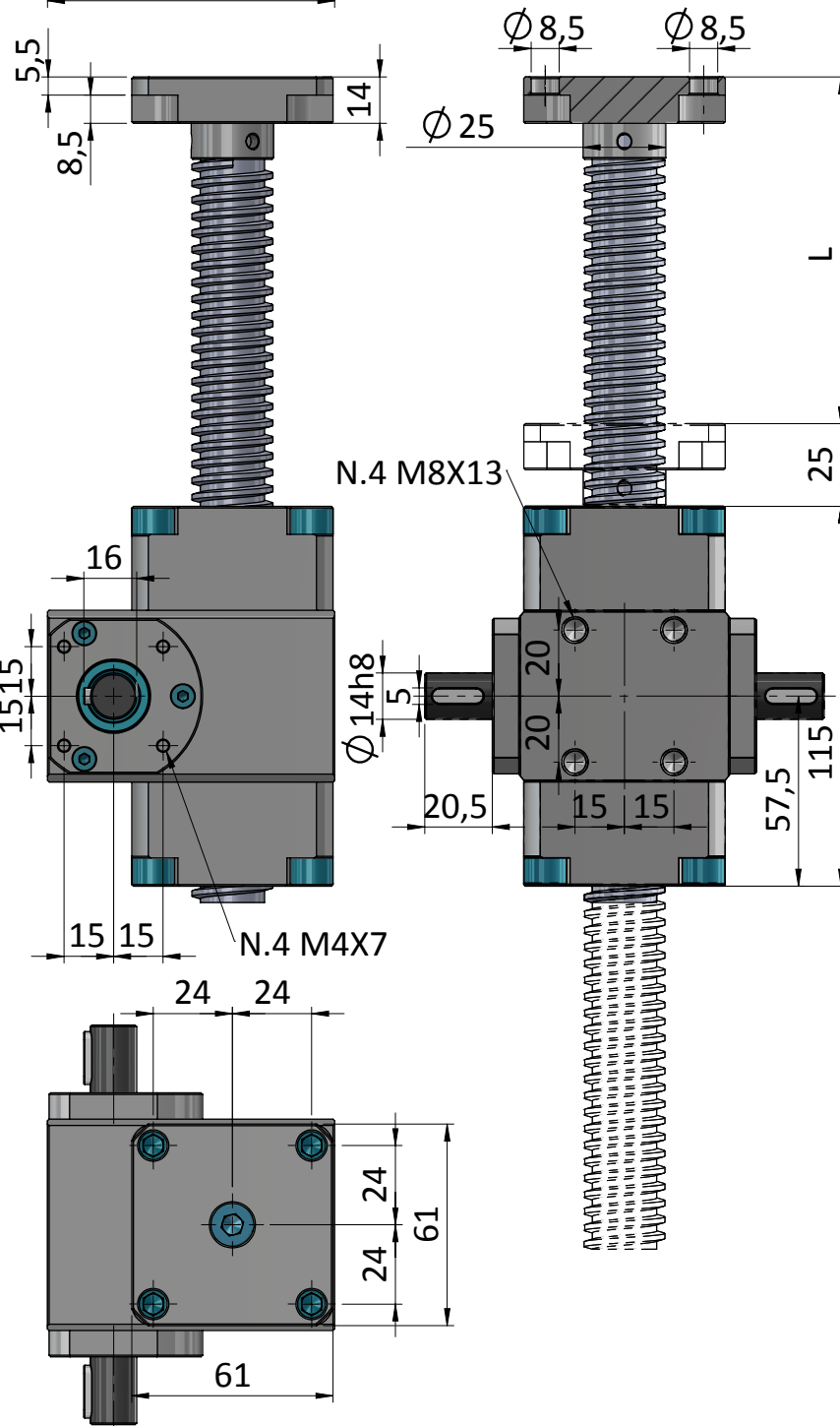
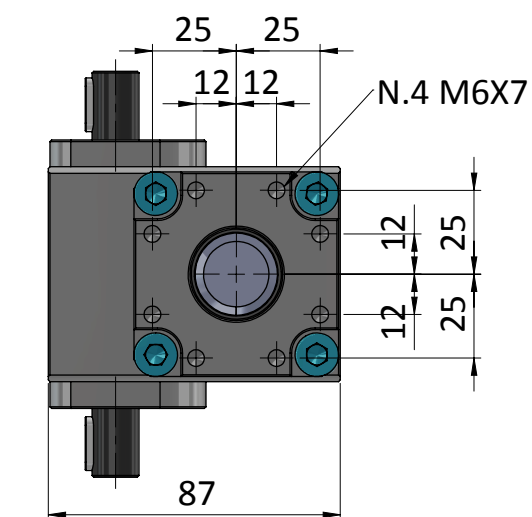
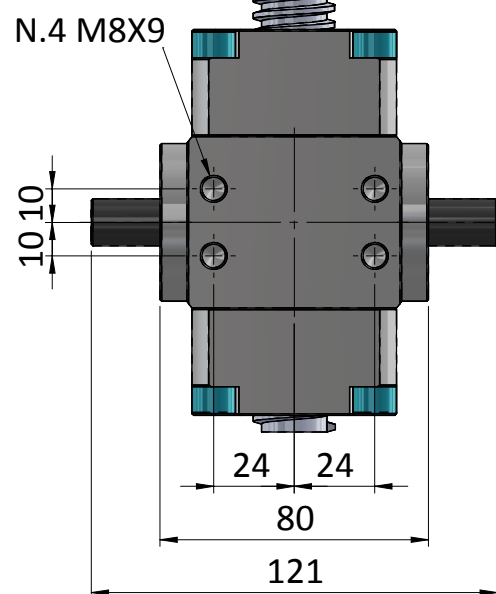
#### Available versions and accessories

- Flange and shaft extension for digital "OP7" or programmable "EP7" indicators (MAR60 FL-OP7)
- Rigid stainless steel protection with spiral spring, **up to 650 mm stroke**

|                                                                    |                                                                    |
|--------------------------------------------------------------------|--------------------------------------------------------------------|
| Senso di rotazione vite - <i>Screw rotation direction</i>          | DX / destra - <i>clockwise</i>                                     |
| Dimensione vite - <i>Screw dimension</i>                           | TPN Ø25 - passo - <i>pitch</i> 5 mm                                |
| Materiale vite trapezia - <i>Trapezoidal screw material</i>        | AISI 304: acciaio inox - <i>stainless steel</i>                    |
| Peso vite/m - <i>Screw weigh/m</i>                                 | 1,5 kg                                                             |
| Materiale carter- <i>Carter material</i>                           | alluminio anodizzato nero - <i>black anodized aluminium</i>        |
| Carter: peso - <i>weight</i>                                       | 1,5 kg                                                             |
| Materiale molla a spirale - <i>Material spiral spring</i>          | AISI 301: acciaio inox - <i>stainless steel</i>                    |
| Materiale protezione rigida - <i>Material rigid protection</i>     | AISI 303: acciaio inox - <i>stainless steel</i>                    |
| Materiale alberi/ ingranaggi - <i>Shafts/ Gears material</i>       | acciaio trattato - <i>treated steel</i> (PRONOX)                   |
| Max nr. di giri in ingresso - <i>Max input rotation speed</i>      | 1500 Rpm                                                           |
| Carico assiale (albero ingresso) - <i>Axial load (input shaft)</i> | 1500 kg (500 kg con supporto laterale - <i>with side support</i> ) |
| Gioco massimo - <i>Max gear-play tolerance</i>                     | 0,75° ÷ 1.5°                                                       |
| Durata - <i>Life</i>                                               | 10.000 ore - <i>hours</i>                                          |
| Lubrificazione a grasso - <i>grease lubrication</i>                | Saneg LX EP 2 (< 200 rpm)                                          |
| Lubrificazione a olio - <i>oil lubrication</i>                     | Castrol Optigear 1100/100 (> 200 rpm)                              |
| Temperatura di lavoro - <i>Working temperature</i>                 | -20 +80°                                                           |

| VERIFICA DIMENSIONAMENTO - <i>SIZING VERIFICATION</i>                                                                                                                                                                                                                                                                                                                                                             | SUPPORTO E MONTAGGIO - <i>SUPPORT AND MOUNTING</i>                                                                                                                                                                                                                                       |                                                                                                                                                  |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------|
| <p><b>Carico (kg)</b> = massa sul martinetto<br/> <b>Velocità (rpm)</b> = necessaria, max 1500 rpm<br/> <b>Corsa (mm)</b> = spostamento lineare utile<br/> <b>Protezione (opz.)</b> = schermatura asta filettata</p> <p><b>Load (kg)</b> = mass on screw jack<br/> <b>Speed (rpm)</b> = required, max 1500 rpm<br/> <b>Stroke (mm)</b> = useful linear travel<br/> <b>Protection (opt.)</b> = screw shielding</p> | <p>L'unità deve essere fissata saldamente alla struttura della macchina tramite una base piana e rigida (supporti non inclusi nella fornitura).<br/> <i>The unit must be firmly secured to the machine structure using a flat, rigid base (supports not included in the supply).</i></p> |                                                                                                                                                  |
|                                                                                                                                                                                                                                                                                                                                | <p><b>Supporto inferiore</b><br/><i>Bottom support</i></p>                                                                                                                                           | <p><b>Supporto laterale</b><br/><i>Lateral support</i></p>  |
|                                                                                                                                                                                                                                                                                                                                                                                                                   | <p>Piastra/staffa sotto carcassa per <b>montaggio ottimale</b>.<br/> <i>Plate/bracket under housing for optimal mounting.</i></p>                                                                                                                                                        | <p>Supporto laterale permette un carico massimo di <b>500 kg</b>.<br/> <i>The side support allows a maximum load of 500 kg.</i></p>              |

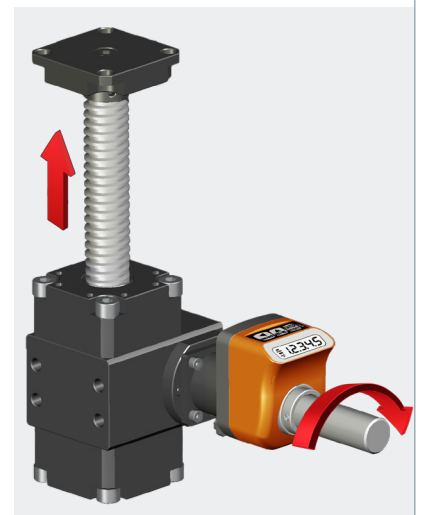
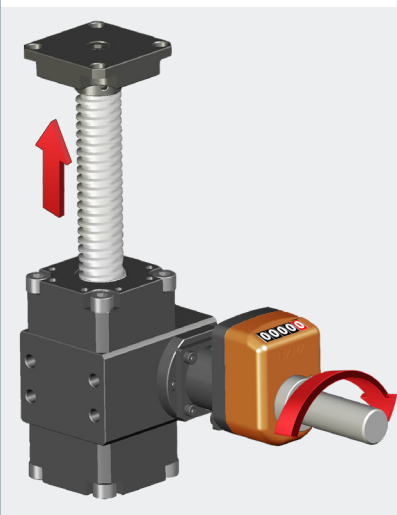
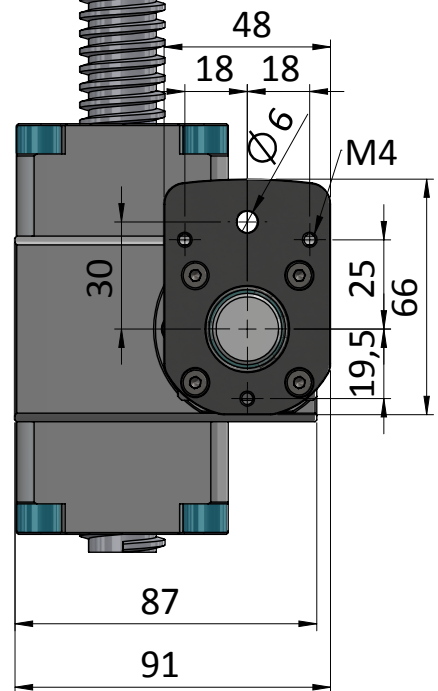
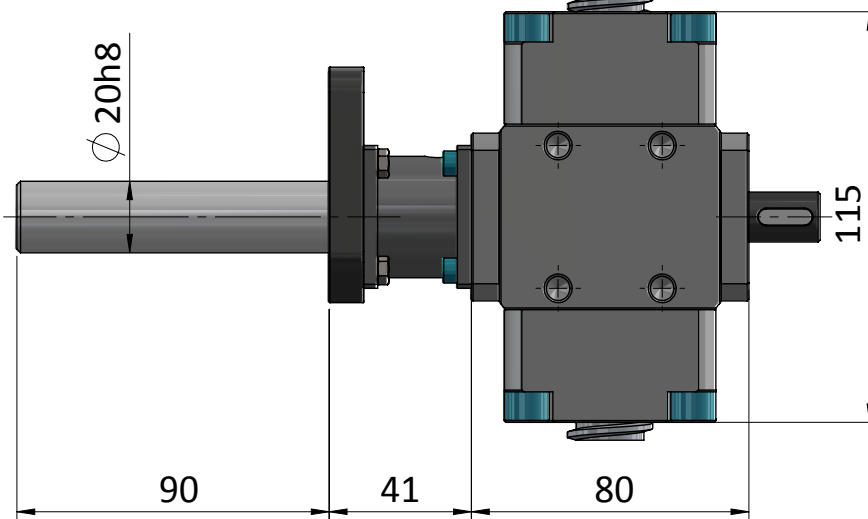
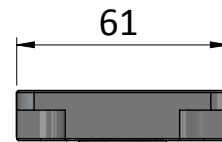
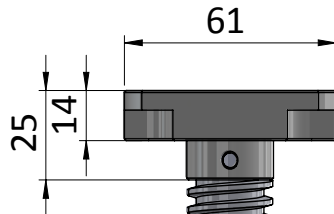
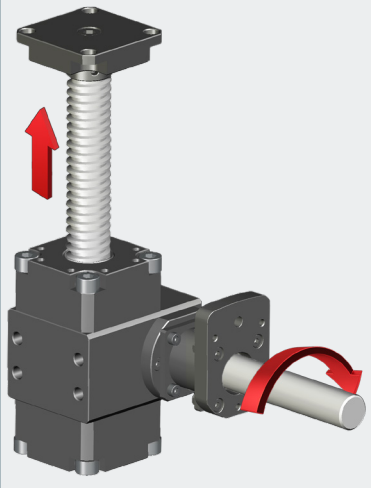
| INSTALLAZIONE - <i>INSTALLATION</i>                                                                                                                                     |                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                          |
|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|                                                                                      |                                                                                                                              |                                                                                                                                                                     |
| <p>Evitare carichi radiali/laterali sulla vite trapezia, principale causa di guasti.<br/> <i>Avoid radial/lateral loads on threaded bar, main cause of failure.</i></p> | <p>Asta filettata e piano riduttore ortogonali; verificare assialità carico/asta evitando eccentricità.<br/> <i>Threaded bar and reducer plane orthogonal; ensure load/bar coaxial, avoid eccentricity.</i></p> | <p>Più martinetti collegati: terminali allineati per ripartizione uniforme del carico; usare giunti per compensare disallineamenti.<br/> <i>Multiple screw jacks: terminals aligned for uniform load; use couplings to compensate misalignments.</i></p> |



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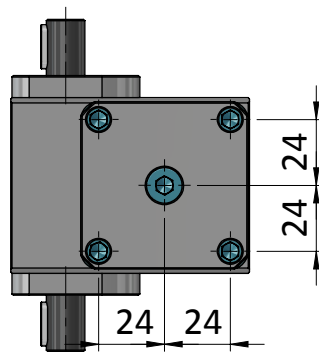
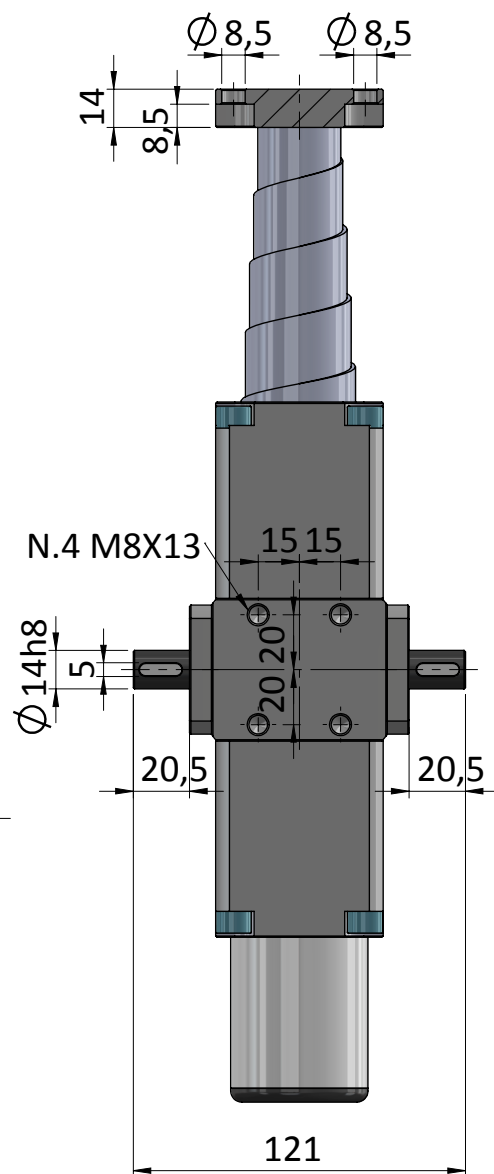
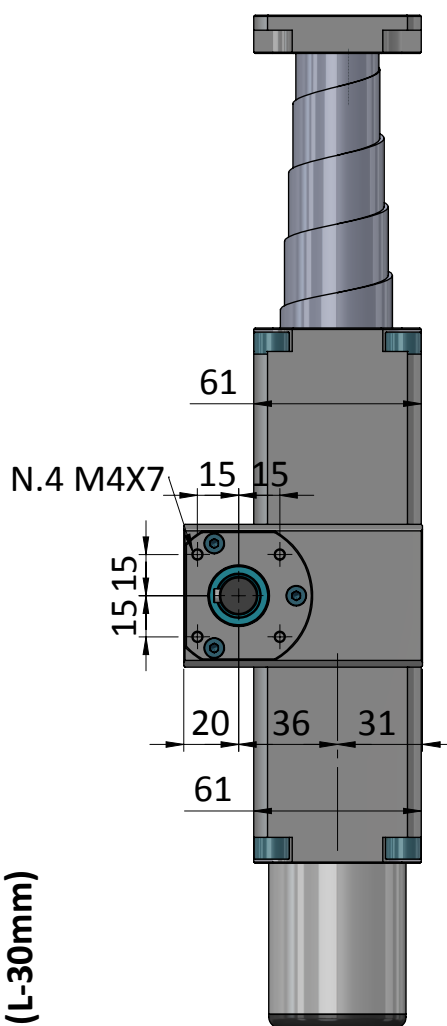
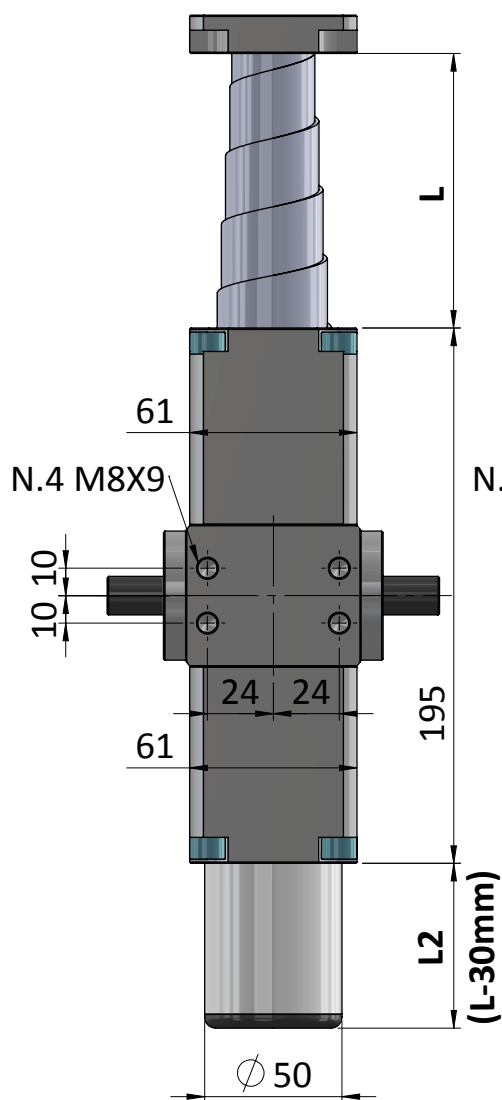
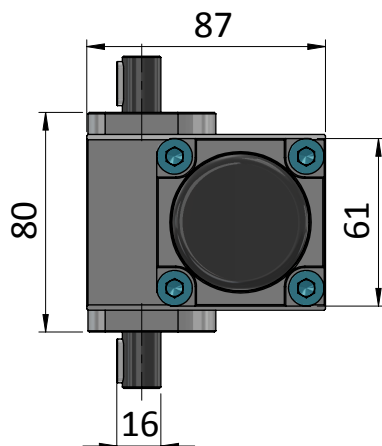
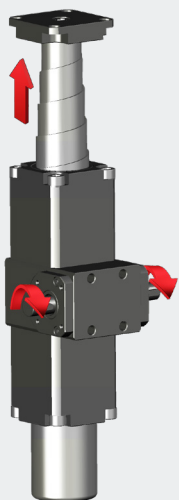
# MAR60 FL-OP7/EP7

COMPLETO DI FLANGIA DI FISSAGGIO E PROLUNGA ABERO PER VISUALIZZAZIONE CON INDICATORE DIGITALE „OP7“ O PROGRAMMABILE „EP7“  
COMPLETE WITH FIXING FLANGE AND EXTENSION SHAFT FOR DISPLAY WITH „OP7“ DIGITAL OR „EP7“ PROGRAMMABLE INDICATOR



# MAR60-PROT

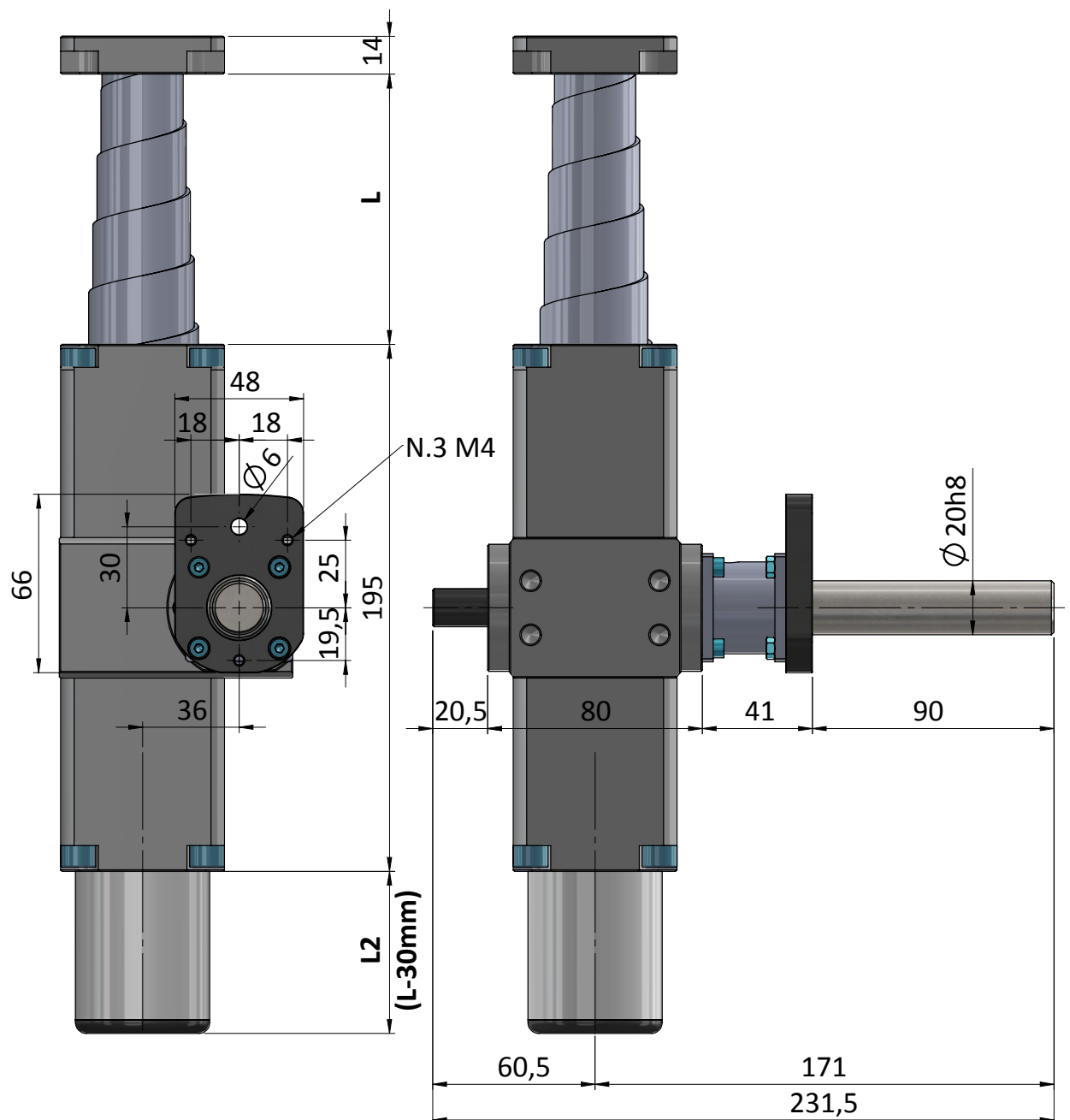
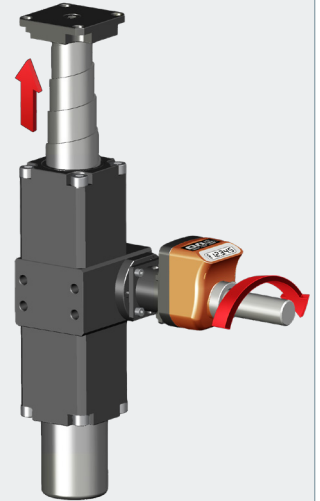
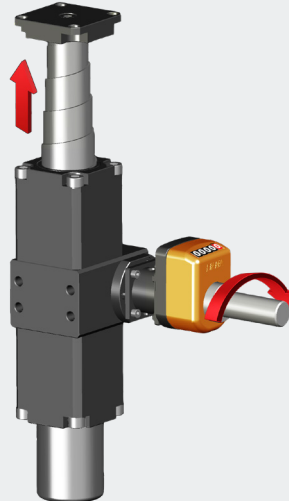
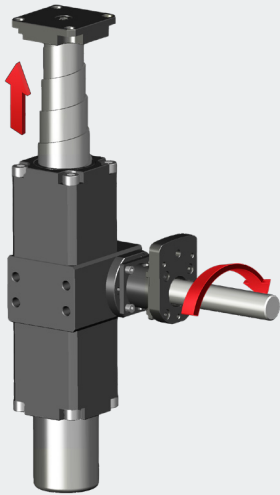
CON PROTEZIONE RIGIDA E MOLLA A SPIRALE - WITH RIGID PROTECTION AND SPIRAL SPRING



L = Lunghezza corsa (mm) - Stroke (mm)

## MAR60-PROT FL-OP7/EP7

COMPLETO DI FLANGIA DI FISSAGGIO E PROLUNGA ABERO PER VISUALIZZAZIONE CON INDICATORE DIGITALE „OP7“ O PROGRAMMABILE „EP7“  
COMPLETE WITH FIXING FLANGE AND EXTENSION SHAFT FOR DISPLAY WITH „OP7“ DIGITAL OR „EP7“ PROGRAMMABLE INDICATOR



L = Lunghezza corsa (mm) - Stroke (mm)

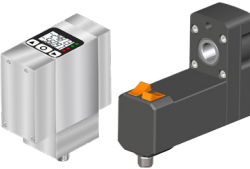
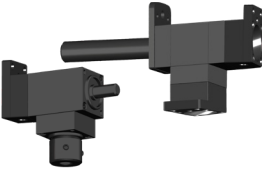
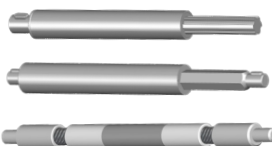
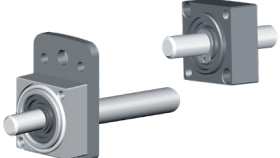
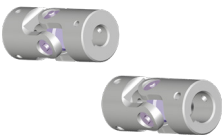
**LEGENDA PER TABELLE PRESTAZIONI - LEGEND FOR PERFORMANCE TABLES**

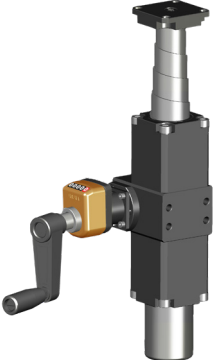
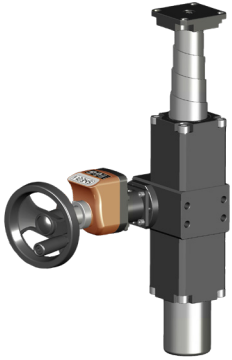
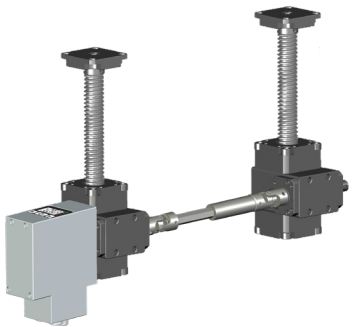
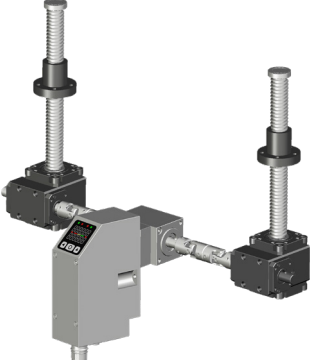
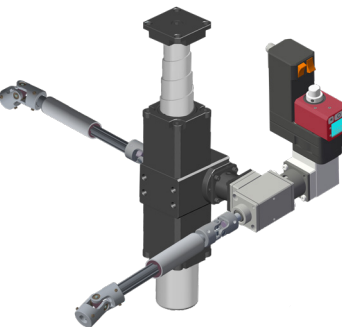
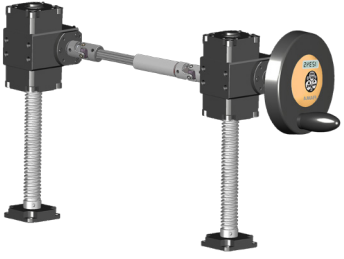
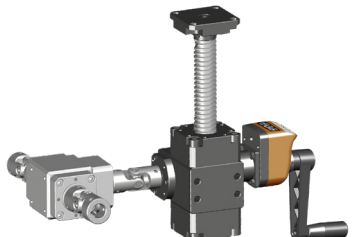
|               |   |                                                                                                                                        |
|---------------|---|----------------------------------------------------------------------------------------------------------------------------------------|
| <b>Tab. 1</b> | = | carico movimentato in base coppia in ingresso - <i>moving loads as to input torque</i>                                                 |
| <b>Tab. 2</b> | = | carico movimentato in base corsa vite trapezia (con utilizzo guide) - <i>moving loads as to trapezoidal screw (with use of guides)</i> |
| <b>Tab. 3</b> | = | velocità di traslazione vite in base a nr. giri in ingresso - <i>screw travel speed according to revolution nr.</i>                    |
| <b>i</b>      | = | rapporto di riduzione - <i>reduction ratio</i> [/]                                                                                     |
| <b>T</b>      | = | coppia - <i>torque</i> [Nm]                                                                                                            |
| <b>C</b>      | = | carico movimentato - <i>moving load</i> [kg]                                                                                           |
| <b>s</b>      | = | corsa - <i>stroke</i> [mm]                                                                                                             |
| <b>ω</b>      | = | velocità di rotazione - <i>rotation speed</i> [rpm]                                                                                    |
| <b>v</b>      | = | velocità di traslazione - <i>travel speed</i> [mm/s]                                                                                   |

**TABELLE PRESTAZIONI - PERFORMANCE TABLES**

| <b>i</b> [/]  | <b>Tab.1</b>  |               | <b>Tab. 2</b> |                         | <b>Tab. 3</b>  |                 |
|---------------|---------------|---------------|---------------|-------------------------|----------------|-----------------|
|               | <b>T [Nm]</b> | <b>C [kg]</b> | <b>s [mm]</b> | <b>C [kg] (T=27 Nm)</b> | <b>ω [rpm]</b> | <b>v [mm/s]</b> |
| <b>1/1</b>    | 1             | 25,6          | 100           | 691,7                   | 250            | 20,83           |
|               | 3             | 76,9          | 200           | 691,7                   | 500            | 41,67           |
|               | 5             | 128,1         | 300           | 691,7                   | 750            | 62,50           |
|               | 10            | 256,2         | 500           | 691,7                   | 1000           | 83,33           |
|               | 15            | 384,3         | 700           | 691,7                   | 1250           | 104,17          |
|               | 20            | 512,4         | 800           | 648,2                   | 1500           | 125,00          |
|               | 25            | 640,5         | 900           | 512,1                   |                |                 |
|               | 27            | 691,7         | 1000          | 414,8                   |                |                 |
|               | <b>T [Nm]</b> | <b>C [kg]</b> | <b>s [mm]</b> | <b>C [kg] (T=8 Nm)</b>  | <b>ω [rpm]</b> | <b>v [mm/s]</b> |
| <b>1/5</b>    | 1             | 128,1         | 100           | 1024,8                  | 250            | 4,17            |
|               | 2             | 256,2         | 200           | 1024,8                  | 500            | 8,33            |
|               | 3             | 384,3         | 300           | 1024,8                  | 750            | 12,50           |
|               | 4             | 512,4         | 500           | 1024,8                  | 1000           | 16,67           |
|               | 5             | 640,5         | 700           | 846,6                   | 1250           | 20,83           |
|               | 6             | 768,6         | 800           | 648,2                   | 1500           | 25,00           |
|               | 7             | 896,7         | 900           | 512,1                   |                |                 |
|               | 8             | 1024,8        | 1000          | 414,8                   |                |                 |
|               | <b>T [Nm]</b> | <b>C [kg]</b> | <b>s [mm]</b> | <b>C [kg] (T=6 Nm)</b>  | <b>ω [rpm]</b> | <b>v [mm/s]</b> |
| <b>1/12,5</b> | 0,8           | 205,0         | 100           | 1537,2                  | 250            | 1,67            |
|               | 1,6           | 409,9         | 200           | 1537,2                  | 500            | 3,33            |
|               | 2,4           | 614,9         | 300           | 1537,2                  | 750            | 5,00            |
|               | 3,2           | 819,8         | 500           | 1537,2                  | 1000           | 6,67            |
|               | 4             | 1024,8        | 700           | 846,6                   | 1250           | 8,33            |
|               | 4,8           | 1229,7        | 800           | 648,2                   | 1500           | 10,00           |
|               | 5,6           | 1434,7        | 900           | 512,1                   |                |                 |
|               | 6             | 1537,2        | 1000          | 414,8                   |                |                 |
|               | <b>T [Nm]</b> | <b>C [kg]</b> | <b>s [mm]</b> | <b>C [kg] (T=4 Nm)</b>  | <b>ω [rpm]</b> | <b>v [mm/s]</b> |
| <b>1/25</b>   | 0,5           | 192,1         | 100           | 1537,2                  | 250            | 0,83            |
|               | 1             | 384,3         | 200           | 1537,2                  | 500            | 1,67            |
|               | 1,5           | 576,4         | 300           | 1537,2                  | 750            | 2,50            |
|               | 2             | 768,6         | 500           | 1537,2                  | 1000           | 3,33            |
|               | 2,5           | 960,7         | 700           | 846,6                   | 1250           | 4,17            |
|               | 3             | 1152,9        | 800           | 648,2                   | 1500           | 5,00            |
|               | 3,5           | 1345,0        | 900           | 512,1                   |                |                 |
|               | 4             | 1537,2        | 1000          | 414,8                   |                |                 |



| COMPONENTI COMBINABILI - COMBINABLE PARTS                                         |                                                                                   |                                                                                   |                                                                                     |                                                                                     |
|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-----------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|
| Indicatori digitali<br>Digital indicators                                         | Indicatori programmabili<br>Programmable indicators                               | Servomotori<br>Servomotors                                                        | Rinvii angolari<br>Gearboxes                                                        | Alberi di collegamento<br>Coupling shafts                                           |
|  |  |  |   |  |
| Supporti di collegamento<br>Coupling supports                                     | Giunti di collegamento<br>Coupling joints                                         | Volantini<br>Handwheels                                                           | Maniglie<br>Handles                                                                 | Flange di blocco<br>Block flanges                                                   |
|   |  |  |  |  |

| ESEMPI DI ABBINAMENTI - COUPLINGS EXAMPLES                                         |                                                                                     |                                                                                      |                                                                                       |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------|
|   |    |    |    |
|  |  |  |  |

| ESEMPIO DI ORDINAZIONE - PART NR. CONFIGURATION                                                                                                 | MAR60 | 1/1 | 200 | PROT-INF-IN | PROT-SUP-IN | FL-OP7 |
|-------------------------------------------------------------------------------------------------------------------------------------------------|-------|-----|-----|-------------|-------------|--------|
| RAPPORTI DI RIDUZIONE - REDUCTION RATIOS<br>1/1 - 1/5 - 1/12,5 - 1/25                                                                           |       |     |     |             |             |        |
| LUNGHEZZA CORSA - STROKE LENGTH<br>50 - 100 - 200 - 300 - 400 - 650 - 700 - 1000                                                                |       |     |     |             |             |        |
| PROTEZIONE INFERIORE - LOWER PROTECTION <span>opzionale - optional</span><br>PROT-INF-IN (inox AISI 303 - AISI 303 stainless steel)             |       |     |     |             |             |        |
| PROTEZIONE SUPERIORE - UPPER PROTECTION <span>opzionale - optional</span><br>PROT-SUP-IN (max. 650mm, inox AISI 301 - AISI 301 stainless steel) |       |     |     |             |             |        |
| FLANGIA DI COLLEGAMENTO - COUPLING FLANGE <span>opzionale - optional</span><br>FL-OP7/EP7                                                       |       |     |     |             |             |        |
| INDICATORI - INDICATORS <span>opzionale - optional</span><br>OP7 - EP7 (ordinare separatamente - order separately)                              |       |     |     |             |             |        |

 per la scelta degli indicatori consultare le schede tecniche, scaricabili anche dal nostro sito [www.fiamma.it](http://www.fiamma.it) nella sezione "Indicatori di posizione ..."  
 for the selection of indicators please see datasheets, which can be downloaded also from our web-site [www.fiamma.it](http://www.fiamma.it) in section "Position indicators ..."