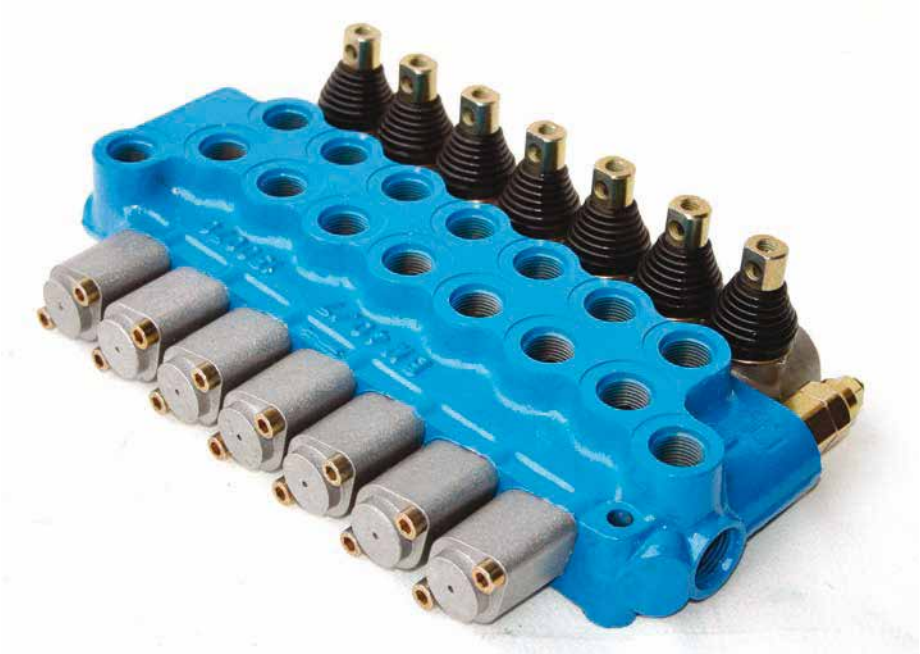
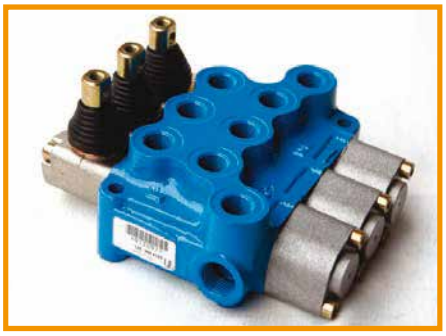
paul forrer

Industriestrasse 27
CH-8962 Bergdietikon
☎ 044-4391919
www.paul-forrer.ch

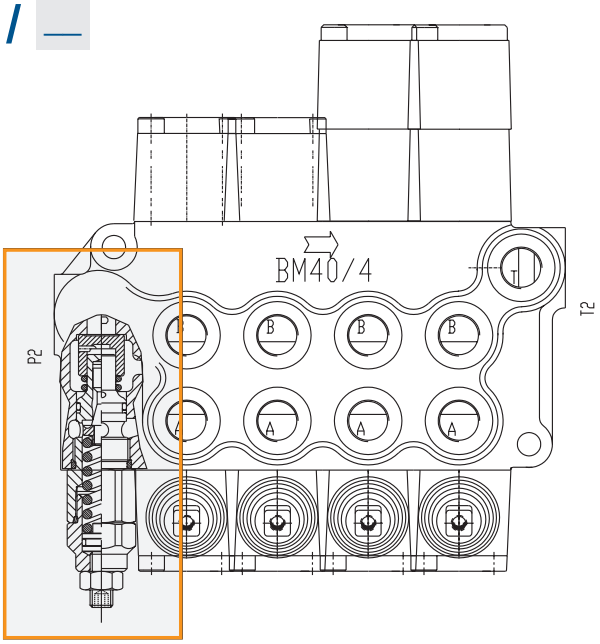
BM 40



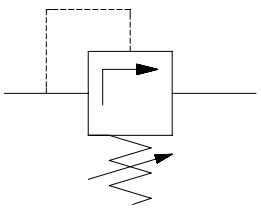
TU/220_5.02.2014

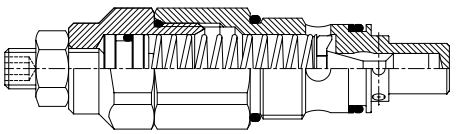


BM __ / __ __ __ (_) __ / __ __ __ / __



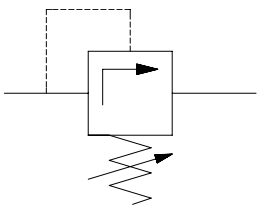
RELIEF VALVE X | **PRESSURE RANGE 30 ÷ 90 bar** | **STANDARD RELIEF SETTING 70 bar** | **COD. 803009**

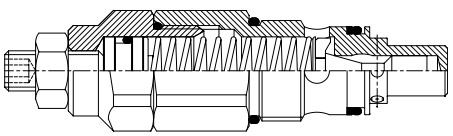




Low pressure adjustable relief valve. Allows the external adjustament of the relief valve pressure between 30 to 90 bar. The pressure rating is based on a pre-set flow of 8 l/min.

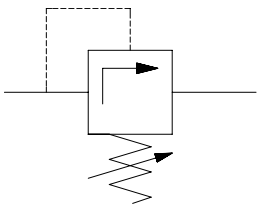
RELIEF VALVE U | **PRESSURE RANGE 80 ÷ 230 bar** | **STANDARD RELIEF SETTING 140 bar** | **COD. 803002**

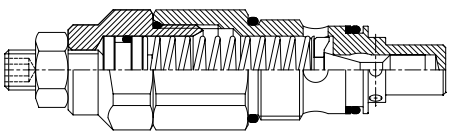




High pressure adjustable relief valve. Allows the external adjustament of the relief valve pressure between 80 to 230 bar. The pressure rating is based on a pre-set flow of 8 l/min.

RELIEF VALVE K | **PRESSURE RANGE 150 ÷ 300 bar** | **STANDARD RELIEF SETTING 200 bar** | **COD. 803010**

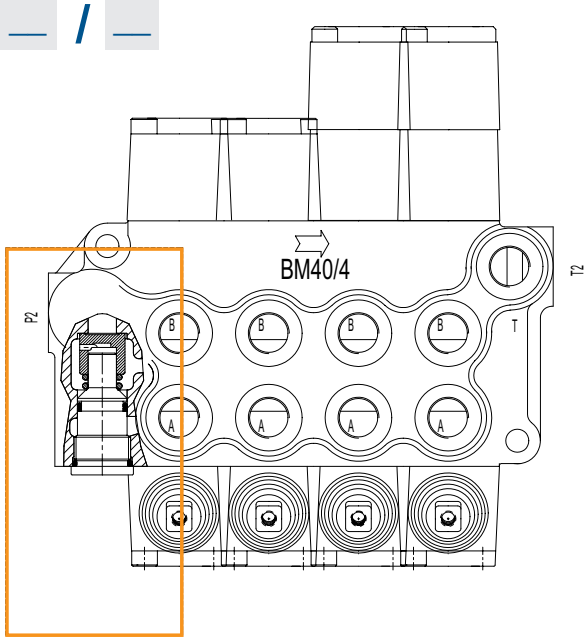




Very high pressure adjustable relief valve. Allows the external adjustament of the relief valve pressure between 150 to 300 bar. The pressure rating is based on a pre-set flow of 8 l/min.

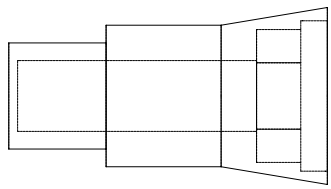
RELIEF VALVES

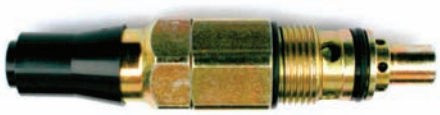
BM __ / __ __ __ (_) __ / __ __ __ / __



RELIEF VALVE LOCK KIT PB

COD. 020027

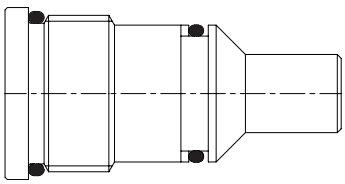
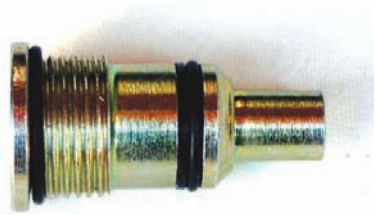




Prevents users from altering the factory pre-set relief valve.

RELIEF VALVE PLUG RVP

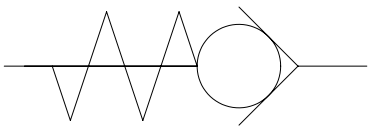
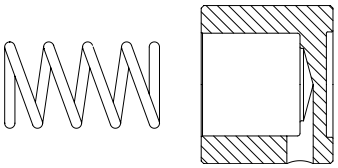
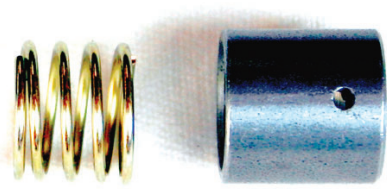
COD. 832010

Replaces the relief valve in closed center systems where the relief valve is not required.

KIT VNR

COD. 560189

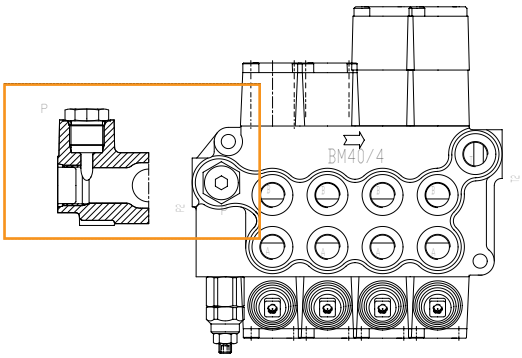




Standard on all Blb monoblock valves. Each valve has only one load check. The load check prevents the fall of a cylinder as the spool is shifted. It also prevents the backflow of oil from the work port to the inlet.

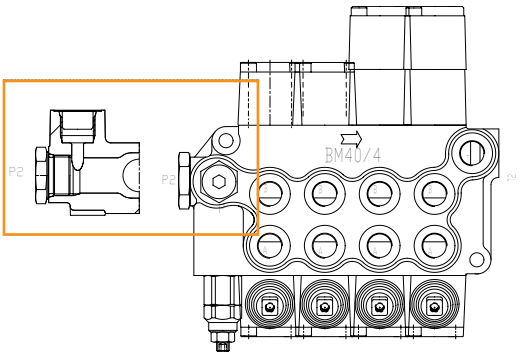
INLET PLUGS

BM __ / __ __ __ (_) __ / __ __ __ / __

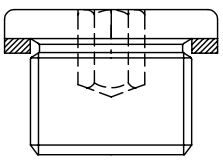
P



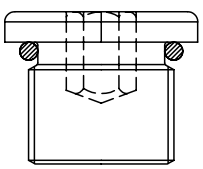
P2



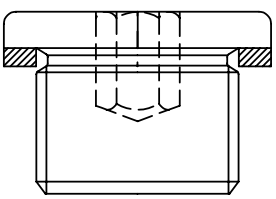
INLET PLUG P — 3/8” BSP — **COD. 015008**



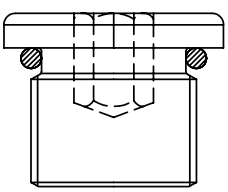
INLET PLUG P — 3/4” - 16 UNF — **COD. 560333**



INLET PLUG P2 — 1/2” BSP — **COD. 015007**

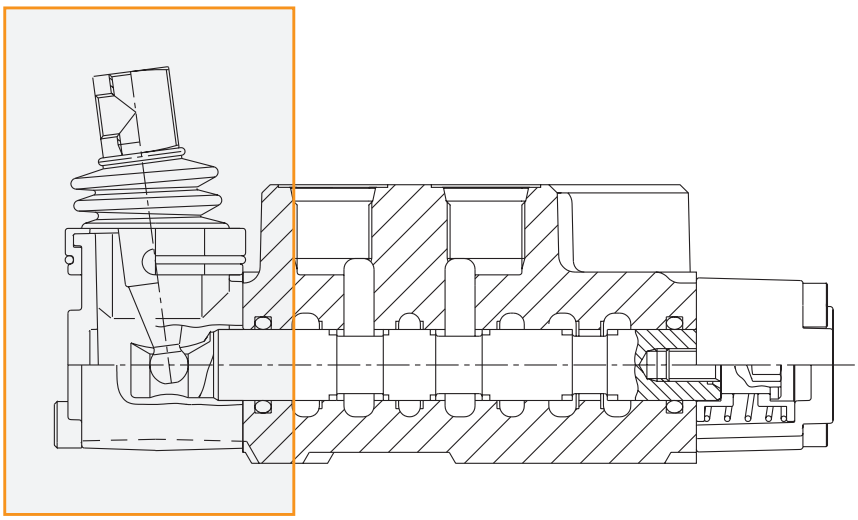


INLET PLUG P2 — 7/8” - 14 UNF — **COD. 560094**

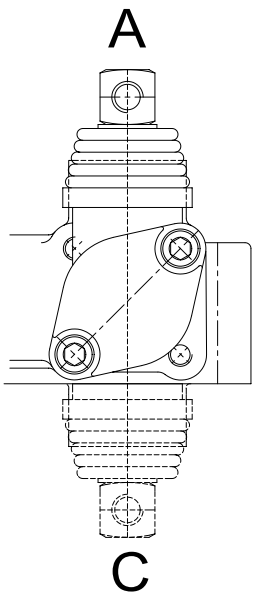


ACTUATORS

BM __ / __ __ __ (_) __ / __ __ __ / __

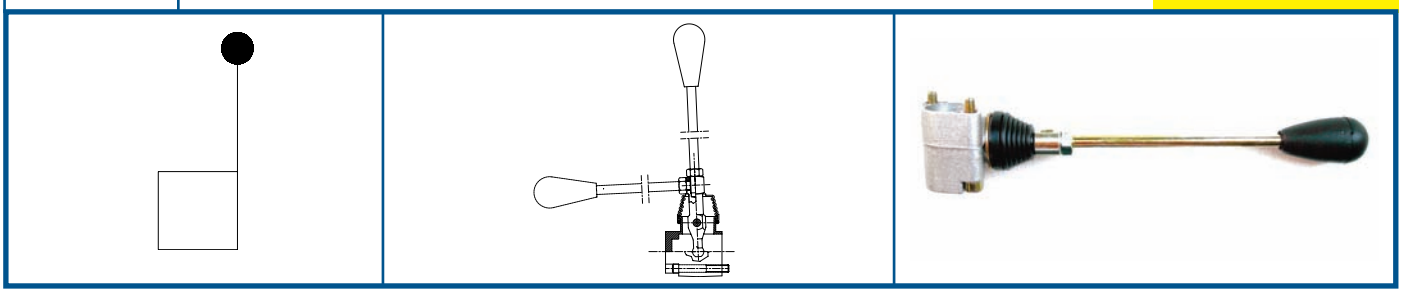


The actuator orientation is “A” if not differently required



MANUAL MO

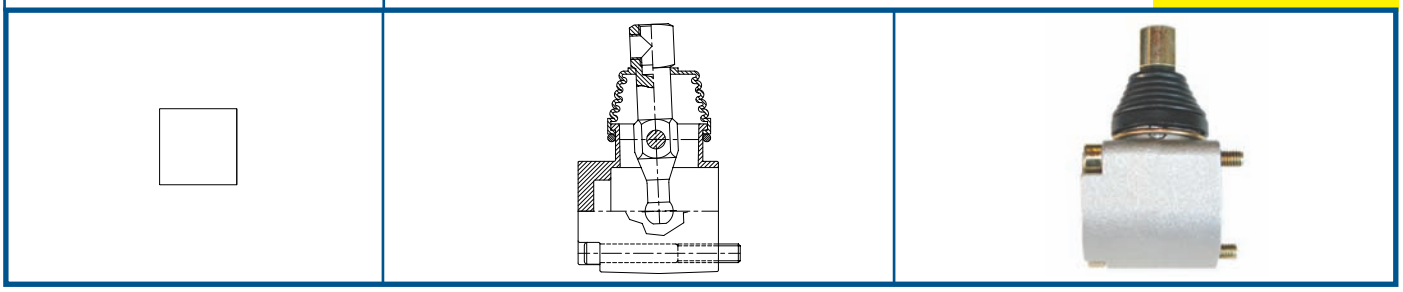
COD. 801001



Manual lever control for manual operation. Features 2 angles 90° - 180°.

MANUAL WITHOUT LEVER MW

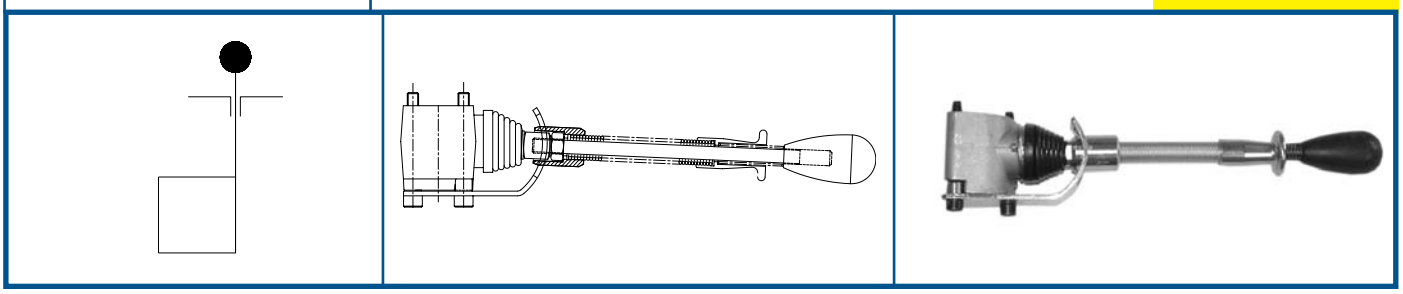
COD. 801035



Manual control without lever handle.

SAFETY MANUAL LEVER MX

COD. 801175

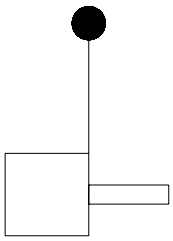


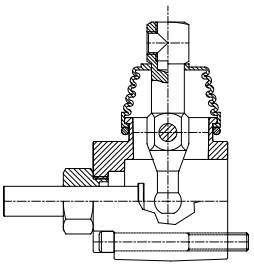
Manual control with safety lever system. Allows the operation of the lever only after the lock system is released.

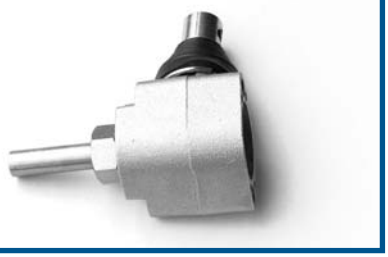
BM __ / __ __ __ (_) __ / __ __ __ / __

MANUAL WITH CAM MC

COD. 801065



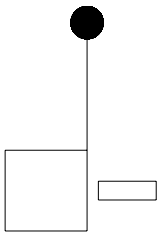


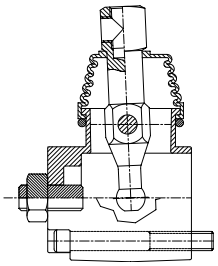


Manual lever control with cam.

MANUAL WITH LIMITING DEVICE ML

COD. 801162

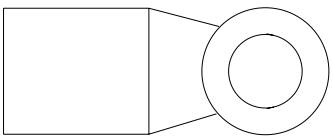


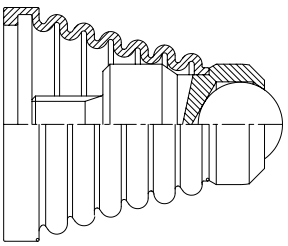


Manual lever control with limiter of the spool movement.

CAM DO

COD. 801044

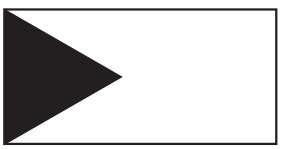


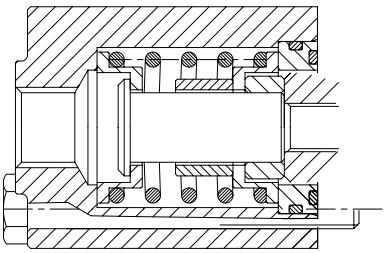


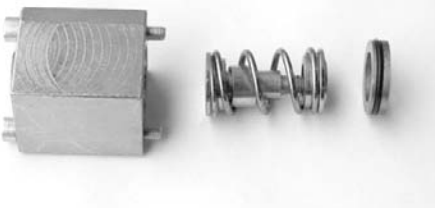
Cam actuator.

HYDRAULIC HO

COD. 560644







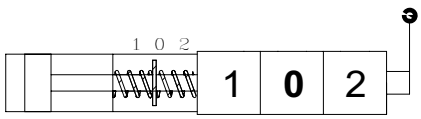
Hydraulic actuator for remote control.

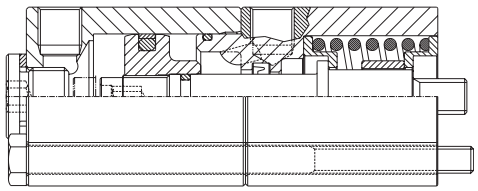
ACTUATORS

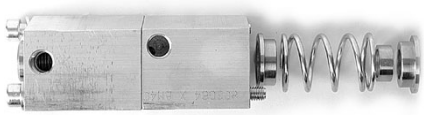
BM __ / __ __ __ (_) __ / __ __ __ / __

PNEUMATIC 1P

COD. 802064



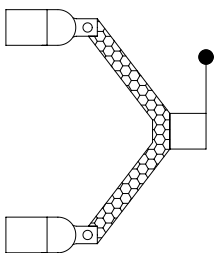


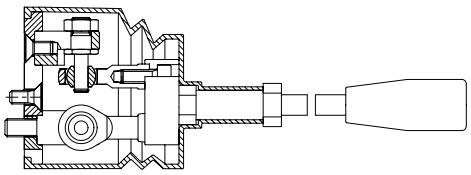


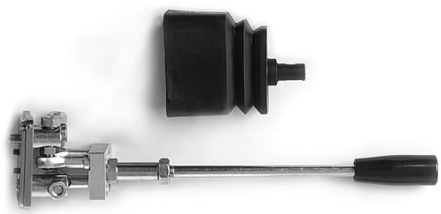
Pneumatic actuator for remote control mounted on the spool control side. It can be combined with other manual actuators.

JOYSTICK JS

COD. 801120



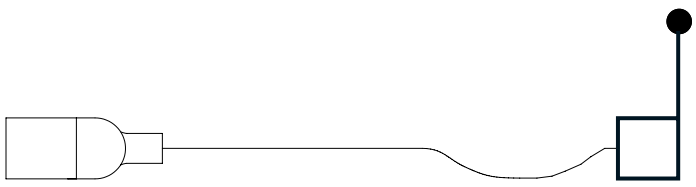




Operates two spools with one lever handle. Two spools can be operated indipendently or simultaneously, depending on the movement of the handle. Joystick requires to be assembled with spools AS, BS, DS or KS.

MANUAL REMOTE CONTROL FO

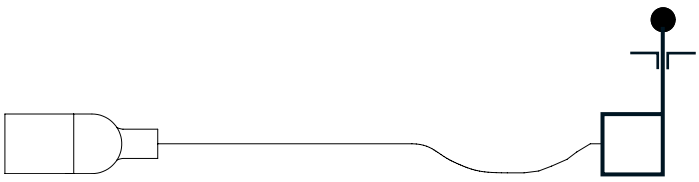
COD. 023040



Manual lever control for manual remote operation.

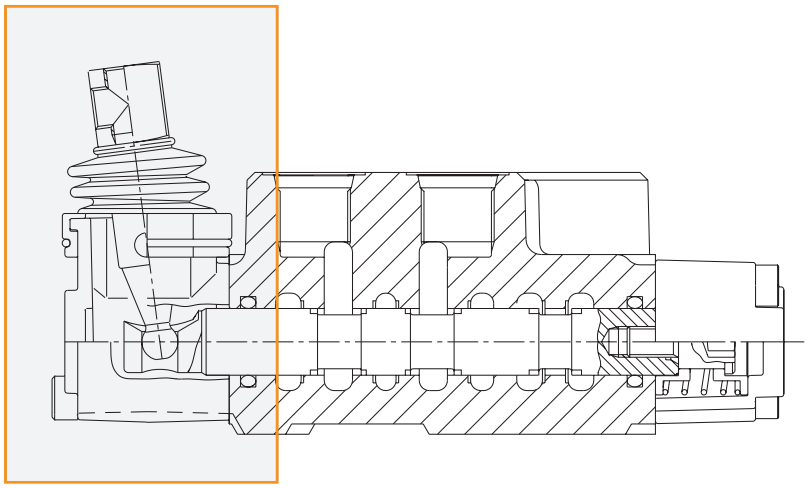
SAFETY MANUAL REMOTE CONTROL FA

COD. 023047



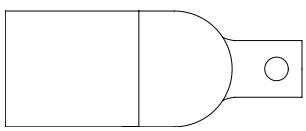
Manual lever control with safety system for manual remote operation. Allows the operation of the lever only after the lock system is released.

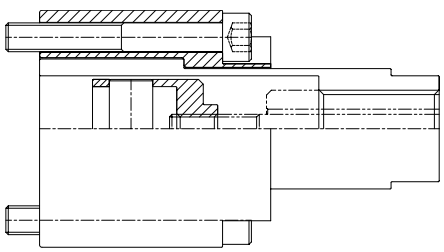
BM __ / __ __ __ (_) __ / __ __ __ / __



CABLE ADAPTER FL

COD. 801023





Cable adapter for cable control. No hand lever is provided.

CABLE TYPE CA2.0

COD. 023043

Cable 2.0 mt. long.

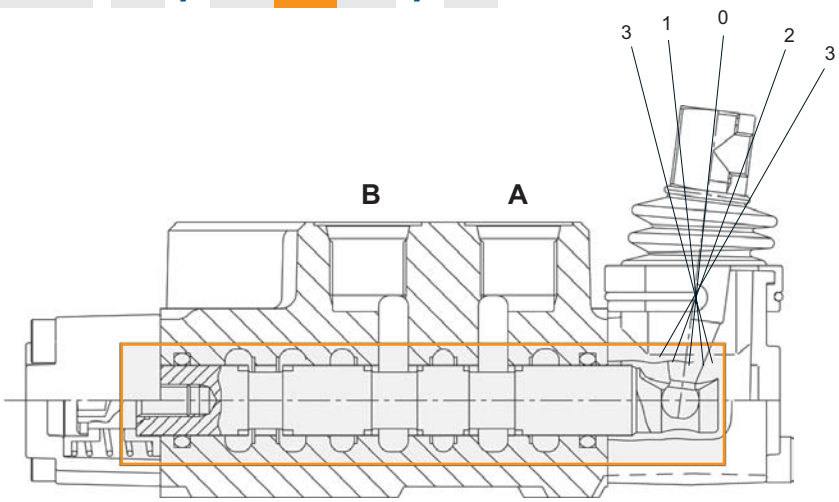
CABLE TYPE CA2.5

COD. 023044

Cable 2.5 mt. long.

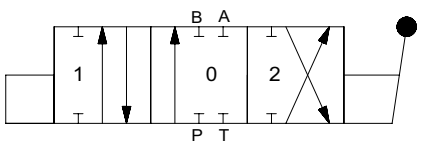
SPOOLS

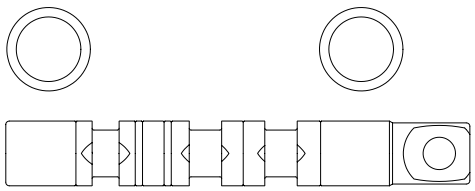
BM __ / __ __ __ (_) __ / __ __ __ / __



SPOOL A

COD. 560096

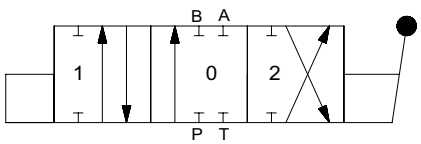


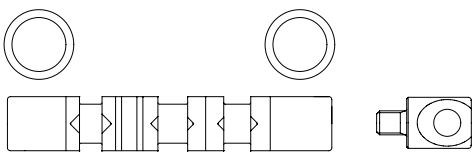


4-WAY / 3-POSITION SPOOL. Provides control of double-acting cylinders or bi-directional hydraulic motors. In position 0 work ports are blocked.

SPOOL AS

COD. 560111

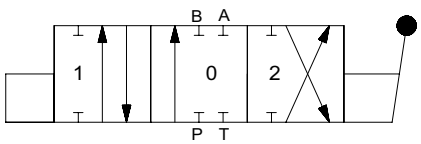


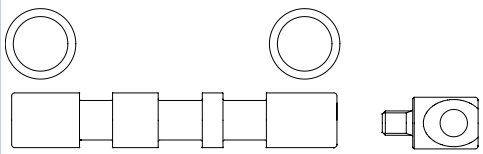


4-WAY / 3-POSITION SPOOL. Same features as spool A but with threaded spool end. Required to assembly the joystick (JS) or for special applications.

SPOOL SP

COD. 560109



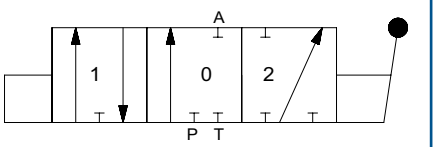


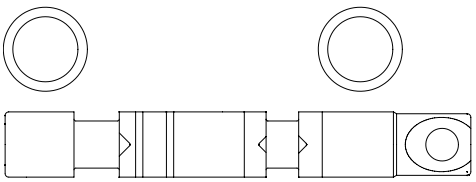
4-WAY / 3-POSITION SPOOL. Same features as spool AS but without meetering. Required for special applications (i.e. woodsplitter).

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL B

COD. 560097

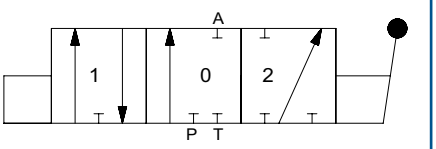


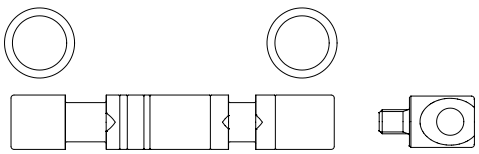


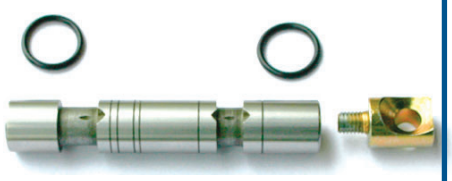
3-WAY / 3-POSITION SPOOL. Provides control of single-acting cylinders or start and stop of uni-directional hydraulic motors. In position 0 work port is blocked. B port is plugged.

SPOOL BS

COD. 560112



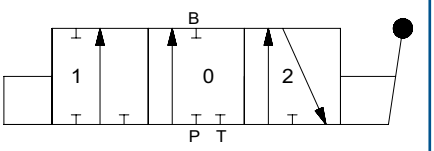


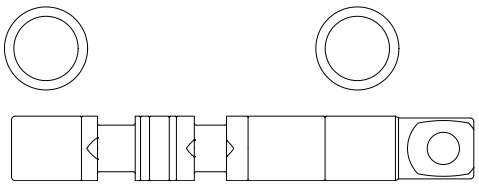


3-WAY / 3-POSITION SPOOL. Same features as spool B but with threaded spool end. Required to assembly the joystick (JS) or for special applications.

SPOOL C

COD. 560098

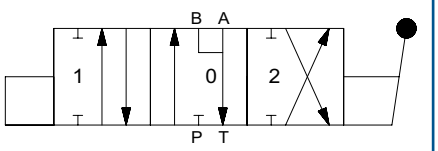


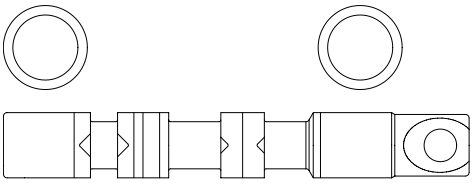


3-WAY / 3-POSITION SPOOL. Provides control of single-acting cylinders or start and stop of uni-directional hydraulic motors. In position 0 work port is blocked. A port is plugged.

SPOOL D

COD. 560099





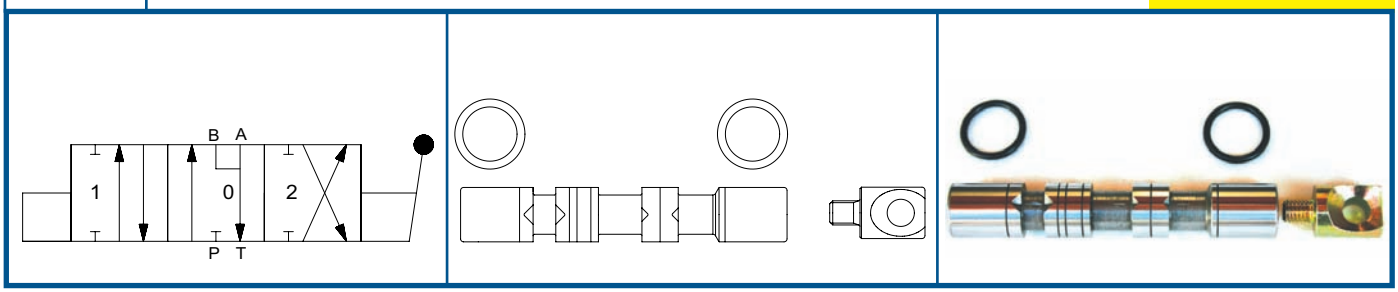
4-WAY / 3-POSITION SPOOL, OPEN CENTER (MOTOR SPOOL). Provides control of double acting cylinders or bi-directional hydraulic motors. Allows a cylinder to float or a motor to wheel free when the spool is in position 0. Work ports are open to the tank port when the spool is in position 0.

SPOOLS

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL DS

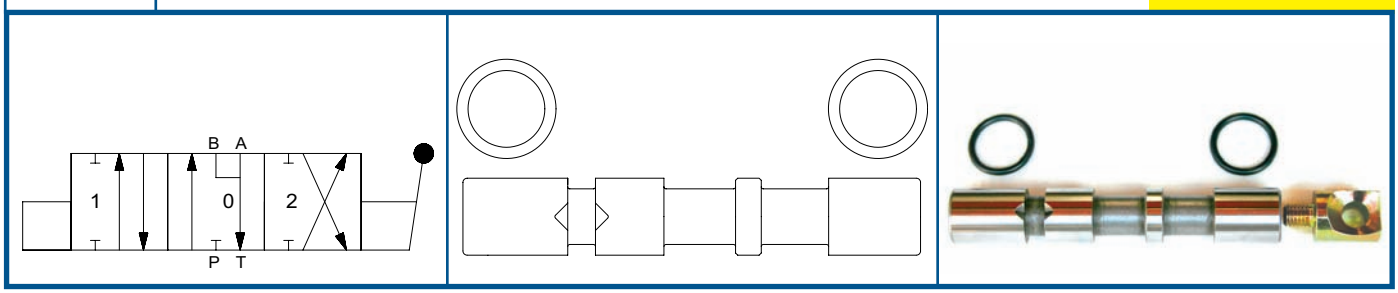
COD. 560114



4-WAY / 3-POSITION SPOOL, OPEN CENTER (MOTOR SPOOL). Same features of spool D but with threaded spool end. Required to assembly the joystick (JS) or for special applications.

SPOOL INS

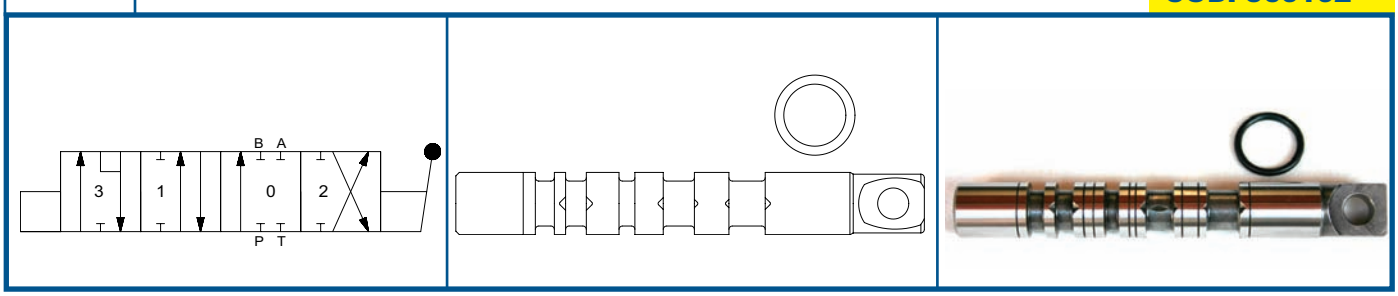
COD. 560110



4-WAY / 3-POSITION SPOOL, OPEN CENTER (MOTOR SPOOL). Same features as spool DS but without meetering. Required for special applications.

SPOOL K

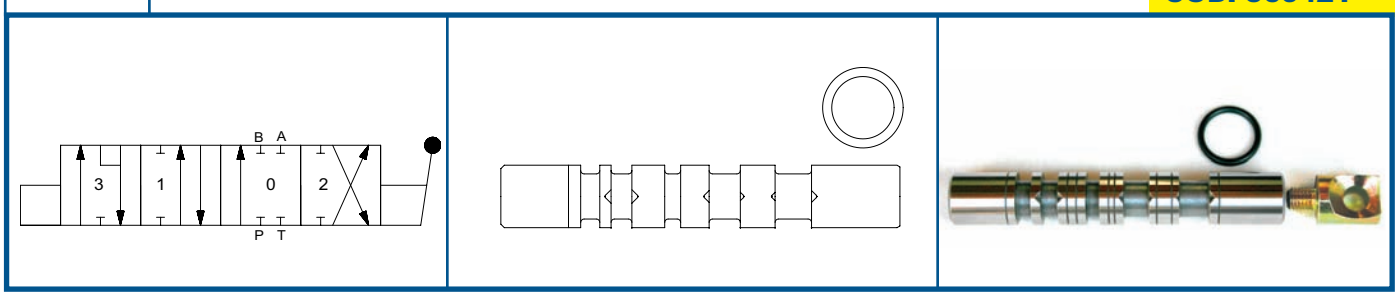
COD. 560102



4-WAY / 4-POSITION, FLOATING SPOOL. Same features as spool A with the addition of a fourth floating position. The floating position allows a cylinder to float or a motor to wheel free when the spool is in position 3. To be combined only with spool controls 16 or 54. Special machining on the body is required.

SPOOL KS

COD. 560421

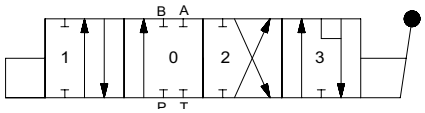


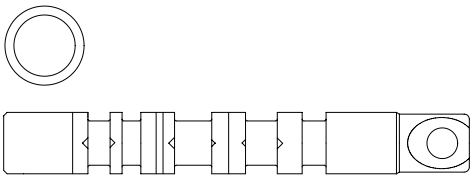
4-WAY / 4-POSITION, FLOATING SPOOL. Same features as spool K but with threaded spool end. Required to assembly the joystick (JS) or for special applications. To be combined only with spool controls 16 or 54. Special maching on the body is required.

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL L

COD. 560103

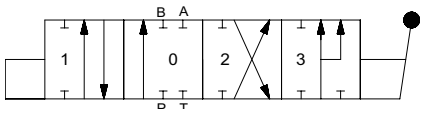


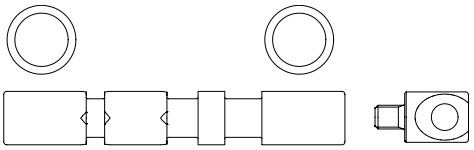


4-WAY / 4-POSITION, FLOATING SPOOL. Same features as spool A with the addition of a fourth floating position. The floating position allows a cylinder to float or a motor to wheel free when the spool is in position 3. To be combined only with spool controls 12, 13 or 53. Special machining on the body is required.

SPOOL Z

COD. 560108

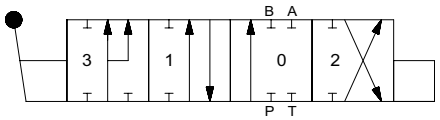


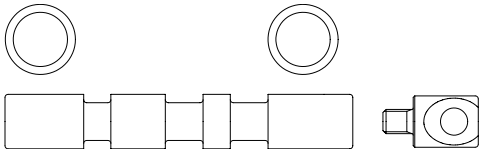


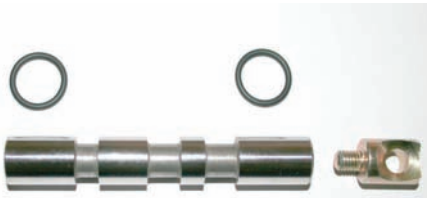
4-WAY / 4-POSITION REGENERATIVE SPOOL. Same features as spool A with the addition of a fourth regenerative circuit in position 3. The regenerative circuit allows the cylinder to increase its speed, in one way only, adding the oil returning from the rod chamber of the cylinder to the pump flow. To be combined only with spool controls 14, 42, 43 or 44. Special machining on the body is required.

SPOOL WS

COD. 560772



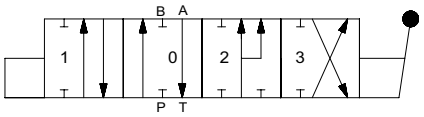


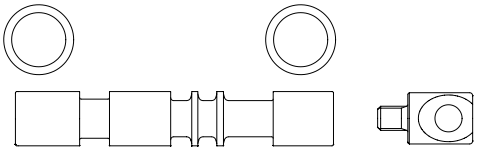


4-WAY / 4-POSITION REGENERATIVE SPOOL. Same features as spool Z but with threaded spool end. To be combined only with spool controls 42 or 43. Special machining on the body is required.

SPOOL ZI

COD. 560645





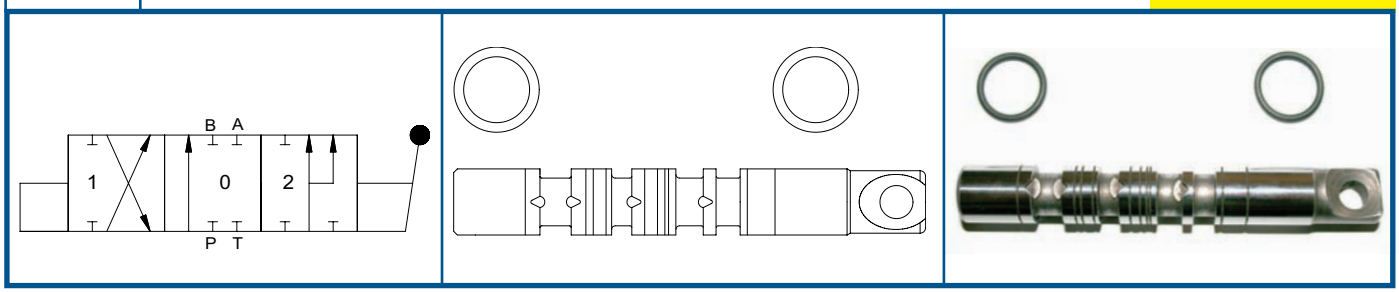
4-WAY / 4-POSITION REGENERATIVE SPOOL. Same features as spool Z. The fourth regenerative circuit is in position 2. To be combined only with spool control 17. Special machining on the body is required.

SPOOLS

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL R

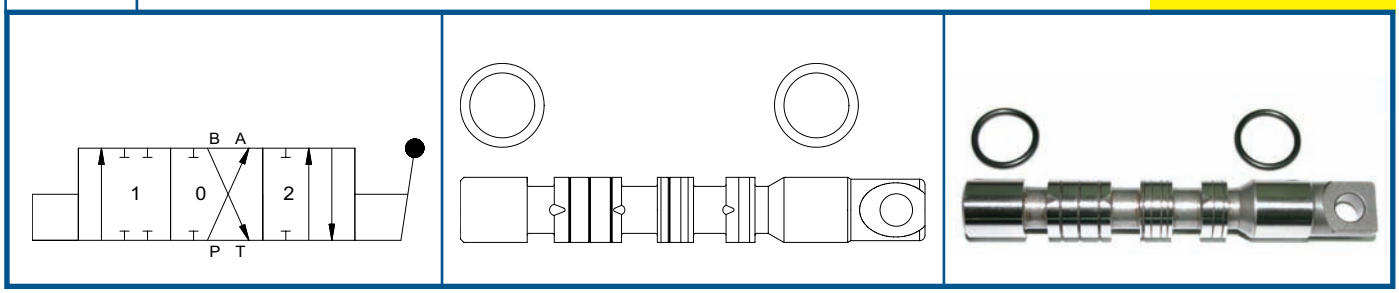
COD. 560228



4-WAY / 3-POSITION REGENERATIVE SPOOL. Provides control of double-acting cylinders or bi-directional hydraulic motors. The regenerative circuit is in position 2. The regenerative circuit allows the cyilinder to increase its speed, in one way only, adding the oil returning from the rod chamber of the cylinder to the pump flow. Special machining on the body is required.

SPOOL Y

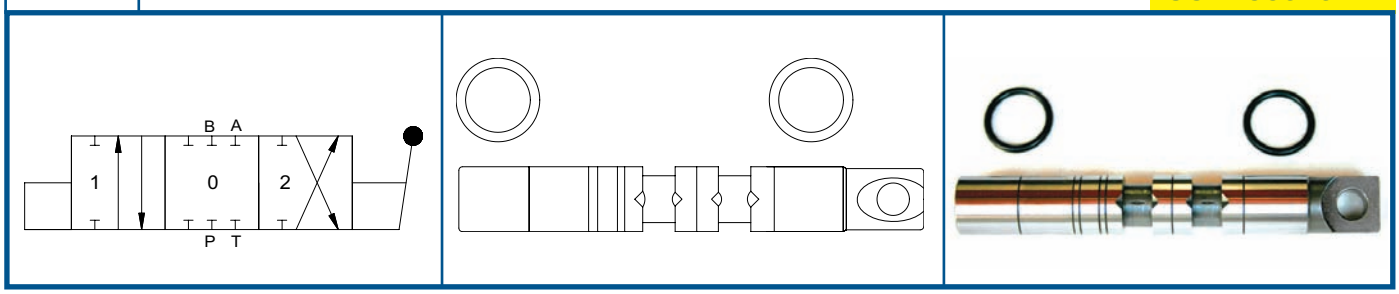
COD. 560107



4-WAY / 3-POSITION SPOOL. Provides control of bi-directional motors. Required when the sequence of the stop an go of the motor is different than usual. The neutral position is in position 1.

SPOOL M

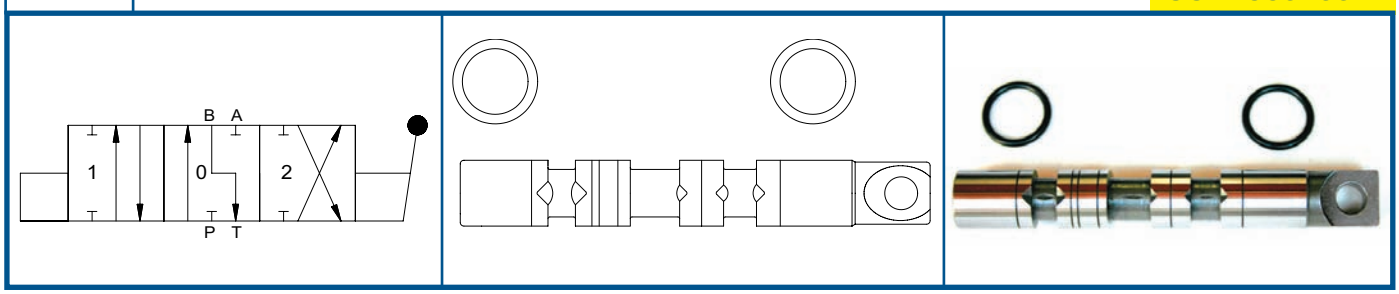
COD. 560104



4-WAY / 3-POSITION SPOOL. Same features as spool A to be used in a closed center system.

SPOOL E

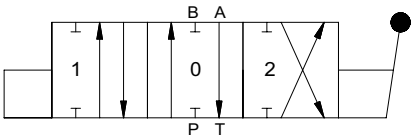
COD. 560100

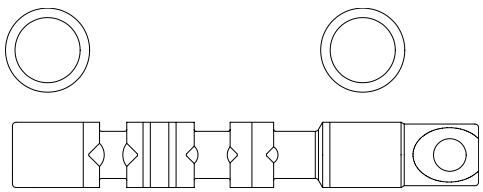


4-WAY / 3-POSITION SPOOL. Same features as spool A. In position 0 B port is connected to the tank. Required for special applications.

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL F **COD. 560101**

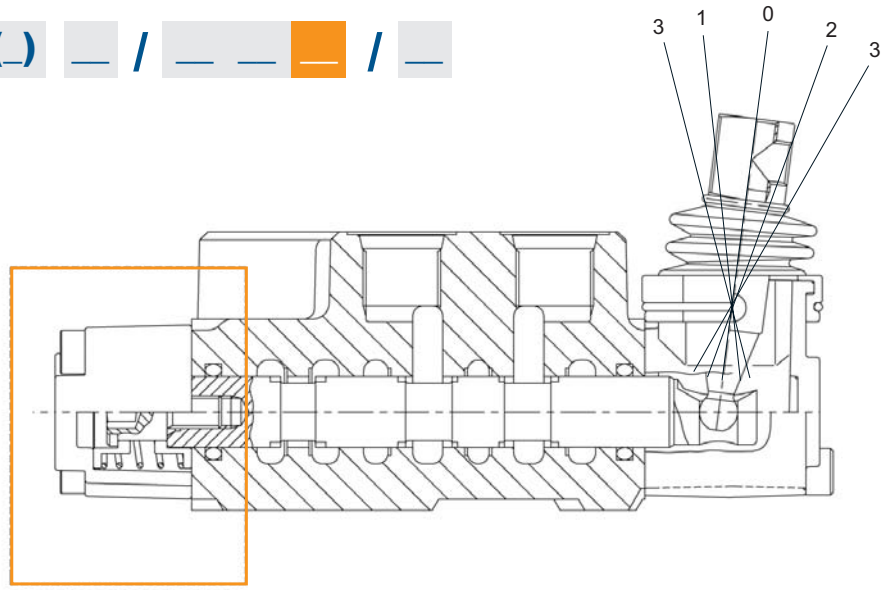




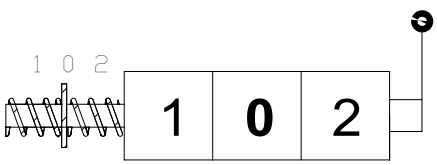
4-WAY / 3-POSITION SPOOL. Same features as spool A. In position 0 A port is connected to the tank. Required for special applications.

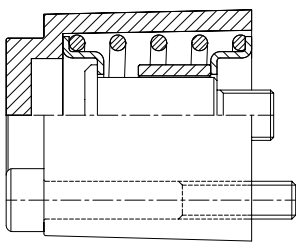
SPOOL CONTROLS

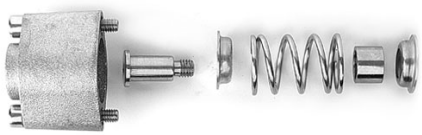
BM __ / __ __ __ (_) __ / __ __ __ / __



SPOOL CONTROL 1 — 3 POSITIONS — COD. 802001

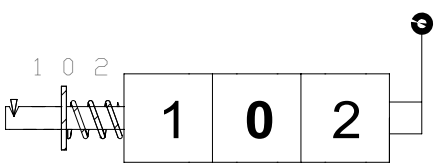


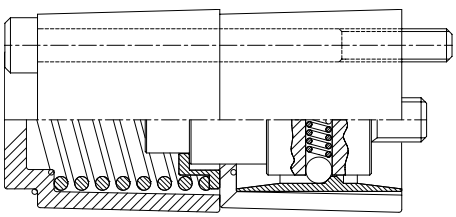


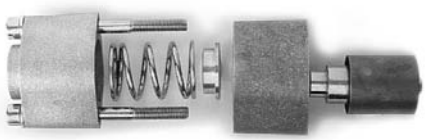


The spool returns to position 0 when the handle is released.

SPOOL CONTROL 2 — 3 POSITIONS — COD. 802002

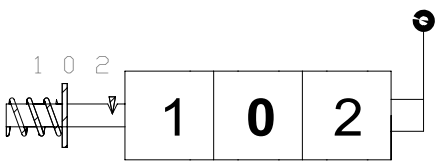


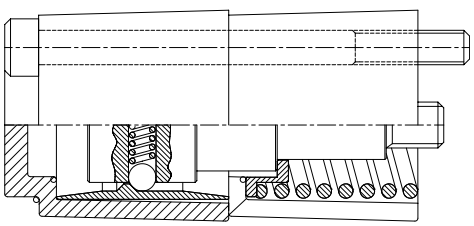


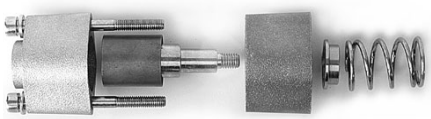


The spool is detented in position 1 and returns to 0 from position 2 when the handle is released.

SPOOL CONTROL 3 — 3 POSITIONS — COD. 802003



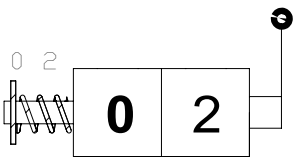


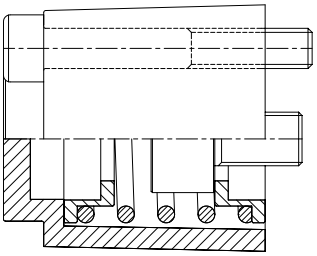


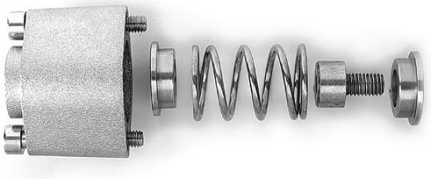
The spool is detented in position 2 and returns to 0 from position 1 when the handle is released.

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL CONTROL 4 — 2 POSITIONS — COD. 802004

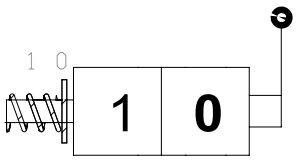


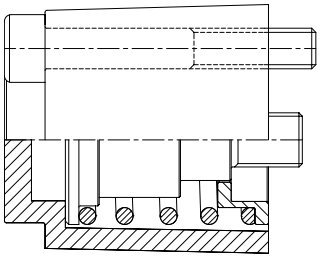




The spool returns to position 0 when the handle is released.

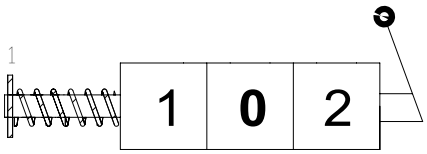
SPOOL CONTROL 5 — 2 POSITIONS — COD. 802005

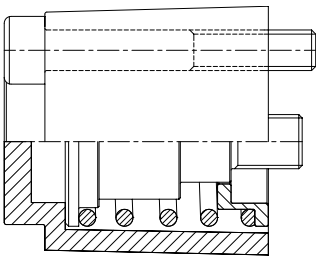


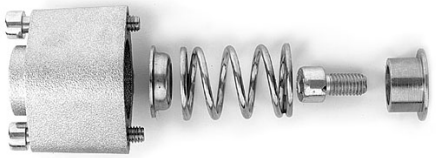


The spool returns to position 0 when the handle is released.

SPOOL CONTROL 6 — 3 POSITIONS — COD. 802006

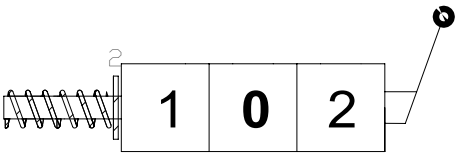


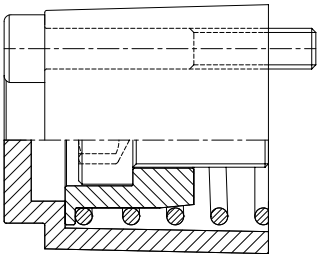


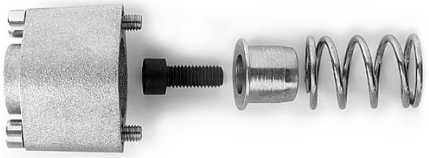


The spool returns to position 1 when the handle is released.

SPOOL CONTROL 7 — 3 POSITIONS — COD. 802007





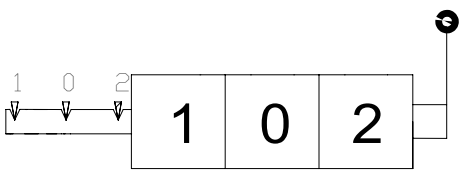


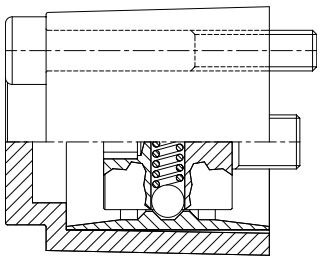
The spool returns to position 2 when the handle is released.

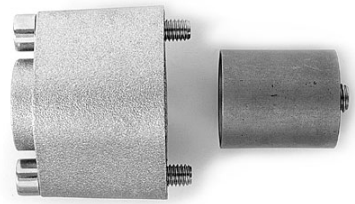
SPOOL CONTROLS

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL CONTROL 8 — 3 POSITIONS — COD. 802008

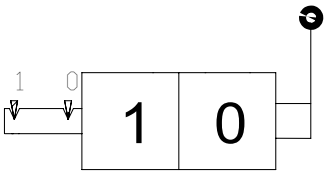


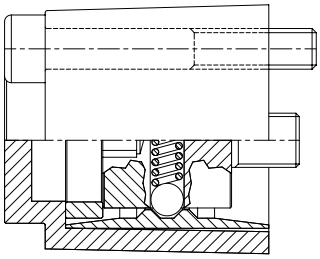


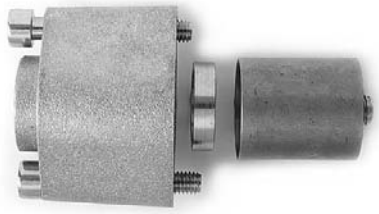


The spool is detented in all three positions.

SPOOL CONTROL 9 — 2 POSITIONS — COD. 802009

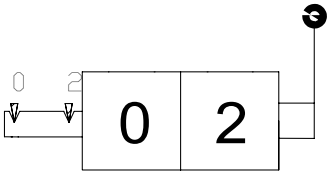


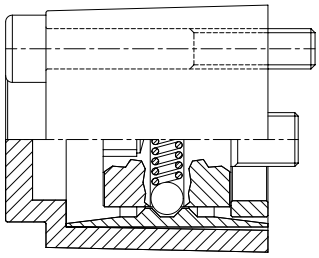


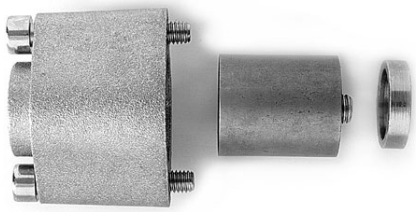


The spool is detented in both positions.

SPOOL CONTROL 10 — 2 POSITIONS — COD. 802010

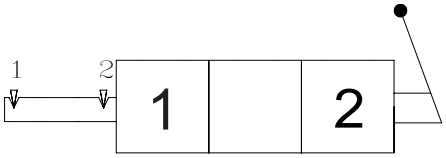


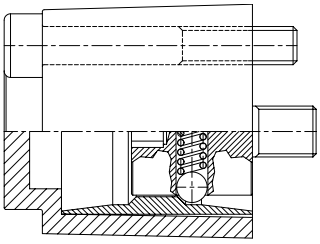


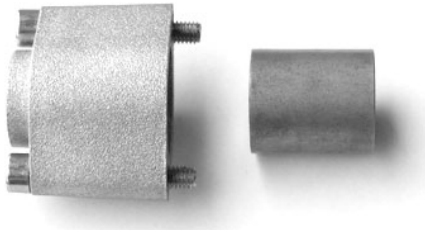


The spool is detented in both positions.

SPOOL CONTROL 11 — 2 POSITIONS — COD. 802011



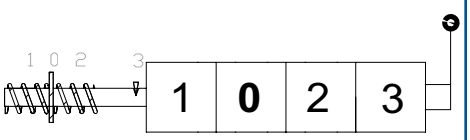


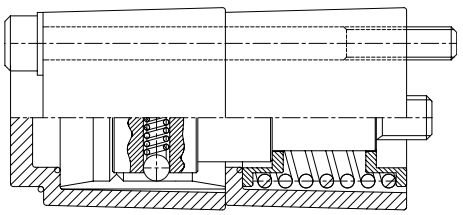


The spool is detented in both positions. The neutral position is absent.

BM __ / __ __ __ (_) __ / __ __ __ / __

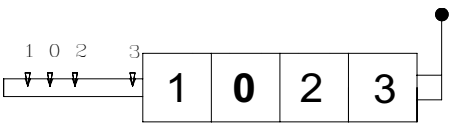
SPOOL CONTROL 12 — 4 POSITIONS — COD. 802012

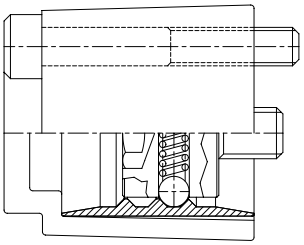


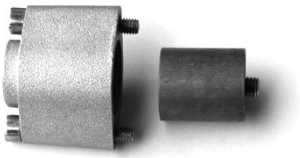


The spool returns to 0 from positions 1 and 2 when the handle is released. Position 3 is detented. To be combined only with spool L.

SPOOL CONTROL 13 — 4 POSITIONS — COD. 802013

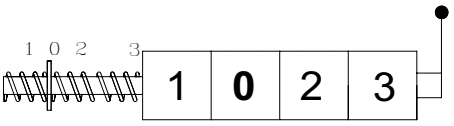


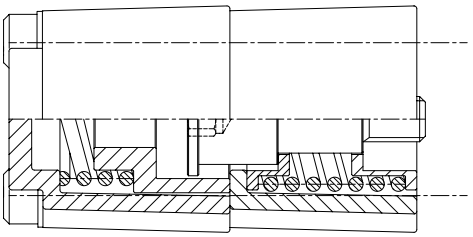


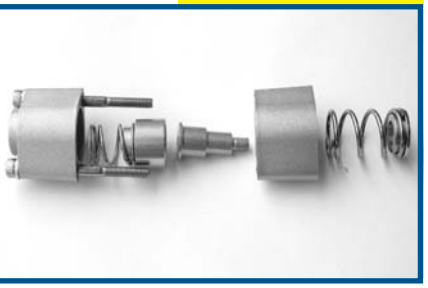


The spool is detented in all positions. To be combined only with spool L.

SPOOL CONTROL 14 — 4 POSITIONS — COD. 802045

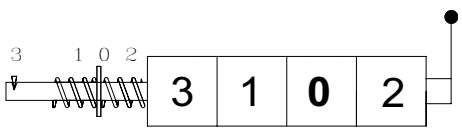


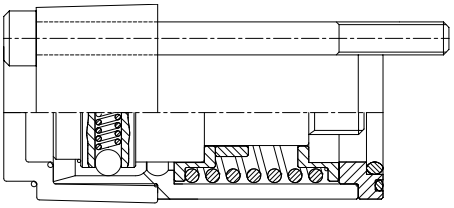


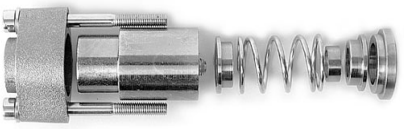


The spool returns to position 0 when the handle is released. To be combined only with spool Z.

SPOOL CONTROL 16 — 4 POSITIONS — COD. 802099





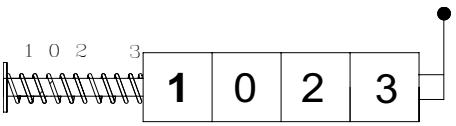


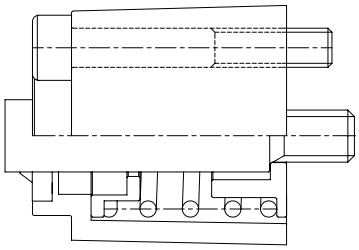
The spool returns to 0 from positions 1 and 2 when the handle is released. Position 3 is detented. To be combined only with spool K.

SPOOL CONTROLS

BM __ / __ __ __ (_) __ / __ __ __ / __

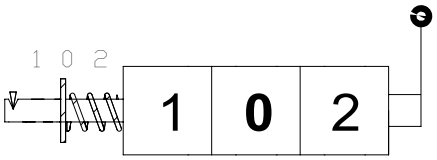
SPOOL CONTROL 17 — 4 POSITIONS — COD. 802128

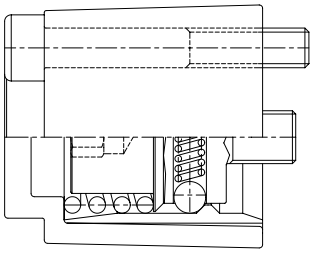




The spool returns to position 1 when the handle is released. To be combined only with spool ZI.

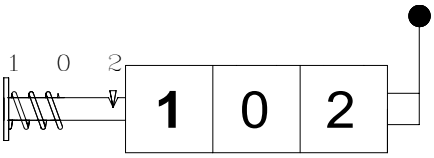
SPOOL CONTROL 28 — 3 POSITIONS — COD. 802039

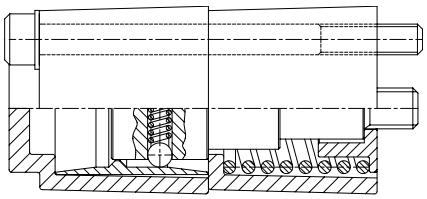




The spool is detented in position 1 and returns to 0 from position 2 when the handle is released.

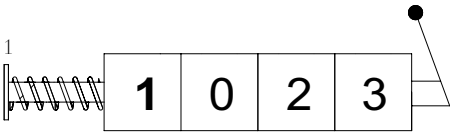
SPOOL CONTROL 40 — 3 POSITIONS — COD. 802055

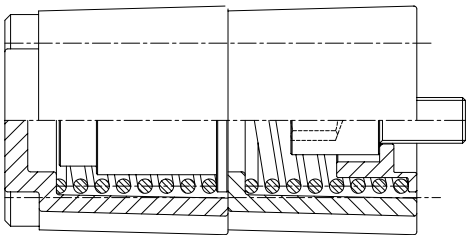




The spool is detented in position 2 and returns to position 1 from position 0 when the handle is released.

SPOOL CONTROL 42 — 4 POSITIONS — COD. 802056

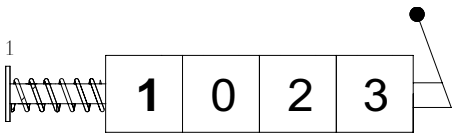


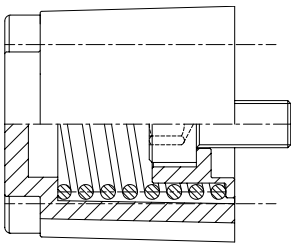


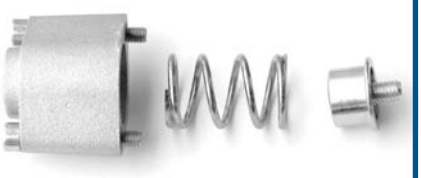
The spool returns to position 1 when the lever is released. To be combined only with spool Z or WS.

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL CONTROL 43 — 4 POSITIONS — COD. 802129

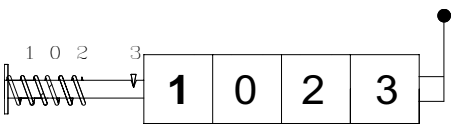


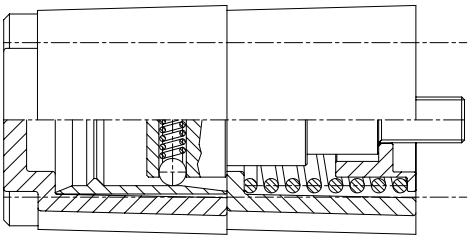




The spool returns to position 1 when the lever is released. To be combined only with spool Z or WS.

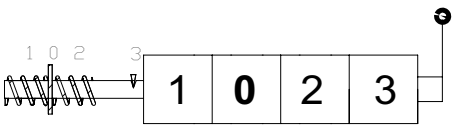
SPOOL CONTROL 44 — 4 POSITIONS — COD. 802084

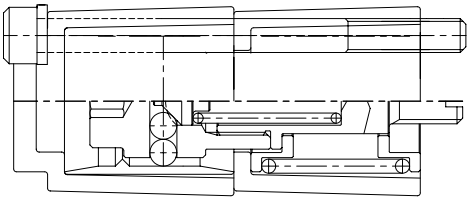




The spool is detented in pos 3 and returns to 1 from positions 2 and 0. To be combined only with spool Z.

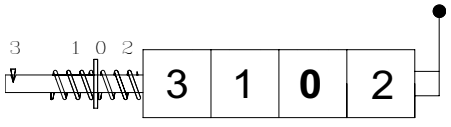
SPOOL CONTROL 53 — 4 POSITIONS — COD. 802192

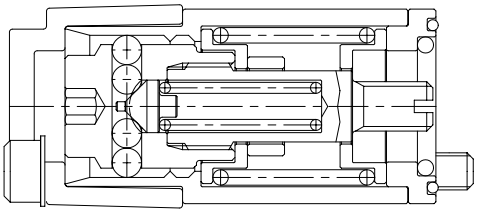




The spool returns to 0 from positions 1 and 2 when the handle is released. Position 3 is detented. To be combined only with spool L.

SPOOL CONTROL 54 — 4 POSITIONS — COD. 802193



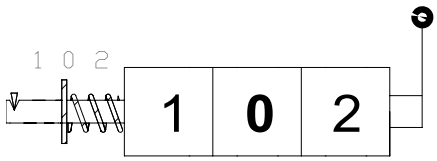


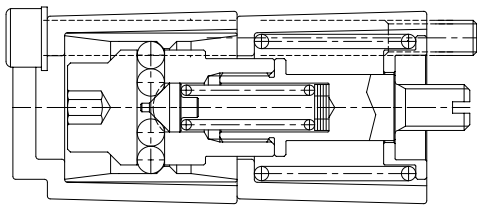
The spool returns to 0 from positions 1 and 2 when the handle is released. Position 3 is detented. To be combined only with spool K.

SPOOL CONTROLS

BM __ / __ __ __ (_) __ / __ __ __ / __

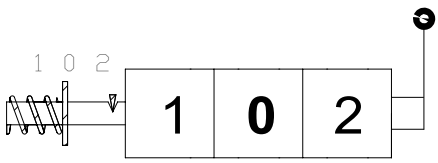
SPOOL CONTROL 58 — **3 POSITIONS** — **COD. 802226**

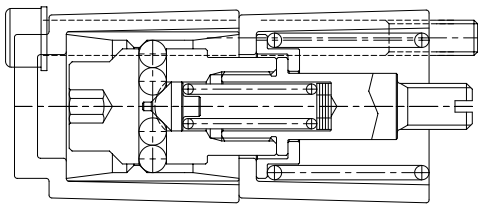




The spool is detented in position 1 and returns to 0 from position 2 when the handle is released.

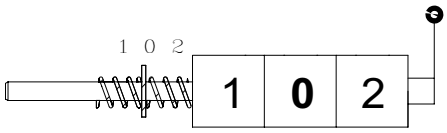
SPOOL CONTROL 59 — **3 POSITIONS** — **COD. 802227**

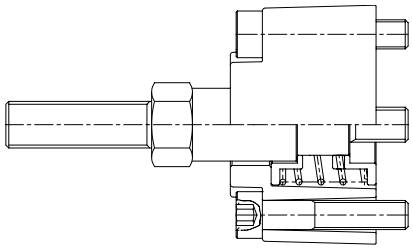




The spool is detented in position 2 and returns to 0 from position 1 when the handle is released.

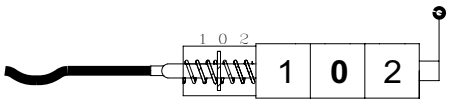
SPOOL CONTROL 1DC — **3 POSITIONS** — **COD. 802076**

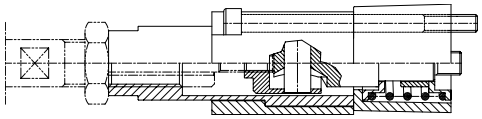




Same features as spool control 1 with the addition of a threaded pin which allows to operate the spool also from the side opposite to the manual control.

SPOOL CONTROL 1F — **3 POSITIONS** — **COD. 802070**

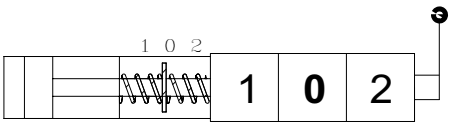


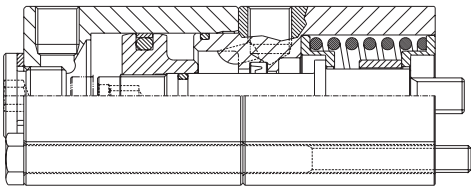


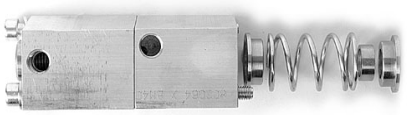
Same features as spool control 1 with the addition of the connection kit to cable remote control. To be assembled with manual remote control FO-FA and cable CA.

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL CONTROL 1P — **3 POSITIONS** — **COD. 802064**

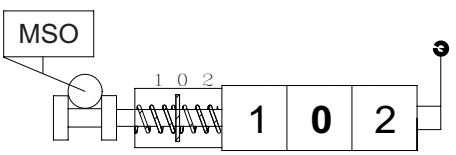


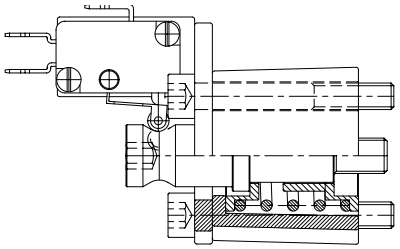




Same features as spool control 1 with the addition of the pneumatic remote control.

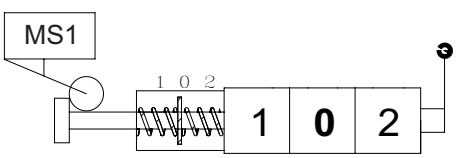
SPOOL CONTROL 1MS0 — **3 POSITIONS** — **COD. 802053**

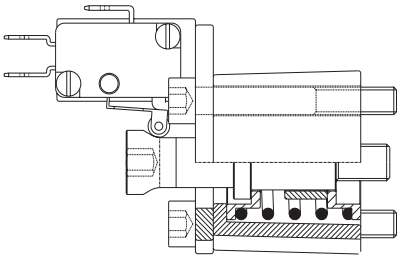




Same features as spool control 1 with the addition of a microswitch operating in positions 1 and 2.

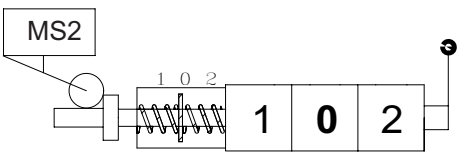
SPOOL CONTROL 1MS1 — **3 POSITIONS** — **COD. 802093**

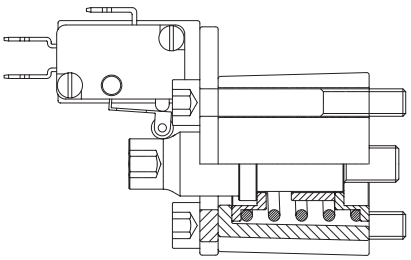




Same features as spool control 1 with the addition of a microswitch operating in position 1.

SPOOL CONTROL 1MS2 — **3 POSITIONS** — **COD. 802054**



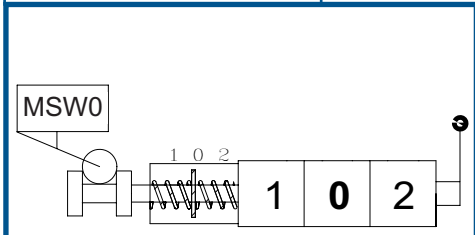


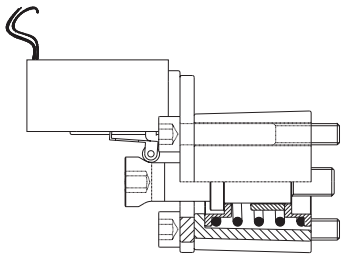
Same features as spool control 1 with the addition of a microswitch operating in position 2.

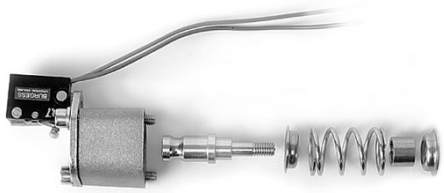
SPOOL CONTROLS

BM __ / __ __ __ (_) __ / __ __ __ / __

SPOOL CONTROL 1MSW0 **3 POSITIONS** **COD. 802176**

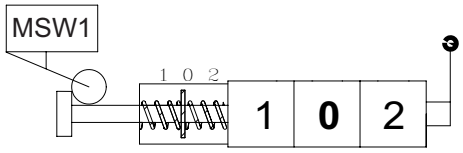


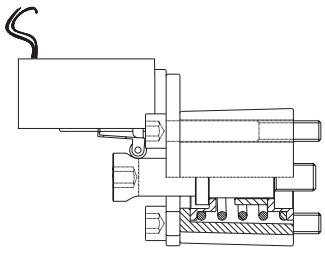


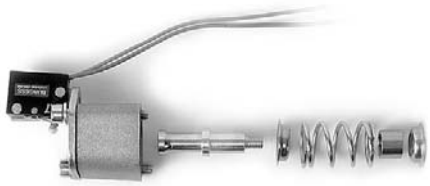


Same features as spool control 1 with the addition of a waterproof microswitch operating in positions 1 and 2.

SPOOL CONTROL 1MSW1 **3 POSITIONS** **COD. 802177**

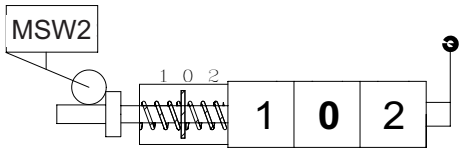


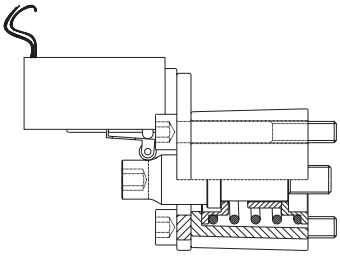


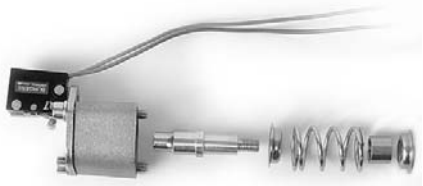


Same features as spool control 1 with the addition of a waterproof microswitch operating in position 1.

SPOOL CONTROL 1MSW2 **3 POSITIONS** **COD. 802178**



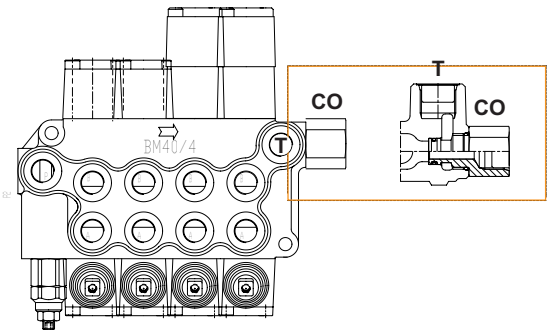


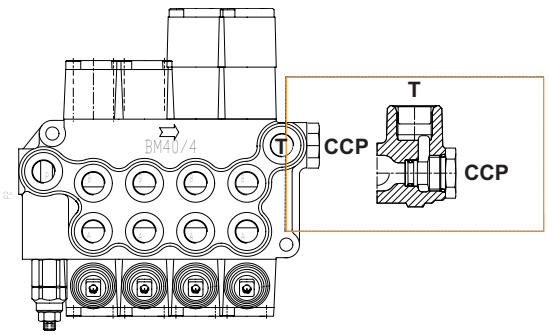


Same features as spool control 1 with the addition of a waterproof microswitch operating in position 2.

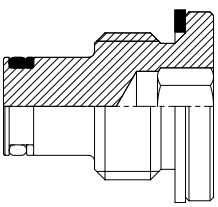
OUTLET PLUGS

BM __ / __ __ __ (_) __ / __ __ __ / __



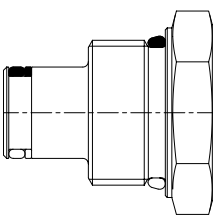


CLOSED CENTER PLUG CCP — **1/2” BSP** — **COD. 832007**



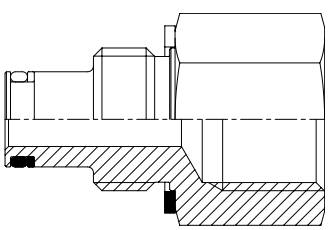
Turns an open center circuit into a closed center one. BSP threaded.

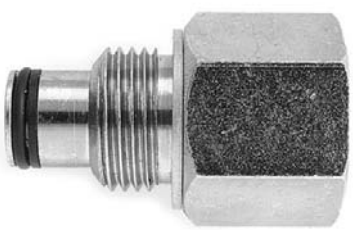
CLOSED CENTER PLUG CCP — **7/8” - 14 UNF** — **COD. 832008**



Turns an open center circuit into a closed center one. UNF threaded.

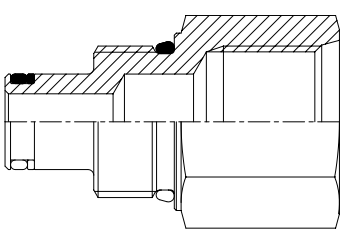
CARRY OVER CO — **1/2” BSP** — **COD. 832004**

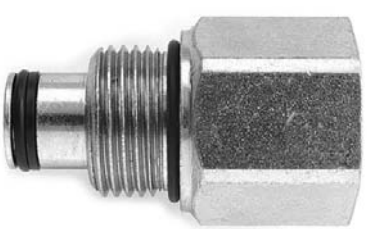




Allows the installation of another valve downstream from the first. Assembled on T2 port of a valve. BSP threaded.

CARRY OVER CO — **7/8” - 14 UNF** — **COD. 832006**

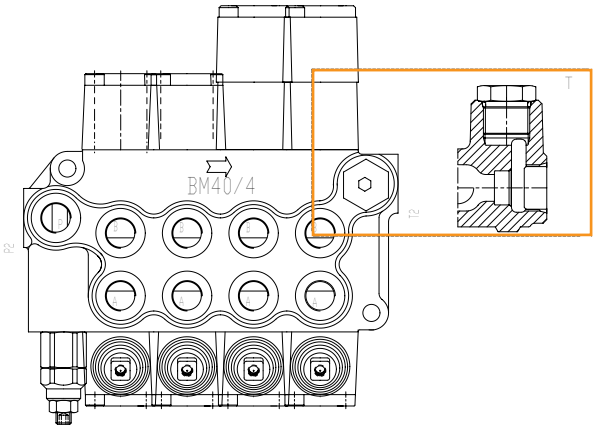


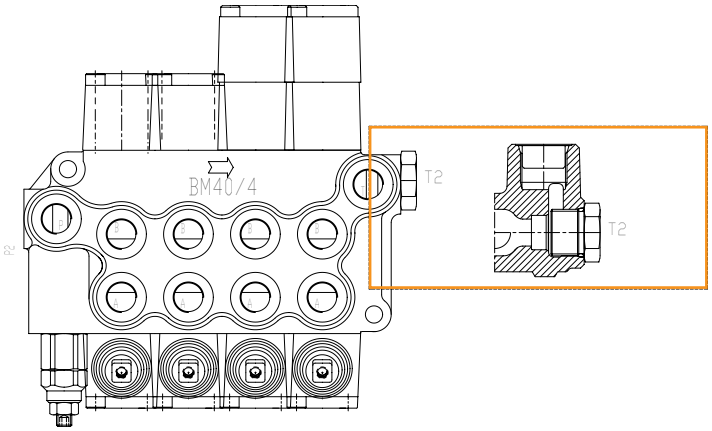


Allows the installation of another valve downstream from the first. Assembled on T2 port of a valve. UNF threaded.

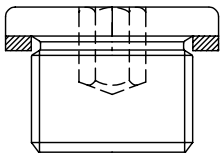
OUTLET PLUGS

BM __ / __ __ __ (_) __ / __ __ __ / __

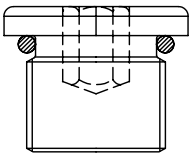




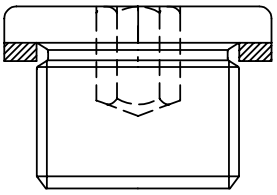
OUTLET PLUG T — 3/8" BSP — **COD. 015008**



OUTLET PLUG T — 3/4" - 16 UNF — **COD. 560333**



OUTLET PLUG T2 — 1/2" BSP — **COD. 015007**



OUTLET PLUG T2 — 7/8" - 14 UNF — **COD. 560094**