

V215CR

EN

Tie Rod Hydraulic Cylinders According To UNI-ISO 6020-2 :1993 Compact Norms

ES

Cilindros hidráulicos de tirantes según normas UNI-ISO 6020-2 : 1993 Compact

IT

Cilindri oleodinamici a tiranti a norme UNI-ISO 6020-2 :1993 Compact

FR

Vérins hydrauliques à tirants selon normes UNI-ISO 6020-2 :1993 compact

215
BAR



EN ORDER CODE

FR CODE COMMANDE

ES CÓDIGO PEDIDO

IT CODICE ORDINE

Cylinder Model
Modelo cilindro
Modèle du vérin
Modello cilindro

Bore
Camisa
Alésage
Alesaggio

Rod
Vástago
Tige
Stelo

Clamping Style
Fijación
Fixation
Fissaggio

Cushioning Type
Tipo de amortiguación
Type d'amortissement
Tipo di ammortizzo

Oil Ports Type
Tipo de conexiones
Type d'orifice
Tipo di orifici

Oil Ports Position
Posición conexiones
Position des orifices
Posizione orifici

CR

050

036

C

0

G

G

PAGE PÁGINA PAGE PAGINA

R6

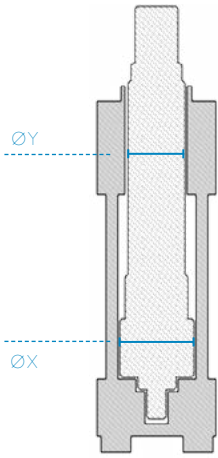
R6

R8 > R11

R12

R12

R13



| ØX | ØY | A MX2 | 0 | G | A |
|-----|-----|-------|---|--|---|
| 025 | 012 | | | BSP Thread (GAS) Rosca BSP (GAS) Filetage BSP (GAS) Filetto BSP (GAS) | B |
| | 018 | | 1 | | C |
| 032 | 014 | | | | |
| | 022 | | 2 | N | D |
| 040 | 018 | | | | E |
| | 028 | | 3 | | G |
| 050 | 028 | | | NPT Thread Rosca NTP Filetage NPT Filetto NPT | H |
| | 036 | | 4 | | I |
| 063 | 028 | | | | L |
| | 036 | | 5 | Metric Thread Rosca métrica Filetage métrique Filetto metrico | M |
| 080 | 045 | | | | N |
| | 056 | | 6 | | O |
| 100 | 045 | | | P | |
| | 070 | | | Q | |
| 125 | 056 | | | T | |
| | 070 | | | U | |
| 160 | 090 | | | | |
| | 070 | | | | |
| 200 | 090 | | | | |
| | 110 | | | | |
| | 090 | | | | |
| | 140 | | | | |
| | | | | | |

Rod end Type
Extremo vástago
Extrémité de la tige
Estremità stelo

Cylinder Version
Versión cilindro
Version du vérin
Versione cilindro

Stroke
Carrera
Course
Corsa

Rod Accessories
Accesorios vástago
Accessoires de la tige
Accessori stelo

Magnetic Switches \ Switch Q.ty
Sensores magnéticos / Cant. sensores
DéTECTEURS magnétiques \ Q.té détecteurs
Sensori magnetici \ Q.tà sensori

G

M

050

+ MTA27X300

\ MSU1 \ 2

R14

R15

R7

R18 > R19

R16 > R17

G

Female Metric Thread
Rosca métrica hembra
Tarudage métrique
Filetto femmina metrico

A

Male Metric Thread
Rosca métrica macho
Filetage métrique
Filetto maschio metrico

E

Male Metric Thread, Small Diameter Alternative
Rosca métrica macho, alternativa de pequeño diámetro
Filetage petit Diamètre
Filetto maschio metrico, alternativa di piccolo diametro

F

Floating Joint
Cabeza de martillo
Tenon
Testa a martello

W

Floating Joint (excluding rod diam. 90, 110, 140 mm)
Cabeza martillo (salvo vástagos Ø 90, 110, 140 mm)
Tenon (non disponible pour tige diam. 90, 110, 140 mm)
Testa a martello (esclusi steli diam. 90, 110, 140 mm)

I

UNF-UNEF Female Thread (U.S.A. Standard)
Rosca hembra UNF-UNEF (standard U.S.A.)
Tarudage UNF-UNEF (Standard U.S.A.)
Filetto femmina UNF-UNEF (Standard U.S.A.)

H

UNF-UNEF Male Thread (U.S.A. Standard)
Rosca macho UNF-UNEF (standard U.S.A.)
Filetage Male UNF-UNEF (Standard U.S.A.)
Filetto maschio UNF-UNEF (Standard U.S.A.)

M

Cylinder with Magnetic Preset
Cilindros con predisposición magnética

Vérin avec prédisposition magnétique

Cilindro con predisposizione magnetica

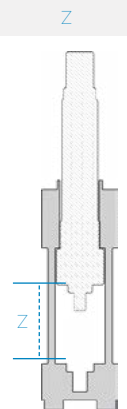
N

Cylinder without Magnetic Preset

Cilindros sin predisposición magnética

Vérin sans prédisposition magnétique

Cilindro senza predisposizione magnetica



#



\

None
Ninguno
Aucun
Nessuno

MTA



MSU1 \ 1
MSU1 \ 2

Magnetic Switches

Sensores magnéticos
DéTECTEURS magnétiques

Sensori magnetici

MFA



DFA



MSRF \ 1
MSRF \ 2

Magnetic Switches without Connector

Sensores magnéticos sin conector

DéTECTEURS magnétiques sans connecteur

Sensori magnetici senza connettore

RCA



PRA



MSRG \ 1
MSRG \ 2

Magnetic Switches with Connector

Sensores magnéticos con conector

DéTECTEURS magnétiques avec connecteur

Sensori magnetici con connettore

REA



EN

TECHNICAL AND WORKING CHARACTERISTICS CHART

ES

TABLA DE CARACTERÍSTICAS TÉCNICAS Y DE FUNCIONAMIENTO

FR

TABLEAU DES CARACTÉRISTIQUES TECHNIQUES ET DE FONCTIONNEMENT

IT

TABELLA CARATTERISTICHE TECNICHE E DI FUNZIONAMENTO

Maximum Working Pressure Presión máxima de trabajo Pression maximale d'exercice Pressione massima di esercizio

| | Magnetic Cylinder Cilindro magnético Vérin Magnétique Cilindro magnetico | | Non-Magnetic Cylinder Cilindro no magnético Vérin normal Cilindro non magnetico | |
|-----|---|--|--|--|
| ØX | Without Cushioning Sin amortiguación Sans amortissement Non ammortizzato | With Cushioning Con amortiguación Avec amortissement Ammortizzato | Without Cushioning Sin amortiguación Sans amortissement Non ammortizzato | With Cushioning Con amortiguación Avec amortissement Ammortizzato |
| | R9 > R10 | | R9 > R10 | |
| | MPa - (bar) - PSI | MPa - (bar) - PSI | MPa - (bar) - PSI | MPa - (bar) - PSI |
| 25 | 21,5-(215)-3117 | 18,5-(185)-2682 | 21,5-(215)-3117 | 18,5-(185) - 2682 |
| 32 | 21,5-(215)-3117 | 18,5-(185)-2682 | 21,5-(215)-3117 | 18,5-(185) - 2682 |
| 40 | 21,5-(215)-3117 | 18,5-(185)-2682 | 21,5-(215)-3117 | 18,5-(185) - 2682 |
| 50 | 21,5-(215)-3117 | 18,5-(185)-2682 | 21,5-(215)-3117 | 18,5-(185) - 2682 |
| 63 | 21,5-(215)-3117 | 18,5-(185)-2682 | 21,5-(215)-3117 | 18,5-(185) - 2682 |
| 80 | 20-(200)-2900 | 17-(170)-2465 | 20-(200)-2900 | 17-(170) - 2465 |
| 100 | 19-(190)-2755 | 16-(160)-2320 | 19-(190)-2755 | 16-(160) - 2320 |
| 125 | 19-(190)-2755 | 16-(160)-2320 | 19-(190)-2755 | 16-(160) - 2320 |
| 160 | 18,5-(185)-2682 | 15,5-(155)-2247 | 18,5-(185)-2682 | 15,5-(155) - 2247 |
| 200 | - | - | 17-(170)-2465 | 14-(140) - 2030 |

ØX = Bore Camisa Alésage Alesaggio

Maximum Nominal Delivery (Pushing)
Caudal nominal máximo (en empuje)
Débit nominal maximum (en poussée)
Portata max. nominale

Maximum Piston Speed
Velocidad máxima del pistón
Vitesse maximum du vérin
Velocità massima pistone

Maximum Working Temperature
Temperatura máxima de trabajo
Température max. d'exercice
Temperatura max. esercizio

| ØX | Without Cushioning Sin Amortiguación Sans amortissement Non ammortizzato | With Cushioning Con Amortiguación Avec amortissement Ammortizzato | Without Cushioning Sin Amortiguación Sans amortissement Non ammortizzato | With Cushioning Con Amortiguación Avec amortissement Ammortizzato | Magnetic Cylinder Cilindro magnético Vérin Magnétique Cilindro magnetico | Non-Magnetic Cylinder Cilindro no magnético Vérin normal Cilindro non magnetico |
|-----|---|--|---|--|---|--|
| | R9 > R10 | | | | R9 > R10 | |
| | l/min | l/min | m/s | m/s | | |
| 25 | 3 | 20 | 0,1 | 0,7 | | |
| 32 | 4 | 35 | 0,1 | 0,7 | | |
| 40 | 7 | 60 | 0,1 | 0,8 | | |
| 50 | 10 | 90 | 0,1 | 0,8 | | |
| 63 | 18 | 140 | 0,1 | 0,8 | | |
| 80 | 30 | 180 | 0,1 | 0,8 | 80°C 176°F | 140°C 248°F |
| 100 | 45 | 280 | 0,1 | 0,8 | | |
| 125 | 70 | 290 | 0,1 | 0,8 | | |
| 160 | 120 | 480 | 0,1 | 0,8 | | |
| 200 | 180 | 750 | 0,1 | 0,8 | | |

CR

ØX

050

ØY

036

C

0

G

G

Table for push and pull forces in daN (1 daN = 1 kgf)

Tabla de fuerzas empuje y tracción en daN (1 daN = 1 kgf)

Tableau des forces de Poussée et de traction en daN (1 daN=1 kgf)

Tabella forze in spinta e tiro in daN (1 daN = 1 kgf)

| ØX | ØY | 8 MPa 80 bar 1160 PSI | | 10 MPa 100 bar 1450 PSI | | 12,5 MPa 125 bar 1812 PSI | | 16 MPa 160 bar 2320 PSI | | 20 MPa 200 bar 2320 PSI | |
|-----|-----|-----------------------------|-------|-------------------------------|-------|---------------------------------|-------|-------------------------------|-------|-------------------------------|------|
| | | Th | Tr | Th | Tr | Th | Tr | Th | Tr | Th | Tr |
| 025 | 012 | | 302 | | 378 | | 472 | | 604 | | 755 |
| | 018 | 393 | 189 | 491 | 236 | 613 | 295 | 785 | 378 | 982 | 473 |
| 032 | 014 | 643 | 520 | 804 | 650 | 1005 | 813 | 1286 | 1040 | 1608 | 1300 |
| | 022 | | 339 | | 424 | | 530 | | 678 | | 848 |
| 040 | 018 | 1005 | 801 | 1256 | 1001 | 1570 | 1252 | 2010 | 1603 | 2512 | 2003 |
| | 028 | | 512 | | 641 | | 800 | | 1025 | | 1281 |
| 050 | 022 | | 1266 | | 1583 | | 1978 | | 2532 | | 3165 |
| | 028 | 1570 | 1078 | 1963 | 1347 | 2453 | 1684 | 3140 | 2155 | 3925 | 2694 |
| | 036 | | 756 | | 945 | | 1181 | | 1512 | | 1890 |
| 063 | 028 | | 2000 | | 2500 | | 3125 | | 4000 | | 5000 |
| | 036 | 2493 | 1679 | 3116 | 2099 | 3895 | 2623 | 4985 | 3357 | 6231 | 4197 |
| | 045 | | 1221 | | 1526 | | 1908 | | 2442 | | 3052 |
| 080 | 036 | | 3205 | | 4007 | | 5008 | | 6411 | | 8013 |
| | 045 | 4019 | 2748 | 5024 | 3435 | 6280 | 4294 | 8038 | 5495 | 10048 | 6869 |
| | 056 | | 2050 | | 2562 | | 3203 | | 4100 | | 5124 |
| 100 | 045 | | 5008 | | 6260 | | 7825 | | 10017 | | |
| | 056 | 6280 | 4311 | 7850 | 5389 | 9813 | 6736 | 12560 | 8621 | | |
| | 070 | | 3203 | | 4004 | | 5004 | | 6406 | | |
| 125 | 056 | | 7843 | | 9804 | | 12261 | | 15694 | | |
| | 070 | 9813 | 6735 | 12266 | 8419 | 15333 | 10529 | 19635 | 13477 | | |
| | 090 | | 4726 | | 5908 | | 7388 | | 9456 | | |
| 160 | 070 | 16077 | 13000 | 20096 | 16250 | 25120 | 20312 | 32154 | 25999 | | |
| | 110 | | 8478 | | 10598 | | 13247 | | 16956 | | |
| 200 | 090 | 25120 | 20033 | 31400 | 25042 | 39250 | 31302 | 50240 | 40067 | | |
| | 140 | | 12811 | | 16014 | | 20018 | | 25623 | | |

Th Thrust Empuje Poussée Spinta

ØX Bore Camisa Alésage Alesaggio

Tr Traction Tracción Traction Trazione

ØY Rod Vástago Tige Stelo

NOTES: Bore 200 is available only for the non-magnetic version and with a minimum delivery time of 6 weeks. Maximum pressure for bores bigger than 63 mm will tend to decrease. Before choosing the bore, see table at page R4.

NOTAS: Camisa 200 disponible solo en versión no magnética con un plazo mínimo de 6 semanas. La presión máxima en camisas superiores a 63 mm tiende a reducirse. Antes de escoger la camisa consultar la tabla en la página R4.

NOTE: Alésage 200 disponible seulement en version non magnétique sous un délai de 6 semaines. La pression maximum pour alésages supérieurs à 63 mm se réduit. Avant de choisir l'alésage voir la table à la page R4.

NOTE: L'alesaggio 200 è disponibile solo in versione non magnetica e con tempo di consegna minimo di 6 settimane. La pressione massima per gli alesaggi superiori a 63 mm tende a scendere. Prima di scegliere l'alesaggio vedere la tabella a pagina R4.

G M Z 050 + MTA27X300 \ MSU1 \ 2

Standard and Recommended Strokes in mm

Carreras standard y recomendadas en mm

Courses standards et Recommandées en mm

Corse standard e raccomandate in mm

| ØX | Z | 020 | 050 | 080 | 100 | 125 | 160 | 200 | 250 | 300 | 350 | 400 | 500 | 600 | 700 | 800 | 900 | 1000 | 1200 | 1400 | 1500 | |
|-----|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|
| 25 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 32 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 40 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 50 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 63 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 80 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 100 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 125 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 160 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |
| 200 | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Blue | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey | Grey |



STANDARD STROKES CARRERAS STANDARD COURSES STANDARD CORSE STANDARD



NON-STANDARD STROKES CARRERAS NO STANDARD COURSES HORS STANDARD CORSE FUORI STANDARD



SPECIAL STROKES CARRERAS ESPECIALES COURSES SPECIALES CORSE SPECIALI



ØX Bore Camisa Alésage Alesaggio



Z Stroke Carrera Course Corsa

NOTES: Any stroke can be supplied on request with the same delivery time. For strokes shorter than 80 mm, consider our compact cylinders series V250CE and V450CM as an alternative. For special strokes, you might use a guide spacer (for ordering, contact our technical department). Stroke tolerance $-0/+0,5$ mm.

NOTAS: Cualquier carrera puede ser suministrada bajo pedido con el mismo plazo de entrega. Para las carreras inferiores a 80mm, considerar en alternativa los cilindros compactos serie V250C y V450CM. Para las carreras especiales, valorar el uso de un distanciador sobre-guía (contacte con nuestro servicio técnico). Tolerancia carrera $-0/+0,5$ mm.

NOTE: Quelconque course peut être fournie sur demande avec le même délai. Pour les courses inférieures à 80 mm considérer en alternative les vérins blocs série V250CE et V450CM. Pour les course spéciales envisager l'utilisation d'une bride de surguidage (contacter notre service technique). Tolérance course $-0/+0,5$ mm.

NOTE: Qualunque corsa può essere fornita su richiesta con analogo tempo di consegna. Per corse inferiori ad 80 mm, considerare in alternativa i cilindri compatti serie V250CE e V450CM. Per le corse speciali valutare l'utilizzo di distanziale di sovra-guida (per l'ordine, contattare il nostro ufficio tecnico). Tolleranza sulla corsa $-0/+0,5$ mm.

V215CR

EN

CHOICE OF CLAMPING STYLE

FR

CHOIX DE LA FIXATION

ES

ELECCIÓN DE LA FIJACIÓN

IT

SCELTA DEL FISSAGGIO

| | |
|-----------------|-----------------|
| $\varnothing X$ | $\varnothing Y$ |
| 050 | 036 |

| | | | |
|---|---|---|---|
| C | 0 | G | G |
|---|---|---|---|

C

Base Clamping Style ISO MX5

Fijación Base ISO MX 5

Fixation base ISO MX5

Fissaggio Base ISO MX5

D

Head Flange ISO ME5

Brida delantera

Bride avant ISO ME5

Flangia anteriore ISO ME5

E

Rear Flange ISO ME6

Brida trasera

Bride arrière ISO ME6

Flangia posteriore ISO ME6

| $\varnothing X$ | $\varnothing Y$ | $\varnothing B$ f 9 | BG | E | F | FB H 13 | G | GF | J | KB | PY | PJ+ | R js 12 | $\varnothing RD$ f 8 | RT | TG js 12 | TO js 12 | UO | V | WF | WH | ZJ+ |
|-----------------|-----------------|------------------------|----|-----|----|------------|----|-----|----|----|----|-----|------------|-------------------------|----------|-------------|-------------|-----|----------|----|----|-------|
| 25 | 12 18 | 24 30 | 12 | 40 | 10 | 5,5 | 38 | 48 | 24 | 8 | 50 | 53 | 27 | 38 38 | M5x0,8 | 28,3 | 51 | 64 | 7 | 25 | 15 | 114 |
| 32 | 14 22 | 26 34 | 15 | 45 | 10 | 6,5 | 38 | 48 | 25 | 10 | 60 | 56 | 33 | 42 42 | M6x1 | 33,2 | 58 | 70 | 8 12 | 35 | 25 | 128 |
| 40 | 18 28 | 30 42 | 20 | 60* | 10 | 11 | 43 | 53 | 37 | 12 | 62 | 73 | 41 | 62 62 | M8x1,25 | 41,7 | 87 | 109 | 8 12 | 35 | 25 | 153 |
| 50 | 22 28 | 34 42 | 25 | 75 | 16 | 14 | 43 | 59 | 37 | 16 | 67 | 74 | 52 | 74 74 | M12x1,75 | 52,3 | 105 | 128 | 9 | 41 | 25 | 159 |
| 63 | 28 36 | 42 50 | 25 | 90 | 16 | 14 | 44 | 59 | 37 | 16 | 71 | 80 | 65 | 75 75 | M12x1,75 | 64,3 | 117 | 142 | 11 12 | 48 | 32 | 167 |
| 80 | 45 56 | 60 72 | 30 | 115 | 20 | 18 | 49 | 69 | 44 | 20 | 77 | 93 | 83 | 82 105 | M16x2 | 82,7 | 149 | 180 | 9 9 | 51 | 31 | 190 |
| 100 | 45 56 | 60 72 | 30 | 130 | 22 | 18 | 50 | 72 | 45 | 20 | 82 | 101 | 97 | 92 125 | M16x2 | 96,9 | 162 | 190 | 9 10 | 57 | 35 | 203 |
| 125 | 70 90 | 88 108 | 30 | 165 | 22 | 22 | 56 | 78 | 55 | 26 | 86 | 117 | 126 | 125 150 | M22x2,5 | 125,9 | 208 | 247 | 10 10 | 57 | 35 | 232 |
| 160 | 70 110 | 88 133 | 30 | 205 | 22 | 26 | 56 | 81 | 58 | 33 | 86 | 130 | 155 | 125 170 | M27x3 | 154,9 | 253 | 297 | 7 | 57 | 32 | 243 |
| 200 | 90 140 | 108 163 | 40 | 245 | 25 | 33 | 76 | 101 | 76 | 35 | 98 | 165 | 190 | 150 210 | M30x3,5 | 190,2 | 300 | 347 | 7 | 57 | 32 | 301 # |

NOTES: For dimensions where no tolerance is indicated, refer to DIN norm 7168-m.

NOTAS: Para las dimensiones sin indicación de tolerancia, regirse por la norma DIN 7168-m.

NOTE: Pour les dimensions où la tolerance n'est pas indiquée, adressez-vous aux normes DIN 7168-m.

NOTE: Per le dimensioni senza indicazione di tolleranza, riferirsi alla norma DIN 7168-m.

* Within ISO 6020/2

Conforme a norma ISO 6020/2

Respecte la norme ISO 6020/2

Rientra nella ISO 6020/2

Not per UNI-ISO 6020/2

No para UNI-ISO 6020/2

Non pour UNI-ISO 6020/2

Non secondo UNI-ISO 6020/2

ØX = Bore Camisa Alésage Alesaggio

ØY = Rod Vástago Tige Stelo

Z = Stroke Carrera Course Corsa

Example Ejemplo Exemple: Esempio

ØX = 50, ØY = 36, Z = 200mm : ZJ + Z = 159 + 200 = 359 mm

Z

G

M

050

+ MTA27X300

\ MSU1 \ 2

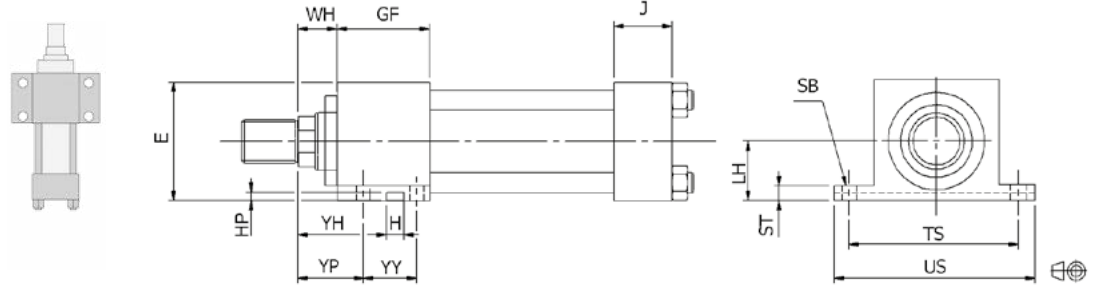
F

Head Foot MS1

Pata delantera MS 1

Patte avant MS1

Piedino anteriore MS1



Available up to bore Ø100 mm Disponible solo hasta camisas Ø100 mm Disponible uniquement jusqu'à l'alésage Ø 100 mm Disponibile solo fino all'alesaggio Ø100

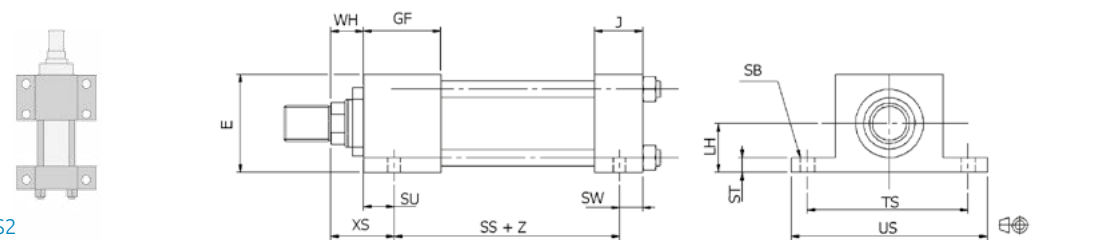
G

Head and Rear Foot ISO MS2

Pata delantera y trasera ISO MS2

Patte avant et arrière ISO MS2

Piedino anteriore e posteriore ISO MS2



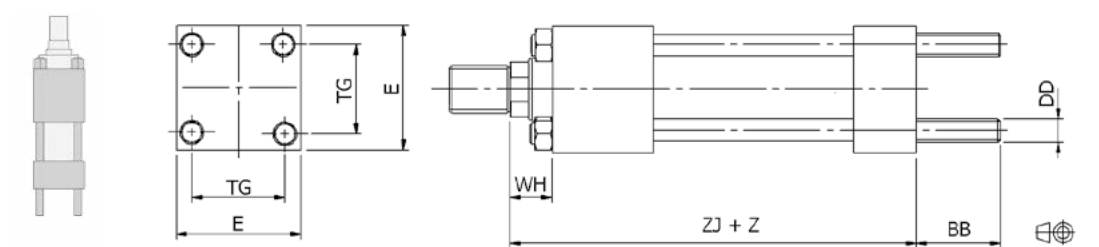
A

Extended Rear Tie Rods ISO MX2

Tirantes prolongados traseros ISO MX2

Tirants arrière ISO MX2

Tiranti prolungati posteriori ISO MX2



| ØX | ØY | BB | DD | E | GF | H H10 | HP | J | LH ±0,05 | ØSB | SS+ | ST | SU | SW | TG js 12 | TS js 12 | US | WH | XS | YH | YP | YY js 12 | ZJ+ |
|-----|----------------|-----|----------|-----|-----|-------|-----|----|----------|------|-----|------|----|----|----------|----------|------|----|-----|----|------|----------|-----|
| 25 | 12 18 | 19 | M5×0,8 | 40 | 48 | 12 | 2,5 | 24 | 19 | 6,5 | 73 | 8,5 | 18 | 8 | 28,3 | 54 | 72 | 15 | 33 | 38 | 23 | 32 | 114 |
| 32 | 14 22 | 24 | M6×1 | 45 | 48 | 12 | 2,5 | 25 | 22 | 9 | 73 | 12,5 | 20 | 10 | 33,2 | 63 | 84 | 25 | 45 | 50 | 34,5 | 32 | 128 |
| 40 | 18 28 | 35 | M8×1 | 60* | 53 | 12 | 4 | 37 | 31 | 11 | 98 | 12,5 | 20 | 10 | 41,7 | 83 | 103 | 25 | 45 | 51 | 34 | 35 | 153 |
| 50 | 22 28 36 | 46 | M12×1,25 | 75 | 59 | 12 | 5,5 | 37 | 37 | 14 | 92 | 19 | 29 | 13 | 52,3 | 102 | 127 | 25 | 54 | 57 | 35 | 40 | 159 |
| 63 | 28 36 45 | 46 | M12×1,25 | 90 | 59 | 16 | 6 | 37 | 44 | 18# | 86 | 26 | 33 | 16 | 64,3 | 124 | 160* | 32 | 65 | 57 | 43 | 38 | 167 |
| 80 | 36 45 56 | 59 | M16×1,5 | 115 | 69 | 16 | 6 | 44 | 57 | 18 | 105 | 26 | 37 | 17 | 82,7 | 149 | 185* | 31 | 68 | 59 | 46 | 39 | 190 |
| 100 | 45 56 70 | 59 | M16×1,5 | 130 | 72 | 16 | 6 | 45 | 63 | 26\$ | 102 | 32 | 44 | 22 | 96,9 | 172 | 216 | 35 | 79 | 67 | 52 | 40 | 203 |
| 125 | 56 70 90 | 81 | M22×1,5 | 165 | 78 | - | - | 55 | 82 | 26 | 131 | 32 | 44 | 22 | 125,9 | 210 | 254 | 35 | 79 | - | - | - | 232 |
| 160 | 70 110 | 92 | M27×2 | 205 | 81 | - | - | 58 | 101 | 33 | 130 | 38 | 54 | 27 | 154,9 | 260 | 318 | 32 | 86 | - | - | - | 243 |
| 200 | 90 140 | 115 | M30×2 | 245 | 101 | - | - | 76 | 122 | 39 | 172 | 44 | 74 | 23 | 190,2 | 311 | 381 | 32 | 106 | - | - | - | 301 |

NOTES: For dimensions where no tolerance is indicated, refer to DIN norm 7168-m.

* Within ISO 6020/2

▣ SB = 11 for MS1

SB = 14 for MS1

\$ SB = 18 for MS1

NOTA: Para dimensiones sin indicación de tolerancia, regirse por la norma DIN 7168-m

Conforme a norma ISO 6020/2

SB = 11 para MS1

SB = 14 para MS1

SB = 18 para MS1

NOTE: Pour les dimensions où la tolérance n'est pas indiquée, adressez-vous aux normes DIN 7168-m.

Respecte la norme ISO 6020/2

SB = 11 pour MS1

SB = 14 pour MS1

SB = 18 pour MS1

Rientra nella ISO 6020/2

SB = 11 per MS1

SB = 14 per MS1

SB = 18 per MS1

NOTE: Per le dimensioni senza indicazione di tolleranza, riferirsi alla norma DIN 7168-m.

EN

CHOICE OF CLAMPING STYLE

FR

CHOIX DE LA FIXATION

ES

ELECCIÓN DE LA FIJACIÓN

IT

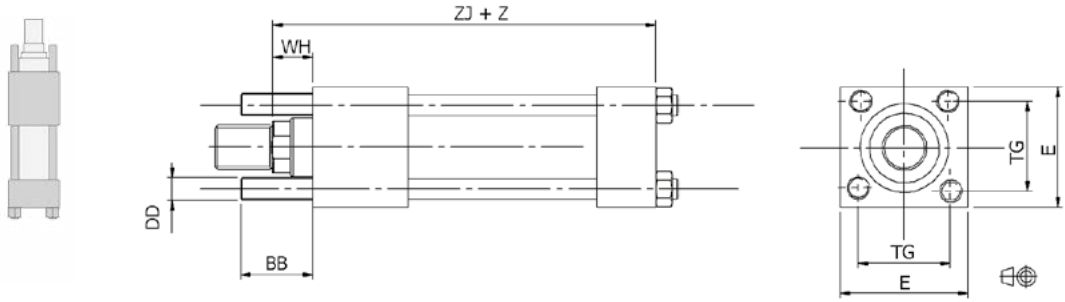
SCelta DEL FISSAGGIO

| | |
|-----------------|-----------------|
| $\varnothing X$ | $\varnothing Y$ |
| 050 | 036 |

| | | | |
|---|---|---|---|
| B | 0 | G | G |
|---|---|---|---|

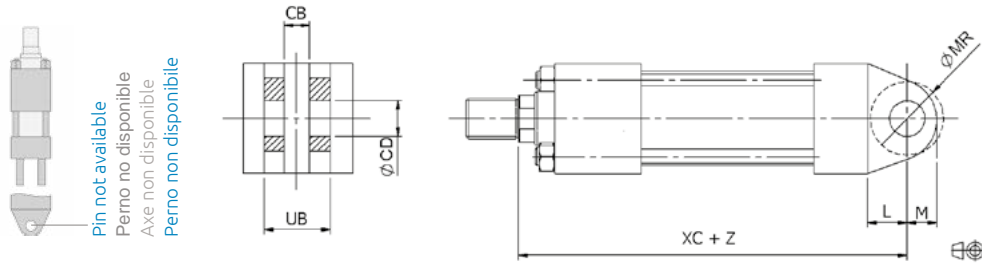
B

Extended Head Tie Rods ISO MX3
 Tirantes prolongados delanteros ISO MX3
 Tirants avant ISO MX3
 Tiranti prolungati anteriori ISO MX3



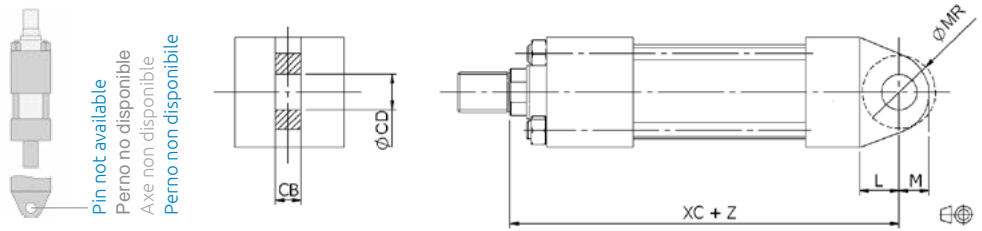
H

Female Rear Clevis ISO MP1
 Charnela trasera hembra ISO MP1
 Articulation arrière femelle ISO MP1
 Articolazione posteriore ISO MP1



I

Rear Fixed Eye ISO MP3
 Charnela trasera macho ISO MP3
 Articulation arrière male ISO MP3
 Occhione posteriore ISO MP3



| $\varnothing X$ | $\varnothing Y$ | BB | CB C11/c11 | CD H 9 | DD | E | L | M | MR max. | TG js 12 | UB c11 | WH | XC+ | ZJ + |
|-----------------|-----------------|-----|---------------|-----------|----------|------|----|----|------------|-------------|-----------|----|-----|------|
| 25 | 12 18 | 19 | 12 | 10 | M5x0,8 | 40 | 13 | 10 | 24 | 28,3 | 24 | 15 | 127 | 114 |
| 32 | 14 22 | 24 | 16 | 12 | M6x1 | 45 | 19 | 11 | 26 | 33,2 | 32 | 25 | 147 | 128 |
| 40 | 18 28 | 35 | 20 | 14 | M8x1 | 60 * | 19 | 14 | 34 | 41,7 | 40 | 25 | 172 | 153 |
| 50 | 22 28 36 | 46 | 30 | 20 | M12x1,25 | 75 | 32 | 20 | 45 | 52,3 | 60 | 25 | 191 | 159 |
| 63 | 28 36 45 | 46 | 30 | 20 | M12x1,25 | 90 | 32 | 20 | 48 | 64,3 | 60 | 32 | 200 | 167 |
| 80 | 36 45 56 | 59 | 40 | 28 | M16x1,5 | 115 | 39 | 28 | 62 | 82,7 | 80 | 31 | 229 | 190 |
| 100 | 56 70 | 59 | 50 | 36 | M16x1,5 | 130 | 54 | 36 | 90 | 96,9 | 100 | 35 | 257 | 203 |
| 125 | 56 70 90 | 81 | 60 | 45 | M22x1,5 | 165 | 57 | 45 | 92 | 125,9 | 120 | 35 | 289 | 232 |
| 160 | 70 110 | 92 | 70 | 56 | M27x2 | 205 | 63 | 59 | 118 | 154,9 | 140 | 32 | 308 | 243 |
| 200 | 90 140 | 115 | 80 | 70 | M30x2 | 245 | 82 | 70 | 155 | 190,2 | 160 | 32 | 381 | 301 |

NOTES: For dimensions where no tolerance is indicated, refer to DIN norm 7168-m.

NOTA: Para dimensiones sin indicación de tolerancia, regirse por la norma DIN 7168-m.

NOTE: Pour les dimensions où la tolerance n'est pas indiquée, adressez-vous aux normes DIN 7168-m.

NOTE: Per le dimensioni senza indicazione di tolleranza, riferirsi alla norma DIN 7168-m.

* Within ISO 6020/2

Conforme a norma ISO 6020/2

Respecte la norme ISO 6020/2

Rientra nella ISO 6020/2

ØX = Bore Camisa Alésage Alesaggio

ØY = Rod Vástago Tige Stelo

Z = Stroke Carrera Course Corsa

Example Ejemplo Exemple: Esempio

ØX = 50, ØY = 36, Z = 200mm : ZJ + Z = 159 + 200 = 359 mm

Z

G

M

050

+ MTA27X300 \

MSU1 \ 2

J

Rear Eye With Spherical Bearing ISO MP5

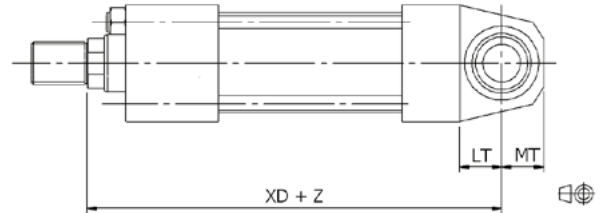
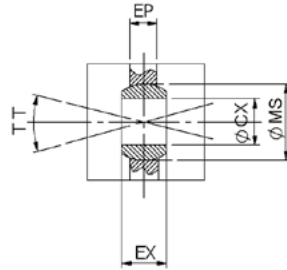
Charnela trasera con rótula ISO MP5

Articulation arrière rotulée ISO MP5

Occhione posteriore snodato ISO MP5



T = minimum tilting angle 3°
T = ángulo de basculación mínimo 3°
T = angle de mouvement minimal 3°
T = angolo di ribaltamento minimo 3°



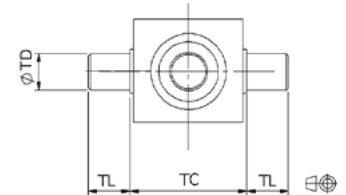
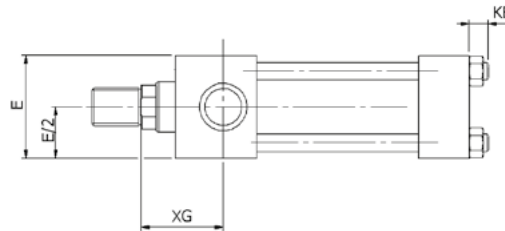
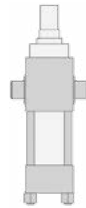
K

Head Trunnions ISO MT1

Muñón delantero ISO MT1

Tourillons males avant ISO MT1

Perni anteriori ISO MT1



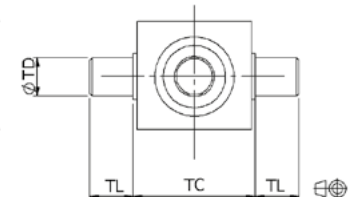
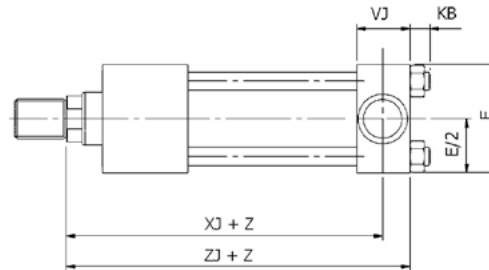
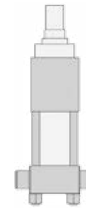
L

Rear Trunnions ISO MT2

Muñón trasero ISO MT2

Tourillons males arrière ISO MT2

Perni posteriori ISO MT2



| ØX | ØY | CX h 7 | E | EP h 14 | EX h 12 | KB | LT | MS max. | MT | TC h 12 | TD f 9 | TL | VJ | XG | XJ+ | XD+ | ZJ+ |
|-----|----------------|-----------|------|------------|------------|----|-----|---------|-----|------------|-----------|------|----|----|---------|-----|-----|
| 25 | 12 18 | 12 | 40 | 8 | 10 | 8 | 16 | 18 | 16 | 38 | 12 | 10 | 24 | 44 | 101 | 130 | 114 |
| 32 | 14 22 | 16 | 45 | 10 | 14 | 10 | 20 | 25 | 18 | 44 | 16 | 12 | 25 | 54 | 115 | 148 | 128 |
| 40 | 18 28 | 20 | 60 * | 13 | 16 | 12 | 25 | 29 | 23 | 63 | 20 | 16 | 37 | 57 | 134 | 178 | 153 |
| 50 | 22 28 36 | 25 | 75 | 17 | 20 | 16 | 31 | 35,5 | 31 | 76 | 25 | 20 | 37 | 64 | 140 | 190 | 159 |
| 63 | 28 36 45 | 30 | 90 | 18 * | 22 | 16 | 38 | 40,7 | 35 | 89 | 32 | 25 | 37 | 70 | 149 | 206 | 167 |
| 80 | 36 45 56 | 40 | 115 | 22 * | 28 | 20 | 48 | 53 | 43 | 114 | 40 | 32 | 44 | 76 | 168 | 238 | 190 |
| 100 | 45 56 70 | 50 | 130 | 28 * | 35 # | 20 | 58 | 66 | 55 | 127 | 50 | 40 | 55 | 71 | 185,5 * | 261 | 213 |
| 125 | 56 70 90 | 60 | 165 | 38 | 44 | 26 | 72 | 80 | 68 | 165 | 50 * | 40 * | 55 | 75 | 198,5 * | 304 | 226 |
| 160 | 70 110 | 80 | 205 | 47 | 55 | 33 | 94 | 105 | 95 | 203 | 56 * | 45 * | 60 | 75 | 222 * | 337 | 252 |
| 200 | 90 140 | 100 | 245 | 57 | 70 | 35 | 116 | 130 | 120 | 241 | 75 * | 63 * | 80 | 85 | 263 * | 415 | 303 |

NOTES: For dimensions where no tolerance is indicated, refer to DIN norm 7168-m.

NOTA: Para dimensiones sin indicación de tolerancia, regirse por la norma DIN 7168-m.

NOTE: Pour les dimensions où la tolerance n'est pas indiquée, adressez-vous aux normes DIN 7168-m.

NOTE: Per le dimensioni senza indicazione di tolleranza, riferirsi alla norma DIN 7168-m.

* Within ISO 6020/2

Conforme a norma 6020/2

Respecte la norme ISO 6020/2

Rientra nella ISO 6020/2

Non-ISO dimension

Dimensiones no ISO 6020/2

Measure non ISO

Misura non ISO 6020/2

CR

ØX 050
ØY 036

C

0

G

G

Cylinder Cushioning Amortiguación del cilindro Amortissement du vérin Ammortizzo del cilindro

| Cushioning Type | Tipo de amortiguación | Type d'amortissement | Tipo di ammortizzo |
|-----------------|---|---|--------------------|
| 0 | Without cushioning and air bleed Sin amortiguación y purga aire | Sans amortissement et purge Senza ammortizzo e sfiato aria | |
| 1 | Head cushioning and air bleed Amortiguación y purga delantera | Amortissement et purge avant Ammortizzo e sfiato anteriore | |
| 2 | Rear cushioning and air bleed Amortiguación y purga trasera | Amortissement et purge arrière Ammortizzo e sfiato posteriore | |
| 3 | Head and rear cushioning and air bleed Amortiguación y purga delantera y trasera | Amortissement et purge avant et arrière Ammortizzo e sfiato anteriore e posteriore | |
| 4 | Head air bleed Purga aire delantera | Purge avant Sfiato aria anteriore | |
| 5 | Rear air bleed Purga aire trasera | Purge arrière Sfiato aria posteriore | |
| 6 | Head and rear air bleed Purga aire delantera y trasera | Purge avant et arrière Sfiato aria anteriore e posteriore | |

Cushioning Length
Longitud amortiguación
Longueur amortissement
Lunghezza ammortizzo

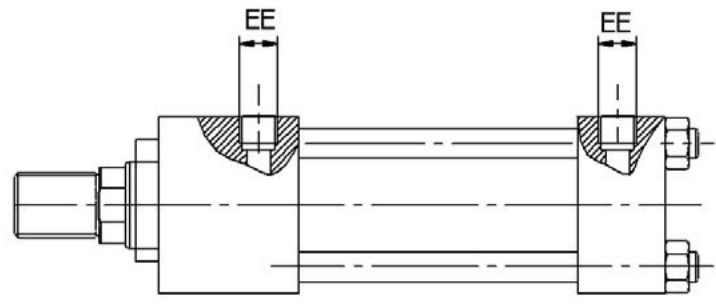
| ØX | Head and Rear Delantera y trasera Avant et arrière Anteriore e posteriore |
|-----|--|
| | mm |
| 25 | ~ 16 |
| 32 | ~ 17 |
| 40 | ~ 20 |
| 50 | ~ 20 |
| 63 | ~ 22 |
| 80 | ~ 26 |
| 100 | ~ 26 |
| 125 | ~ 28 |
| 160 | ~ 32 |
| 200 | ~ 35 |

Type of Ports of the Cylinder Tipo de conexiones del cilindro Type d'orifices du vérin Tipo di orifizi del cilindro

| Type of Ports | Tipo de conexiones | Type d'orifices | Tipo di orifizi |
|---------------|--|-----------------|-----------------|
| G | BSP Thread (GAS) Rosca BSP (GAS) Filetage BSP (GAS) Filetto BSP (GAS) | | |
| N | NPT Thread (Standard USA) Rosca NTP (Standard USA) Filetage NPT (Standard USA) Filetto NPT (Standard USA) | | |
| M | Metric Thread Rosca métrica Filetage métrique Filetto metrico | | |

| ØX | EE | | | | |
|-----|--------|--------|--------|---------|------------------|
| | BSP | NPT | Metric | Métrica | Métrique Metrico |
| 25 | 1/4" | 1/4" | | M14x1,5 | |
| 32 | 1/4" | 1/4" | | M14x1,5 | |
| 40 | 3/8" | 3/8" | | M18x1,5 | |
| 50 | 1/2" | 1/2" | | M22x1,5 | |
| 63 | 1/2" | 1/2" | | M22x1,5 | |
| 80 | 3/4" | 3/4" | | M27x2 | |
| 100 | 3/4" | 3/4" | | M27x2 | |
| 125 | 1" | 1" | | M33x2 | |
| 160 | 1" | 1" | | M33x2 | |
| 200 | 1-1/4" | 1-1/4" | | M42x2 | |

ØX = Bore Camisa Alésage Alesaggio



G M Z 050 + MTA27X300 \ MSU1 \ 2

| | | H | A | B | C | D | G | I | L | N | O | M | P | Q | T | U | E | H | A | B | C | D | G | I | L | N | O | M | P | Q | T | U | E | H | A | B | C | D | G | I | L | N | O | M | P | Q | T | U | E | D | G | I | L | Q | T | U | E | A | C | G | L | O | P | T | E |
|---------------------------|------|-----------------------|---|---|---|---|---|---|---|-------|---|---|---|---|---|---|---|-------|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Port Position | Head | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 1 | 1 | 2 | 2 | 3 | 3 | 4 | 4 |
| | Rear | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 |
| Cushioning Screw Position | Head | 3 | 3 | 3 | 3 | 4 | 4 | 4 | 4 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 2 | 3 | 3 | 3 | 3 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 | 4 | 4 | 4 | 4 | 2 | 2 | 2 | 2 | 3 | 3 | 4 | 4 | 1 | 1 | 2 | 2 |
| | Rear | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 2 | 4 | 2 | 2 | 4 | 2 | 2 | 4 | 2 | 2 | 4 | 2 | 2 | 4 | 2 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 1 | 1 | 2 | 3 | 4 | 1 | 2 | 3 | 4 | 1 | 2 | 4 | 2 | 4 | 2 | 4 | 2 | 4 | 2 |
| | | A - B - C - H - I - J | | | | | | | | D - E | | | | | | | | F - G | | | | | | | | K | | | | L | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | | |

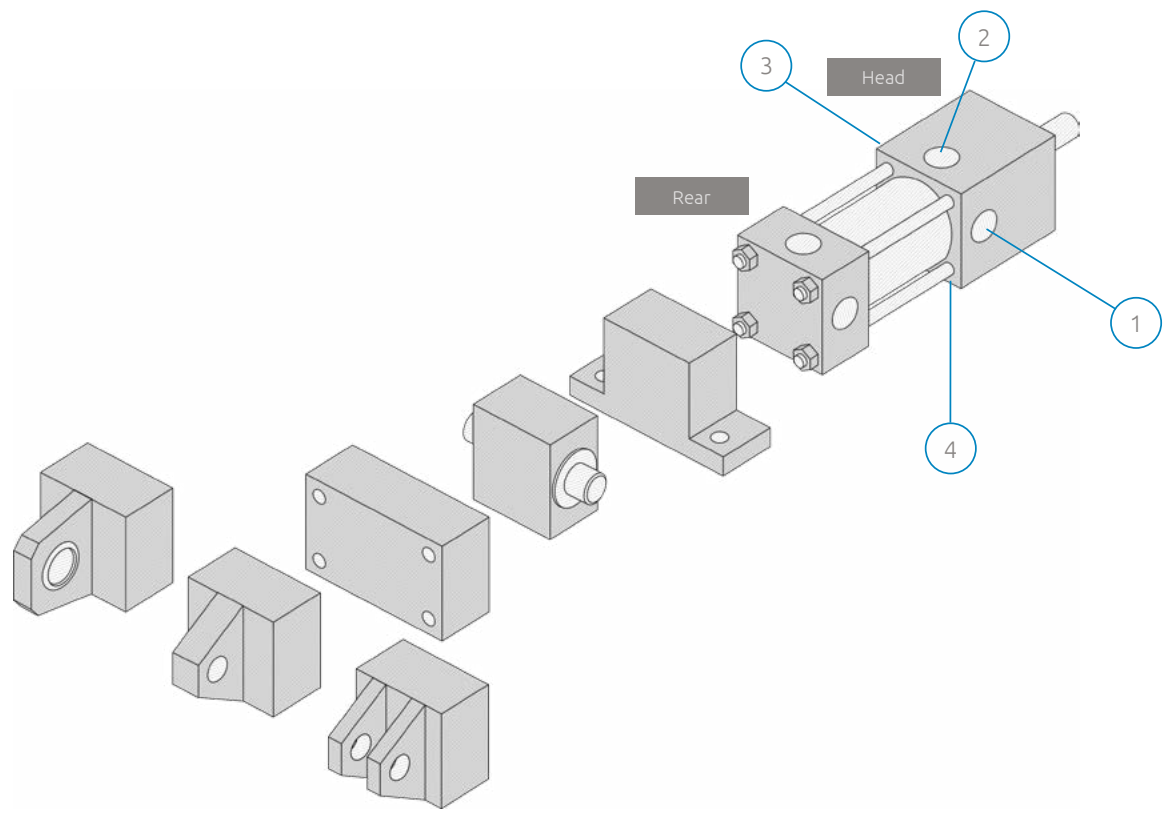
Port Position Posición de la conexión Position de l'orifice Posizione Orifizio Rear Trasera Arrière Posteriori

Cushioning Screw Position Posición tornillo reg. amortiguación Position vis regulation amortissement Posizione vite reg. ammortizzo Head Delantera Avant Anteriori

* : With this configuration, elbow joints cannot be applied and low head clamping screws are required.
 Con esta configuración no se pueden aplicar enchufes de codo y los tornillos de fijación deben ser de cabeza baja
 Un raccordement avec coude n'est pas possible avec cette configuration.
 Con questa configurazione non si possono applicare raccordi a gomito e le viti di fissaggio devono essere a testa ribassata.

: Configuration not available with mounting style "F".
 Configuración no disponible con la fijación "F".
 Configuration non disponible avec la fixation "F".
 Configurazione non disponibile con fissaggio "F".

Barring special requirements, "H" is the standard configuration.
 Sin requerimientos especiales, la configuración standard es "H".
 Sans exigence particulière, la configuration standard est "H".
 Se non ci sono particolari esigenze, la configurazione "H" è quella standard.



V215CR

EN

CHOICE OF ROD END STYLE

FR

CHOIX DE L'EXTRÉMITÉ DE LA TIGE

ES

ELECCIÓN EXTREMIDAD DEL VÁSTAGO

IT

SCELTA DELL' ESTREMITÀ DELLO STELO

| | | | | | | | |
|----|-----|-----|---|---|---|---|--|
| | ØX | ØY | | | | | |
| CR | 050 | 036 | C | 0 | G | G | |

| Rod End Style Description | Descripción del tipo de extremidad del vástago | Description du type d'extrémité de la tige | Descrizione tipo di estremità |
|---------------------------|--|--|-------------------------------|
|---------------------------|--|--|-------------------------------|

| | |
|---|---|
| G | Female Metric Thread Rosca métrica hembra Taraudage métrique Filetto femmina metrico |
| A | Male Metric Thread Rosca métrica macho Filetage métrique Filetto maschio metrico |
| E | Male Metric Thread, Small Diameter Alternative Rosca métrica macho, alternativa de pequeño diámetro Filetage petit Diamètre Filetto maschio metrico, alternativa di piccolo diametro |
| F | Floating Joint Cabeza de martillo Tenon Testa a martello |
| W | Floating Joint (excluding rod diam. 90, 110, 140 mm) Cabeza de martillo (excepto vástagos diam. 90, 110, 140 mm) Tenon (non disponible pour tige diam. 90, 110, 140 mm) Testa a martello (esclusi steli diam. 90, 110, 140 mm) |
| I | UNF-UNEF Female Thread (U.S.A. Standard) Rosca hembra UNF-UNEF (Standard U.S.A.) Taraudage UNF-UNEF (Standard U.S.A.) Filetto femmina UNF-UNEF (Standard U.S.A.) |
| H | UNF-UNEF Male Thread (U.S.A. Standard) Rosca macho UNF-UNEF (Standard U.S.A.) Filetage Male UNF-UNEF (Standard U.S.A.) Filetto maschio UNF-UNEF (Standard U.S.A.) |

| | | | | |
|----|------|---------|---------|-----------|
| ØX | Bore | Camisa | Alésage | Alesaggio |
| ØY | Rod | Vástago | Tige | Stelo |

| ØX | ØY | ØB | ØB1 | C | | | | K | | | | ØM | N | N1 | ØP | ØR | ØR1 | S | F1 | V | WF* | WH |
|-----|-----|-----|-----|----------|------------|-----|-----|--------|----------|------------|-----|----|------|----|----|-------|----------|----|----|----|-----|----|
| | | | | METRIC | UNF-UNEF | D | E | F | METRIC | UNF-UNEF | | | | | | | | | | | | |
| 25 | 12 | 11 | 11 | M8x1,25 | 5/16-24 | 15 | 5 | 14 | M10x1,25 | 3/8-24 | 11 | 7 | 5 | 10 | 7 | 6,5 | - | - | - | - | - | - |
| | 18 | 17 | 16 | M10x1,5 | 3/8-24 | 18 | 6 | 18 | M14x1,5 | 9/16-18 | 17 | 12 | 7 | 15 | 12 | 10 | M10x1,25 | 14 | 7 | 25 | 15 | |
| 32 | 14 | 13 | 12 | M8x1,25 | 5/16-24 | 15 | | 16 | M12x1,25 | 1/2-20 | 13 | 8 | 6 | 11 | 8 | 8 | - | - | 8 | 35 | 25 | |
| | 22 | 21 | 18 | M12x1,75 | 1/2-20 | 20 | 8 | 22 | M16x1,5 | 5/8-18 | 21 | 14 | 8 | 18 | 13 | 11 | M12x1,25 | 16 | 12 | | | |
| 40 | 18 | 17 | 16 | M10x1,5 | 3/8-24 | 18 | 6 | 18 | M14x1,5 | 9/16-18 | 17 | 10 | 7 | 15 | 11 | 10 | - | - | 8 | 35 | 25 | |
| | 28 | 27 | 22 | M20x2,5 | 3/4-16 | 30 | 8 | 28 | M20x1,5 | 3/4-16 | 27 | 14 | 10 | 24 | 18 | 14 | M14x1,5 | 18 | 12 | | | |
| 50 | 22 | 21 | 18 | M12x1,75 | 1/2-20 | 20 | 8 | 22 | M16x1,5 | 5/8-18 | 21 | 14 | 8 | 18 | 13 | 11 | - | - | | | | |
| | 28 | 27 | 22 | M20x2,5 | 3/4-16 | 30 | 8 | 28 | M20x1,5 | 3/4-16 | 27 | 14 | 10 | 24 | 18 | 14 | M14x1,5 | 18 | 9 | 41 | 25 | |
| 63 | 36 | 35 | 28 | M27x3 | 1-12 | 40 | 11 | 36 | M27x2 | 1-12 | 35 | 18 | 12,5 | 32 | 21 | 18 | M16x1,5 | 22 | | | | |
| | 28 | 27 | 22 | M20x2,5 | 3/4-16 | 30 | 8 | 28 | M20x1,5 | 3/4-16 | 27 | 14 | 10 | 24 | 18 | 14 | - | - | 11 | | | |
| 80 | 36 | 35 | 28 | M27x3 | 1-12 | 40 | 11 | 36 | M27x2 | 1-12 | 35 | 18 | 12,5 | 32 | 21 | 18 | M16x1,5 | 22 | 12 | 48 | 32 | |
| | 45 | 44 | 35 | M33x3,5 | 1-1/4-12 | 50 | 12 | 45 | M33x2 | 1-1/4-12 | 44 | 22 | 16 | 40 | 33 | 22 | M20x1,5 | 28 | 13 | | | |
| 100 | 36 | 35 | 28 | M27x3 | 1-12 | 40 | 11 | 36 | M27x2 | 1-12 | 35 | 18 | 12,5 | 32 | 21 | 18 | - | - | 9 | | | |
| | 45 | 44 | 35 | M33x3,5 | 1-1/4-12 | 50 | 12 | 45 | M33x2 | 1-1/4-12 | 44 | 22 | 16 | 40 | 33 | 22 | M20x1,5 | 28 | 9 | 51 | 31 | |
| 125 | 56 | 54 | 45 | M42x2 | 1-11/16-18 | 56 | 14 | 56 | M42x2 | 1-11/16-18 | 54 | 26 | 20 | 50 | 40 | 28 | M27x2 | 36 | 9 | | | |
| | 45 | 44 | 35 | M33x3,5 | 1-1/4-12 | 50 | 12 | 45 | M33x2 | 1-1/4-12 | 44 | 22 | 16 | 40 | 33 | 22 | - | - | 9 | | | |
| 160 | 56 | 54 | 45 | M42x2 | 1-11/16-18 | 56 | 14 | 56 | M42x2 | 1-11/16-18 | 54 | 26 | 20 | 50 | 40 | 28 | M27x2 | 36 | 10 | 57 | 35 | |
| | 70 | 68 | 56 | M48x2 | 1-7/8-16 | 63 | 18 | 63 | M48x2 | 1-7/8-16 | 68 | 34 | 25 | 50 | 35 | 35 | M33x2 | 45 | 10 | | | |
| 200 | 56 | 54 | • | M42x2 | 1-11/16-18 | 56 | 14 | 56 | M42x2 | 1-11/16-18 | 54 | 26 | • | 50 | 40 | • | - | - | 10 | | | |
| | 70 | 68 | • | M48x2 | 1-7/8-16 | 63 | 18 | 63 | M48x2 | 1-7/8-16 | 68 | 34 | • | • | 50 | • | - | - | 10 | 57 | 35 | |
| 160 | 90 | 88 | • | M64x3 | 2-1/2-16 | 85 | 18 | 85 | M64x3 | 2-1/2-16 | 88 | 40 | • | • | 64 | • | M42x2 | 56 | 10 | | | |
| | 70 | 68 | • | M48x2 | 1-7/8-16 | 63 | 18 | 63 | M48x2 | 1-7/8-16 | 68 | 34 | • | • | 50 | • | - | - | 10 | 57 | 32 | |
| 200 | 110 | 108 | • | M80x3 | 3-1/8-16 | 95 | 18 | 95 | M80x3 | 3-1/8-16 | 108 | 50 | • | • | 80 | • | M48x2 | 63 | 10 | 57 | 32 | |
| | 90 | 88 | • | M64x3 | 2-1/2-16 | 85 | 18 | 85 | M64x3 | 2-1/2-16 | 88 | 40 | • | • | 64 | • | - | - | 7 | 57 | 32 | |
| | 140 | 136 | • | M100x3 | 4-12 | 112 | 112 | M100x3 | 3-7/8-16 | 136 | 55 | • | • | 95 | • | M64x3 | 85 | | | | | |

Dimensions "C" and "P" as per ISO 4395 available upon request
 Medidas "C" y "P" según ISO 4395 disponible bajo demanda
 Mesures "C" et "P" selon ISO 4395 disponible sur demande
 Misure "C" e "P" secondo ISO 4395 su richiesta

• 3 equally spaced holes for locking; no wrench flats
 Vástago con tres taladros equidistantes para bloqueo, sin plano para llave
 La tige est réalisée avec 3 trous équidistants et ne comporte pas de plats de serrage
 3 fori equidistanti per bloccaggio; senza piano chiave

* dimensions with fixing type "D"
 cotas con fijación "D"
 côte avec fixation "D"
 quote con fissaggio "D"

EN

CHOICE OF CYLINDER VERSION

FR

CHOIX DE LA VERSION DU VÉRIN

DE

ELECCIÓN DE LA VERSIÓN DE CILINDRO

IT

SCelta DELLA VERSIONE DEL CILINDRO

G

M

Z

050

+

MTA27X300

\

MSU1 \ 2

V215CR

| | Description | Descripción | Description | Descrizione |
|---|---|---|---|--|
| M | Cylinder with magnetic preset (switches not included) | Cilindro con predisposición para montaje de sensores (sensores no incluidos) | Vérin avec predisposition pour montage des Détecteurs (détecteurs non inclus) | Cilindro con predisposizione magnetica (sensori non inclusi) |
| N | Cylinder without magnetic preset | Cilindro sin predisposición para montaje de sensores | Vérin sans prédisposition pour montage des détecteurs | Cilindro senza predisposizione magnetica |

EN **MAGNETIC SWITCHES**
usually two for cylinder

ES **SENSORES MAGNÉTICOS FIN DE CARRERA**
generalmente dos por cilindro

FR **DÉTECTEURS MAGNÉTIQUES DE FIN DE COURSE**
usuellement deux par vérin

IT **SENSORI MAGNETICI**
solitamente due per cilindro

CR

| | | | | | |
|-----|-----|---|---|---|---|
| ØX | ØY | C | 0 | G | G |
| 050 | 036 | | | | |

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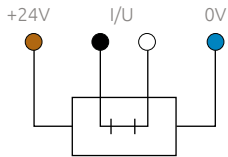
MSU1 \ 1

MSU1 \ 2

None
Ninguno
Aucun
Nessuno

Magnetic Switches
Sensores magnéticos
DéTECTEURS magnétiques
Sensori magnetici

Switches to be ordered separately from the cylinder
Sensores a pedir separadamente del cilindro
DéTECTEURS a commander séparément du Vérin
Sensori da ordinare separatamente al cilindro



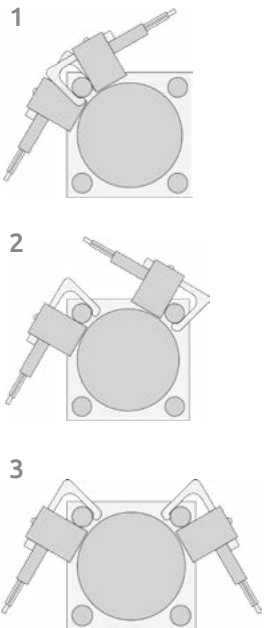
Wire Color Colores cableado Couleurs des conducteurs Colore conduttori

- Brown** Marrón Brun Marrone = +24V DC
- Blue** Azul Bleu Blu = 0V DC
- Black** Negro Noir Nero = In/Out Contact Contacto Contact Contatto
- White** Blanco Blanc Bianco = In/Out Contact Contacto Contact Contatto

I/U = In/Out

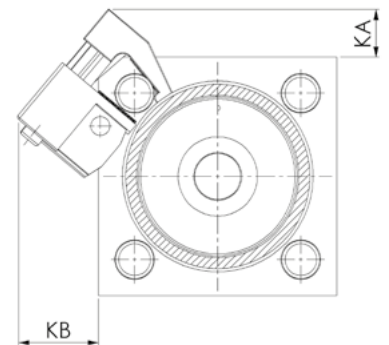
Minimum Stroke for Switches
Carrera mínima para sensores
Corse minimum pour détecteurs
Corsa minima per sensori

| ØX | Mounting type Tipo de montaje Type de montage Tipo di montaggio | | |
|-----|--|----|----|
| | 1 | 2 | 3 |
| | mm | | |
| 25 | 45 | 65 | 20 |
| 32 | 45 | 65 | 20 |
| 40 | 45 | 56 | 20 |
| 50 | 45 | 47 | 20 |
| 63 | 45 | 10 | 20 |
| 80 | 45 | 10 | 20 |
| 100 | 45 | 10 | 20 |
| 125 | 45 | 47 | 20 |
| 160 | 45 | 10 | 20 |



Dimensions (Max.)
Dimensiones espacio (Max.)
Dimensions d'encombrement (Max.)
Dimensioni ingombro (Max.)

| ØX | KA | KB |
|-----|------|------|
| 25 | 16,3 | 28 |
| 32 | 20 | 29,5 |
| 40 | 16 | 26,5 |
| 50 | 16 | 24 |
| 63 | 13 | 21,5 |
| 80 | 6,5 | 14,5 |
| 100 | 10 | 19,5 |
| 125 | 12 | 23 |
| 160 | 10 | 23 |



ØX Bore Camisa Alésage Alesaggio

EN

MAGNETIC SWITCHES LOW PRICE
normal-duty

FR

DÉTECTEURS MAGNÉTIQUES PETITS PRIX
fonction standard

DE

SENSORES MAGNÉTICOS DE BAJO COSTE
para usos standard

IT

SENSORI MAGNETICI A PREZZO CONTENUTO
per servizi normali

G

M

Z

050

+ MTA27X300 \

MSU1 \ 2

MSRF \ 1

MSRF \ 2

MSRG \ 1

MSRG \ 2

Magnetic Switches without Connector

Sensores magnéticos sin conector

Détecteur magnétique

Sensori magnetici senza connettore

Magnetic Switches with Connector

Sensores magnéticos con conector

Détecteur magnétique

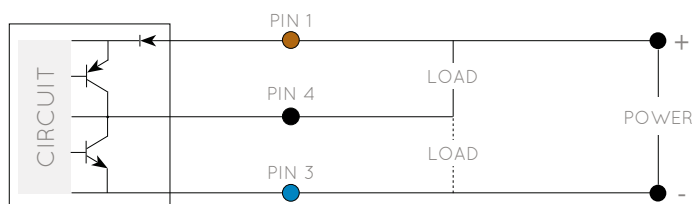
Sensori magnetici con connettore

Switches to be ordered separately from the cylinder

Sensores a pedir separadamente del cilindro

Détecteurs a commander séparément du Vérin

Sensori da ordinare separatamente al cilindro



LOAD CARGA CHARGE CARICO

POWER POTENCIA PUISSANCE ALIMENTAZIONE

NOTES: The brown wires to the positive (+) and the blue to the negative (-) from DC power.

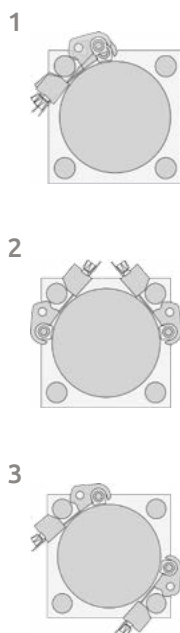
NOTAS: Cable marrón al borne positivo (+) y azul al borne negativo (-) en corriente continua.

NOTES: Fils marron pour borne positive (+) et bleu pour borne négative (-) en courant continu.

NOTE: Cavo marrone al polo positivo (+) e il blu al negativo (-) dell'alimentazione cc.

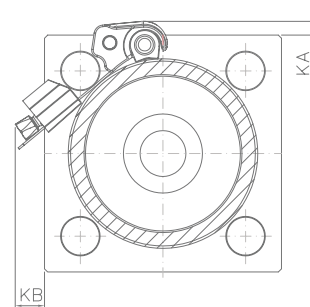
Minimum Stroke with Switches
Carrera mínima con sensores
Course minimum avec détecteurs
Corsa minima con sensori

| ØX | Mounting type Tipo de montaje Type de montage Tipo di montaggio | | |
|-----|--|----|----|
| | 1 | 2 | 3 |
| | mm | | |
| 25 | 35 | 17 | 10 |
| 32 | 35 | 17 | 10 |
| 40 | 35 | 16 | 10 |
| 50 | 35 | 10 | 10 |
| 63 | 35 | 10 | 10 |
| 80 | 35 | 10 | 10 |
| 100 | 35 | 10 | 10 |



Dimensions (Max.)
Dimensiones espacio (Max.)
Dimensions d'encombrement (max.)
Dimensioni ingombro (max.)

| ØX | KA | KB |
|-----|-----|------|
| 25 | 8,5 | 10,5 |
| 32 | 9 | 11,5 |
| 40 | 6,5 | 7 |
| 50 | 5 | 6 |
| 63 | 3,5 | 2,5 |
| 80 | | |
| 100 | | |



ØX Bore Camisa Alésage Alesaggio

EN ROD END ACCESSORIES
for female metric or UNF thread

ES ACCESORIOS VÁSTAGO
para extremidad rosca métrica hembra o UNF

FR ACCESSOIRES DE LA TIGE
pour extrémité taraudée métrique ou UNF

IT ACCESSORI STELO
per estremità filetto femmina metrico o UNF

CR

| | |
|-----|-----|
| ØX | ØY |
| 050 | 036 |

C

0

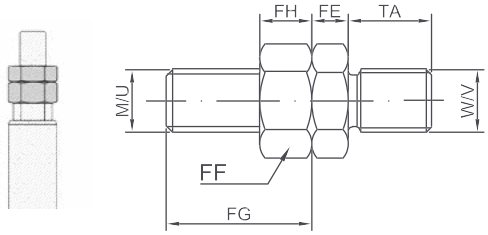
G

G

None Ninguno Aucun Nessuno

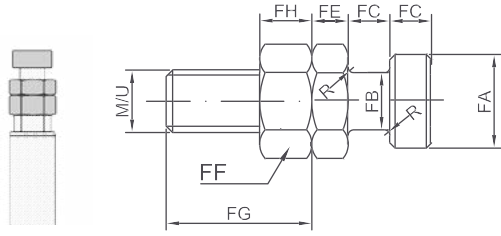
MTA 10X150

Metric Male Thread
Rosca métrica macho
Filetage male métrique
Filetto maschio metrico



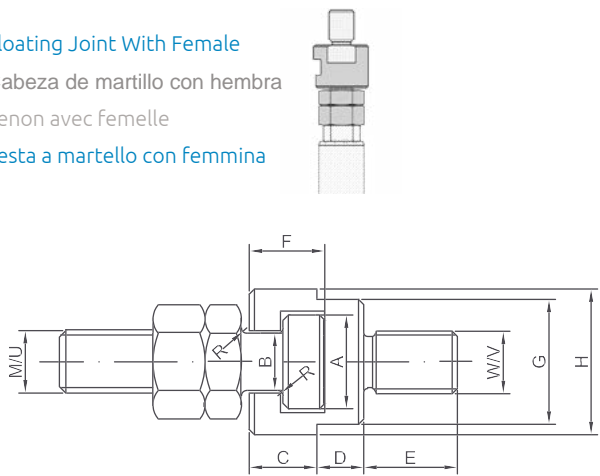
MFA

Floating Joint
Cabeza de martillo
Tenon
Testa a martello



DFA

Floating Joint With Female
Cabeza de martillo con hembra
Tenon avec femelle
Testa a martello con femmina



| METRIC (G) | UNF-UNEF (I) | ØX | ØY | #1 |
|------------|--------------|-----|-----|-----|
| - | - | 12 | - | - |
| 10X150 | 3/8-24 | 25 | 18 | G I |
| - | - | 32 | 14 | - |
| 12X175 | 1/2-20 | 32 | 22 | G I |
| 10X150 | 3/8-24 | 40 | 18 | G I |
| 20X250 | 3/4-16 | 40 | 28 | G I |
| 12X175 | 1/2-20 | 50 | 22 | G I |
| 20X250 | 3/4-16 | 50 | 28 | G I |
| 27X300 | 1-12 | 63 | 36 | G I |
| 20X250 | 3/4-16 | 63 | 28 | G I |
| 27X300 | 1-12 | 63 | 36 | G I |
| 33X350 | 1-1/4-12 | 80 | 45 | G I |
| 27X300 | 1-12 | 80 | 36 | G I |
| 33X350 | 1-1/4-12 | 80 | 45 | G I |
| - | - | 100 | 56 | - |
| 33X350 | 1-1/4-12 | 100 | 45 | G I |
| - | - | 125 | 70 | - |
| - | - | 125 | 56 | - |
| - | - | 125 | 70 | - |
| - | - | 125 | 90 | - |
| - | - | 160 | 70 | - |
| - | - | 160 | 110 | - |
| - | - | 200 | 090 | - |
| - | - | 200 | 140 | - |

#1 : Compatible rod end code
Cód. extremidad vástago compatible
Cod. extrémité tige compatible
Cod. estremità stelo compatibile

ØX Bore Camisa Alésage Alesaggio
ØY Rod Vástago Tige Stelo

| METRIC | | UNF-UNEF | | A | B | C | D | E | F | G | H | FA | FB | FC | FE | FF | FG | | FH | | TA | R | | |
|--------|----------|----------|----------|----------|-----------|------|----|----|----|----|------|----|----|----|----|------|----|----|----|----|----|----|----|-----|
| M | W | U | V | | | | | | | | | | | | | | M | U | M | U | | | | |
| 10X150 | 3/8-24 | M10x1,5 | M10x1,25 | 3/8-24 | 3/8-24 | 17,5 | 11 | 11 | 8 | 16 | 12,5 | 21 | 25 | 16 | 10 | 7 | 6 | 17 | 24 | 24 | 8 | 6 | 14 | 1 |
| 12X175 | 1/2-20 | M12x1,75 | M12x1,25 | 1/2-20 | 1/2-20 | 19,5 | 12 | 13 | 9 | 18 | 14,5 | 24 | 28 | 18 | 11 | 8 | 7 | 19 | 28 | 28 | 10 | 8 | 16 | 1,2 |
| 20X250 | 3/4-16 | M20x2,5 | M20x1,5 | 3/4-16 | 3/4-16 | 24 | 15 | 16 | 10 | 28 | 17,5 | 30 | 36 | 22 | 14 | 10 | 9 | 30 | 44 | 39 | 16 | 11 | 28 | 1,2 |
| 27X300 | 1-12 | M27x3 | M27x2 | 1-12 | 1-12 | 30 | 19 | 20 | 12 | 40 | 23 | 36 | 44 | 28 | 18 | 12,5 | 12 | 36 | 57 | 52 | 22 | 14 | 36 | 1,5 |
| 33X350 | 1-1/4-12 | M33x3,5 | M33x2 | 1-1/4-12 | 1-5/16-18 | 39 | 23 | 23 | 14 | 50 | 27,5 | 46 | 55 | 35 | 22 | 16 | 14 | 46 | 64 | 64 | 14 | 27 | 45 | 2 |

NOTES: For dimensions where no tolerance is indicated, refer to DIN norm 7168-m. NOTAS: Para dimensiones sin indicación de tolerancia, regirse por la norma DIN 7168-m. NOTE: Pour les dimensions où la tolerance n'est pas indiquée, adressez-vous aux normes DIN 7168-m. NOTE: Per le dimensioni senza indicazione di tolleranza, riferirsi alla norma DIN 7168-m.

EN ROD END ACCESSORIES
for male metric thread

FR ACCESSOIRES DE LA TIGE
pour extrémité filetée métrique ou UNF

ES ACCESORIOS VÁSTAGO
para extremidad rosca métrica macho

IT ACCESSORI STELO
per estremità filetto maschio metrico

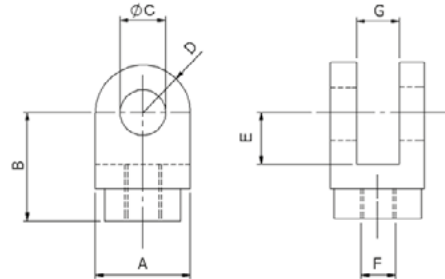
V215CR

G M Z 050 + MTA27X300 \ MSU1 \ 2

RCA

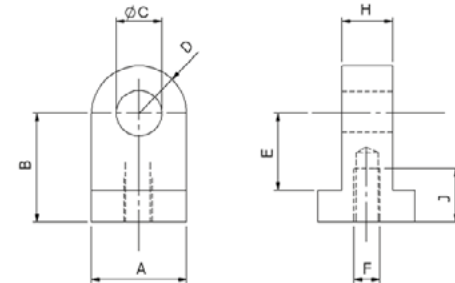
10X125

Rod Clevis
Charnela hembra
Chape femelle
Forcella



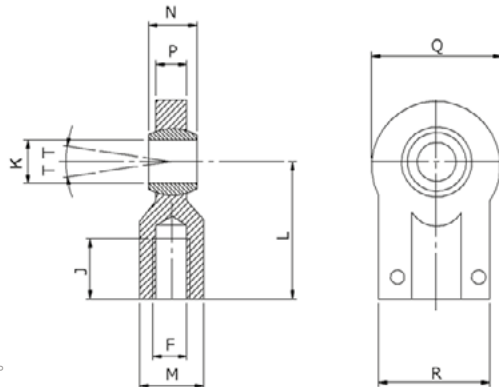
PRA

Plain Rod Eye
Charnela macho
Chape male
Occhione



REA

Rod Eye with Spherical Bearing
Charnela rótula
Embout rotulé
Occhione snodato



NOTE: T= minimum tilting angle 3°
BEMERKUNGEN: T=Min. Kippwinkel 3°
NOTE: T= angle de mouvement minimal 3°
NOTA: T= angolo di ribaltamento minimo 3°

#1 : Compatible rod end code
Cod. extremidad vástago compatible
Cod. extrémité tige compatible
Cod. estremità stelo compatibile

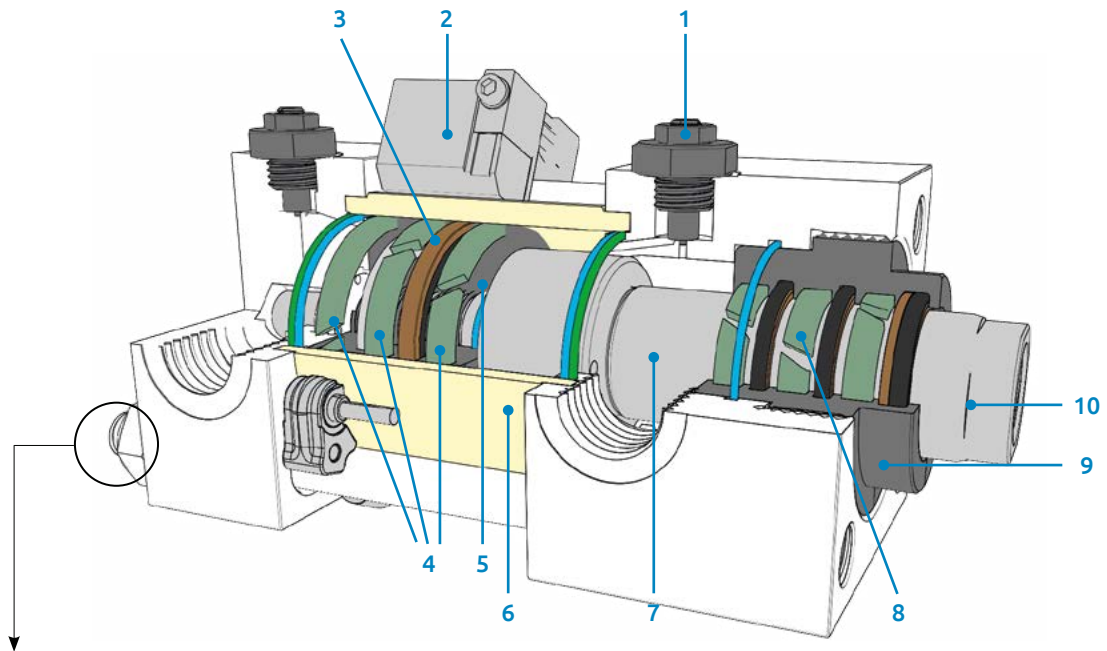
| | ØX | ØY | #1 |
|--------|-----|-----|----|
| 10X125 | 25 | 12 | A |
| | | 18 | E |
| 12X125 | 32 | 14 | A |
| | | 22 | E |
| 14X150 | 25 | 18 | A |
| | 40 | 28 | E |
| 16X150 | 32 | 22 | A |
| | 50 | 22 | A |
| | 63 | 36 | E |
| 20X150 | 40 | 28 | A |
| | 50 | 28 | A |
| | 63 | 28 | A |
| | 80 | 45 | E |
| | 80 | 45 | E |
| 27X200 | 50 | 36 | A |
| | 63 | 36 | A |
| | 80 | 36 | A |
| | 100 | 56 | E |
| 33X200 | 63 | 45 | A |
| | 80 | 45 | A |
| | 100 | 45 | A |
| | 125 | 70 | E |
| 42X200 | 80 | 56 | A |
| | 100 | 56 | A |
| | 125 | 56 | A |
| | | 90 | E |
| 48X200 | 100 | 70 | A |
| | 125 | 70 | A |
| | 160 | 70 | A |
| | | 110 | E |
| 64X300 | 125 | 90 | A |
| | 200 | 90 | A |
| | | 140 | E |

ØX Bore Carrera Alésage Alesaggio
ØY Rod Vástago Tige Stelo

| | A | B | ØC | D | E | F | GA16 | J | K | L | M | N | P | Q | R |
|--------|-----|------|----|------|----|----------|--------|----|-----|------|-----|-----|-----|-----|-----|
| | | Js13 | h9 | max. | | | H Js13 | | h7 | Js13 | | h12 | h13 | | |
| 10X125 | 28 | 32 | 10 | 12,5 | 13 | M10x1,25 | 12 | 14 | 12 | 42 | 17 | 10 | 8 | 40 | 40 |
| 12X125 | 34 | 36 | 12 | 17 | 19 | M12x1,25 | 16 | 16 | 16 | 48 | 21 | 14 | 11 | 45 | 45 |
| 14X150 | 45 | 38 | 14 | 19 | 19 | M14x1,5 | 20 | 18 | 20 | 58 | 25 | 16 | 13 | 55 | 55 |
| 16X150 | 62 | 54 | 20 | 29 | 32 | M16x1,5 | 30 | 22 | 25 | 68 | 30 | 20 | 17 | 65 | 62 |
| 20X150 | 62 | 60 | 20 | 29 | 32 | M20x1,5 | 30 | 28 | 30 | 85 | 36 | 22 | 19 | 80 | 80 |
| 27X200 | 76 | 75 | 28 | 38 | 39 | M27x2 | 40 | 36 | 40 | 105 | 45 | 28 | 23 | 100 | 90 |
| 33X200 | 90 | 99 | 36 | 45 | 54 | M33x2 | 50 | 45 | 50 | 130 | 55 | 35 | 30 | 125 | 105 |
| 42X200 | 120 | 113 | 45 | 53 | 57 | M42x2 | 60 | 56 | 60 | 150 | 68 | 44 | 38 | 160 | 134 |
| 48X200 | 140 | 126 | 56 | 59 | 63 | M48x2 | 70 | 63 | 80 | 185 | 78 | 55 | 47 | 205 | 156 |
| 64X300 | 160 | 168 | 70 | 78 | 83 | M64x3 | 80 | 85 | 100 | 240 | 100 | 70 | 57 | 240 | 190 |

NOTES: For dimensions where no tolerance is indicated, refer to DIN norm 7168-m. NOTAS: Para dimensiones sin indicación de tolerancia, regirse por la norma DIN 7168-m.
NOTE: Pour les dimensions où la tolérance n'est pas indiquée, adressez-vous aux normes DIN 7168-m. NOTE: Per le dimensioni senza indicazione di tolleranza, riferirsi alla norma DIN 7168-m.

| | | | | |
|----|---|----------------------|------------------------|-----------------------------|
| 1 | Cushioning and air bleed screw with locknut Tornillo de regulación amortiguación y purga con contratuerca Vis de régulation amortissement et purge avec contre écrou Vite reg. ammortizzo e sfiato aria con controdado | | | |
| 2 | Magnetic switch | Sensor magnético | Détecteur magnétique | Sensore magnetico |
| 3 | Magnet | Imán | Aimant | Magnete |
| 4 | Piston seals | Juntas pistón | Série joints du piston | Guarnizioni pistone |
| 5 | Piston | Pistón | Piston | Pistone |
| 6 | Tube | Camisa | Tube | Camicia |
| 7 | Rod | Vástago | Tige | Stelo |
| 8 | Rod seals | Juntas vástago | Joints de la tige | Guarnizioni stelo |
| 9 | Rod cartridge | Cartucho del vástago | Cartouche de la tige | Cartuccia porta guarnizioni |
| 10 | Rod end | Extremidad vástago | Extrémité de la tige | Estremità dello stelo |



Tightening Torque for Rod Nuts Par de apriete para las tuercas de los tirantes
C couple de serrage pour les écrous des tirants **Coppia di serraggio dei dadi per i tiranti**

| ØX | Nm |
|-----|------|
| 25 | 6 |
| 32 | 10 |
| 40 | 20 |
| 50 | 75 |
| 63 | 75 |
| 80 | 170 |
| 100 | 170 |
| 125 | 400 |
| 160 | 650 |
| 200 | 1150 |

| Type Modelo Modèle Modello | Cylinder Bore Camisa del cilindro Alésage vérin Alesaggio cilindro | Cylinder Rod Vástago del cilindro Tige du vérin Stelo cilindro | Article Code Código artículo Code Article Codice articolo | Additional Set Code Código de conjunto Indication d'ensemble Indicazione d'assieme | Cylinder Stroke Carrera del cilindro Course du vérin Corsa cilindro | | | | | | | | | | |
|-------------------------------------|---|---|--|---|--|----|-----|-----|------|-----|---|--|---|--|---------|
| RR | 025 | 012 | 0310 | A | | RR | ... | ... | 6010 | A | Rod seals kit | Serie juntas vástago | Série joints de la tige | Serie guarnizioni stelo | 8 |
| RR | | | | | | RR | ... | | 6020 | A | Piston seals kit | Serie juntas pistón | Série joints du piston | Serie guarnizioni pistone | 4 |
| RR | | | | | | RR | ... | ... | 0310 | | Rod cartridge without seals | Cartucho del vástago sin juntas | Cartouche de la tige sans joints | Cartuccia stelo senza guarnizioni | 9 |
| RR | | | | | | RR | ... | ... | 0310 | A | Rod cartridge with seals | Cartucho del vástago con juntas | Cartouche de la tige avec joints | Cartuccia stelo con guarnizioni | 8+9 |
| RR | | | | | | RR | ... | | 1912 | ... | Tube for magnetic cylinder | Camisa para cilindro magnético | Tube du vérin magnétique | Camicia per cilindro magnetico | 6 |
| RR | | | | | | RR | ... | | 1911 | ... | Tube for non magnetic cylinder | Camisa para cilindro no magnético | Tube du vérin non magnétique | Camicia per cilindro non magnetico | 6 |
| RR | | | | | | RR | ... | | 1510 | A | Magnetic piston with seals | Pistón para cilindro magnético con juntas | Piston pour vérin magnétique avec joints | Pistone magnetico con guarnizioni | 3+4+5 |
| RR | | | | | | RR | ... | | 1512 | A | Non-magnetic piston with seals | Pistón para cilindro no magnético con juntas | Piston pour vérin non magnétique avec joints | Pistone non magnetico con guarnizioni | 4+5 |
| RR | | | | | | RR | ... | | 6050 | | Magnet | Imán | Aimant | Magnete | 3 |
| RR | | | | | | RR | ... | | 2510 | A | Screw with locknut for cushioning | Tornillo con tuerca para regulación amortiguación | Vis avec écrou pour réglage de l'amortissement | Vite con dado per regolaz. ammortizzo | 1 |
| RR | | | | | | RR | ... | ... | 110 | ... | Rod without cushioning | Vástago sin amortiguación | Tige non amortie | Stelo non ammortizzato | 7 |
| RR | | | | | | RR | ... | ... | 113 | ... | Rod with cushioning | Vástago con amortiguación | Tige amortie | Stelo ammortizzato | 7 |
| RR | | | | | | RR | ... | ... | 154 | A | Non-magnetic rod-piston without cushioning | Vástago-pistón no magnético sin amortiguación | Tige-piston non magnétique sans amortissement | Stelo-pistone non magnetico non ammortizzo | 4+5+7 |
| RR | | | | | | RR | ... | ... | 156 | A | Non-magnetic rod-piston with rear cushioning | Vástago-pistón no magnético con amortiguación trasera | Tige-piston non magnétique avec amortissement arrière | Stelo-pistone non magnetico ammortizzo post | 4+5+7 |
| RR | | | | | | RR | ... | ... | 155 | A | Non-magnetic rod-piston with head cushioning | Vástago-pistón no magnético con amortiguación delantera | Tige-piston non magnétique avec amortissement avant | Stelo-pistone non magnetico ammortizzo ant. | 4+5+7 |
| RR | | | | | | RR | ... | ... | 157 | A | Non-magnetic rod-piston with head and rear cushioning | Vástago-pistón no magnético con doble amortiguación del. + tras. | Tige-piston non magnétique avec double amortissement | Stelo-pistone non magnetico ammortizzo ant + post. | 4+5+7 |
| RR | | | | | | RR | ... | ... | 150 | A | Magnetic rod-piston without cushioning | Vástago-pistón magnético sin amortiguación | Tige-piston magnétique sans amortissement | Stelo-pistone magnetico non ammortizzo | 3+4+5+7 |
| RR | | | | | | RR | ... | ... | 152 | A | Magnetic rod-piston with rear cushioning | Vástago-pistón magnético con amortiguación trasera | Tige-piston magnétique avec amortissement arrière | Stelo-pistone magnetico ammortizzo post. | 3+4+5+7 |
| RR | | | | | | RR | ... | ... | 151 | A | Magnetic rod-piston with head cushioning | Vástago-pistón magnético con amortiguación delantera | Tige-piston magnétique avec amortissement avant | Stelo-pistone magnetico ammortizzo ant. | 3+4+5+7 |
| RR | | | | | | RR | ... | ... | 153 | A | Magnetic rod-piston with head and rear cushioning | Vástago-pistón magnético con doble amortiguación del. + tras. | Tige-piston magnétique avec double amortissement | Stelo-pistone magnetico ammortizzo ant. + post. | 3+4+5+7 |

| | | | | | |
|---|-----------------------------|-----------------------------|---|------------------------------|----|
| 0 | Metric male thread "A" | Rosca métrica macho "A" | Filetage male métrique "A" | Filetto maschio metrico "A" | |
| 1 | Metric female thread "G" | Rosca métrica hembra "G" | Tarudage métrique "G" | Filetto femmina metrico "G" | |
| 2 | Floating joint "F" | Cabeza de martillo "F" | Tenon "F" | Testa a martello "F" | |
| 3 | Metric male thread "E" | Rosca métrica macho "E" | Filetage male métrique "E" | Filetto maschio metrico "E" | 10 |
| 4 | UNF-UNEF male thread "H" | Rosca macho UNF-UNEF "H" | Filetage male UNF-UNEF "H" | Filetto maschio UNF-UNEF "H" | |
| 5 | UNF-UNEF female thread "I" | Rosca hembra UNF-UNEF "I" | Tarudage UNF-UNEF "I" | Filetto femmina UNF-UNEF "I" | |
| 6 | Floating joint "W" | Cabeza de martillo | Tenon "W" | Testa a martello "W" | |
| 7 | Rod end type on drawing "S" | Extremidad vástago a diseño | Extrémité de la tige suivant dessin "S" | Terminale a disegno "S" | |

Rod end type to be communicated for rod and rod-piston group.

La extremidad del vástago debe ser indicada para vástago y conjunto vástago-pistón.

L'extrémité de la tige doit être communiquée pour tige et groupe tige-piston.

Estremità stelo da indicare per stelo e gruppo stelo-pistone.



Distribuidor oficial VEGA Cylinders España

