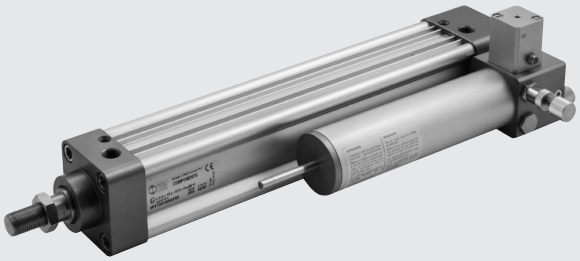
# INTEGRATED HYDRAULIC BRAKE



The integrated hydraulic brake is comprised of a pneumatic cylinder that acts as an actuator and an oleo-dynamic circuit that acts as a brake.
The dimensions of the pneumatic cylinder comply with ISO 15552.
The hydraulic circuit is comprised of a brake fluid tank and one or two flow regulation pins. It can mount one or more (slow-fast) SKIP or STOP valves that are normally open (NO) or normally closed (NC), for the piston rod extension and retraction.
The basic feature of this device is that the driving force and the braking force are coaxial, so they do not generate undesired bending moments on the piston rod and the external structures connected to it. Due to its conception, this brake is particularly compact and has reduced dimensions compared to BRK external hydraulic brakes.
After a certain operating time, the brake fluid tank must be topped up with oil. This needs doing when the oil level reaches the minimum mark on the rod. With the piston rod right out, the minimum level mark must not project less than 8-10 mm from the cap.
Always use DEXRON ATF hydraulic oil or another compatible product.
During the first operating cycles, excess oil is expelled through a hole in the tank.
Regulation can be controlled remotely, as shown on page **A4**.26

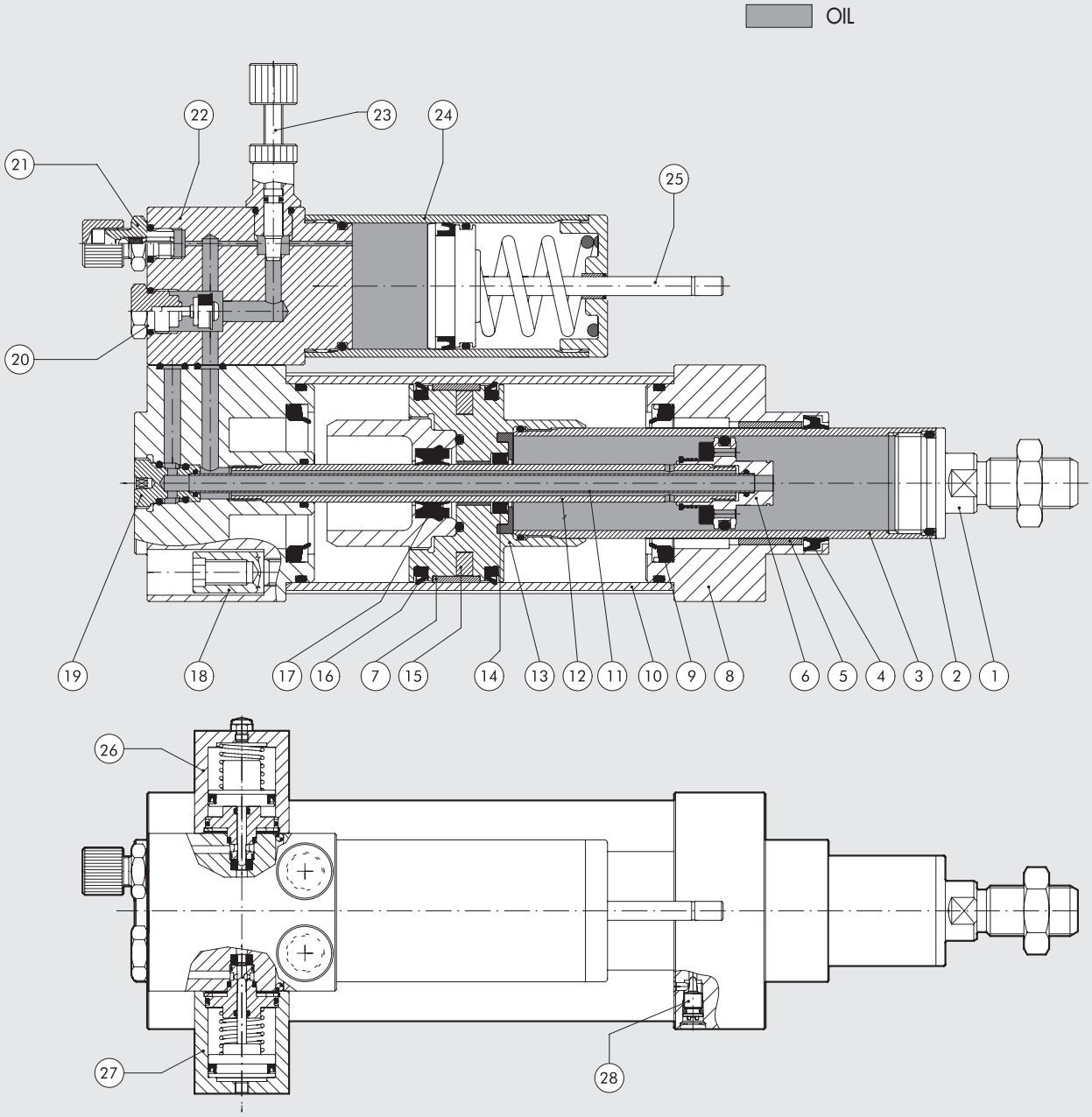


| TECHNICAL DATA | | Ø50 | Ø63 | Ø80 | Ø100 | Ø125 |
|---|---|---|---|---|---|---|
| Operating pressure | bar | 2 to 8 | | | | |
| | MPa | 0.2 to 0.8 | | | | |
| | psi | 29 to 116 | | | | |
| NC valve actuation pressure | bar | 3 to 8 | | | | |
| | MPa | 0.3 to 0.8 | | | | |
| | psi | 43.5 to 116 | | | | |
| Operating temperature range | °C | -10 to +70 | | | | |
| | °F | 14 to 156 | | | | |
| Pneumatic circuit fluid | | Lubricated or unlubricated filtered air. | | | | |
| Hydraulic circuit fluid | | DEXRON ATF - the list of compatible oils is available on the web site www.metalwork.it | | | | |
| Thrust force generated at 6 bar | N | 1109 | 1801 | 2946 | 4521 | 7170 |
| Pull force generated at 6 bar | N | 883 | 1292 | 2437 | 3756 | 6405 |
| Maximum load which can be applied from outside while the rod is lock | N | | | | | |
| • Version without valves and with closed pins: | | | | | | |
| Thrust Load on the rod | | | 6000 | | 7000 | |
| Traction Load on the rod | | | 5000 | | 6000 | |
| • Version with STOP NC valves not operated: | | | | | | |
| Thrust Load on the rod | | | 6000 | | 7000 | |
| Traction Load on the rod | | | 5000 | | 6000 | |
| • Version with STOP NO valves operated at 6 bar: | | | | | | |
| Thrust Load on the rod | | | 6000 | | 7000 | |
| Traction Load on the rod | | | 5000 | | 6000 | |
| • Version with STOP NO valves operated at 8 bar: | | | | | | |
| Thrust Load on the rod | | | 6000 | | 7000 | |
| Traction Load on the rod | | | 5000 | | 6000 | |
| Speeds at 6 bar and 20°C | | See charts on the following pages | | | | |
| Standard strokes | | 50, 100, 150, 200, 250, 300, 350, 400, 450, 500. | | | | |
| | | Other special strokes up to 500 available on request. | | | | |
| Valve combinations | | Piston-out, piston-in and dual regulation. Remote regulation. | | | | |
| | | The following combinations of valves can be mounted on each regulated section: | | | | |
| | | STOP NO, STOP NC, SKIP NO, SKIP NC, DOUBLE STOP NO, DOUBLE STOP NC, | | | | |
| | | DOUBLE SKIP NO, DOUBLE SKIP NC, STOP NO+STOP NC, SKIP NO+SKIP NC, | | | | |
| | | STOP NO+SKIP NO, STOP NC+SKIP NC, STOP NO+SKIP NC, STOP NC+SKIP NO | | | | |
| Sensor magnet | | All versions are provided with a magnet | | | | |

METAL WORK PNEUMATIC



## COMPONENTS

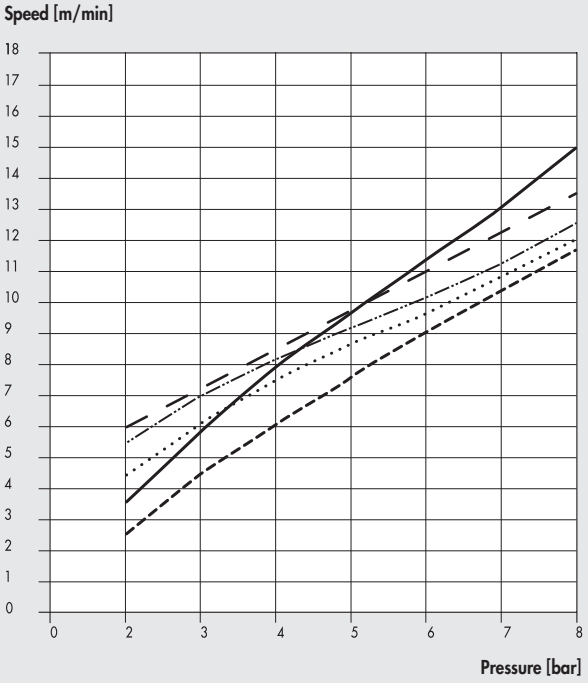



① GUIDE HOLD: AISI 303 stainless steel
② O-RING: NBR
③ PISTON ROD: thickly chromed steel
④ PISTON ROD GASKET: polyurethane
⑤ GUIDE BUSHING: steel strip with bronze and PTFE insert
⑥ INSIDE PISTON: aluminium
⑦ GUIDE RING: PTFE
⑧ HEAD: anodized aluminium
⑨ CUSHIONING GASKET: NBR
⑩ JACKET: anodized and calibrated aluminium section
⑪ INTERNAL PIPE: brass
⑫ INTERMEDIATE PIPE: steel
⑬ PISTON: aluminium
⑭ PISTON ROD GASKET: polyurethane
⑮ MAGNET: plastoferrite
⑯ PISTON GASKET: NBR
⑰ PISTON ROD GASKET: polyurethane
⑱ SECURING/ASSEMBLY SCREW: self-tapping
⑲ BUSH: AISI 303 stainless steel
⑳ CHECK VALVE
㉑ OIL FILLING VALVE
㉒ REGULATION UNIT: anodized aluminium
㉓ REGULATION PIN
㉔ OIL RECOVERY TANK
㉕ OIL LEVEL ROD: AISI 303 stainless steel
㉖ NC VALVE
㉗ NO VALVE
㉘ CUSHIONING PIN

## SPEED

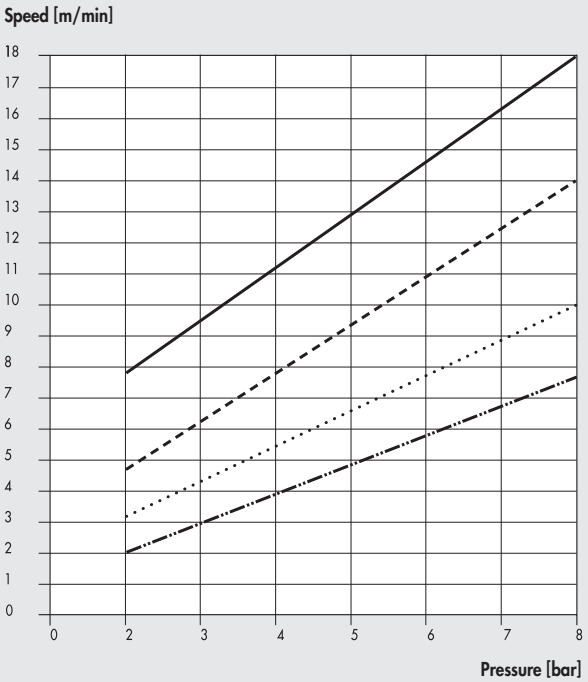
Maximum speed reached. The diagrams show the indicative speed, which depends on the bore and feed pressure.
Average values for temperature of 20°C. The maximum speed increases with oil temperature, and vice versa.

### INTEGRATED HYDRAULIC BRAKE WITH REGULATION IN EXTENSION, IN RETRACTION OR DUAL

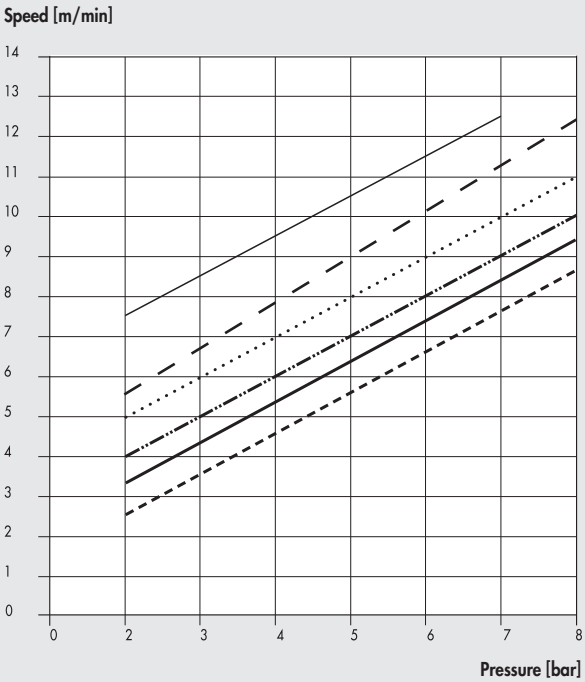



Ø50 Ø80 Ø125
Ø63 Ø100

### INTEGRATED HYDRAULIC BRAKE WITH VALVES STOP

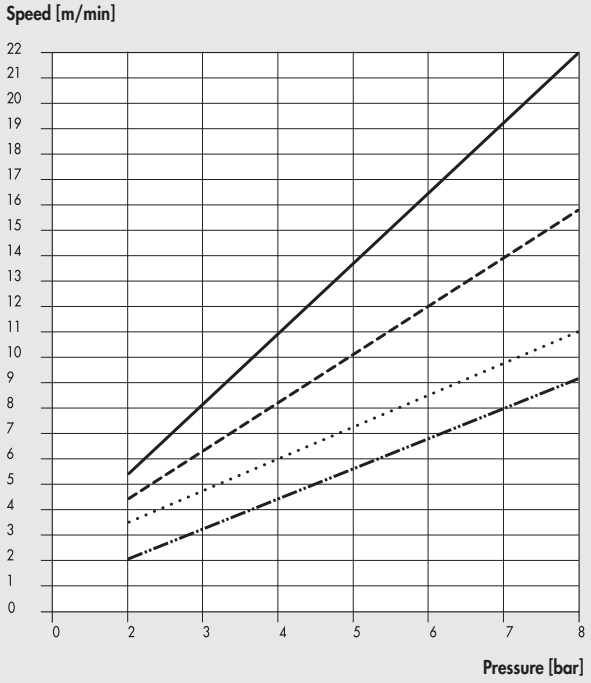


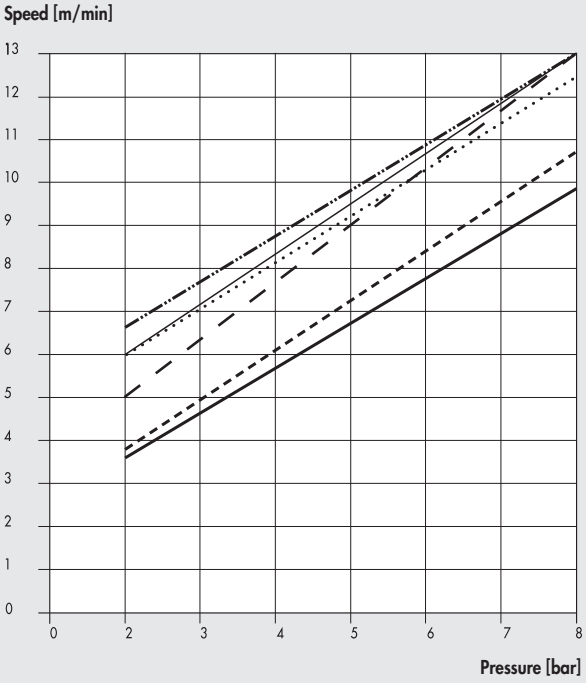

Ø50 extension Ø63 extension
Ø50 retraction Ø63 retraction




Ø80 extension Ø100 extension Ø125 extension
Ø80 retraction Ø100 retraction Ø125 retraction

## INTEGRATED HYDRAULIC BRAKE WITH VALVES SKIP AND WITH VALVES SKIP AND STOP



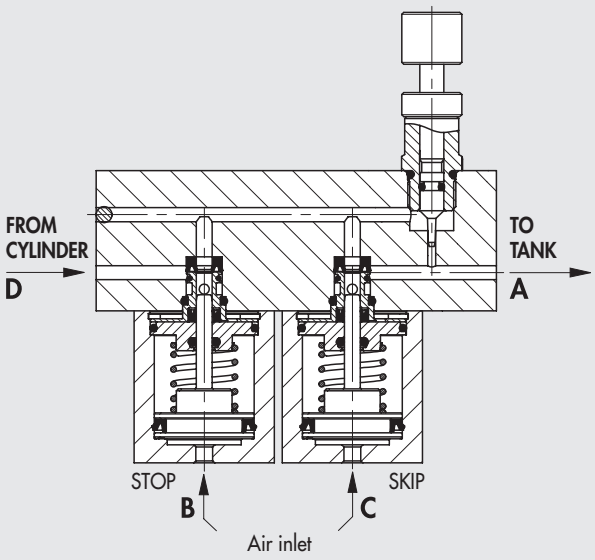




Ø50 extension
Ø50 retraction
Ø63 extension
Ø63 retraction

Ø80 extension
Ø80 retraction
Ø100 extension
Ø100 retraction
Ø125 extension
Ø125 retraction

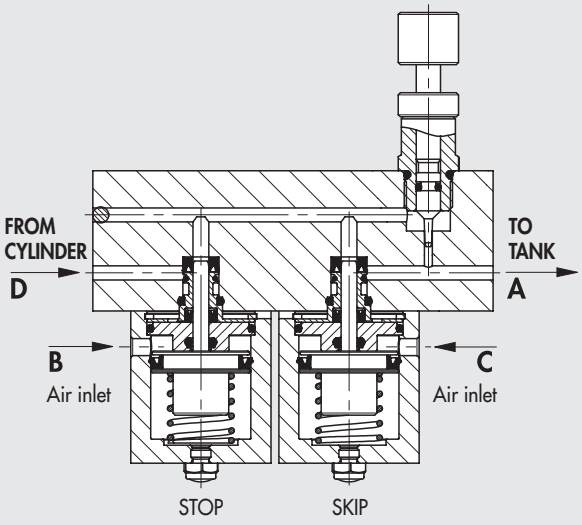
## SKIP-STOP APPLICATION WITH VALVES

### NO




In normally-open (NO) valves, flow moves freely from A to D.
When port C is supplied, this operates the SKIP valve and the fluid is forced through the bottleneck generated by the adjusting pin. When port B is supplied, this operates the STOP valve and interrupts the flow of fluid.

### NC

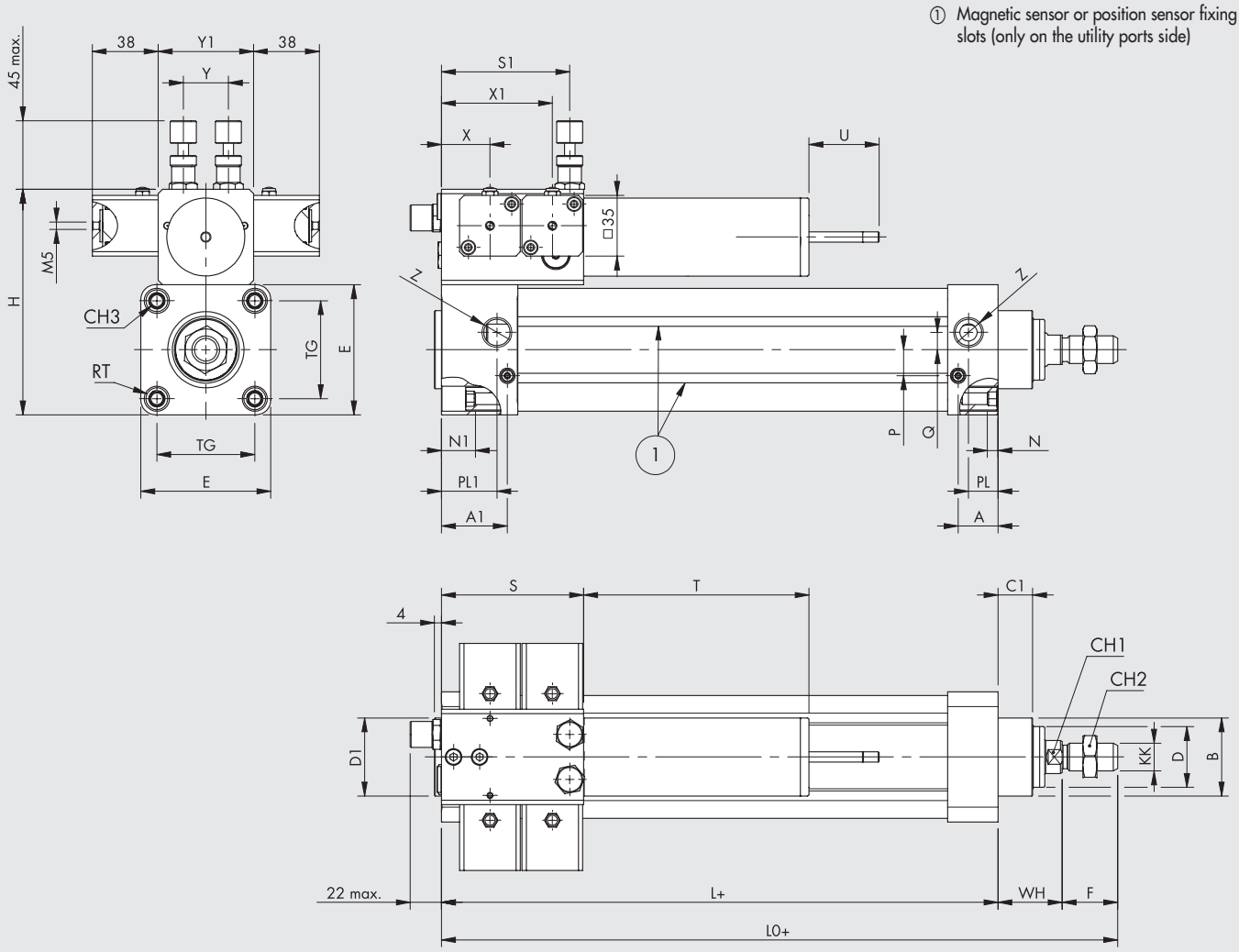



In normally-closed NC valves, flow is normally inhibited.
When port B is supplied, the fluid flows through but it is forced through the bottleneck generated by the adjusting pin. When port C is supplied, flow moves freely from A to D.

## DIMENSIONS OF THE VARIOUS VERSIONS

+ = ADD THE STROKE

① Magnetic sensor or position sensor fixing slots (only on the utility ports side)




| Stroke | Ø 50-63-80 T | Ø 50-63-80 U max | Ø 100-125 T | Ø 100-125 U max |
|---|---|---|---|---|
| 50 | 106 | 25 | 150 | 30 |
| 100 | 131 | 30 | 150 | 38 |
| 150 | 131 | 35 | 180 | 46 |
| 200 | 171 | 40 | 180 | 54 |
| 250 | 171 | 45 | 220 | 62 |
| 300 | 171 | 50 | 220 | 70 |
| 350 | 216 | 55 | 245 | 78 |
| 400 | 216 | 60 | 245 | 86 |
| 450 | 301 | 65 | 345 | 94 |
| 500 | 301 | 70 | 345 | 102 |

| Type | Ø 50-63-80 S | Ø 50-63-80 S1 | Ø 100-125 S | Ø 100-125 S1 |
|---|---|---|---|---|
| Regulation only | 50 | 41 | 65 | 50 |
| 1 valve for side | 50 | 41 | 65 | 50 |
| 2 valve for side | 82 | 74 | 105 | 90 |

| Ø | A | A1 | B | C1 | CH1 | CH2 | CH3 | KK | D | D1 | E | F | H | L | L0 | N | N1 | P | PL | PL1 | Q | RT | TG | WH | X | X1 | Y | Y1 | Z |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **50** | 28 | 38 | 40 | 15 | 17 | 24 | 8 | M16x1.5 | 25 | 45 | 65 | 32 | 120 | 128 | 192 | 5.5 | 19 | 11 | 22 | 32 | 8 | M8 | 46.5 | 32 | 28 | 64 | 26 | 55 | G1/4 |
| **63** | 23 | 38 | 45 | 20 | 17 | 24 | 8 | M16x1.5 | 35 | 45 | 75 | 32 | 130 | 121 | 190 | 5.5 | 19 | 15 | 17 | 32 | 10 | M8 | 56.5 | 37 | 28 | 64 | 26 | 55 | G3/8 |
| **80** | 25 | 36 | 45 | 16 | 22 | 30 | 10 | M20x1.5 | 35 | 45 | 95 | 40 | 150 | 125 | 204 | 6 | 15 | 15 | 21 | 32 | 10 | M10 | 72 | 39 | 28 | 64 | 26 | 55 | G3/8 |
| **100** | 38 | 50 | 60 | 30 | 22 | 30 | 10 | M20x1.5 | 45 | 55 | 110 | 40 | 175 | 172 | 261 | 20.5 | 32.5 | 15 | 35 | 47 | 10 | M10 | 89 | 49 | 40 | 80 | 30 | 65 | G1/2 |
| **125** | 38 | 50 | 60 | 30 | 27 | 41 | 12 | M27x2 | 45 | 60 | 135 | 54 | 200 | 180 | 292 | 15 | 27 | 15 | 35 | 47 | 12 | M12 | 110 | 52 | 40 | 80 | 30 | 64 | G1/2 |

METAL WORK PNEUMATIC



## KEY TO CODES

| W 1 7 3 | 2 | 3 | 1 | 0 | 0 5 0 0 | ◆ R1500 |
|---|---|---|---|---|---|---|
| **INTEGRATED BRAKE** | **REGULATION** | **PISTON ROD EXTENSION CONTROL VALVES** | **PISTON ROD RETRACTION CONTROL VALVES** | **BORE** | **STROKE** | |
| **W173** Integrated brake | **0** Out<br>**1** In<br>**2** Dual | **0** Without valves<br>**1** Stop NO<br>**2** Stop NC<br>**3** Skip NO<br>**4** Skip NC<br>**5** Stop NO Skip NO<br>**6** Stop NO Skip NC<br>**7** Stop NC Skip NO<br>**8** Stop NC Skip NC | **0** Without valves<br>**1** Stop NO<br>**2** Stop NC<br>**3** Skip NO<br>**4** Skip NC<br>**5** Stop NO Skip NO<br>**6** Stop NO Skip NC<br>**7** Stop NC Skip NO<br>**8** Stop NC Skip NC | **A** Ø 50<br>**0** Ø 63<br>**1** Ø 80<br>**2** Ø 100<br>**3** Ø 125 | Specify the desired stroke in 4 digits (e.g. 0500 for stroke 500) | |

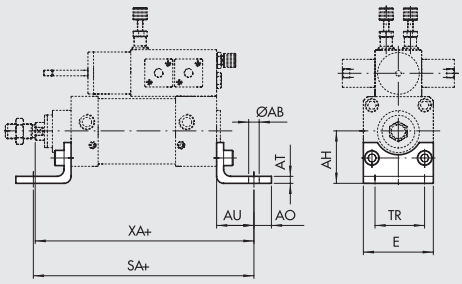
N.B. With at least one extension control valve and one retraction control valve, type W1732_ _ _ is required.

◆ Execution with remote control only, see page **A4**.26

# ACCESSORIES: FIXINGS

## FOOT - MODEL A

+ = ADD THE STROKE




| Code | Ø | Ø AB | AH | AO | AT | AU | TR | E | XA | SA | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| W0950502001 | 50 | 9 | 45 | 15 | 5 | 32 | 45 | 65 | 192 | 192 | 162 |
| W0950632001 | 63 | 9 | 50 | 15 | 5 | 32 | 50 | 75 | 190 | 185 | 266 |
| W0950802001 | 80 | 12 | 63 | 20 | 6 | 41 | 63 | 95 | 213 | 207 | 456 |
| W0951252001 | 125 | 16 | 90 | 15 | 8 | 45 | 90 | 140 | 277 | 270 | 1130 |

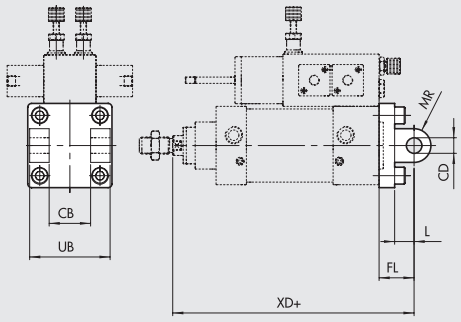
Note: Individually packed with 2 screws.

**For fixing to the front head is necessary to use:**
**- Ø125 n. 2 screws M12x40 UNI 5931**

**For fixing to the rear head is necessary to use:**
**- Ø50-63 n. 2 screws M8x40 UNI 5931 (see kit 0950636092)**
**- Ø80 n. 2 screws M10x40 UNI 5931**
**- Ø125 n. 2 screws M12x60 UNI 5931**

## FEMALE HINGE - MODEL B

+ = ADD THE STROKE



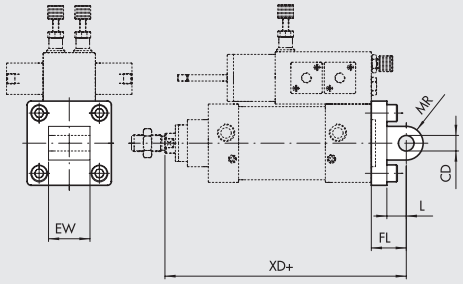

| Code | Ø | UB | CB H14 | FL | CD H9 | XD | MR | L | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|
| W0950502003 | 50 | 60 | 32 | 27 | 12 | 187 | 12 | 15 | 252 |
| W0950632003 | 63 | 70 | 40 | 32 | 16 | 190 | 16 | 20 | 394 |
| W0950802003 | 80 | 90 | 50 | 36 | 16 | 208 | 16 | 20 | 670 |
| W0951002003 | 100 | 110 | 60 | 41 | 20 | 262 | 20 | 25 | 1085 |
| W0951252003 | 125 | 130 | 70 | 50 | 25 | 282 | 25 | 30 | 2000 |

Note: Supplied with 4 screws, 4 washers, 2 snap rings and 1 pin.

**For fixing is necessary to use:**
**- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)**
**- Ø80 n. 4 screws M10x40 UNI 5931**
**- Ø100 n. 4 screws M10x60 UNI 5931 (see kit 0951006092)**
**- Ø125 n. 4 screws M12x60 UNI 5931**

## MALE HINGE - MODEL BA

+ = ADD THE STROKE



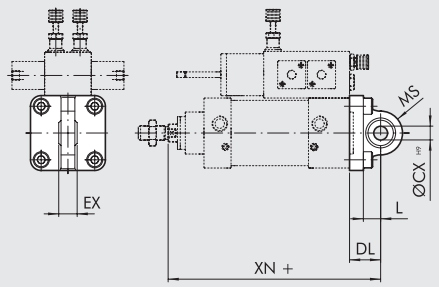

| Code | Ø | EW | FL | MR | CD H9 | L | XD | Weight [g] |
|---|---|---|---|---|---|---|---|---|
| W0950502004 | 50 | 32 | 27 | 13 | 12 | 15 | 187 | 220 |
| W0950632004 | 63 | 40 | 32 | 17 | 16 | 20 | 190 | 316 |
| W0950802004 | 80 | 50 | 36 | 17 | 16 | 20 | 208 | 578 |
| W0951002004 | 100 | 60 | 41 | 21 | 20 | 25 | 262 | 850 |
| W0951252004 | 125 | 70 | 50 | 25 | 25 | 30 | 282 | 1590 |

Note: Supplied with 4 screws.

**For fixing is necessary to use:**
**- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)**
**- Ø80 n. 4 screws M10x40 UNI 5931**
**- Ø100 n. 4 screws M10x60 UNI 5931 (see kit 0951006092)**
**- Ø125 n. 4 screws M12x60 UNI 5931**

## ARTICULATED MALE HINGE - MODEL BAS

+ = ADD THE STROKE



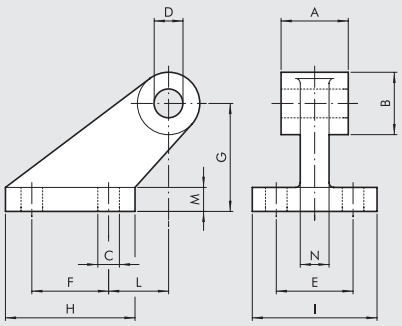

| Code | Ø | DL | MS | L | XN | øCX | EX | Weight [g] |
|---|---|---|---|---|---|---|---|---|
| W0950502006 | 50 | 27 | 21 | 15 | 187 | 12 | 16 | 236 |
| W0950632006 | 63 | 32 | 23 | 20 | 190 | 16 | 21 | 336 |
| W0950802006 | 80 | 36 | 28 | 20 | 208 | 16 | 21 | 572 |
| W0951002006 | 100 | 41 | 30 | 25 | 262 | 20 | 25 | 840 |
| W0951252006 | 125 | 50 | 40 | 30 | 282 | 25 | 31 | 1520 |

Note: Supplied with 4 screws, 4 washers.

**For fixing is necessary to use:**

- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)
- Ø80 n. 4 screws M10x40 UNI 5931
- Ø100 n. 4 screws M10x60 UNI 5931 (see kit 0951006092)
- Ø125 n. 4 screws M12x60 UNI 5931

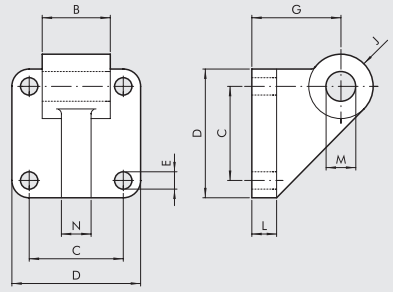
## CETOP HINGE FOR MODEL B - MODEL GL




| Code | Ø | A | B | C | D | E | F | G | H | I | L | M | N | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W0950502008 | 50 | 32 | 26 | 9 | 12 | 32 | 32 | 45 | 54 | 52 | 25 | 10 | 12 | 212 |
| W0950632008 | 63 | 40 | 33 | 11 | 16 | 40 | 50 | 63 | 75 | 63 | 32 | 12 | 15 | 440 |
| W0950802008 | 80 | 50 | 33 | 11 | 16 | 40 | 50 | 63 | 75 | 63 | 32 | 12 | 15 | 464 |
| W0951002008 | 100 | 60 | 44 | 14 | 20 | 50 | 70 | 90 | 103 | 80 | 40 | 16 | 22 | 985 |
| W0951252008 | 125 | 70 | 44 | 14 | 25 | 50 | 70 | 90 | 103 | 80 | 40 | 16 | 22 | 1000 |

Note: Supplied with 4 screws, 4 washers.

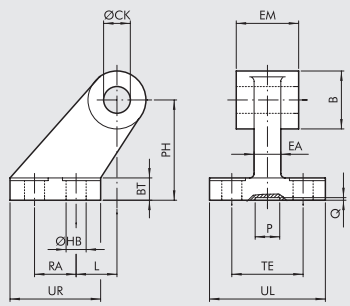
## ISO HINGE FOR MODEL B - MODEL GS




| Code | Ø | B | C | D | E | G | J | L | M | N | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|---|
| W0950502108 | 50 | 32 | 46.5 | 65 | 9 | 45 | 13 | 12 | 12 | 12 | 252 |
| W0950632108 | 63 | 40 | 56.5 | 75 | 9 | 50 | 17 | 12 | 16 | 15 | 350 |
| W0950802108 | 80 | 50 | 72 | 95 | 11 | 63 | 17 | 16 | 16 | 15 | 655 |
| W0951002108 | 100 | 60 | 89 | 115 | 11 | 73 | 21 | 16 | 20 | 22 | 980 |

Note: Supplied with 4 screws, 4 washers.

## ISO 15552 HINGE FOR MODEL B - MODEL AB7



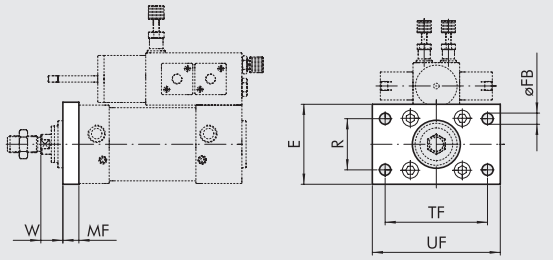

| Code | Ø | EM | B | ØHB | ØCK | TE | RA | PH | UR | UL | L | BT | EA | P | Q | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W0950502017 | 50 | 32 | 26 | 9 | 12 | 50 | 30 | 45 | 45 | 65 | 3 | 12 | 16 | 21 | 3 | 162 |
| W0950632017 | 63 | 40 | 30 | 9 | 16 | 52 | 35 | 50 | 50 | 67 | 2 | 14* | 16 | 21 | 3 | 191 |
| W0950802017 | 80 | 50 | 30 | 11 | 16 | 66 | 40 | 63 | 60 | 86 | 7 | 14 | 20 | 21 | 3 | 332 |
| W0951002017 | 100 | 60 | 38 | 11 | 20 | 76 | 50 | 71 | 70 | 96 | 5 | 17* | 20 | 11 | 3 | 522 |
| W0951252017 | 125 | 70 | 45 | 14 | 25 | 94 | 60 | 90 | 90 | 124 | 10 | 20 | 30 | 21 | 3 | 960 |

* Dimensions not to ISO 15552

METAL WORK PNEUMATIC



## FRONT FLANGE - MODEL C



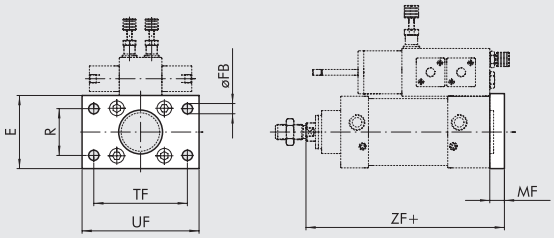

| Code | Ø | TF | UF | E | MF | R | øFB | W | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|
| W0950502002 | 50 | 90 | 110 | 65 | 12 | 45 | 9 | 20 | 522 |
| W0950632002 | 63 | 100 | 120 | 75 | 12 | 50 | 9 | 25 | 670 |
| W0950802002 | 80 | 126 | 150 | 95 | 15 | 63 | 12 | 24 | 1420 |
| W0951252002 | 125 | 180 | 220 | 140 | 20 | 90 | 16 | 45 | 4300 |

Note: Supplied with 4 screws.

**For fixing is necessary to use:**
**- Ø125 n. 4 screws M12x40 UNI 5931**

## REAR FLANGE - MODEL C

+ = ADD THE STROKE

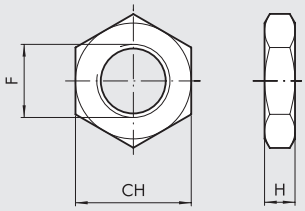



| Code | Ø | TF | UF | E | MF | R | øFB | ZF | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|
| W0950502002 | 50 | 90 | 110 | 65 | 12 | 45 | 9 | 170 | 522 |
| W0950632002 | 63 | 100 | 120 | 75 | 12 | 50 | 9 | 170 | 670 |
| W0950802002 | 80 | 126 | 150 | 95 | 15 | 63 | 12 | 179 | 1420 |
| W0951002002 | 100 | 150 | 178 | 115 | 16 | 75 | 14 | 205 | 2040 |
| W0951252002 | 125 | 180 | 220 | 140 | 20 | 90 | 16 | 245 | 4300 |

Note: Supplied with 4 screws.

**For fixing is necessary to use:**
**- Ø50-63 n. 4 screws M8x40 UNI 5931 (see kit 0950636092)**
**- Ø80 n. 4 screws M10x40 UNI 5931**
**- Ø100 n. 4 screws M10x60 UNI 5931 (see kit 0951006092)**
**- Ø125 n. 4 screws M12x60 UNI 5931**

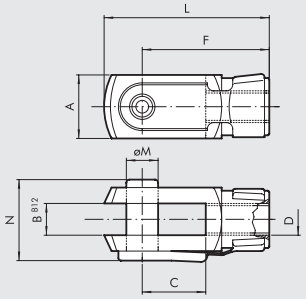
## ROD NUT - MODEL S




| Code | Ø | F | H | CH | Weight [g] |
|---|---|---|---|---|---|
| 0950502010 | 50-63 | M16x1.5 | 8 | 24 | 20 |
| 0950802010 | 80-100 | M20x1.5 | 9 | 30 | 32 |
| 0951252010 | 125 | M27x2 | 12 | 41 | 74 |

Note: Individually packed.

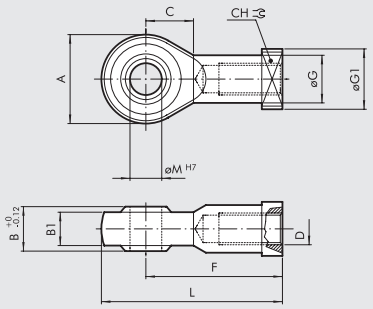
## FORK MODEL GK-M




| Code | Ø | Ø M | C | B | A | L | F | D | N | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|
| W0950502020 | 50-63 | 16 | 32 | 16 | 32 | 83 | 64 | M16x1.5 | 40 | 340 |
| W0950802020 | 80-100 | 20 | 40 | 20 | 40 | 105 | 80 | M20x1.5 | 40 | 690 |
| W0951252020 | 125 | 30 | 54 | 30 | 55 | 148 | 110 | M27x2 | 65 | 1835 |

Note: Individually packed.

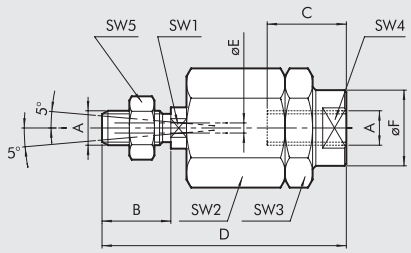
## ROD EYE - MODEL GA-M




| Code | Ø | Ø M | C | B1 | B | A | L | F | D | Ø G | CH | Ø G1 | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| W0950502025 | 50-63 | 16 | 22 | 15 | 21 | 42 | 85 | 64 | M16x1.5 | 22 | 22 | 22 | 226 |
| W0950802025 | 80-100 | 20 | 26 | 18 | 25 | 50 | 102 | 77 | M20x1.5 | 27.5 | 30 | 27 | 404 |
| W0951252025 | 125 | 30 | 36 | 25 | 37 | 70 | 145 | 110 | M27x2 | 40 | 41 | 50 | 1190 |

Note: Individually packed.

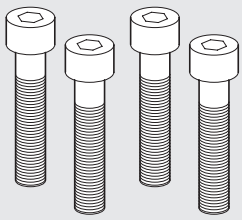
## SELF ALIGNING ROD COUPLER - MODEL GA-K




| Code | Ø | A | B | C | D | ØF | ØE | $SW_1$ | $SW_2$ | $SW_3$ | $SW_4$ | $SW_5$ | Weight [g] |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| **W0950502030** | **50-63** | M16x1.5 | 32 | 32 | 103 | 32 | 4 | 20 | 41 | 41 | 30 | 24 | 620 |
| **W0950802030** | **80-100** | M20x1.5 | 40 | 40 | 119 | 32 | 4 | 20 | 41 | 41 | 30 | 30 | 680 |

Note: Individually packed.

## KIT OF REAR HEAD SCREWS Ø50-63-100



| Code | Ø | Description |
|---|---|---|
| **0950636092** | **50-63** | Kit of M8x40 UNI 5931 rear head fixing screws |
| **0951006092** | **100** | Kit of M10x60 UNI 5931 rear head fixing screws |

Note: 4 items per pack.

## CYLINDER BRACKET - VALVE SERIES KCV

Fig. Ⓐ

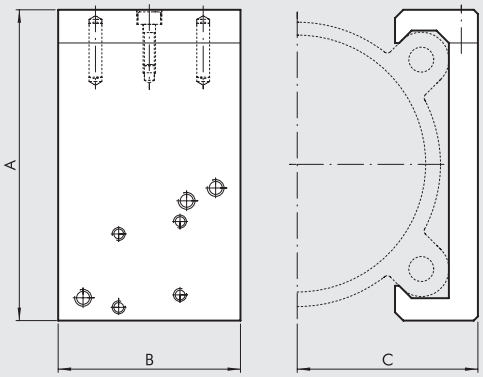
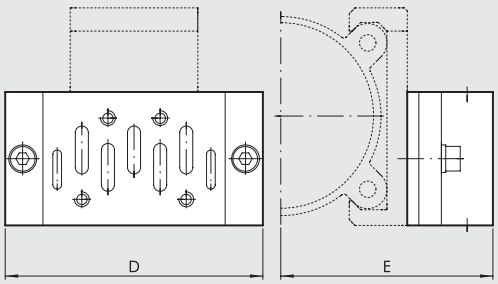



Fig. Ⓑ




### VALVE FIXING BRACKET - BRAKE (Fig. Ⓐ)

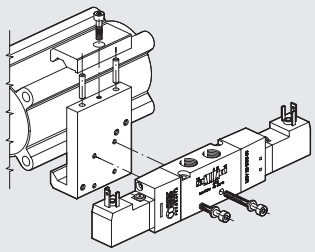
| | | | | | ISO 1 | | ISO 2 | | | |
|---|---|---|---|---|---|---|---|---|---|---|
| **Code** | **Ø** | **A** | **B** | **C** | **D** | **E** | **D** | **E** | **Applicable valves** | **Weight [g]** |
| **0950502090** | **50** | 71.5 | 40 | 37 | 110 | 72 | 124 | 78 | MACH 16 Series 70 1/8-1/4 ISO 1 - ISO 2 | 93 |
| **0950632090** | **63** | 81.5 | 40 | 42 | 110 | 77 | 124 | 83 | MACH 16 Series 70 1/8-1/4 ISO 1 - ISO 2 | 101 |
| **0950802090** | **80** | 99 | 60 | 53.5 | 110 | 88.5 | 124 | 94.5 | Series 70 1/8-1/4-1/2 ISO 1 - ISO 2 | 222 |
| **0951002090** | **100** | 119.5 | 60 | 63.5 | 110 | 98.5 | 124 | 104.5 | Series 70 1/8-1/4-1/2 ISO 1 - ISO 2 | 258 |
| **0951252090** | **125** | 148 | 60 | 76.5 | 110 | 111.5 | 124 | 117.9 | Series 70 1/8-1/4-1/2 ISO 1 - ISO 2 | 298 |

## KIT FOR FIXING VALVES TO BRACKETS

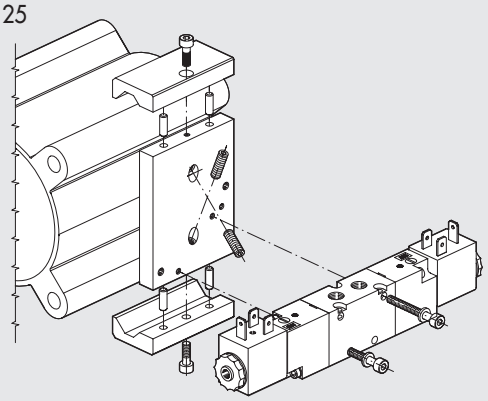
| Code | Valve KIT | Composition | Weight [g] |
|---|---|---|---|
| **0950002003** | MACH 16 | 2 hex. screws TCE M3x25 with washer | 4 |
| **0950002004** | Series 70 1/8-1/4 | 2 hex. screws TCE M4x30 with washer | 8 |
| **0950002006** | Series 70 1/2 | 2 hex. screws TCE M5x50 with washer | 20 |
| **0950002001** | ISO 1 | Adaptor + ISO 1 BASE SIDE + screws + washers (Fig. Ⓑ) | 230 |
| **0950002002** | ISO 2 | Adaptor + ISO 2 BASE SIDE + screws + washers (Fig. Ⓑ) | 350 |

## VALVE ASSEMBLY ON HYDRAULIC BRAKE

FOR Ø 50-63

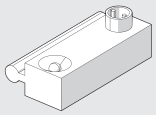


FOR Ø 80-125



# ACCESSORIES: MAGNETIC SENSORS

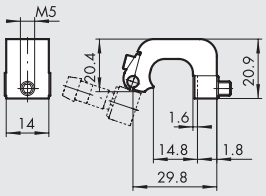
## SENSOR SERIES DSM



For codes and technical data, see **chapter A6**.

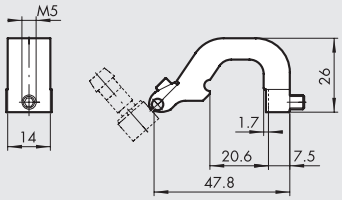
## SENSOR SUPPORT BRACKETS FOR SENSORS DSM

Ø 50-63




| Code | Description |
|---|---|
| **W0950000712** | Bracket D.50-63 DST 81 |

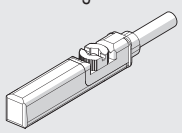
Ø 80-125



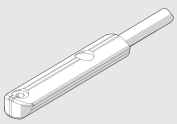

| Code | Description |
|---|---|
| **W0950000713** | Bracket D.80-100-125 DST 82 |

## RETRACTABLE SENSOR

**SENSOR, SQUARE TYPE**
Latest generation,
secure fixing



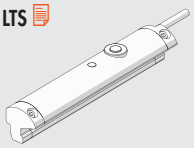
**SENSOR, OVAL TYPE**
Traditional



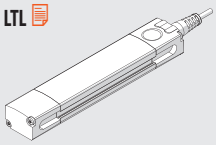
For codes and technical data, see **chapter A6**.

## POSITION SENSORS

**LTS**



**LTL**



For technical data and usage strokes see **chapter A6**.

# REMOTE REGULATION OF HYDRAULIC BRAKES



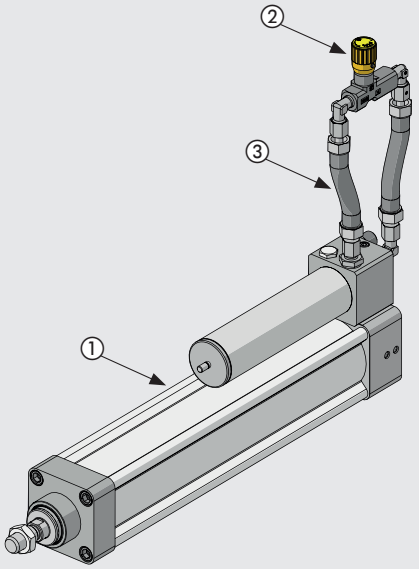
The speed of a BRK series hydraulic brake or an integrated hydraulic brake can be regulated via a precision flow regulator that is physically separated from the brake.
The regulator is connected to the brake via hydraulic hoses.
In this way the regulator can be placed in a position accessible to the operator, for example on a control panel.
The regulator is unidirectional, which means that the speed is regulated in one direction, e.g. at the piston rod extension
The speed in the other direction remains free. You can remote two regulators to control both directions of movement.
This solution is ideal for both the BRK series hydraulic brakes and the integrated hydraulic brakes.

## TECHNICAL DATA

| | | |
|---|---|---|
| | | The technical data of the **BRK series hydraulic brake** or the **integrated hydraulic brake** with connected remote regulator apply. |
| Connection hose length | | At the customer's choice. The following lengths are available in a reasonably short delivery time: |
| | mm | 500, 1500, 2000, 3000 |
| Minimum hose length | mm | 300 |
| Speed regulation | | Unidirectional. In case you need to regulate the brake remotely for both extension and retraction, two separate regulators are supplied and the number of hoses required is four. |
| Number of knob turns, from the closed position to fully open | | 11 |

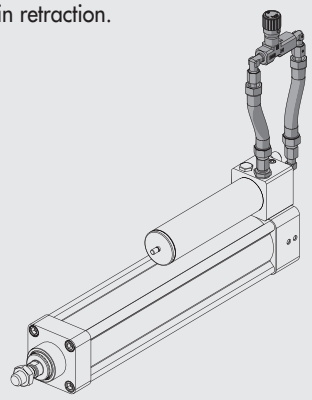
## COMPONENTS

① HYDRAULIC BRAKE: series BRK or INTEGRATED
② REGULATOR: precision, unidirectional
③ PIPE: hydraulic hose R7

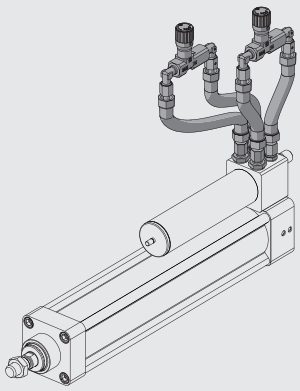


## VERSIONS

Remote regulation in extension.
Remote regulation in retraction.

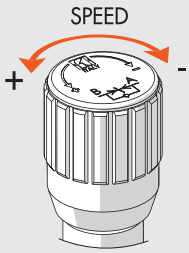


Remote regulation in both piston rod extension and retraction.

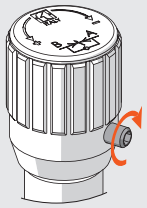


## SPEED REGULATION

The speed is reduced by screwing the knob; it increases by unscrewing it.



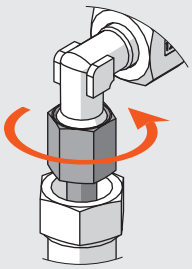

Once the regulation has been made, lock the knob in position by tightening the grub screw at the side.



## HOW TO ELIMINATE TORSIONAL DEFORMATION OF THE HOSE

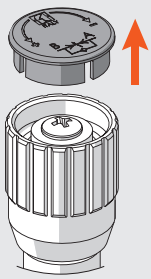
**The operation must be done in the absence of pressure**.

Unscrew the outer fitting by one or two turns.
Let the pipe settle in the most natural position.
Tighten the fitting back on.
This operation applies to the fittings on the regulator side and those on the hydraulic brake side.

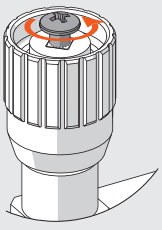


## PANEL MOUNTING

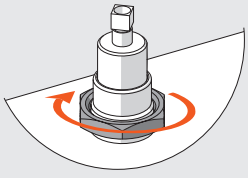
The assembly is supplied complete with a separate ring nut. In order to fit the ring nut, you need to remove the regulator knob.



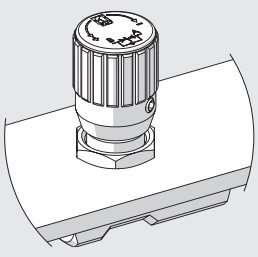
Remove the yellow cover of the knob, with the help of a cutter.



Unscrew the Phillips head screw.

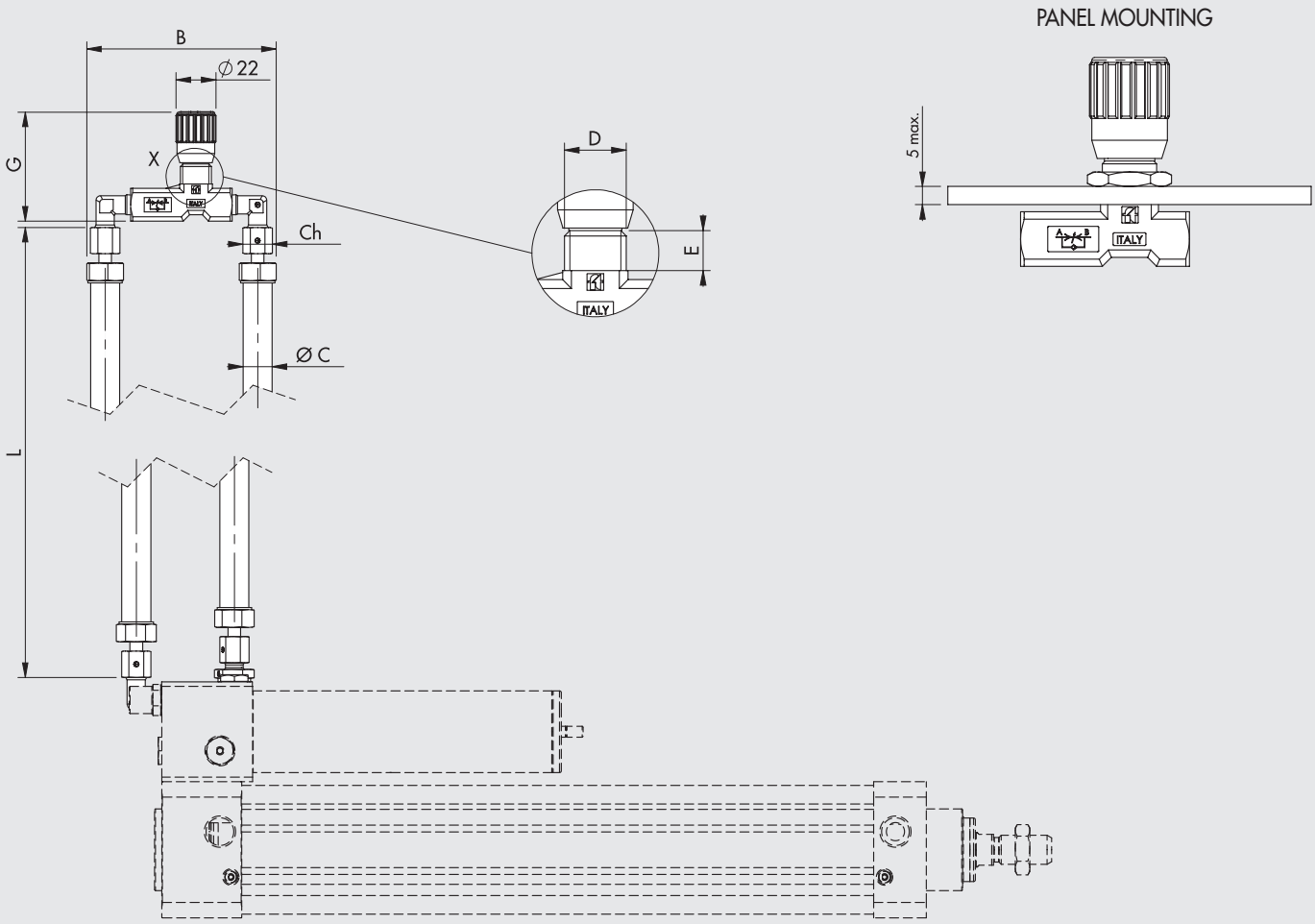


Pull out the knob.



Tighten the ring nuts and reassemble everything.

## DIMENSIONS




| Type of hydraulic brake | B | Ø C | D | E | Ch | G | | L | Tube | Minimum radius of the tube |
|---|---|---|---|---|---|---|---|---|---|---|
| | | | | | | min | max | | | |
| **Hydraulic brake series BRK Ø 40, 63** | 100 | 12.2 | M15x1 | 12 | 19 | 57 | 61.5 | 300 to 9999 | R7 1/4 pmax 210 bar | 35 |
| **Cylinder with integrated hydraulic brake Ø 50, 63, 80** | 85 | 9.6 | M17x1 | 11 | 14 | 55 | 59 | 300 to 9999 | R7 3/16 pmax 210 bar | 25 |
| **Cylinder with integrated hydraulic brake Ø 100. 125** | 100 | 12.2 | M15x1 | 12 | 19 | 57 | 61.5 | 300 to 9999 | R7 1/4 pmax 210 bar | 35 |

## KEY TO CODES

The product code is obtained by adding the type of execution and hose length to the hydraulic brake code

| **Code Hydraulic brake** | **R** | **0 3 0 0** |
|---|---|---|
| | **EXECUTION** | **PIPE LENGTH** |
| | **R** Remote regulation | Enter the length **L** [mm] of the hydraulic pipes in 4 digits (example 0500 for length 500) |

**Example:**

W1700010100**R0500** Hydraulic brake series BRK Ø 40, stroke 100 mm, with regulation in extension only. Remote regulation in extension with hose length L = 500 mm

W173200A0500**R2000** Integrated hydraulic brake Ø 50, stroke 500, with regulation in both extension and retraction. Remote regulation in both extension and retraction with hose length L = 2000 mm