2 CETOP 02

STACKABLE CHECK VALVES

AM2-CO-*/10

30 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Direct operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are A, B or AB.
The standard surafce treatment of the body is phosphate coated. Plugs are zinc coated.

2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM2	-	CO	-		-		-		/	10

(1) AM2: stackable valve CETOP 02- Pressure 32MPa (320bar)

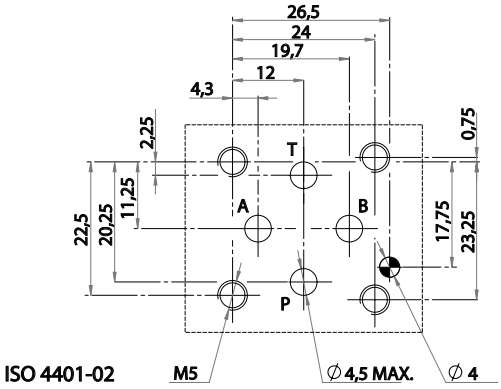
(2) CO: check valve, spring operated

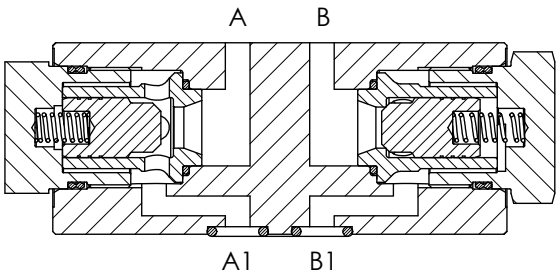
(3) Service lines where the controls operate:
AB : checks on A and B. Fluid flows A -> A1 and B -> B1
and cannot flow A1->A, B1->B, free on P and T
A : check on A: flow A1 -> A is blocked, free on B,P and T
B : check on B: flow B1 -> B is blocked, free on A,P and T

(4) Check valve opening (cracking) pressure (Pm):
no designation: Pm approx 0,2MPa (2bar)
4: Pm approx 0,4MPa (4bar)

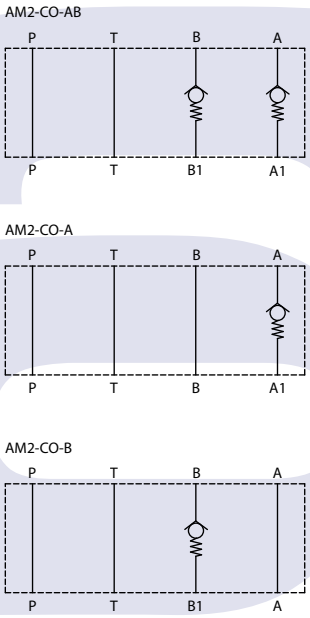
(5) Code reserved for special variants (materials, seals, surface treatments etc.).

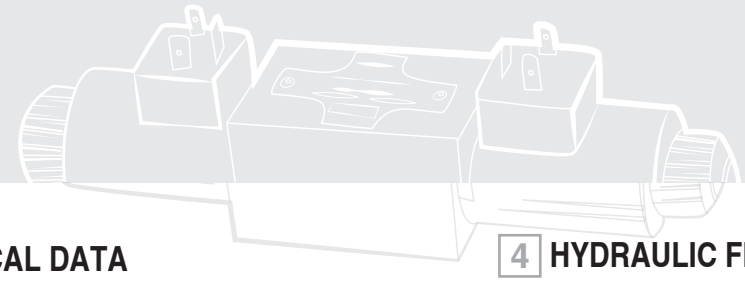
(6) Design number (progressive) of the valves





Fluid flows freely on P and T lines; on service lines A and/or B with controls, fluid flows from A -> A1 (and/or B -> B1) overcoming the force of spring acting on sleeve ; fluid flows from A1 -> A (and/or B1 -> B) through orifices of sleeve which is pushed against its seat; the throtling axis which is shifted by screwing it and locked by its nut , partially obstructs the control orifices, thus making the flow rate entirely dependent upon the vailable pressure drop.





3 TECHNICAL DATA

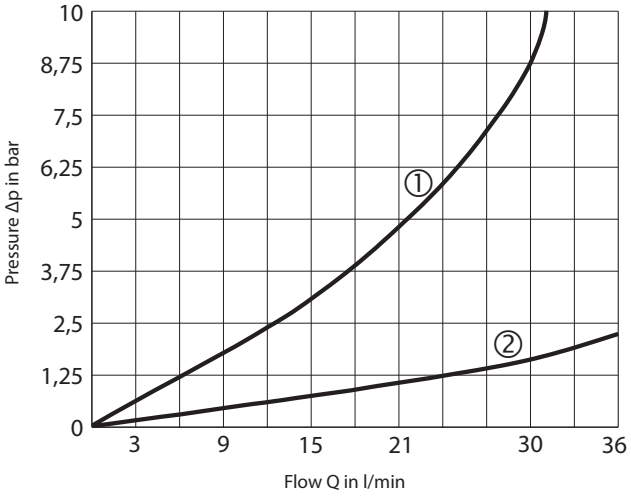
Maximum rec. flow rate	30 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 5
Installation and dimensions	see 6
Mass	approx 0,75 kg

4 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM2-*are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

5 TYPICAL DIAGRAMS

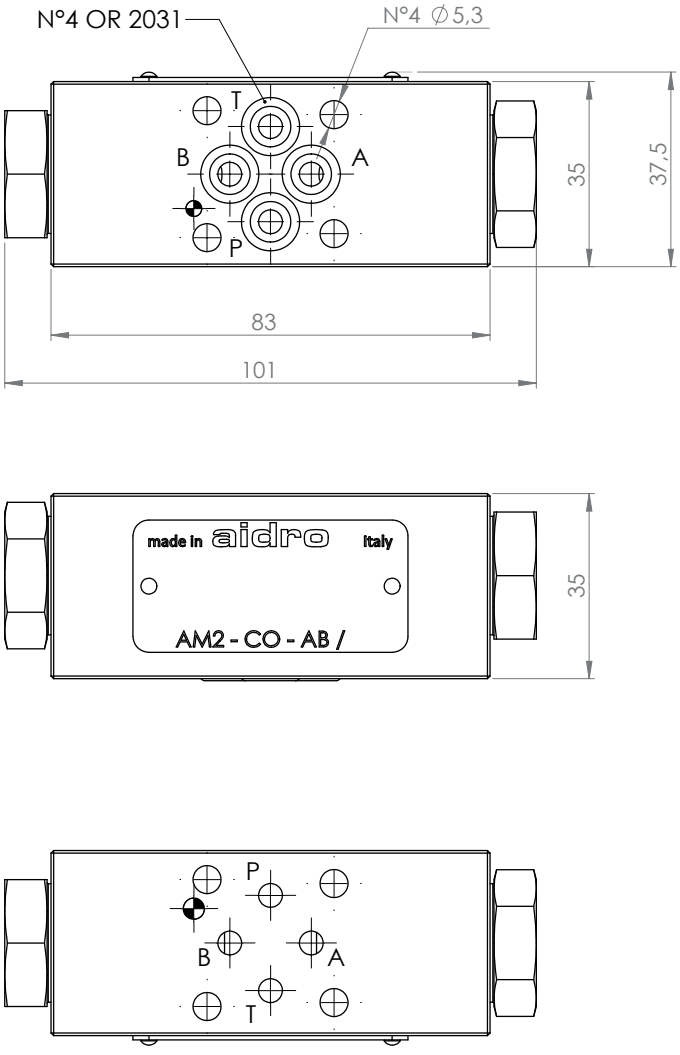
Typical Δp-Q curves for valves AM2-CO in standard configuration, with mineral oil at 36 cSt and at 50°C.



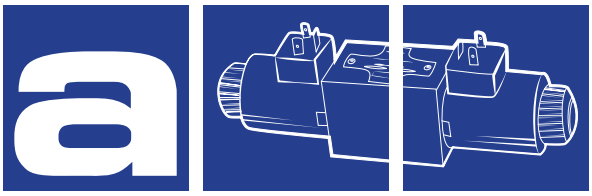
① A -> A1
B -> B1

② Free channels

6 INSTALLATION DIMENSIONS (mm)



All stackable valves AM2-CO-* conform with ISO and CETOP specifications for mounting surface dimensions (see also front page). Valves height 35 mm. Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals of OR type. All valves have on their "mounting" surface a ø 4 mm cylindrical hole and have on their "seals" surface a ø 3 mm cylindrical hole, conform with ISO and CETOP norms.



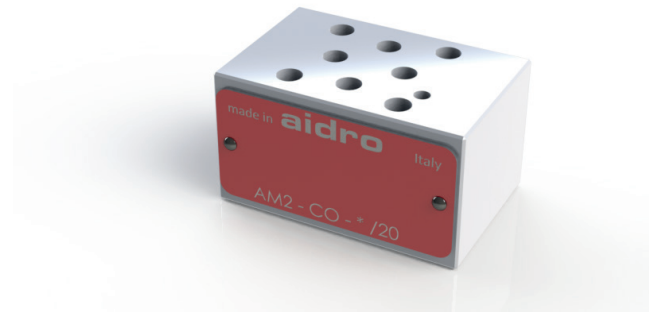
STACKABLE CHECK VALVES

AM2-CO-*/20

30 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Direct operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are P and T in different combinations.
The standard surafce treatment of the body is phosphate coated.



2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM2	-	CO	-		-		-		/	20

(1) AM2: stackable valve CETOP 02 - Pressure 32 MPa (320 bar)

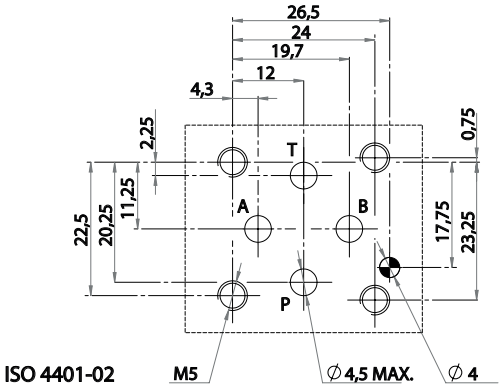
(2) CO: check valve, spring operated

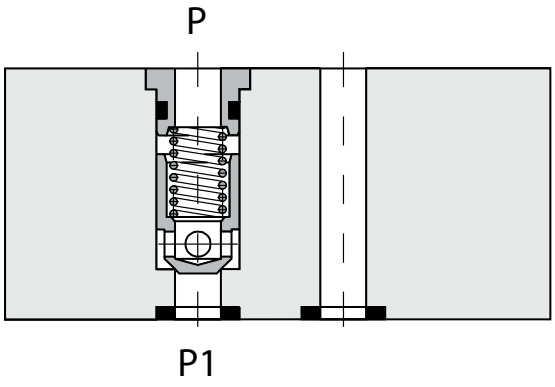
(3) Service lines where the controls operate:
T : checks on T: flow T1 -> T is blocked, free on A, B and P
P : check on P: flow P -> P1 is blocked, free on A, B and T
PT : check on P and T: P -> P1 and T1 -> T are blocked, free on A and B

(4) Check valve opening (cracking) pressure (Pm):
no designation (standard): Pm approx 0.2 MPa (2 bar)

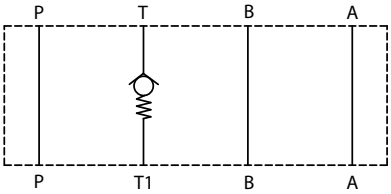
(5) Code reserved for special variants (materials, seals, surface treatments, etc.)

(6) Design number (progressive) of the valves.

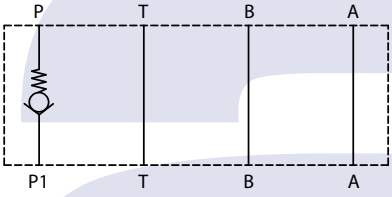




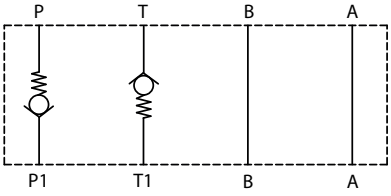
AM2-CO-T-*-**/20

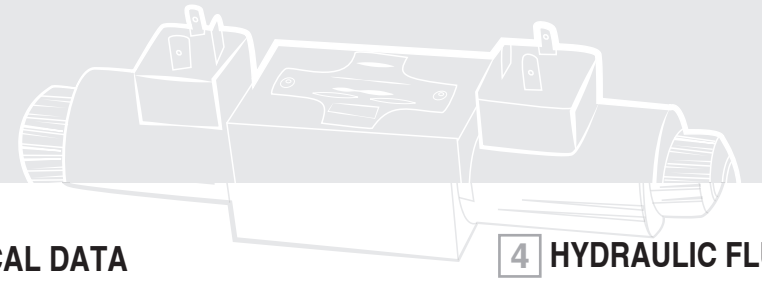


AM2-CO-P-*-**/20



AM2-CO-PT-*-**/20





3 TECHNICAL DATA

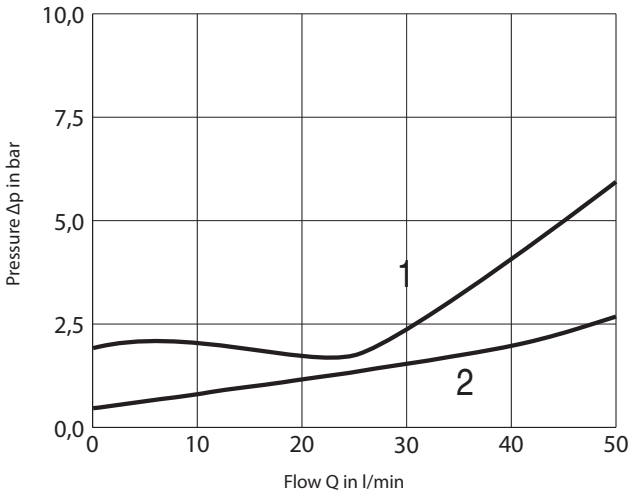
Maximum rec. flow rate	30 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 5
Installation and dimensions	see 6
Mass	approx 0,5 kg

4 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM2-* are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

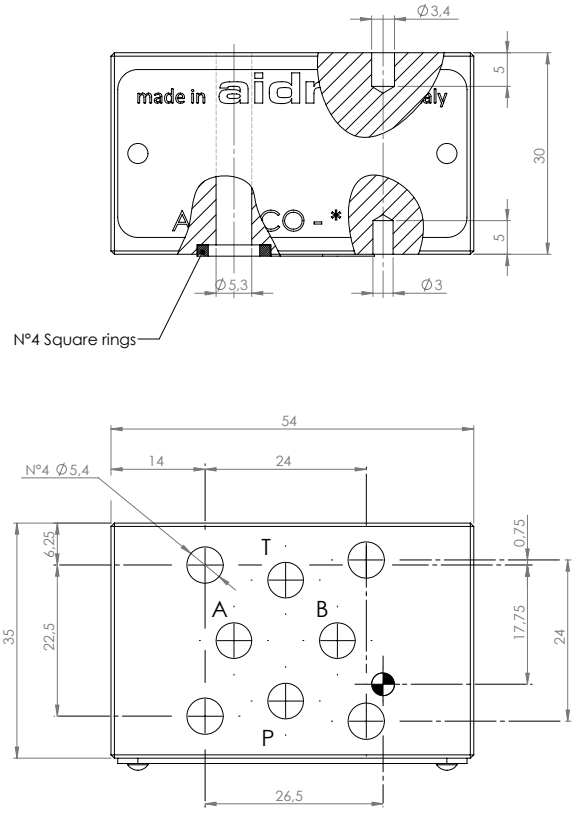
5 TYPICAL DIAGRAMS

Typical Δp-Q curves for valves AM2-CO-/20 in standard configuration, with mineral oil at 36 cSt and at 50°C



① P ->P1 and T1 ->T ② Free channel

6 INSTALLATION DIMENSIONS (mm)



All stackable valves AM2-CO-*/20 conform with ISO and CETOP specifications for mounting surface dimensions. Valves height 30 mm. Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals. All valves have on their "mounting" surface a ø 4 mm cylindrical hole and have on their "seals" surface a ø 3 mm cylindrical hole, conform with ISO and CETOP norms.

2 CETOP 02

STACKABLE PILOT OPERATED CHECK VALVES

AM2-CP-*

30 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Pilot operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are A, B or AB.
The standard surafce treatment of the body is phosphate coated. Plugs are zinc coated.

2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM2	-	CP	-		-		-		/	10

(1) AM2: stackable valve CETOP 02 - Pressure 32 MPa (320 bar)

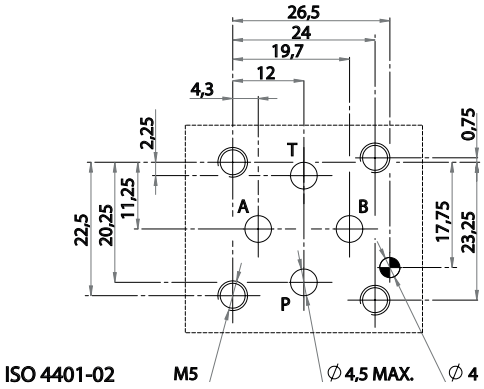
(2) CP: check valve, pilot operated (hydraulically)

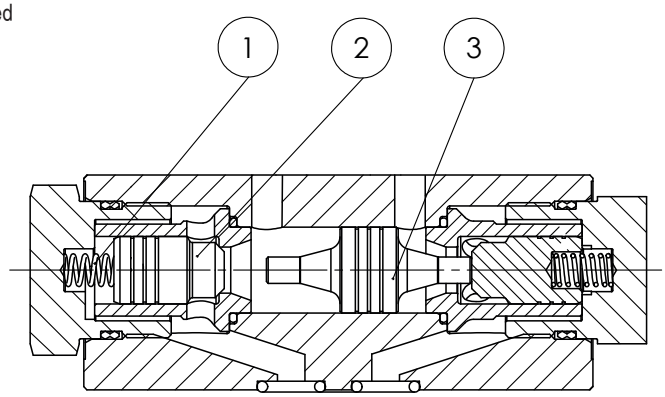
(3) Service lines where the controls operate:
AB: pilot operated checks on A and B. Fluid flows A -> A1 and B -> B1 and flow A1 -> A (or B1 -> B) is permitted only when B (or A) is pressurized
A : pilot operated check on A; flow A1 -> A is permitted only when B is pressurized
B : pilot operated check on B; flow B1 -> B is permitted only when A is pressurized

(4) Check valve opening (cracking) pressure (Pm) for free flow A -> A1 and B -> B1
no designation: Pm approx 0.2 MPa (2 bar)
4: Pm approx 0.4 MPa (4 bar)

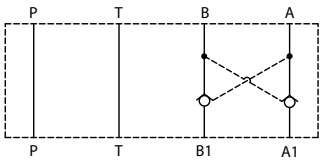
(5) Code reserved for special variants (materials, seals,surface treatments, etc.)

(6) Design number (progressive) of the valves.

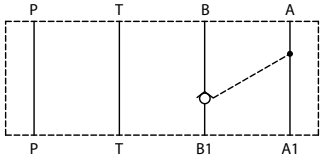




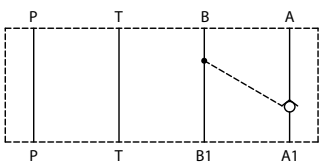
AM2-CP-AB



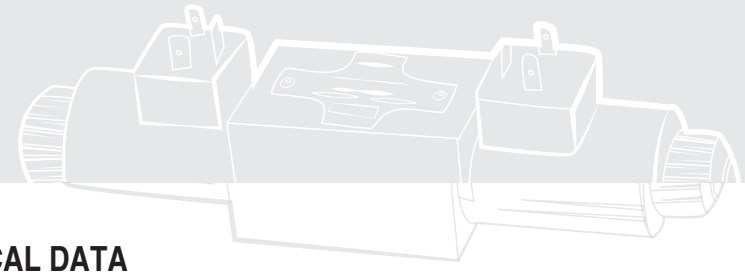
AM2-CP-B



AM2-CP-A



Fluid flows freely on P and T lines; on service lines A and/or B with p.o. check, fluid flows from A -> A1 (and/or B -> B1) overcoming the force of spring 1 acting on poppet 2, and fluid is blocked from A1-> A (and/or B1 -> B). When, by switching the solenoid operated 4-way directional valve, pressure is made available at, for instance, port B fluid flows B -> B1 and the pilot piston 3, shifting from its central position, forces poppet 2, on service line A, to open and permit flow A1 -> A.



3 TECHNICAL DATA

Maximum rec. flow rate	30 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 4
Pilot area ratio piston/check valve	approx 3,5
Installation and dimensions	see 5
Mass	approx 0,5 kg

Piloting pressure:

To shift the pilot piston and to open the check in A the piloting pressure must be at B:

$$Pp=Pb=\frac{Pa1+Pm-Pa}{3.5}+Pa$$

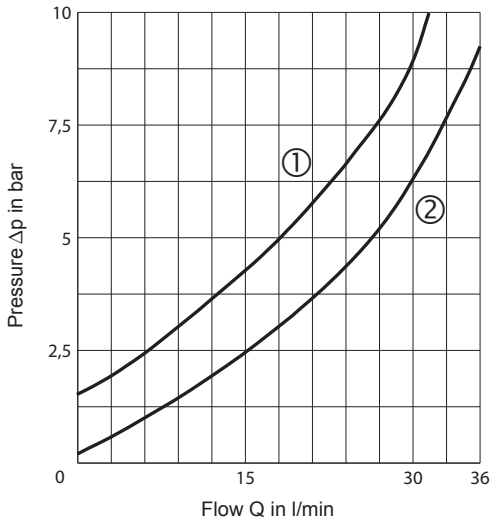
where: Pp = piloting pressure;
Pb = pressure in B;
Pa = pressure in A;
Pa1= pressure in A1;
Pm = check valve opening pressure (spring)

or: to open the check in B:

$$Pp=Pa=\frac{Pb1+Pm-Pb}{3,5}+Pb$$

4 TYPICAL DIAGRAMS

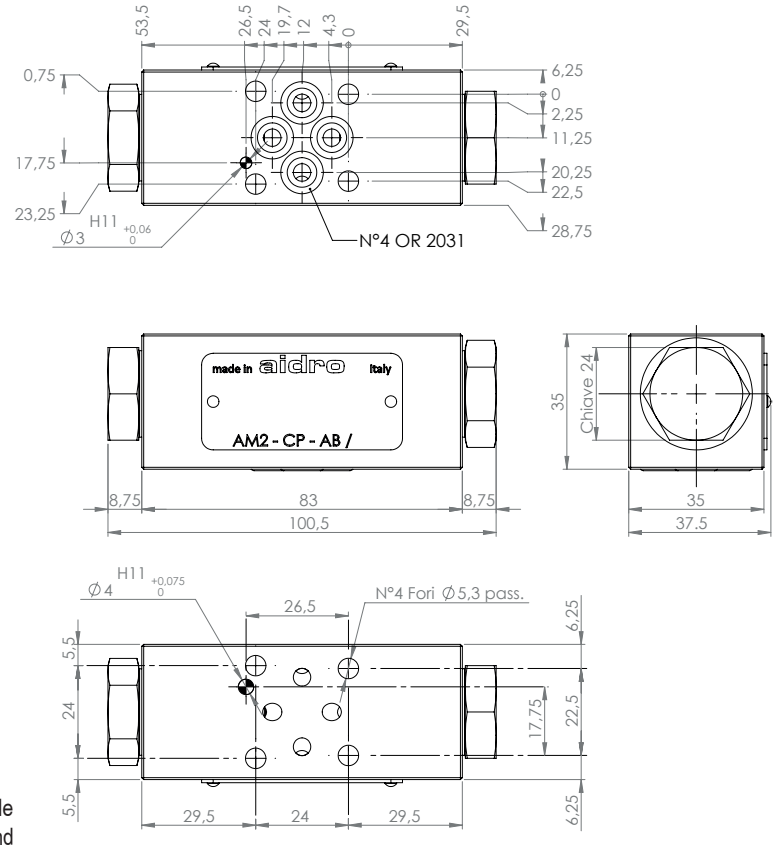
Typical Δp-Q curves for valves AM2 -CP-AB in standard configuration, with mineral oil at 36 cSt and at 50°C



① **A -> A1**
B -> B1

② **A1 -> A**
B1 -> B

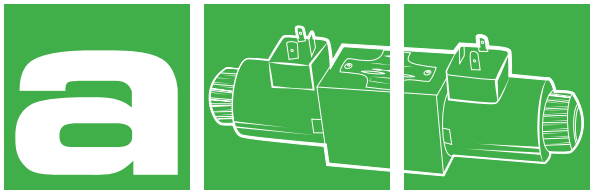
5 INSTALLATION DIMENSIONS (mm)



6 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM2-* are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

All stackable valves AM2-CP-* conform with ISO and CETOP specifications for mounting surface dimensions (see also front page). Valves height 35 mm. Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals of OR type. All valves have on their "mounting" surface a ø 4 mm cylindrical hole and have on their "seals" surface a ø 3 mm cylindrical hole, conform with ISO and CETOP norms.



FLOW CONTROL VALVES

AM3-CO-*/10

60 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Direct operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are A, B or AB.
The standard surafce treatment of the body is phosphate coated. Plugs are zinc coated.

2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM3	-	CO	-		-		-		/	10

(1) AM3: stackable valve CETOP 03 - Pressure 32 MPa (320 bar)

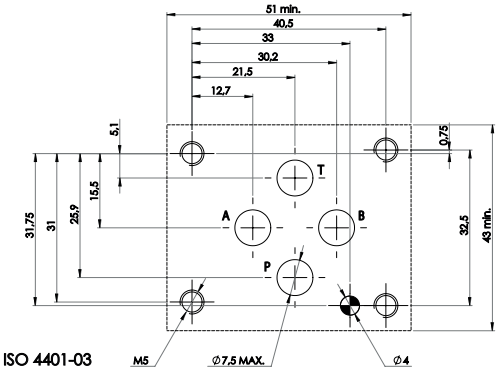
(2) CO: check valve. spring operated

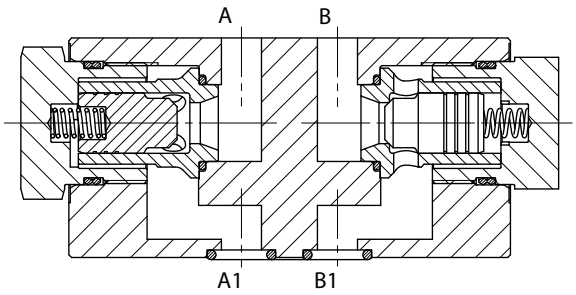
(3) Service lines where the controls operate:
AB : checks on A and B. Fluid flows A->A1 and B->B1 and cannot flow A1->A, B1->B. P and T: free.
A : check on A: flow A1-> A is blocked, free on B, P and T
B : check on B: flow B1->B is blocked, free on A, P and T

(4) check valve opening (cracking) pressure (Pm):
no designation (standard): Pm approx 0.2 MPa (2 bar)
4: Pm approx 0.4 MPa (4 bar)

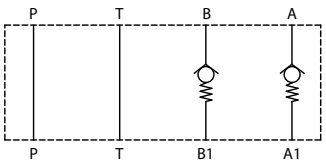
(5) Code reserved for option and variants

(6) Design number (progressive) of the valves

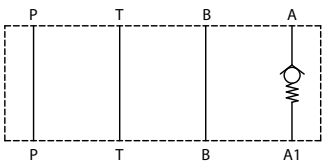




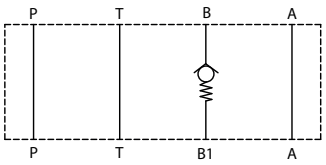
AM3-CO-AB

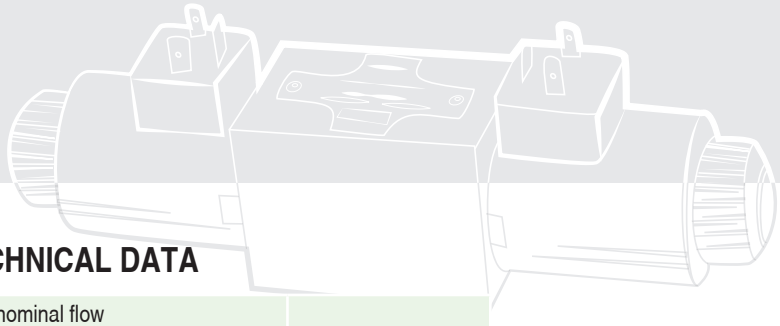


AM3-CO-A



AM3-CO-B



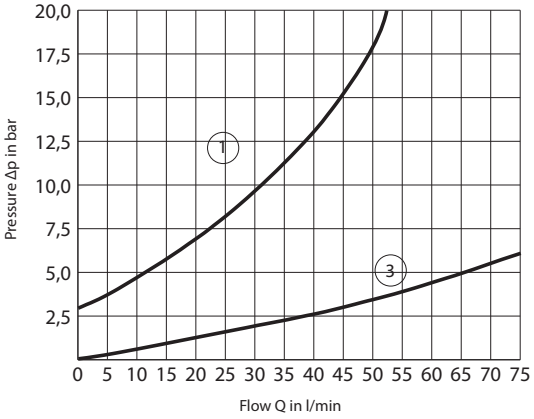


3 TECHNICAL DATA

Maximum nominal flow	
Maximum rec. flow rate	60 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 4
Installation and dimensions	see 5
Mass	approx 1 kg

4 TYPICAL DIAGRAMS

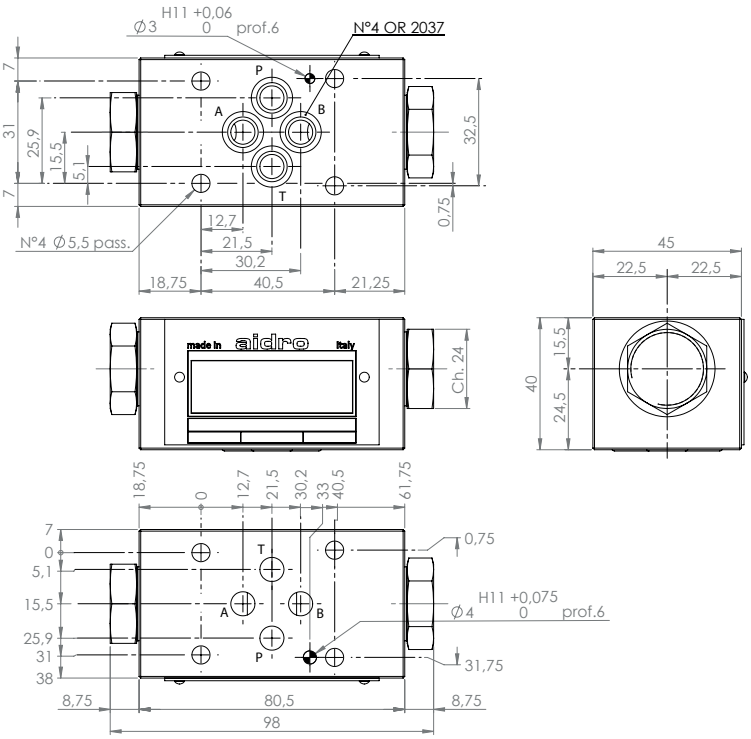
Typical Δp-Q curves for valves AM3-CO in standard configuration, with mineral oil at 36 cSt and at 50°C



① A1->A; P1->P
B1->B; T->T1

③ free channels

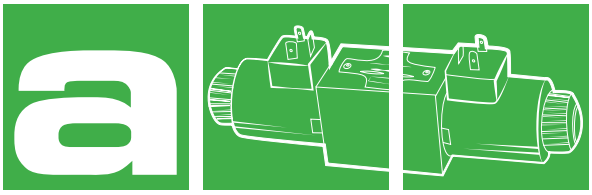
5 INSTALLATION DIMENSIONS (mm)



All stackable valves AM3 -* conform with ISO and CETOP specifications for mounting surface dimensions. Valves height 40 mm. Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals of OR type. All valves have on their "mounting" surface a ø 4 mm cylindrical hole and have on their "seals" surface a ø 3 mm cylindrical hole, conform with ISO and CETOP norms.

6 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM3-* are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.



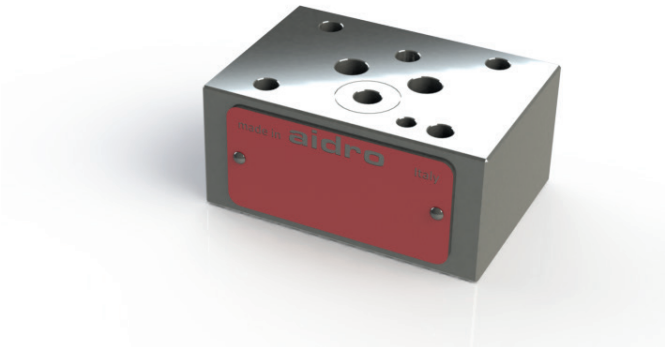
FLOW CONTROL VALVES

AM3-CO-*/25

50 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Direct operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are P, T or PT.
The standard surafce treatment of the body is phosphate coated. Plugs are zinc coated.



2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM3	-	CO	-		-		-		/	25

(1) AM3: stackable valve CETOP 03 - Pressure 32 MPa (320 bar)

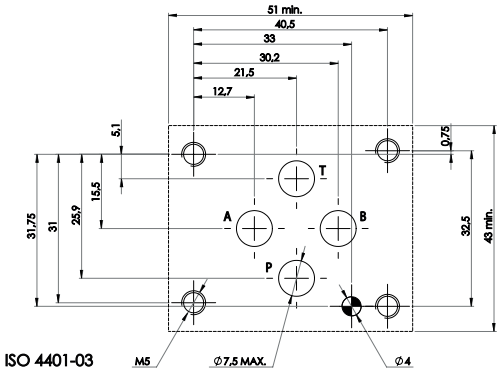
(2) CO: check valve. spring operated

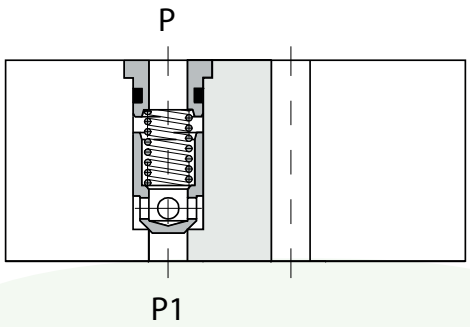
(3) Service lines where the controls operate:
T: checks on T: flow T1->T is blocked, free on A, B and P
P: check on P: flow P-> P1 is blocked, free on A, B and T
PT : check on P and T: P-> P1 and T1-> T are blocked, free on A and B

(4) check valve opening (cracking) pressure (Pm):
no designation (standard): Pm approx 0.2 MPa (2 bar)

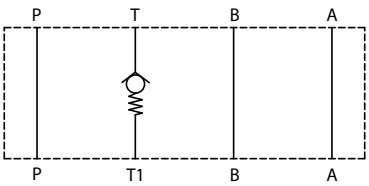
(5) Code reserved for option and variants

(6) Design number (progressive) of the valves

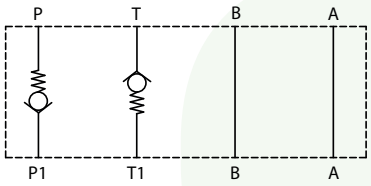




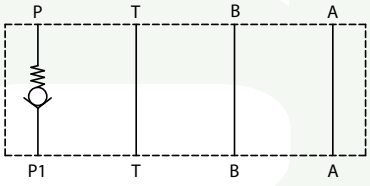
AM3-CO-T-*-**/25

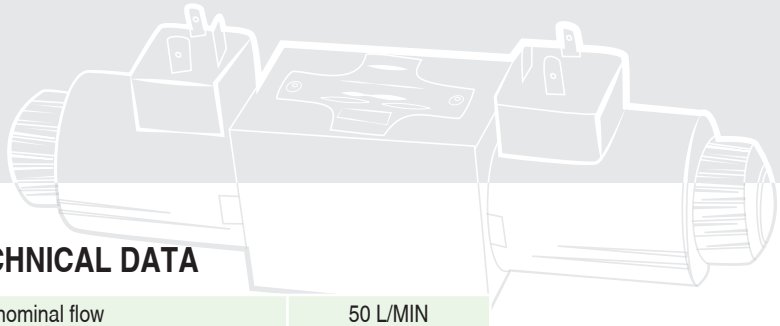


AM3-CO-PT-*-**/25



AM3-CO-P-*-**/25



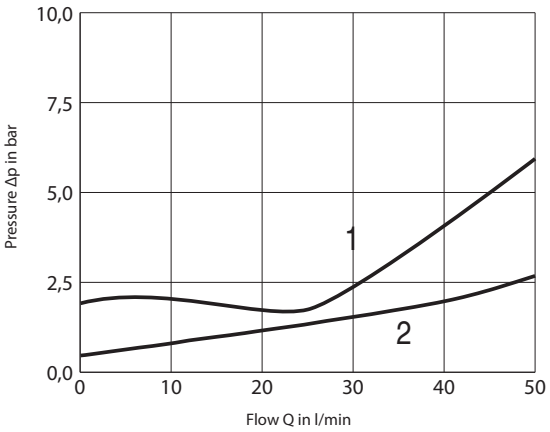


3 TECHNICAL DATA

Maximum nominal flow	50 L/MIN
Maximum rec. flow rate	350 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 4
Installation and dimensions	see 5
Mass	approx 0,9 kg

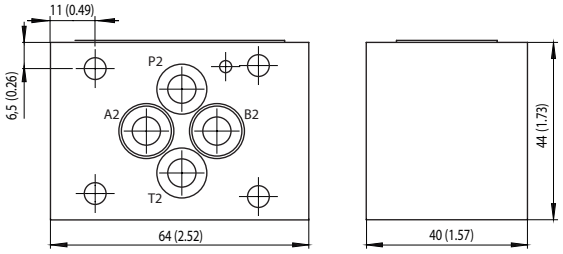
4 TYPICAL DIAGRAMS

Typical Δp-Q curves for valves AM3-CO in standard configuration, with mineral oil at 36 cSt and at 50°C



① P->P1; T1->T ②free channels

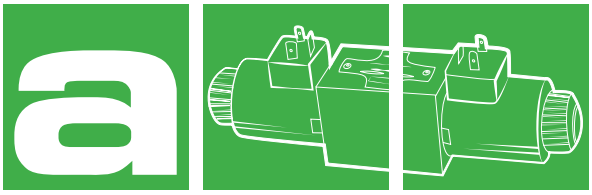
5 INSTALLATION DIMENSIONS (mm)



All stackable valves AM3-CO-*/25 conform with ISO and CETOP specifications for mounting surface dimensions.Valves height 40 mm. Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals. All valves have on their “mounting” surface a ø 3.4 mm cylindrical hole and have on their “seals” surface a ø 3 mm cylindrical hole, conform with ISO and CETOP norms.

6 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM3-* are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.



STACKABLE VALVE CHECK VALVE ON P LINE

AM3-CO-P/34

25 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Direct operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines is on P line.
The standard surafce treatment of the body is phosphate coated. Plugs are zinc coated.

2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM3	-	CO	-	P	-		-		/	34

(1) AM3: Stackable valve CETOP 03

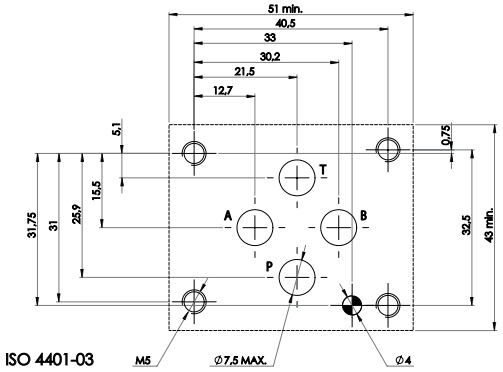
(2) CO: Unidirectional check valve

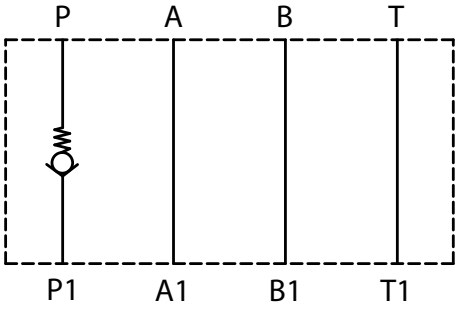
(3) P: Line where the control operates

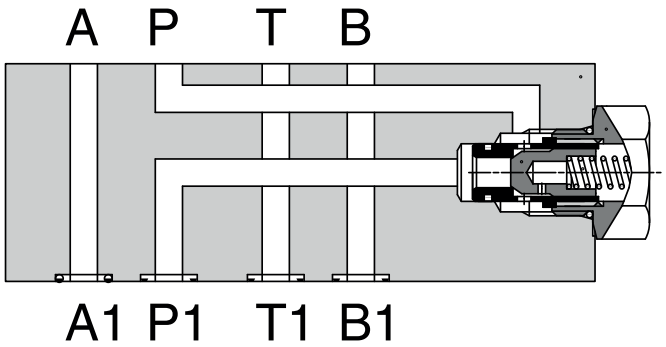
(4) Check valve opening (cracking) pressure (Pm):
no designation: Pm approx. 0.3 MPa (3 bar)
8: Pm approx. 0.8 MPa (8 bar)

(5) Code reserved for more options and variants

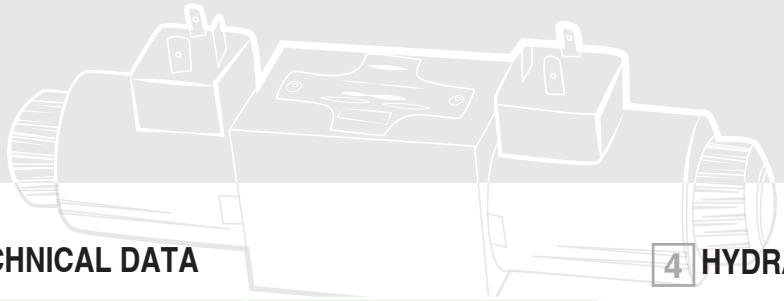
(6) Cavity for cartridge valves is 3/4" 16 UNF







Fluid flows freely in A, B and T lines. When pressure in P1 overcomes the sum of the pressure in P and the pressure due to the pre-load of spring, the poppet shifts axially and fluid flows from P1 to P. Reverse flow is prevented (without leakage) by the poppet, which kept against its seat by spring.



3 TECHNICAL DATA

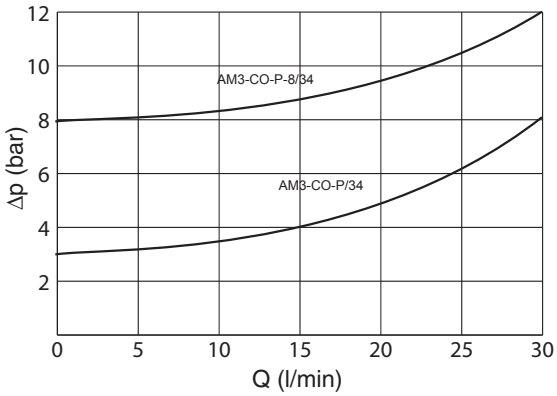
Maximum rec. flow rate on P line	25 l/min
Maximum nominal pressure	32 MPa (320 bar)

4 HYDRAULIC FLUIDS

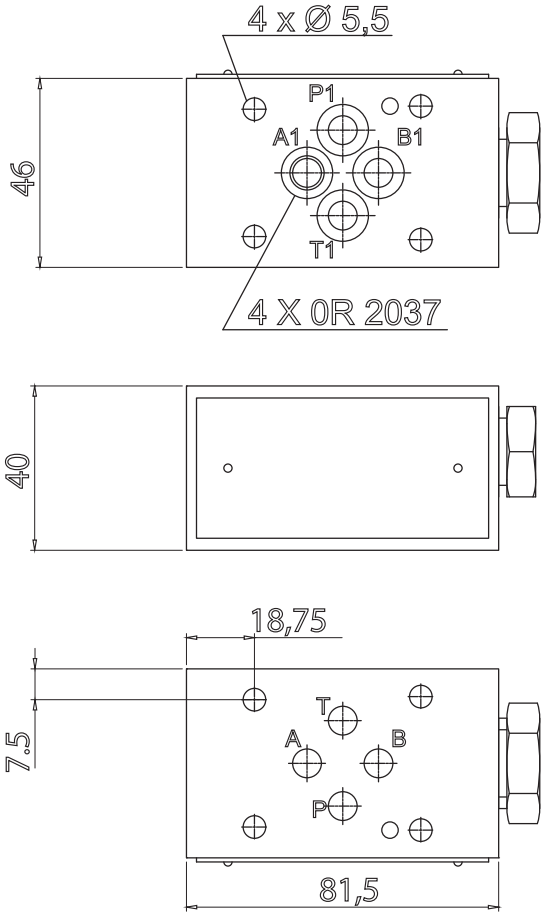
Seals and materials used on standard valves AM3-* are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10cSt to 60 cSt.

5 TYPICAL DIAGRAMS

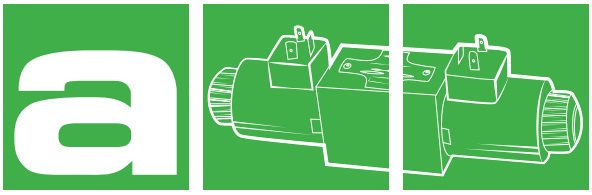
measured at ν= 36 cSt and 50°C



6 INSTALLATION DIMENSIONS (mm)



All stackable valves AM3-* conform with ISO and CETOP specifications for mounting surface dimensions and for valves height (40 mm). Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals of OR type



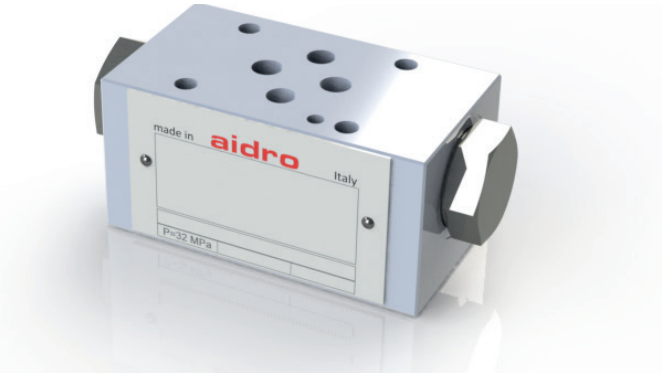
PILOT OPERATED CHECK VALVES

AM3-CP-*

60 l/min - 32 MPa (320 bar)

1 DESCRIPTION

Pilot operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are A, B or AB.
The standard surafce treatment of the body is phosphate coated. Plugs are zinc coated.



2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM3	-	CP	-		-		-		/	10

(1) AM3: stackable valve CETOP 03 - Pressure 32 MPa (320 bar)

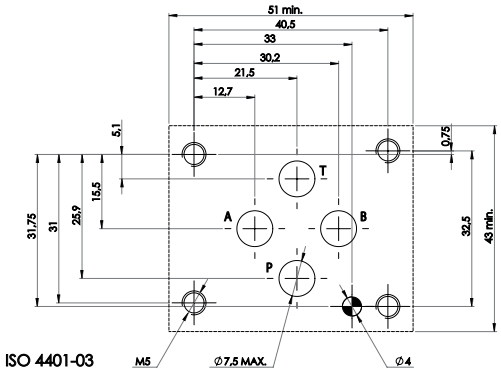
(2) CP: check valve. spring operated (hydraulically)

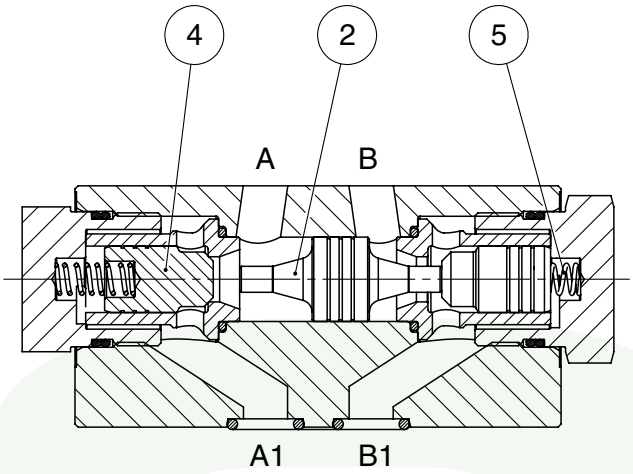
(3) Service lines where the controls operate:
AB: pilot operated checks on A and B, fluids flows A -> A1 and B- > B1 and flow A1 -> A (or B1 -> B) is permitted only when B (or A) is pressurized
A : pilot operated check on A; flow A1 -> A is permitted only when B is pressurized
B : pilot operated check on B; flow B1 -> B is permitted only when A is pressurized

(4) check valve opening (cracking) pressure (Pm)
for free flow A->A1 and B->B1:
no designation (standard): Pm approx 0.2 MPa (2 bar)
4: Pm approx 0.4 MPa (4 bar)

(5) Code reserved for option and variants

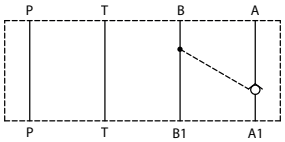
(6) Design number (progressive) of the valves



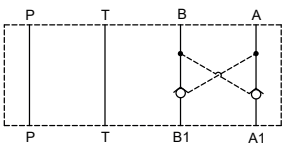


Fluid flows freely on P and T lines;
On service lines A and/or B with p.o. check, fluid flows from A ->A1 (and/or B ->B1) overcoming the force of spring 5 acting on poppet 4, and fluid is blocked from A1 ->A (and/or B1 -> B). When, by switching the solenoid operated 4-way directional valve, pressure is made available at, for instance, port B fluid flows B -> B1 and the pilot piston 3, shifting from its central position, forces poppet 2, on service line A, to open and permit flow A1 -> A.

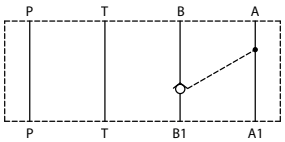
AM3-CP-A

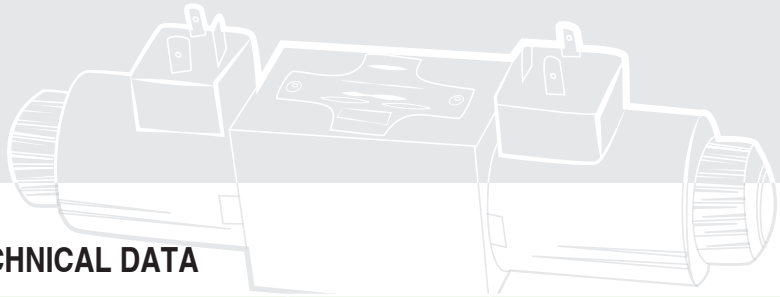


AM3-CP-AB



AM3-CP-B





3 TECHNICAL DATA

Maximum nominal flow	
Maximum rec. flow rate	60 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 4
Pilot area ration piston/check valve	approx 3,5
Installation and dimensions	see 5
Mass	approx 1 kg

Piloting pressure:

To shift the pilot piston and to open the check in A the piloting pressure must be at B:

$$Pp=Pb=\frac{Pa1+Pm-Pa}{3,5}+Pa$$

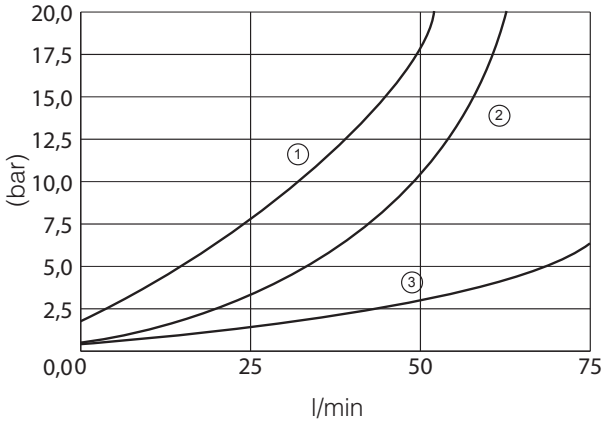
where: Pp= piloting pressure
Pb= pressure in B
Pa= pressure in A
Pa1= pressure in A
Pm= check valve opening pressure (spring)

or to open the check in B

$$Pp=Pa=\frac{Pb1+Pm-Pb}{3,5}+Pb$$

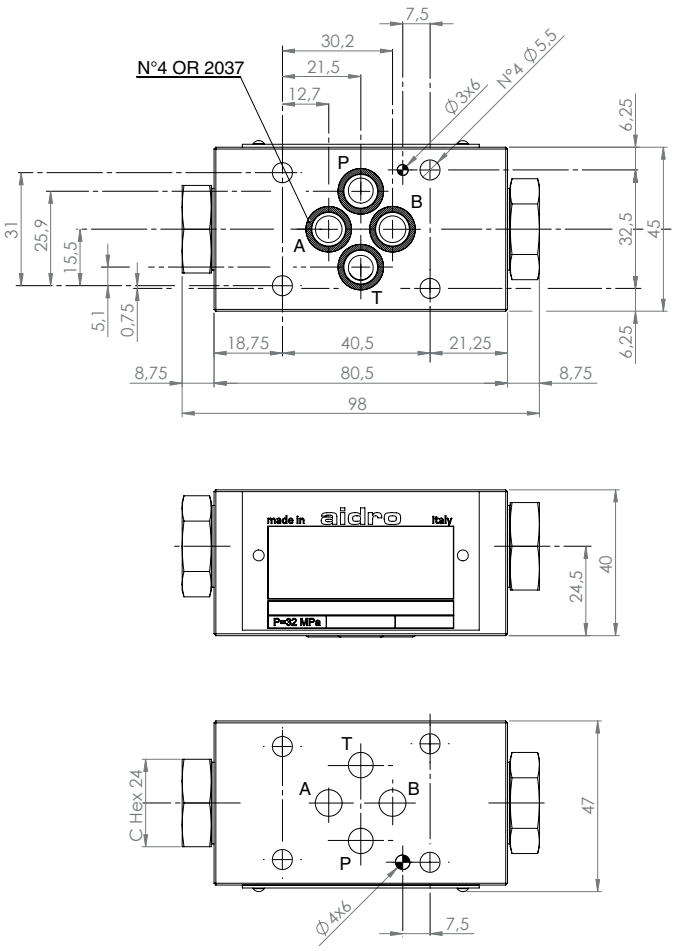
4 TYPICAL DIAGRAMS

Typical Δp-Q curves for valves AM3-CP in standard configuration, with mineral oil at 36 cSt and at 50°C



①A->A1 B->B1 ②A1->A B1->B ③P<->P T<->T

5 INSTALLATION DIMENSIONS (mm)



6 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM3 - * are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

All stackable valves AM3-CP-*/10 conform with ISO and CETOP specifications for mounting surface dimensions. Valves height 40 mm. Leakage between valve and mounting surface is prevented by the positive compression on their seats of 4 seals. All valves have on their "mounting" surface a ø4 mm cylindrical hole and have on their "seals" surface a ø 3 mm cylindrical hole, conform with ISO and CETOP norms.

STACKABLE CHECK VALVES

AM5-CO-*

100 l/min 32 MPa (320 bar)

1 DESCRIPTION

Direct operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are A, B or AB.
The standard surafce treatment of the body is phosphate coated.

2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM5	-	CO	-		-		-		/	10

(1) AM5 : stackable valve CETOP 05 – Pressure 32 MPa (320 bar)

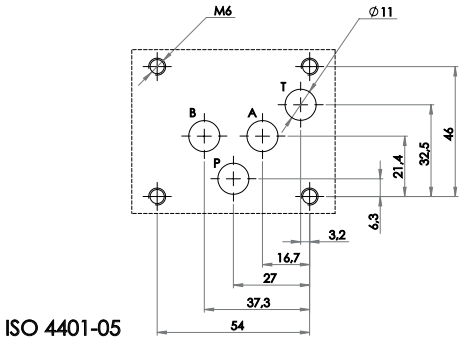
(2) CO : check valve, spring operated

(3) Service lines where the controls operates
AB : controls on A and B. Fluid flows unrestricted A->A1 and B->B1; flow is controlled from A1->A and B1->B.
A : flow is controlled from A1->A; free on B.
B : flow is controlled from B1->B; free on A.

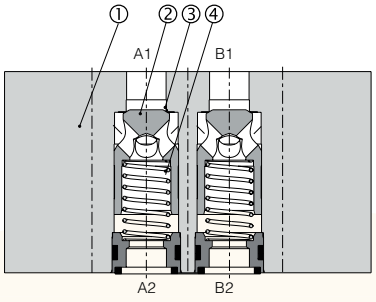
(4) Check valve opening (cracking pressure):
no designation : 0.2 MPa (2bar)
4 : 0.4 MPa (4 bar)

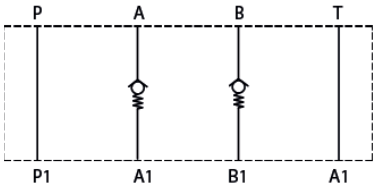
(5) Code reserved for special variants

(6) Design number (progressive) of the valve

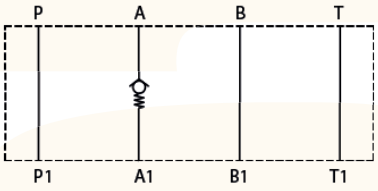


ISO 4401-05

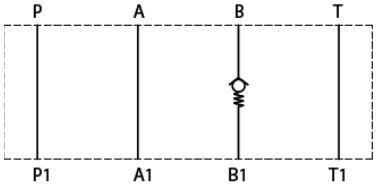




AM5-CO-AB



AM5-CO-A



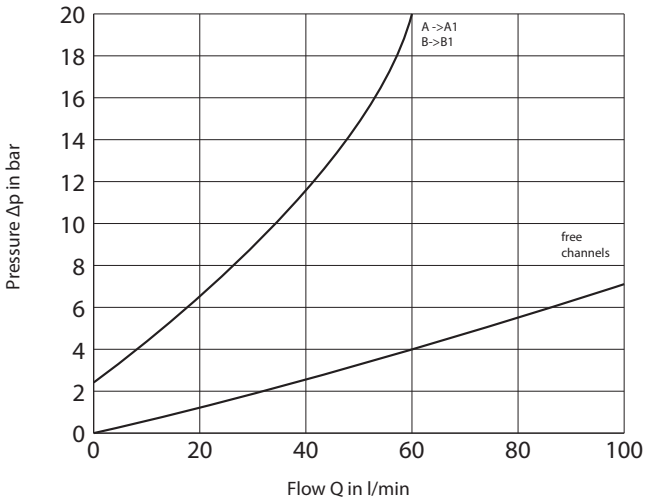
AM5-CO-B

3 TECHNICAL DATA

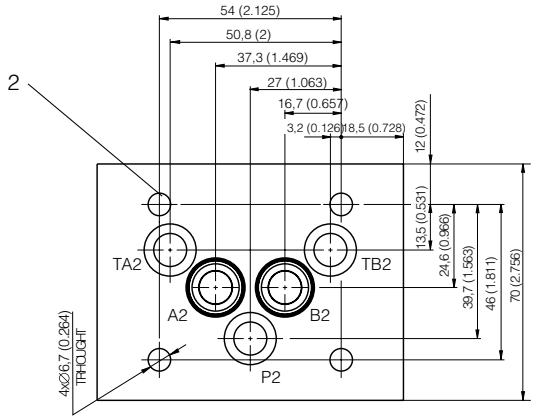
Maximum rec. flow rate on controlled lines	60 l/min
Maximum rec. flow rate on free channels	100 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 4
Installation and dimensions	see 5

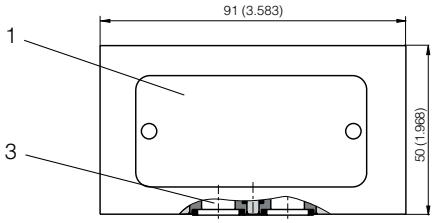
4 TYPICAL DIAGRAMS

Typical Δp-Q curves for valves AM5-CO-* in standard configuration, with mineral oil at 36 cSt and T=50°C.

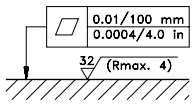


5 INSTALLATION DIMENSIONS



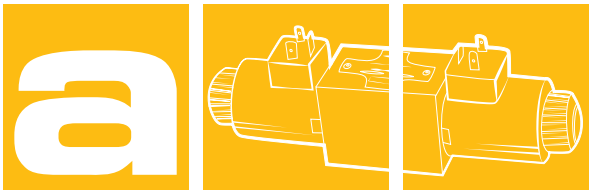


Dimensions in millimeters:
1 Name plate
2 4 mounting through-holes
3 Square ring 12.42x1.68 (5 pcs.) supplied with valve



Required surface finish of interface

All stackable valves AM5-* conform with ISO and CETOP specifications for mounting surface dimensions and for valves height (50 mm). Leakage between valve and mounting surface is prevented by the positive compression on their seats of 5 seals of Quad-Rings type 12,42 x 1,68 x 1,68 mm or 5 ORings type 12,5 x 1,68.



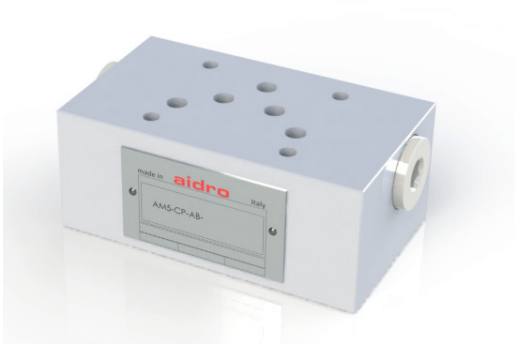
STACKABLE CHECK VALVES

AM5-CP-*

100 l/min 32 MPa (320 bar)

1 DESCRIPTION

Pilot operated check valve. All the internal part are made with high strenght steel and are machined with accouracy in order to assure the requested tightness.
The controlled lines are A, B or AB.
The standard surface treatment of the body is phosphate coated. Plugs are zinc coated.



2 ORDERING CODE

(1)		(2)		(3)		(4)		(5)		(6)
AM5	-	CP	-		-		-		/	10

(1) AM5 : stackable valve CETOP 05 - Pressure 32 MPa (320 bar)

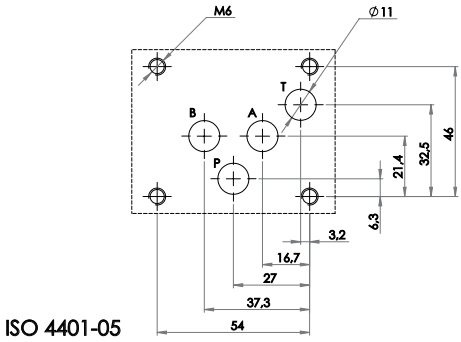
(2) CP : check valve, pilot operated (hydraulically)

(3) Service lines where the controls operates:
AB: p.o. checks on A and B. Fluid flows A.->A1 and B->B1 and flow A1 ->A (or B1->B) is permitted only when B (or A) is pressurized
A: p.o. check on A; flow A1->A is permitted only when B is pressurized
B: p.o. check on B; flow B1->B is permitted only when A is pressurized

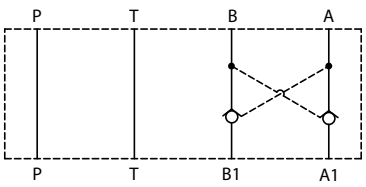
(4) Check valve opening (cracking) pressure (Pm) for free flow A->A1 and B->B1
no designation (standard):Pm approx 0.2 MPa (2 bar)

(5) Code reserved for special variants (materials, seals,surface treatments, etc.)

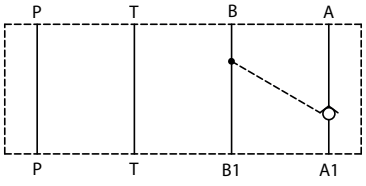
(6) Design number (progressive) of the valves.



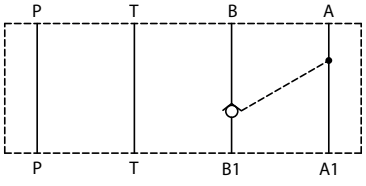
AM5-CP-AB

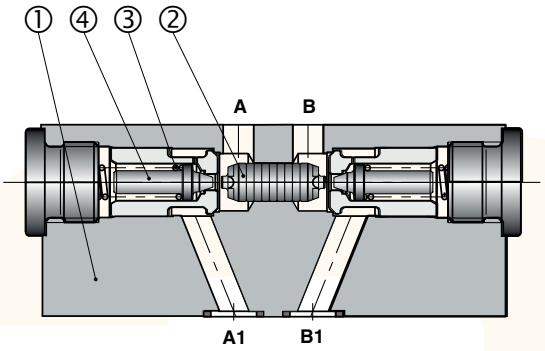


AM5-CP-A

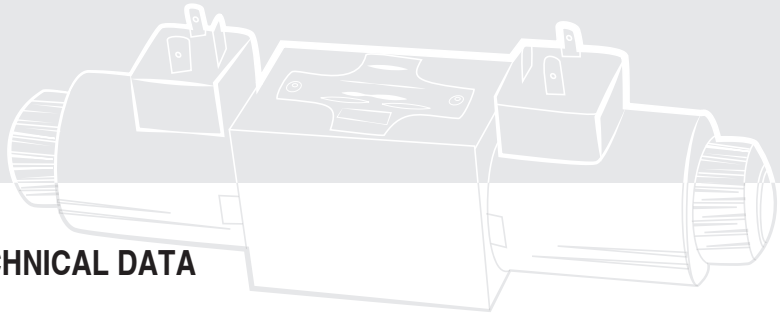


AM5-CP-B





Fluid flows freely on P and T lines; on service lines A and/or B with p.o. check, fluid flows from A -> A1 (and/or B -> B1) overcoming the force of spring acting on poppet 4, and fluid is blocked from A1-> A (and/or B1-> B). When, by switching the solenoid operated 4-way directional valve, pressure is made available at, for instance, port B fluid flows B -> B1 and the pilot piston 2, shifting from its central position, forces poppet 4, on service line A, to open and permit flow A1 -> A. The valve housing 1 is phosphatate coated.



3 TECHNICAL DATA

Maximum rec. flow rate	100 l/min
Maximum nominal pressure	32 MPa (320 bar)
Pressure drops	see 4
Pilot area ratio piston/poppet	approx 5,6
Installation and dimensions	see 5
Mass	approx 3 kg

Piloting pressure:

To shift the pilot piston and to open the check in A the piloting pressure must be, at B:

$$Pp=Pb=\frac{Pa1+Pm-Pa}{5,6}+Pa$$

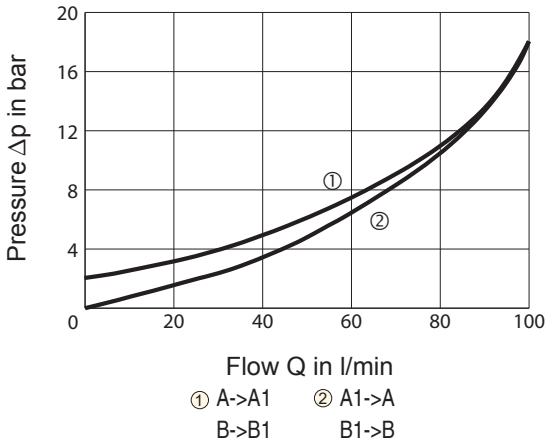
where: Pp = piloting pressure; Pb = pressure in B;
Pa = pressure in A; Pa1= pressure in A1;
Pm = check valve opening pressure (spring)

or to open the check in B:

$$Pp=Pa=\frac{Pb1+Pm-Pb}{5,6}+Pb$$

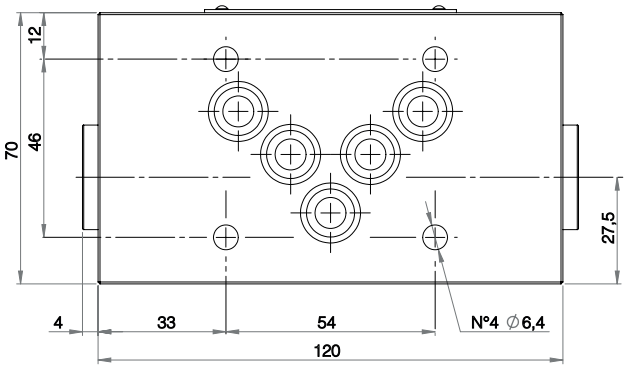
4 TYPICAL DIAGRAMS

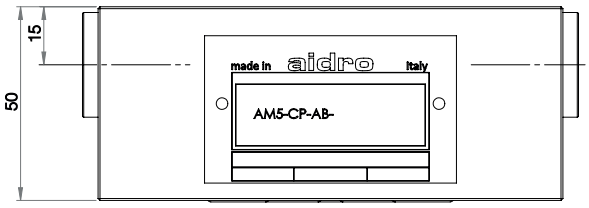
Typical Δp-Q curves for valves AM5-CP-AB in standard configuration, with mineral oil at 36 cSt and at 50°C.



5 INSTALLATION DIMENSIONS

Seals:
5 x OR 12,5 x 1,68
or
5 x QR14S 12,42 x 1,68





6 HYDRAULIC FLUIDS

Seals and materials used on standard valves AM5-* are fully compatible with hydraulic fluids of mineral oil base, upgraded with antifoaming and antioxidizing agents. The hydraulic fluid must be kept clean and filtered to ISO 4406 class 19/17/14, or better, and used in a recommended viscosity range from 10 cSt to 60 cSt.

All stackable valves AM5-CP-* conform with ISO and CETOP specifications for mounting surface dimensions and for valves height (50mm). Leakage between valve and mounting surface is prevented by the positive compression on their seats of seals (of OR type or Quadring type).