

HMD-HMI-HMP

CILINDROS HIDRÁULICOS | HYDRAULIC CYLINDERS

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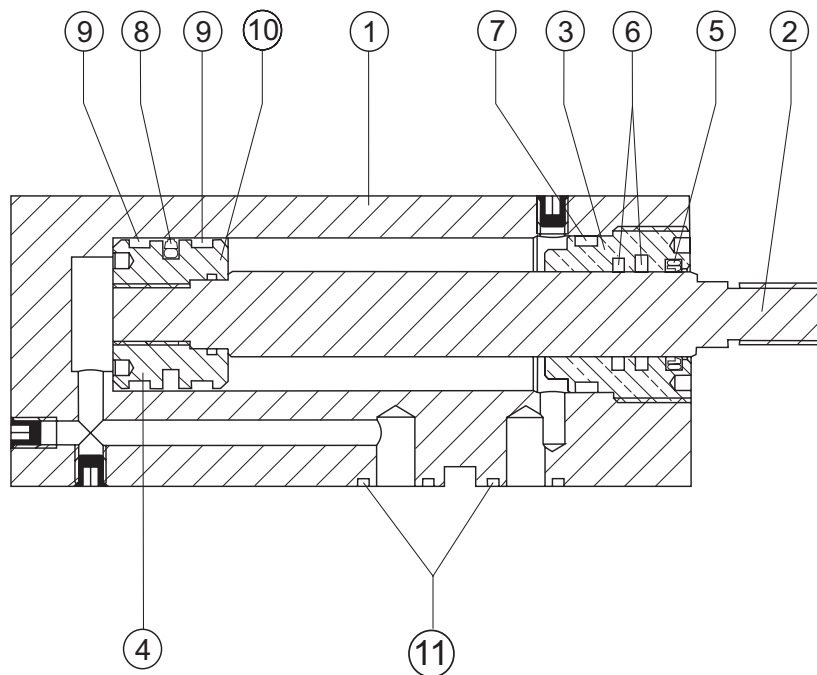
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|---|---|
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| | |
|---|----|
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CARACTERÍSTICAS GENERALES SPECIFICATIONS

| | |
|---|---|
| Presión máxima Maximum pressure | 250 bar. |
| Velocidad máxima de funcionamiento Maximum speed functioning | 15m/min |
| Fluido Fluid | Aceite mineral 2,5° a 6° Engler a 50°C Mineral oil 2,5° to 6° Engler to 50°C |
| Temperatura Temperature | 20 a +80°C. Hasta 170°C - Vitón 20 a +80°C. To 170°C - Vitón |
| Filtración Filtration | ISO 17/14 |



DESCRIPCIÓN

| | |
|----|-----------------------|
| 01 | Cuerpo |
| 02 | Vástago* |
| 03 | Guía Vástago |
| 04 | Pistón |
| 05 | Rascador |
| 06 | Junta Vástago |
| 07 | Junta Tórica Guía |
| 08 | Junta Pistón |
| 09 | Guía Pistón |
| 10 | Junta Tórica |
| 11 | Junta Tórica Fijación |

DESCRIPTION

| | |
|----|-----------------------|
| 01 | Body |
| 02 | Rod |
| 03 | Rod Guide |
| 04 | Piston |
| 05 | Wiper |
| 06 | Rod Seal |
| 07 | Guide Dring Seal |
| 08 | Piston Seal |
| 09 | Piston Guide |
| 10 | Dring Seal |
| 11 | Attachment Dring Seal |

*Vástago F-125. Acero cromado

FUERZAS TEÓRICAS DE CILINDROS Presión-bar THEORETICAL FORCES OF CYLINDERS Pressure-bar

| Ø | Sección cm ² Section cm ² | 90 bar | 120 bar | 140 bar | 160 bar | 180 bar | 200 bar |
|-----|--|--------|---------|---------|---------|---------|---------|
| 32 | 8,04 | 723 | 965 | 1126 | 1286 | 1447 | 1608 |
| 40 | 12,56 | 1130 | 1500 | 1760 | 2009 | 2260 | 2512 |
| 50 | 19,63 | 1766 | 2350 | 2740 | 3140 | 3530 | 3925 |
| 63 | 31,17 | 2805 | 3740 | 4363 | 4987 | 5610 | 6230 |
| 80 | 50,26 | 4523 | 6031 | 7039 | 8040 | 9045 | 10052 |
| 100 | 78,54 | 7065 | 9420 | 10995 | 12565 | 14135 | 15705 |
| 125 | 122,72 | 11045 | 14725 | 17180 | 19635 | 22090 | 24540 |

FUERZA A LA TRACCIÓN Presión-bar FORCE TO TRACTION Pressure-bar

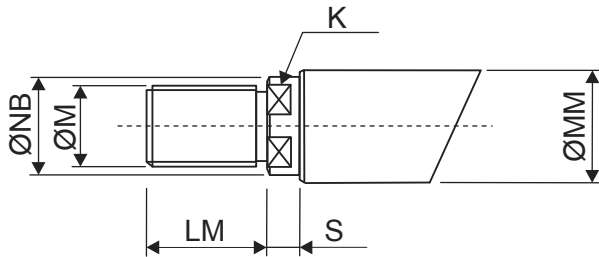
| Ø | Vástago Rod | Sección diferencial Differential | 90 bar | 120 bar | 140 bar | 160 bar | 180 bar | 200 bar |
|-----|----------------|--|--------|---------|---------|---------|---------|---------|
| 32 | 18 | 5,50 | 495 | 660 | 770 | 880 | 990 | 1100 |
| 40 | 22 | 8,76 | 789 | 1052 | 1227 | 1402 | 1578 | 1753 |
| 50 | 28 | 13,48 | 1213 | 1617 | 1888 | 2155 | 2425 | 2695 |
| 63 | 36 | 21,00 | 1885 | 2515 | 2935 | 3355 | 3775 | 4195 |
| 80 | 45 | 34,36 | 3090 | 4120 | 4810 | 5495 | 6185 | 6870 |
| 100 | 56 | 53,91 | 4850 | 6465 | 7545 | 8625 | 9700 | 10780 |
| 125 | 70 | 84,24 | 7580 | 10105 | 11790 | 13475 | 15160 | 16845 |

CILINDROS HIDRÁULICOS HYDRAULIC CYLINDERS

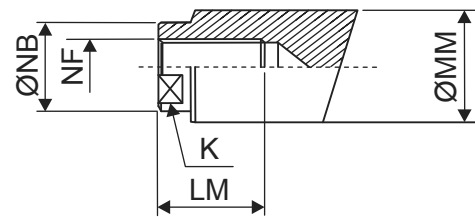
SERIE
HMD HMI HMP

EXTREMO VÁSTAGO / ROD END

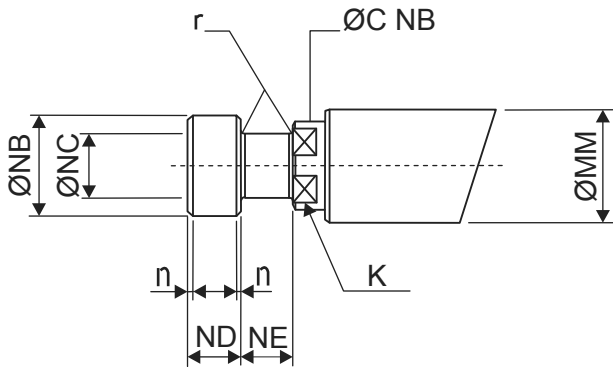
TERMINAL MACHO TIPO 1
MALE END TYPE 1



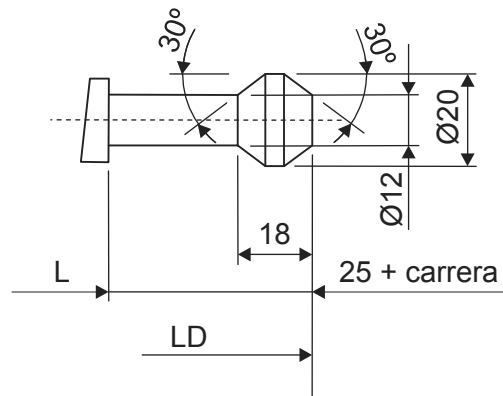
ROSCA INTERIOR TIPO 2
INTERIOR THREAD TYPE 2



CABEZA MARTILLO TIPO 3
HAMMER HEAD TYPE 3

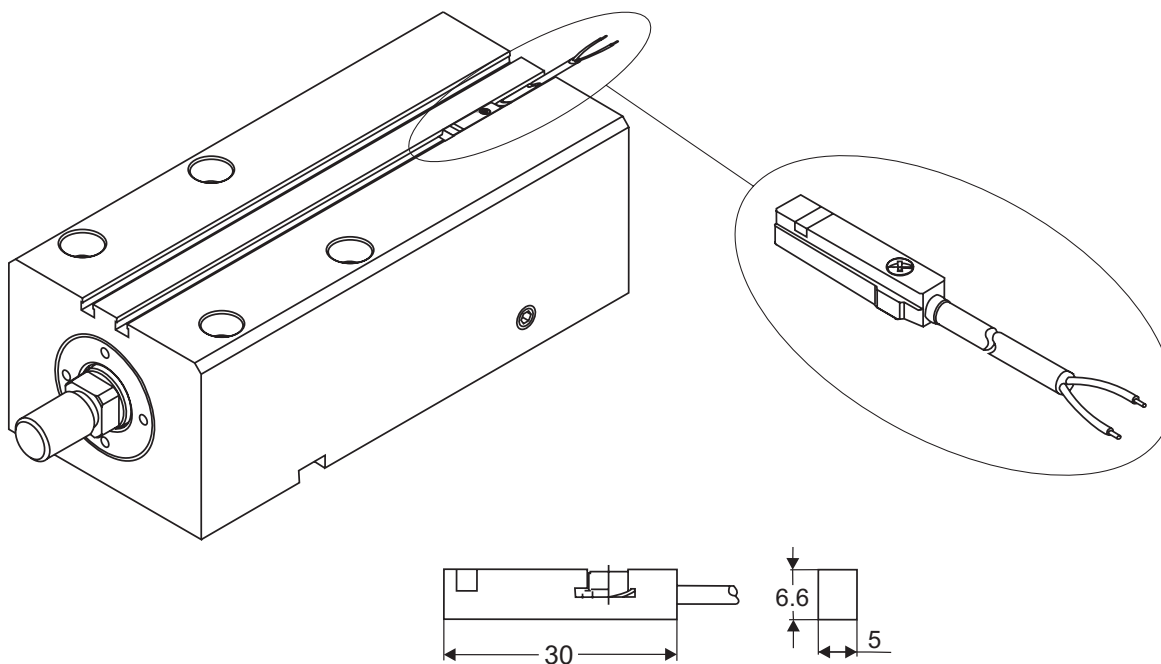


VÁSTAGO INFORMACIÓN TIPO D
INFORMATION ROD TYPE D

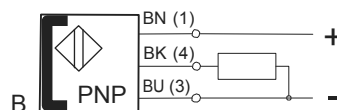
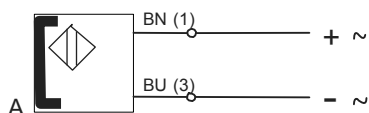


| Diámetro Diameter Dimensions Dimensiones | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|---|----------------|---------|---------|---------|---------|---------|---------|---------|
| | MM Vástago/Rod | 16 | 18 | 22 | 28 | 36 | 45 | 56 |
| K | 12 | 14 | 17 | 22 | 30 | 36 | 46 | 60 |
| LM | 20 | 20 | 25 | 30 | 40 | 50 | 60 | 70 |
| M | M12x125 | M12x125 | M16x150 | M20x150 | M27x200 | M33x200 | M42x200 | M52x200 |
| NB | 14 | 16 | 20 | 25 | 33 | 42 | 53 | 67 |
| NC | 8 | 10 | 13 | 16 | 22 | 30 | 36 | 46 |
| ND | 6 | 8 | 10 | 13 | 16 | 20 | 30 | 30 |
| NE | 6 | 8 | 10 | 13 | 16 | 20 | 30 | 30 |
| n | 0,5 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| r | 1 | 1 | 1 | 1 | 2 | 2 | 2 | 2 |
| NF | M8x125 | M8x125 | M10x150 | M16x150 | M20x150 | M27x200 | M33x200 | M42x200 |
| S | 5 | 6 | 8 | 8 | 10 | 12 | 12 | 13 |

SENSORES MAGNÉTICOS / PROXIMITY SWITCHES



| CARACTERÍSTICAS TÉCNICAS / SPECIFICATIONS | | DMU2 | DMU3 |
|---|-----------------|--------|--------|
| Circuito eléctrico / Electric circuit | | REED | REED |
| Conexión / Connection | | - | PNP |
| Indicación / Indicating | | LED | LED |
| Tensión / Voltage | V dc | 3,,130 | 5,,30 |
| Tensión / Voltage | V ac | 3,,130 | 5,,30 |
| Máxima corriente / Max current | A | 0,050 | 0,050 |
| Tamaño cable / Cable size | mm ² | 2x0,14 | 3x0,14 |
| Longitud / Length | | 3m | 3m |
| Tipo circuito / Circuit style | | A | B |



DESIGNACIÓN CILINDROS HMD

MODEL CODE FOR HMD CYLINDERS

| Serie Series | Pistón Piston | Extremo Vástago Rod End | Carrera Stroke | Tipo de vástago Rod Type | Tipo juntas Seal type | Cota X X Dimension |
|--------------|---------------|--------------------------------------|--------------------|-----------------------------|---------------------------|------------------------|
| D | 02 025 | A Rosca Exterior Exterior Coil | 000 Carrera Stroke | S Simple Vástago Simple Rod | S J. Standard Standard S. | 000 Cota X Dimension X |
| | 03 032 | B Rosca Interior Interior Coil | | D* Doble Vástago Double Rod | V J. Vitón Viton S. | |
| | 04 040 | C Rosca C. Martillo Head Hammer Coil | | M Magnético Magnetic | | |
| | 05 050 | | | | | |
| | 06 063 | | | | | |
| | 08 080 | | | | | |
| | 10 100 | | | | | |
| | 12 125 | | | | | |

* Vástago de información

MAGNÉTICO / MAGNETIC

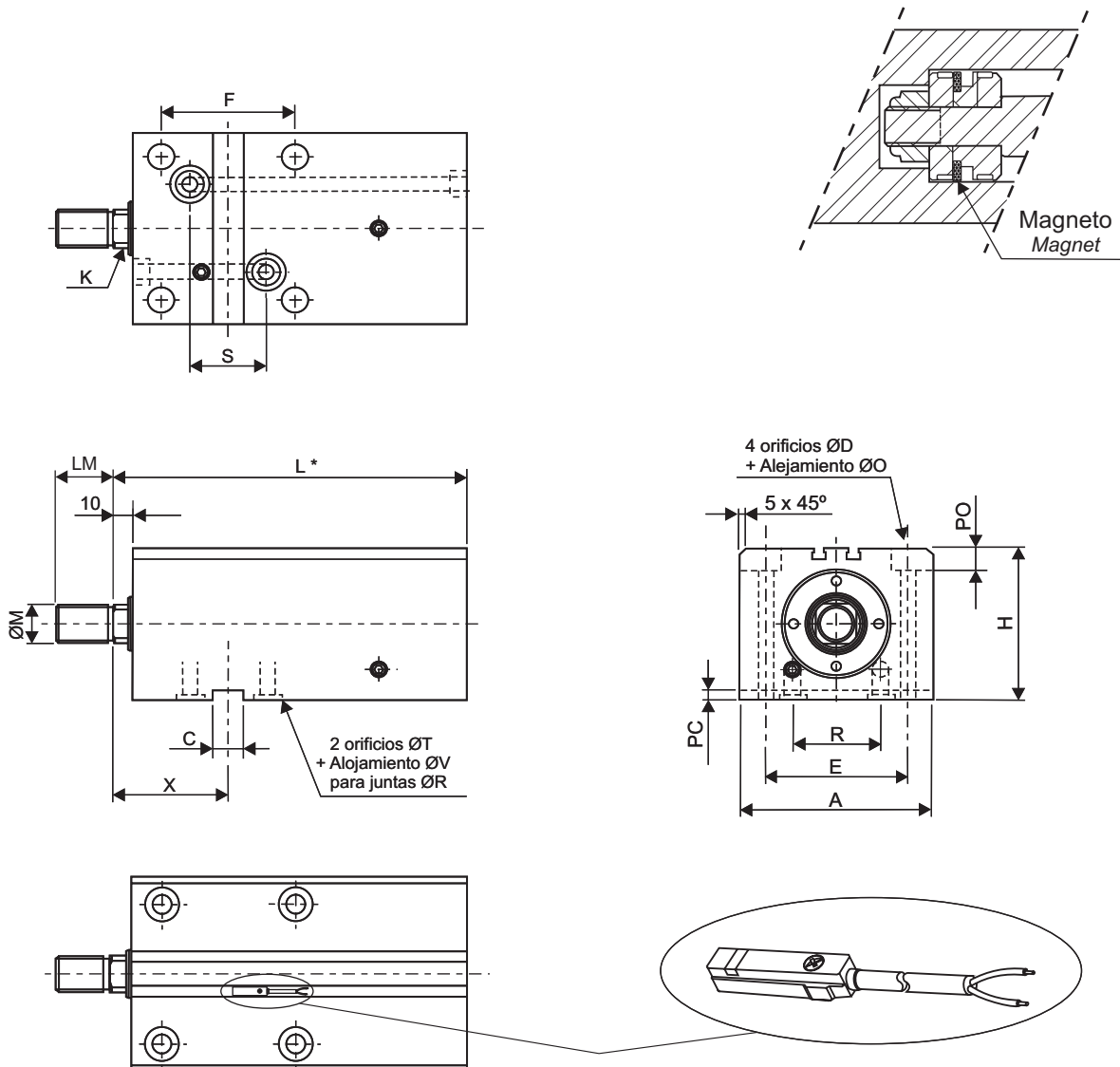
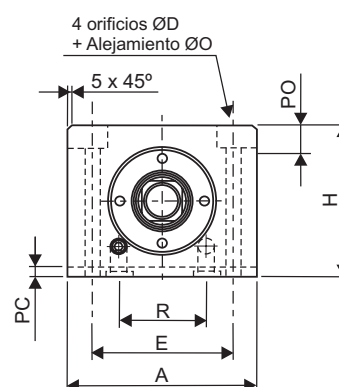
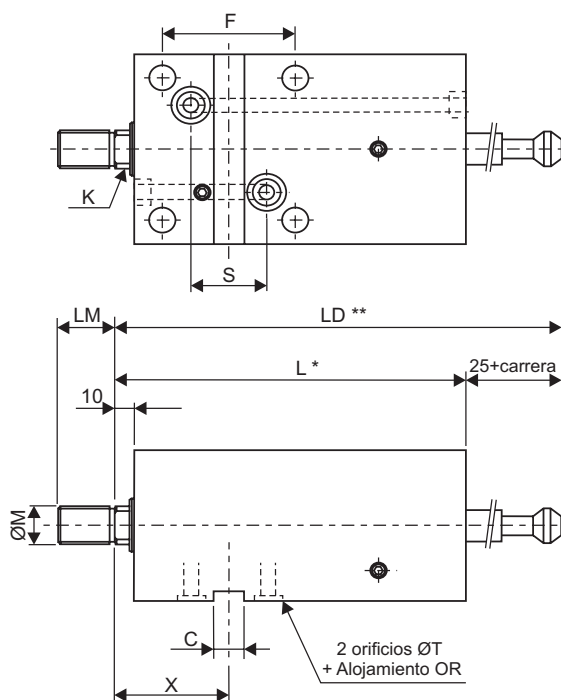


TABLA DE DIMENSIONES

DIMENSIONS TABLE



| Diámetro Diameter | | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|----------------------|--------|-----------|-----------|-----------|---------|---------|---------|---------|
| Ø Vástago / Rod | | 18 | 22 | 28 | 36 | 45 | 56 | 70 |
| A | | 80 | 90 | 100 | 120 | 140 | 160 | 190 |
| C H8 | | 10 | 12 | 16 | 16 | 20 | 20 | 20 |
| ØD | | 9 | 9 | 13 | 13 | 13 | 15 | 17 |
| E | | 58 | 65 | 75 | 90 | 110 | 130 | 160 |
| F | | 50 | 60 | 70 | 70 | 80 | 80 | 90 |
| H | | 60 | 70 | 80 | 100 | 110 | 130 | 160 |
| K | | 14 | 17 | 20 | 28 | 36 | 50 | 60 |
| L* | | 115 | 130 | 130 | 170 | 170 | 170 | 195 |
| LD** | | 140 | 155 | 155 | 195 | 195 | 195 | 220 |
| LM | | 20 | 25 | 30 | 40 | 50 | 60 | 70 |
| ØM | | M12x125 | M16x150 | M20x150 | M27x200 | M33x200 | M42x200 | M52x200 |
| ØO | | 15 | 15 | 20 | 20 | 20 | 23 | 26 |
| PC | | 5 | 5 | 5 | 5 | 5 | 5 | 5 |
| PO | | 10 | 10 | 15 | 15 | 15 | 18 | 20 |
| R | | 36 | 40 | 46 | 50 | 70 | 80 | 100 |
| S | | 30 | 35 | 40 | 40 | 45 | 45 | 50 |
| T | | 8 | 10 | 10 | 12 | 14 | 14 | 14 |
| V | | 16 | 20 | 20 | 22 | 24 | 24 | 24 |
| X | mínimo | 52 | 62 | 69 | 70 | 75 | 81 | 90 |
| | Máximo | 73+* | 78+* | 71+* | 85+* | 105+* | 99+* | 110+* |
| Ref. Junta Tórica | | Or 10x2,5 | Or 15x2,5 | Or 15x2,5 | Or 15x3 | Or 18x3 | Or 18x3 | Or 20x3 |

* : 1 carrera

** : 2 carreras (doble vástago)

CILINDROS HIDRÁULICOS HYDRAULIC CYLINDERS

SERIE HMI

DESIGNACIÓN CILINDROS HMI

MODEL CODE FOR HMI CYLINDERS

| Serie Series | Pistón Piston | Extremo Vástago Rod End | Carrera Stroke | Tipo de vástago Rod Type | Tipo juntas Seal type | Cota X X Dimension |
|-----------------|------------------|---|-----------------------|--------------------------------|------------------------------|---------------------------|
| I | 02 025 | A Rosca Exterior Exterior Coil | 000 Carrera Stroke | S Simple Vástago Simple Rod | S J. Standard Standard S. | 000 Cota X Dimension X |
| | 03 032 | B Rosca Interior Interior Coil | | D* Doble Vástago Double Rod | V J. Vitón Viton S. | |
| | 04 040 | C Rosca C. Martillo Head Hammer Coil | | M Magnético Magnetic | | |
| | 05 050 | | | | | |
| | 06 063 | | | | | |
| | 08 080 | | | | | |
| | 10 100 | | | | | |
| | 12 125 | | | | | |

* Vástago de información

MAGNÉTICO / MAGNETIC

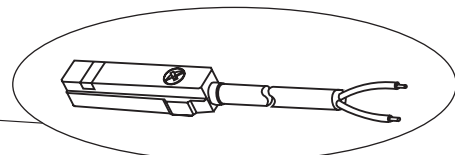
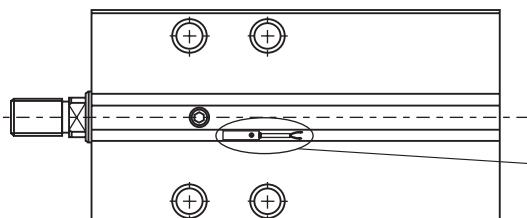
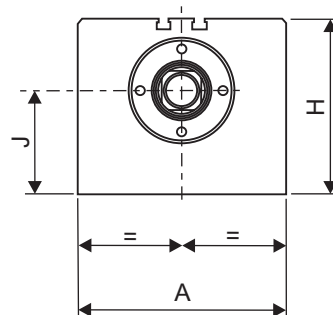
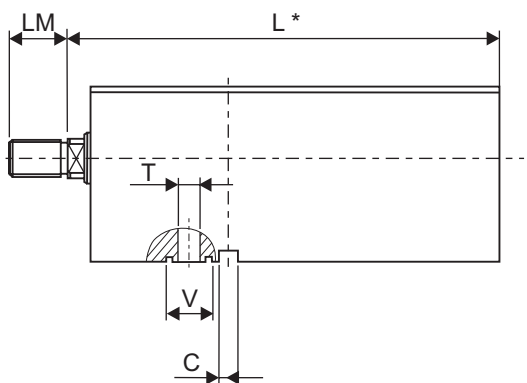
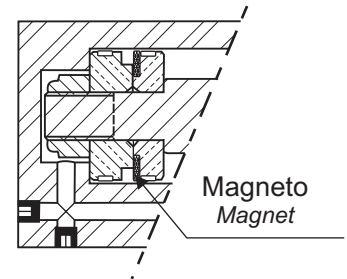
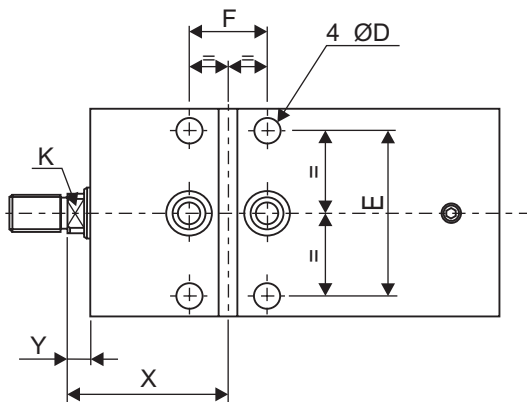
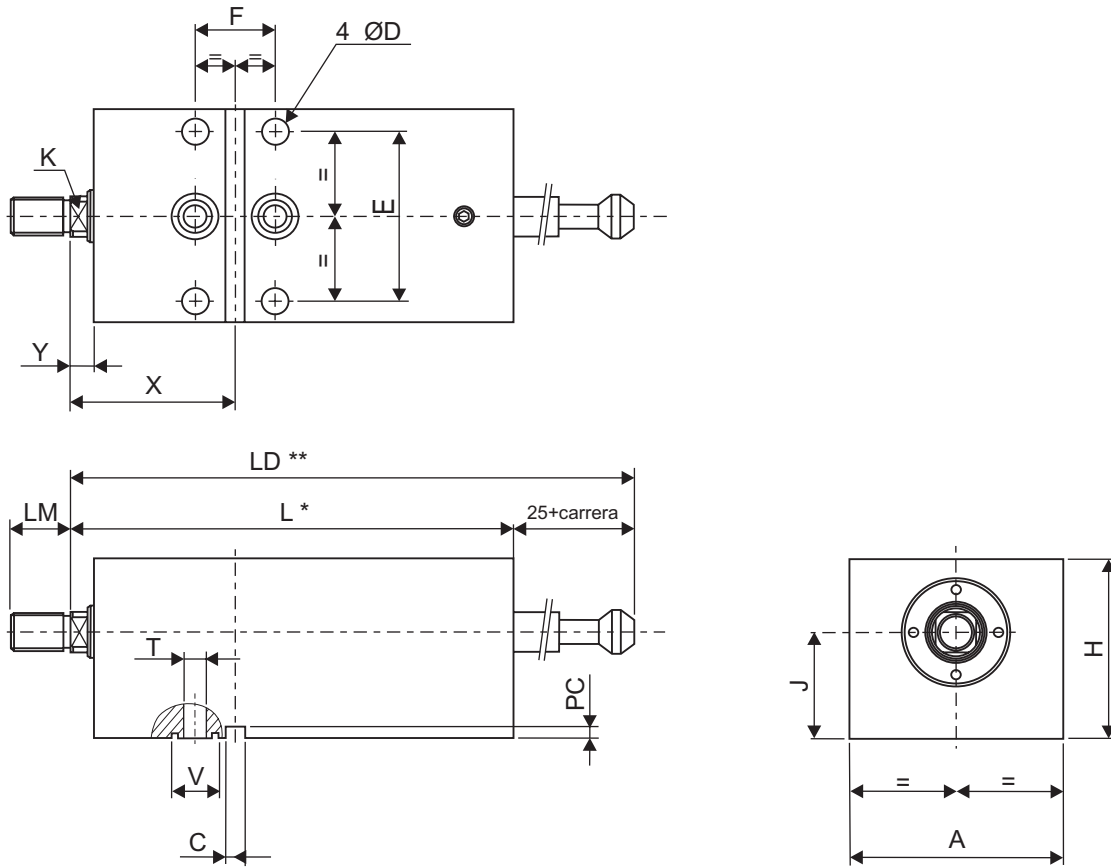


TABLA DE DIMENSIONES / DIMENSIONS TABLE



| Dimensions Dimensiones | Diámetro Diameter | | | | | | | | |
|---------------------------|----------------------|--------------------|-----------|-----------|-----------|-----------|-----------|-----------|----|
| | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 | |
| Ø Vástago / Rod | 16 | 18 | 22 | 28 | 36 | 45 | 56 | 70 | |
| A | 60 | 75 | 90 | 100 | 120 | 150 | 170 | 200 | |
| C H8 | 6 | 8 | 8 | 10 | 12 | 16 | 16 | 20 | |
| Ø D | 6,6 | 9 | 11 | 11 | 13 | 13 | 15 | 17 | |
| E | 46 | 62 | 72 | 82 | 98 | 126 | 146 | 170 | |
| F | 23 | 29 | 34 | 35 | 42 | 44 | 48 | 56 | |
| H | 50 | 66 | 76 | 86 | 106 | 130 | 155 | 182 | |
| J | 26 | 38 | 45 | 50 | 60 | 70 | 85 | 100 | |
| K | 12 | 14 | 17 | 22 | 30 | 36 | 46 | 60 | |
| L* | 73 | 90 | 105 | 105 | 130 | 139 | 154 | 180 | |
| LD** | 98 | 115 | 130 | 130 | 155 | 164 | 179 | 205 | |
| PC | 4 | 5 | 5 | 5 | 5 | 5 | 5 | 5 | |
| Ø T | 5 | 8 | 10 | 10 | 12 | 14 | 14 | 14 | |
| Ø V +0,2 | 13 | 16 | 20 | 20 | 22 | 24 | 24 | 24 | |
| X | mínima | 43 | 53 | 60 | 60 | 72 | 76 | 87 | 97 |
| | Máxima | X mínimo + Carrera | | | | | | | |
| Y | 7 | 8 | 10 | 10 | 12 | 14 | 14 | 15 | |
| Ref. Junta Tórica | Or 9x2 | Or 10x2,5 | Or 15x2,5 | Or 15x2,5 | Or 15x3 | Or 18x3 | Or 18x3 | Or 20x3 | |

*:1carrera **:2carreras(doblevástago)

CILINDROS HIDRÁULICOS HYDRAULIC CYLINDERS

SERIE HMP

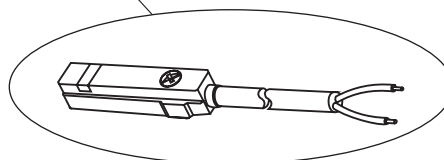
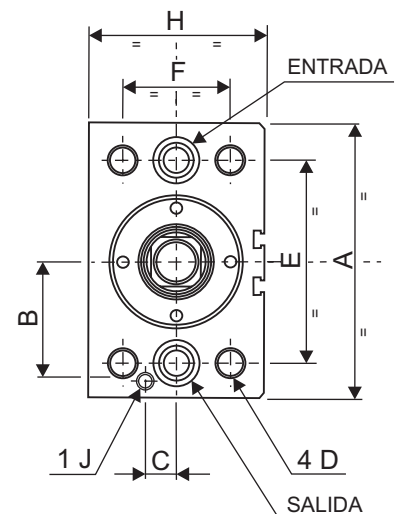
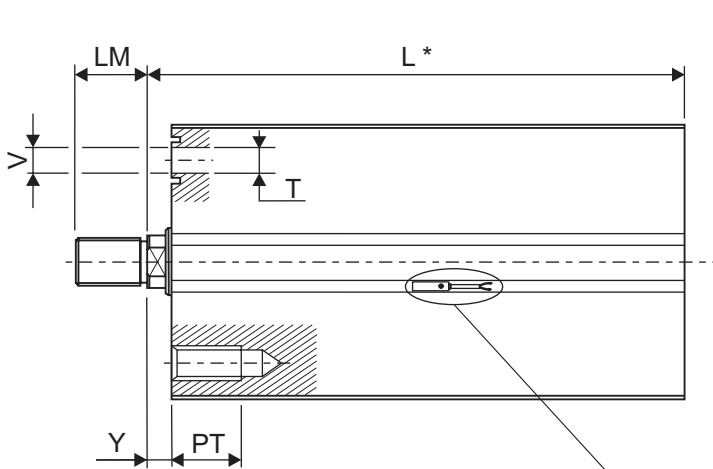
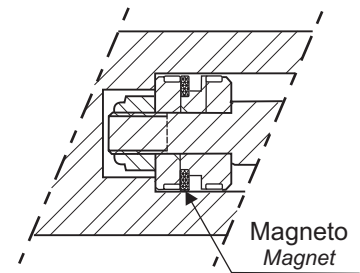
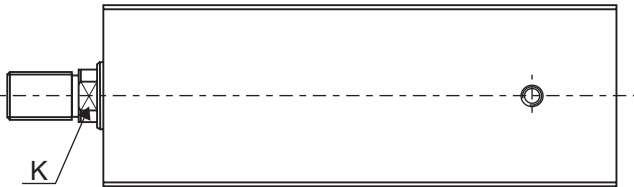
DESIGNACIÓN CILINDROS HMP

MODEL CODE FOR HMP CYLINDERS

| Serie Series | Pistón Piston | Extremo Vástago Rod End | Carrera Stroke | Tipo de vástago Rod Type | Tipo juntas Seal type | Alimentación Oil Feeder | Fijación Attachments |
|-----------------|------------------|---------------------------------------|-----------------------|--------------------------------|------------------------------|----------------------------|---------------------------------------|
| P | 02 025 | A Rosca Exterior Exterior Coil | 000 Carrera Stroke | S Simple Vástago Simple Rod | S J. Standard Standard S. | 4 Lado Vástago Side Rod | P Agujeros Pasados Past Holes |
| | 03 032 | B Rosca Interior Interior Coil | | D* Doble Vástago Double Rod | V J. Vitón Viton S. | | R Agujeros roscados Threaded Holes |
| | 04 040 | C Rosca C. Martillo Head Hammer C. | | M Magnético Magnetic | | | |
| | 05 050 | | | | | | |
| | 06 063 | | | | | | |
| | 08 080 | | | | | | |
| | 10 100 | | | | | | |
| | 12 125 | | | | | | |

* Vástago de información

MAGNÉTICO / MAGNETIC

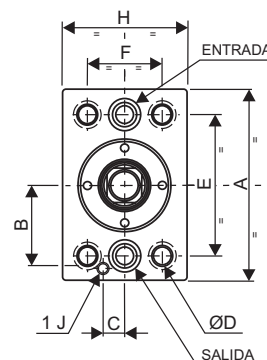
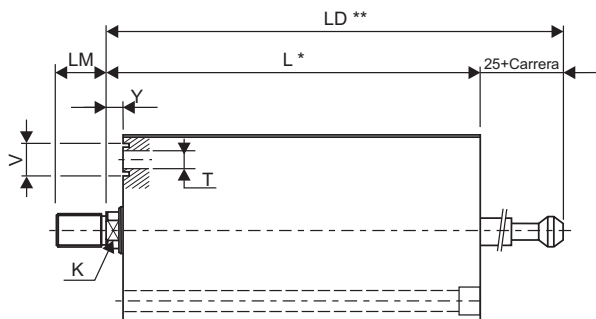


CILINDROS HIDRÁULICOS HYDRAULIC CYLINDERS

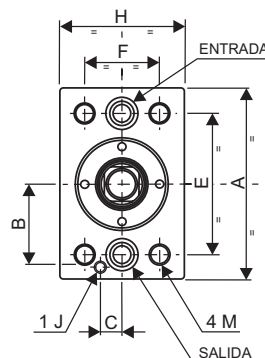
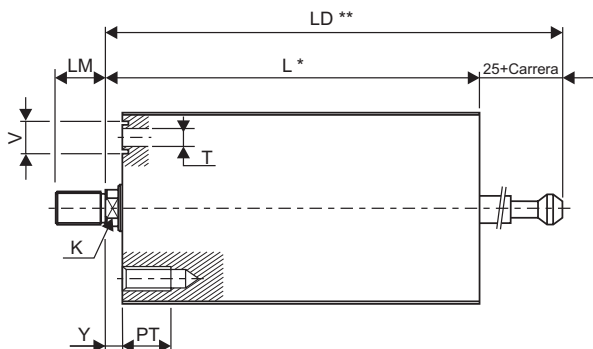
SERIE HMP

TABLA DE DIMENSIONES / DIMENSIONS TABLE

HMP
TIPO
4L



HMP
TIPO
4T



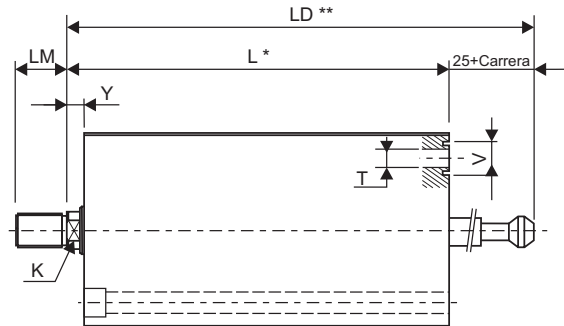
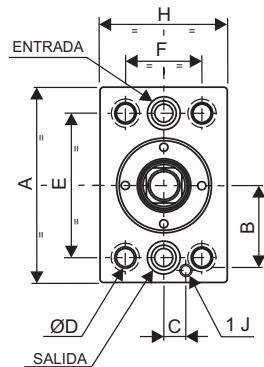
| Diámetro Diameter Dimensions Dimensiones | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|---|--------|-----------|-----------|-----------|---------|---------|---------|---------|
| Ø Vástago / Rod | 16 | 18 | 22 | 28 | 36 | 45 | 56 | 70 |
| A | 68 | 82 | 105 | 115 | 130 | 155 | 190 | 225 |
| B | 30 | 37 | 46 | 50 | 55 | 67 | 85 | 90 |
| C | 9 | 11 | 13 | 13 | 17 | 20 | 25 | 32 |
| Ø D | M8x125 | M8x125 | M10x150 | M12x175 | M16x200 | M20x250 | M24x300 | M24x300 |
| E | 50 | 60 | 75 | 85 | 100 | 120 | 150 | 180 |
| F | 30 | 35 | 42 | 45 | 65 | 80 | 100 | 130 |
| H | 45 | 55 | 65 | 75 | 95 | 120 | 150 | 180 |
| Ø J | 3 | 3 | 5 | 6 | 8 | 10 | 10 | 12 |
| K | 12 | 14 | 17 | 22 | 30 | 36 | 46 | 60 |
| L* | 77 | 98 | 115 | 125 | 143 | 159 | 170 | 195 |
| LD** | 102 | 123 | 140 | 150 | 168 | 184 | 195 | 220 |
| M | M8 | M8 | M10 | M12 | M16 | M 20 | M24 | M24 |
| PT | 15 | 15 | 20 | 30 | 35 | 40 | 50 | 50 |
| Ø T | 6 | 8 | 10 | 10 | 12 | 14 | 14 | 14 |
| V +0,2 | 13 | 16 | 20 | 20 | 22 | 24 | 24 | 24 |
| Y | 7 | 8 | 10 | 10 | 12 | 14 | 14 | 15 |
| Ref. Junta Tórica | Or 9x2 | Or 10x2,5 | Or 15x2,5 | Or 15x2,5 | Or 15x3 | Or 18x3 | Or 18x3 | Or 20x3 |

* : 1 carrera

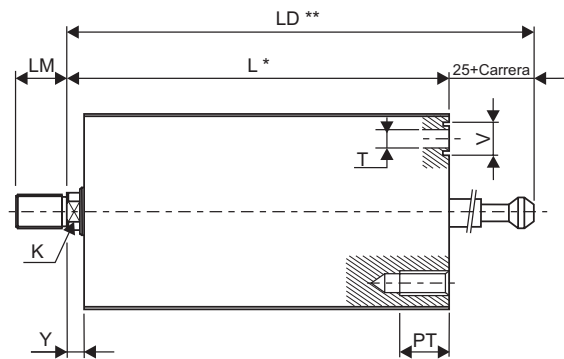
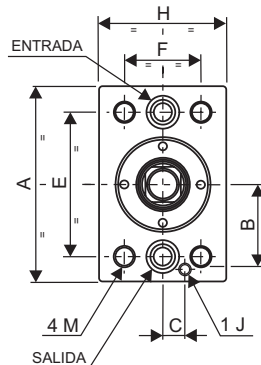
** : 2 carreras (doble vástago)H

TABLA DE DIMENSIONES / DIMENSIONS TABLE

HMP
TIPO
5L



HMP
TIPO
5T



| Diámetro Diameter | 25 | 32 | 40 | 50 | 63 | 80 | 100 | 125 |
|---------------------------|--------|-----------|-----------|-----------|---------|---------|---------|---------|
| Dimensions Dimensiones | | | | | | | | |
| Ø Vástago / Rod | 16 | 18 | 22 | 28 | 36 | 45 | 56 | 70 |
| A | 68 | 82 | 105 | 115 | 130 | 155 | 190 | 225 |
| B | 30 | 37 | 46 | 50 | 55 | 67 | 85 | 90 |
| C | 9 | 11 | 13 | 13 | 17 | 20 | 25 | 32 |
| Ø D | M8x125 | M8x125 | M10x150 | M12x175 | M16x200 | M20x250 | M24x300 | M24x300 |
| E | 50 | 60 | 75 | 85 | 100 | 120 | 150 | 180 |
| F | 30 | 35 | 42 | 45 | 65 | 80 | 100 | 130 |
| H | 45 | 55 | 65 | 75 | 95 | 120 | 150 | 180 |
| Ø J | 3 | 3 | 5 | 6 | 8 | 10 | 10 | 12 |
| K | 12 | 14 | 17 | 22 | 30 | 36 | 46 | 60 |
| L* | 77 | 98 | 115 | 125 | 143 | 159 | 170 | 195 |
| LD** | 102 | 123 | 140 | 150 | 168 | 184 | 195 | 220 |
| M | M8 | M8 | M10 | M12 | M16 | M 20 | M24 | M24 |
| PT | 15 | 15 | 20 | 30 | 35 | 40 | 50 | 50 |
| Ø T | 6 | 8 | 10 | 10 | 12 | 14 | 14 | 14 |
| V +0.2 | 13 | 16 | 20 | 20 | 22 | 24 | 24 | 24 |
| Y | 7 | 8 | 10 | 10 | 12 | 14 | 14 | 15 |
| Ref. Junta Tórica | Or 9x2 | Or 10x2,5 | Or 15x2,5 | Or 15x2,5 | Or 15x3 | Or 18x3 | Or 18x3 | Or 20x3 |

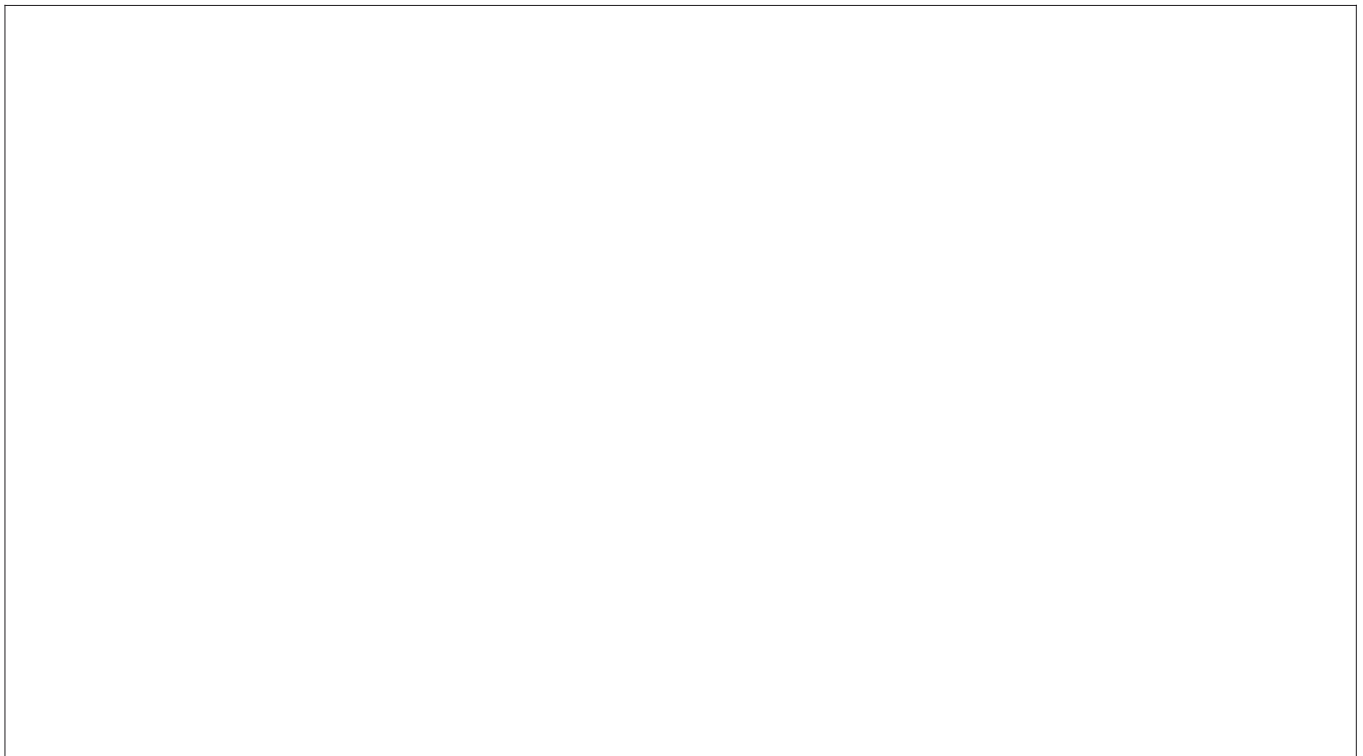
* : 1 carrera

** : 2 carreras (doble vástago)h

**CILINDROS HIDRÁULICOS
HYDRAULIC CYLINDERS**

**SERIE
HMD HMI HMP**

NOTAS / NOTES:



**CILINDROS HIDRÁULICOS
HYDRAULIC CYLINDERS**

**SERIE
HMD HMI HMP**

NOTAS / NOTES:

