

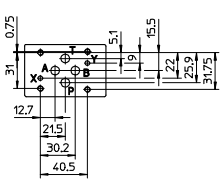
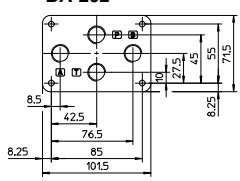
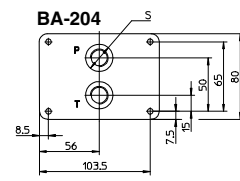
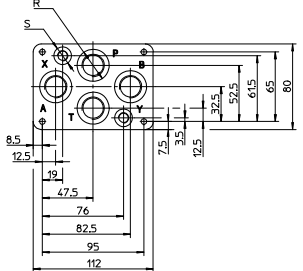
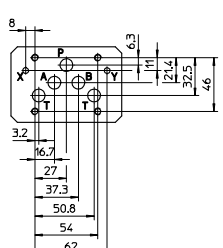
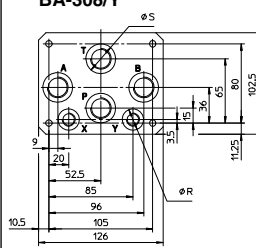
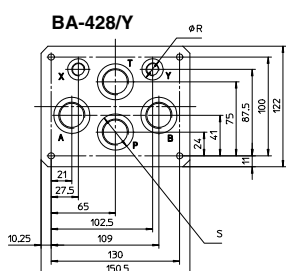
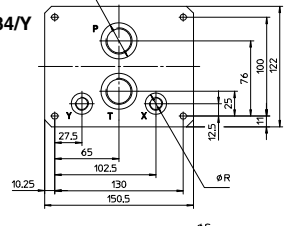
Mounting subplates type BA

single and modular

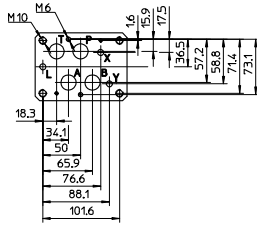
The subplates series BA have THE mounting surfaces conforming to ISO standards, and are available in a wide range of versions compatible with the Atos of valves range. They are characterized by low pressure drops and are grouped into two basic families with different construction criteria:

- SINGLE: for direction, flow and pressure control valves; they are available in ISO size 06, 10, 16, 20, 25 and 32;
 - MODULAR: for direction control valves; they are available in ISO size 06 and 10 and are suitable for multiple assemblies of subplate mounted valves and modular elements series H (size 06) and K (size 10) connected in parallel.
- Special subplates or manifolds for customized applications are available upon request.

1 SINGLE STATION SUBPLATES

<p>ISO 4401:2005 Mounting surface: 4401-03-03-0-05</p>  <p>Matching valves</p> <p>DH-00 DH-01 DH-02 DH-04 DH-05 DH-08 DH-09 DHI DHU DHO DHA DHW DHQ DLOH QV-06 RZMO RZGO DHZO DLHZO QVHZO-*06</p>	<p>BA-202</p>  <p>BA-204</p>  <p>BA-302/Y</p>  <p>Boles supplied 4 M5x50 class 12.9 Tightening torque = 8 Nm (except versions /Q e /N)</p>	<p>VERSIONS</p> <p>BA-202: basic version without ports X and Y; ports P, A, B, T (3/8") on the base.</p> <p>BA-204: basic version without ports X and Y; ports P and T (3/8") on the base; ports A and B (3/8") on the side.</p> <p>BA-302: basic version without ports X and Y; ports P, A, B, T (1/2") on the base.</p> <p>BA-302/Y: version dimensionally identical to the corresponding basic version with the addition of X and Y ports (1/8") on the base (see figure on the left). The /Y version is always used for DHZO and DLHZO valves when drain from port Y is required.</p> <p>BA-***Q: versions identical to the corresponding basic versions, but supplied with ports P and T sealed. The /Q versions are used for type QV-06* valves and are supplied with 4 M5x70 fixing bolts.</p> <p>BA-***N: versions identical to the corresponding basic versions, but supplied without fixing bolts for type QVZO-*06 valves (already equipped with fixing bolts).</p> <p>X and Y ports are only present in the /Y versions.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Ports (GAS) A,B,P,T (X-Y)</th> <th>Ø Counterbore S [mm]</th> <th>R [mm]</th> <th>Mass [Kg]</th> </tr> </thead> <tbody> <tr> <td>BA-202</td> <td>3/8"</td> <td>-</td> <td>-</td> <td>1,2</td> </tr> <tr> <td>BA-204</td> <td>3/8"</td> <td>-</td> <td>25,5</td> <td>1,8</td> </tr> <tr> <td>BA-302 (Y)</td> <td>1/2" (1/8")</td> <td>30</td> <td>16,5</td> <td>1,8</td> </tr> </tbody> </table>	Code	Ports (GAS) A,B,P,T (X-Y)	Ø Counterbore S [mm]	R [mm]	Mass [Kg]	BA-202	3/8"	-	-	1,2	BA-204	3/8"	-	25,5	1,8	BA-302 (Y)	1/2" (1/8")	30	16,5	1,8
Code	Ports (GAS) A,B,P,T (X-Y)	Ø Counterbore S [mm]	R [mm]	Mass [Kg]																		
BA-202	3/8"	-	-	1,2																		
BA-204	3/8"	-	25,5	1,8																		
BA-302 (Y)	1/2" (1/8")	30	16,5	1,8																		
<p>ISO 4401:2005 Mounting surface: 4401-05-05-0-05</p>  <p>Matching valves</p> <p>DK-11 DK-12 DKI DKU DKO DKA DKQ DKZO DLKZO</p>	<p>BA-308/Y</p>  <p>BA-428/Y</p>  <p>BA-434/Y</p>  <p>Boles supplied 4 M6x40 class 12.9 Tightening torque = 15 Nm</p>	<p>VERSIONS</p> <p>BA-308: basic version without ports X and Y; ports P, A, B, T (1/2") on the base.</p> <p>BA-428: basic version without ports X and Y; ports P, A, B, T (3/4") on the base.</p> <p>BA-434: basic version without ports X and Y; ports P and T (3/4") on the base; ports A and B (3/4") on the side.</p> <p>BA-***Y: versions dimensionally analogous to the corresponding basic versions with the addition of X and Y ports (1/4") on the base (see figure on the left). The /Y versions are always used for valves type DKZO, DLKZO, DKI, DKU, DKO when drainage from port Y is required.</p> <p>X and Y ports are only present in the /Y versions.</p> <table border="1"> <thead> <tr> <th>Code</th> <th>Ports (GAS) A,B,P,T (X-Y)</th> <th>Ø Counterbore S [mm]</th> <th>R [mm]</th> <th>Mass [Kg]</th> </tr> </thead> <tbody> <tr> <td>BA-308 (Y)</td> <td>1/2" (1/4")</td> <td>30</td> <td>21,5</td> <td>2,5</td> </tr> <tr> <td>BA-428 (Y)</td> <td>3/4" (1/4")</td> <td>36,5</td> <td>21,5</td> <td>5,5</td> </tr> <tr> <td>BA-434 (Y)</td> <td>3/4" (1/4")</td> <td>36,5</td> <td>21,5</td> <td>8,5</td> </tr> </tbody> </table>	Code	Ports (GAS) A,B,P,T (X-Y)	Ø Counterbore S [mm]	R [mm]	Mass [Kg]	BA-308 (Y)	1/2" (1/4")	30	21,5	2,5	BA-428 (Y)	3/4" (1/4")	36,5	21,5	5,5	BA-434 (Y)	3/4" (1/4")	36,5	21,5	8,5
Code	Ports (GAS) A,B,P,T (X-Y)	Ø Counterbore S [mm]	R [mm]	Mass [Kg]																		
BA-308 (Y)	1/2" (1/4")	30	21,5	2,5																		
BA-428 (Y)	3/4" (1/4")	36,5	21,5	5,5																		
BA-434 (Y)	3/4" (1/4")	36,5	21,5	8,5																		

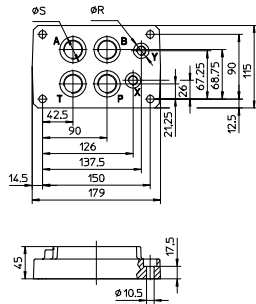
ISO 4401:2005
Mounting surface: 4401-07-07-0-05



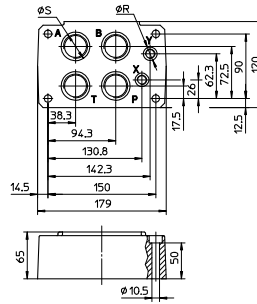
Matching valves:

- DP-21
- DP-24
- DP-25
- DPH-28
- DPH-29
- DPH-2
- DPHU-2
- DPHO-2
- DPHA-2
- DPHW-2
- DPZO-*-2

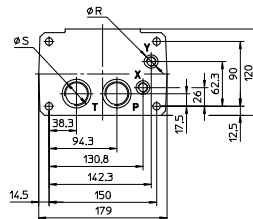
BA-418



BA-518



BA-519



Bolts supplied :
4 M10x50 class 12.9
Tightening torque = 70 Nm
2 M6x40 class 12.9
Tightening torque = 15 Nm

VERSIONS

BA-418: basic version with ports P, A, B, T (3/4") and X, Y (1/4") on the base.

BA-518: basic version with ports P, A, B, T (1") and X, Y (1/4") on the base.

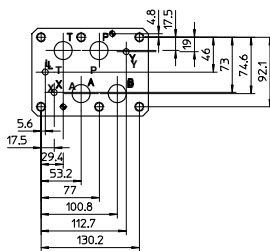
BA-519: basic version with ports P, T (1") and X, Y (1/4") on the base; ports A, B (1") on the side.

BA-*/*/DR: versions dimensionally analogous to the corresponding basic versions with the addition of drain port L (1/4") on the base. The /DR versions are used for type DP-2, DPH-2 and DPH*-2 valves with hydraulic centering.

The L port is only present in the /DR versions.

Code	Ports (GAS) A,B,P,T, X-Y(L)	Ø Counterbore S [mm] R [mm]	Mass [Kg]
BA-418(DR)	3/4"	1/4" 36,5 21,5	3,5
BA-518(DR)	1"	1/4" 46 21,5	8
BA-519(DR)	1"	1/4" 46 21,5	8

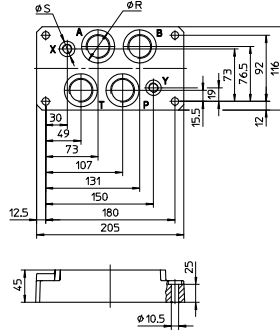
ISO 4401:2005
Mounting surface: 4401-08-08-0-05



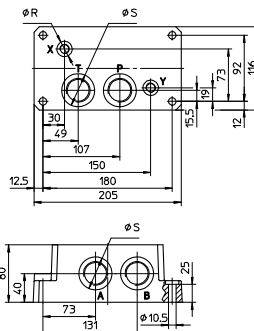
Matching valves:

- DP-31
- DP-34
- DP-35
- DPH-38
- DPH-39
- DPH-3
- DPHU-3
- DPHO-3
- DPHA-3
- DPHW-3
- DPZO-*-3

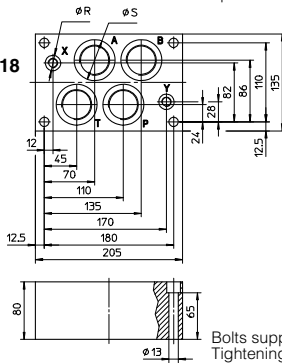
BA-508



BA-509



BA-618



Bolts supplied 6 M12x50 class 12.9
Tightening torque = 125 Nm

VERSIONS

BA-508: basic version with ports P, A, B, T (1") and X, Y (1/4") on the base.

BA-509: basic version with ports P, T (1") and X, Y (1/4") on the base, ports A, B (1") on the side.

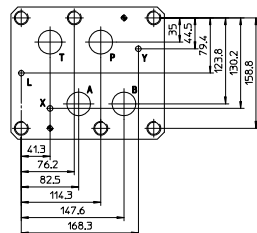
BA-618: basic version with ports P, A, B, T (1 1/4") and X, Y (1/4") on the base.

BA-*/*/DR: versions dimensionally analogous to the corresponding basic versions with the addition of drain port L (1/4") on the base. The /DR versions are used for type DP-3, DPH-3 and DPH*-3 valves with hydraulic centering.

The L port is only present in the /DR versions.

Code	Ports (GAS) A,B,P,T, X-Y(L)	Ø Counterbore S [mm] R [mm]	Mass [Kg]
BA-508(DR)	1"	1/4" 46 21,5	7
BA-509(DR)	1"	1/4" 46 21,5	12,5
BA-618(DR)	1 1/4"	1/4" 57 21,5	13,5

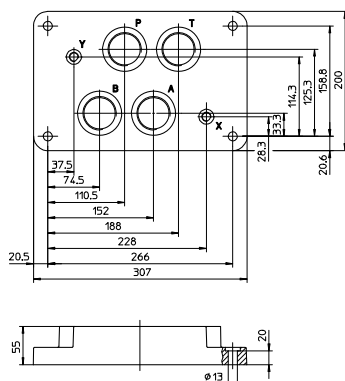
ISO 4401:2005
Mounting surface: 4401-10-09-0-05



Matching valves:

- DP-64
- DP-65
- DPH-68
- DPH-69
- DPH-6
- DPHU-6
- DPHO-6
- DPHA-6
- DPHW-6

BA-708



Bolts supplied 6 M20x80 class 12.9
Tightening torque = 600 Nm

VERSIONS

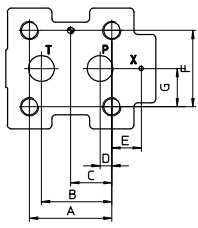
BA-708: basic version with ports P, A, B, T (1 1/2") and X, Y (1/4") on the base.

BA-708/DR: version dimensionally analogous to the BA-708 with the addition of drain port L (1/4") on the base. The /DR version is used for type DP-6, DPH-6 and DPH*-6 valves with hydraulic centering.

The L port is only present in the /DR version.

Code	Ports (GAS) A,B,P,T, X-Y(L)	Ø Counterbore S [mm] R [mm]	Mass [Kg]
BA-708(DR)	1 1/2"	1/4" 63,5 21,5	17

**Mounting surface
ISO 6264: 1998**



size	A	B	C	D	E	F	G
10	53,8	47,5	22,1	22,1	-	53,8	26,9
20	66,7	55,6	33,4	11,1	23,8	70	35
32	88,9	76,2	44,5	12,7	31,8	82,6	41,3

**Mounting surface
ISO 6264-06-09-0-97**

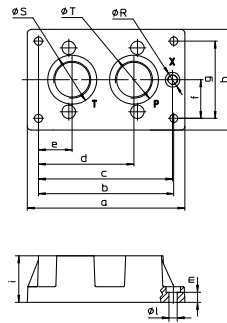
matching valves:
AGAM-10
AGMZ0--10

**Mounting surface
ISO 6264-08-13-0-97**

matching valves:
AGAM-20
AGMZ0--20

**Mounting surface
ISO 6264-10-17-0-97**

matching valves:
AGAM-32
AGMZ0--32



BA-*06

Bolts supplied for BA-306:
n°4 M12x35 class 12.9 Tightening torque = 125 Nm
Bolts supplied for BA-406 and BA-506:
n°4 M16x50 class 12.9 Tightening torque = 300 Nm
Bolts supplied for BA-706:
n°4 M20x60 class 12.9 Tightening torque = 600 Nm

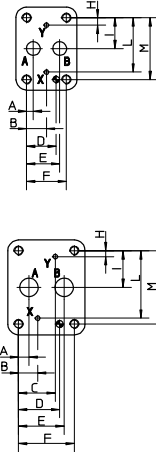
Code	a	b	c	d	e	f	g	h	i	l	m	Ø Blade S R T
BA - 306	130	104	97	64,5	19,5	27	54	80	40	8,4	15	36,5 21,5 30
BA - 406	180	150	133,25	92,25	37,25	37,5	75	105	50	10,5	13	36,5 21,5 36,5
BA - 506												46 21,5 46
BA - 706	204	175	173,5	123,5	43,5	50	100	130,5	60	10,5	13	63,5 21,5 63,5

VERSIONS

BA-*06: basic version, see figure on left and dimensional tables.

Code	size	Ports (GAS)			Mass [Kg]
		P	T	X	
BA - 306	10	1/2"	3/4"	1/4"	1,5
BA - 406	20	3/4"	3/4"	1/4"	3,5
BA - 506	20	1"	1"	1/4"	3,5
BA - 706	32	1 1/2"	1 1/2"	1/4"	6

**Mounting surface
ISO 5781: 2000**



**Mounting surface
ISO 5781-06-07-0-00**

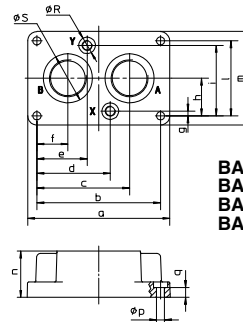
matching valves:
AGI*-10
AGRLE-10
AGRLE-10
AGRZ0--10

**Mounting surface
ISO 5781-08-10-0-00**

matching valves:
AGI*-20
AGRLE-20
AGRLE-20
AGRZ0--20

**Mounting surface
ISO 5781-10-13-0-00**

matching valves:
AGI*-32
AGRLE-32
AGRLE-32



**BA-305
BA-505
BA-705
BA-705A**

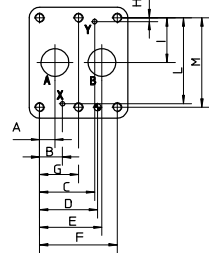
Bolts supplied for BA-305 and BA-505:
n° 4 M10x45 class 12.9 Tightening torque = 70 Nm
Bolts supplied for BA-705:
n° 6 M10x45 class 12.9 Tightening torque = 70 Nm
Bolts supplied for BA-705A:
n° 6 M10x100 class 12.9 Tightening torque = 70 Nm

Code	a	b	c	d	e	f	g	h	i	l	m	n	p	q	Ø Blade S R
BA - 305	113	90	67	45	45	23	8	33,3	58,7	66,7	90	30	10,5	10	30 21,5
BA - 505	133	110	82,5	64,5	45,5	27,5	6,4	39,7	73	79,4	102,5	42	10,5	10	46 21,5
BA - 705 BA - 705A	184	160	120	95	65	40	6	48,5	91	97	121	60	10,5	13	63,5 21,5

VERSIONS

BA-*05 and BA-705A: see figure on left and dimensional tables.

Code	size	Ports (GAS)			Mass [Kg]
		A	B	X-Y	
BA - 305	10	1/2"	1/2"	1/4"	1
BA - 505	20	1"	1"	1/4"	2
BA - 705	32	1 1/2"	1 1/2"	1/4"	7,5



**Mounting surface
ISO 5781-06-07-0-00**

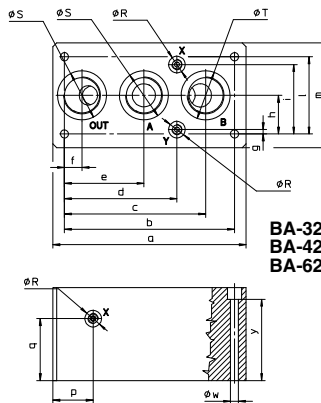
matching valves:
AGIU-10

**Mounting surface
ISO 5781-08-10-0-00**

matching valves:
AGIU-20

**Mounting surface
ISO 5781-10-13-0-00**

matching valves:
AGIU-32



**BA-325/*
BA-425/*
BA-625/***

Bolts supplied for BA-325 and BA-425:
n° 4 M10x45 class 12.9 Tightening torque = 70 Nm
Bolts supplied for BA-625:
n° 6 M10x45 class 12.9 Tightening torque = 70 Nm

Note: the cracking pressure of the check valve (2 or 4 bar) must be always indicated in the model code.

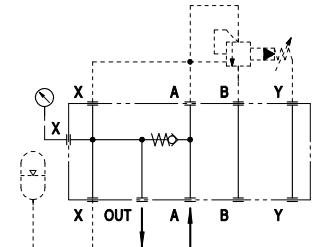
VERSIONS

BA-325: special version with ISO 5781 size 10 mounting surface and incorporated check valve for use with unloading valves type AGIU-10 in circuits with accumulators.

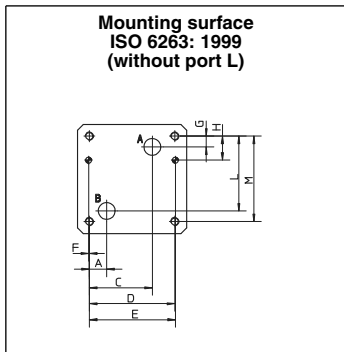
BA-425: special version with ISO 5781 size 20 mounting surface and incorporated check valve for use with unloading valves type AGIU-20 in circuits with accumulators.

BA-625: special version with ISO 5781 size 32 mounting surface and incorporated check valve for use with unloading valves type AGIU-32 in circuits with accumulators.

BLOCK DIAGRAM



size	A	B	C	D	E	F	G	H	I	L	M	Code	a	b	c	d	e	f	g	h	i	l	m	n	p	q	w	y	ØS	ØR	ØT	Code	size	Ports (GAS)				Mass [Kg]
													a	b	c	d	e	f	g	h	i	l	m	n	p	q	w	y	ØS	ØR	ØT			A	B	OUT	X-Y	
10	7,1	21,4	21,4	31,8	35,7	42,9	-	7,9	33,3	58,7	66,7	BA-325	150	124	102	77	57	17	7,9	33,3	58,7	66,7	90	60	40	30	10,5	45	30	21,5	36,5	BA-325	10	1/2"	3/4"	1/2"	1/4"	4
20	11,1	20,6	39,7	44,5	49,2	60,3	-	6,4	39,7	73	79,4	BA-425	205	177,5	139,25	112,65	84,25	29,25	4,2	37,5	70,8	75	109	90	56	45	10,5	75	46	21,5	46	BA-425	20	1"	1"	1"	1/4"	10,5
32	16,7	24,6	59,6	62,7	67,5	84,1	42,1	4	48,4	92,9	96,6	BA-625	250	220	182,7	145,6	102,7	22,7	5,6	50	89,76	100	135,5	120	52	80	10,5	105	63,5	21,5	63,5	BA-625	32	1 1/2"	1 1/2"	1 1/2"	1/4"	26



size	A	C	D	E	F	G	H	L	M
10	9,5	54	76,2	79,4	*	11,1	23,8	52,4	82,6
20	20,6	71,5	101,5	102,4	0,9	12,7	28,6	89	101,5

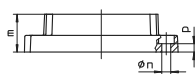
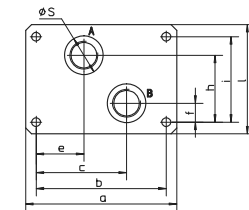
Size 10 Mounting surface ISO 6263-06-05-0-97 matching valves: QV-10/2

Size 20 Mounting surface NOT ISO matching valves: QV-20/2

Bolts supplied for BA-320: n°4 M8x80 class 12.9 Tightening torque = 35 Nm

Bolts supplied for BA-520: n° 4 M10x80 class 12.9 Tightening torque = 70 Nm

BA-x20

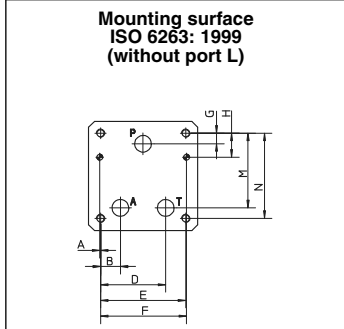


Code	a	b	c	e	f	h	i	l	m	n	p	Ø Blade S
BA - 320	140	120	88,6	44,1	30,1	65	82,5	105,5	35	8,4	7,5	30
BA - 520	180	155	117,65	56,75	22,5	79,5	101,5	130	45	10,5	10	46

VERSIONS

BA-320 and BA-520: version without drain port L; see the figure on the left and dimensional tables.

Code	size	Ports (GAS) P,A,B,T	Mass [Kg]
BA - 320	10	1/2"	4,2
BA - 520	20	1"	5,5



size	A	B	D	E	F	G	H	M	N
10	3,2	19	57	76,2	79,4	9,5	23,8	73,8	82,6
20	0,8	23,8	77,8	101,8	102,4	10,2	28,6	88,9	101,6

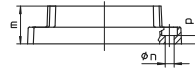
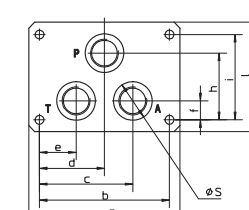
Size 10 Mounting surface ISO 6263-06-07-0-97 matching valves: QV-10/3

Size 20 Mounting surface ISO 6263-07-11-0-97 matching valves: QV-20/3

Bolts supplied for BA-322: n° 4 M8x80 class 12.9 Tightening torque = 35 Nm

Bolts supplied for BA-522: n° 4 M10x80 class 12.9 Tightening torque = 70 Nm

BA-x22



Code	a	b	c	e	f	h	i	l	m	n	p	Ø Blade S
BA - 322	140	120	83,1	36,9	17,5	65	82,5	105,5	35	8,4	7,5	30
BA - 522	180	155	111,25	43,75	22,5	79,5	101,5	130	45	10,5	10	46

VERSIONS

BA-322 and BA-522: version without drain port L; see the figure on the left and dimensional tables.

Code	size	Ports (GAS) P,A,B,T	Mass [Kg]
BA - 322	10	1/2"	3,9
BA - 522	20	1"	5,2

2 MODULAR SUBPLATES

BA-243

/ 3 / T - M / * / 350 / * - * / *

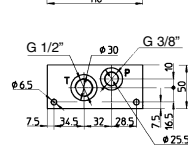
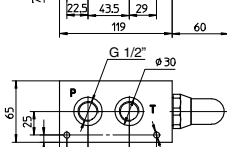
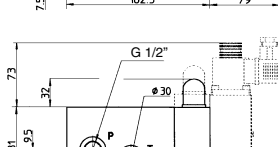
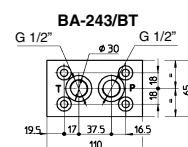
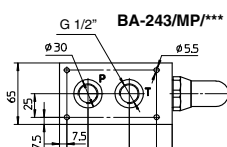
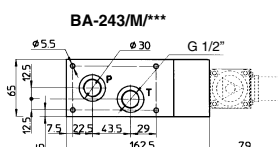
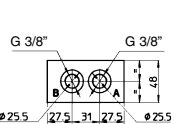
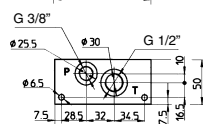
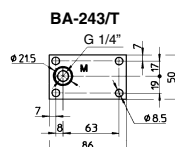
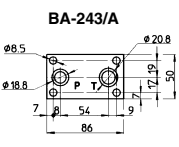
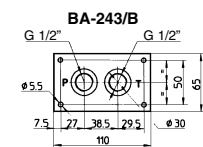
BA-243 for ISO 4401 size 06 valves
 Number of intermediate elements type BA-***A
 Closing element:
T = BA-***/T **BT** = BA-***/BT
 Basic element:
A = Intermediate element
B = BA-***/B
M = BA-***/M
MP = BA-***/MP/***
 Version with directional valve for venting:
10 = 1 setting; venting with de-energized solenoid

Optional:
 suffix for directional valve for venting, see table C045
 Optional:
V = with setting adjustment by handwheel (only for versions /M and /MP)
 Calibration range for BA-243/M: **100, 210, 350**
 for BA-243/MP: **15, 75, 150, 250**

Synthetic fluids:
WG = water glycol
PE = phosphoric esters

ISO 4401 size 06

For the valve connection surface (BA-243/A), see figure on side 1 but without ports X and Y (ISO 4401-03-02-0-05)



Subplate	Tie-rod
BA-243/1	M8x80
BA-243/2	M8x138
BA-243/3	M8x186
BA-243/4	M8x234
BA-243/5	M8x282
BA-243/6	M8x330
BA-243/7	M8x378
BA-243/8	M8x426
BA-243/9	M8x474
BA-243/10	M8x522

UNIT ELEMENTS

BA-243/B: basic element with 1/2" P and T ports on the base, rear ports with P 3/8" and T 1/2".
BA-243/M/*:** basic element with double stage pressure relief valve; base and rear P and T ports 1/2". It can be supplied also with handwheel:
BA-243/M/*/V**
BA-243/MP: basic element with direct operated pressure relief valve; base and rear P and T ports 1/2". It can be supplied also with handwheel:
BA-243/MP/*/V**
BA-243/A: intermediate element for ISO 4401 size 06 valves assembly; rear 3/8" A and B ports.
BA-243/T: closing element with 1/4" manometer port.
BA-243/BT: terminal element with 1/2" P and T ports on top side, rear 3/8" P and 1/2" T ports.

FUNCTIONAL LIMITS

- units BA-243 are designed to stack a maximum of 10 intermediate (/A) elements
- Qmax on lines A-B = 70 l/min
- Qmax on lines P-T = 100 l/min
- Pmax up to 4 elements = 350 bars
- Pmax 5 to 10 elements = 250 bars

Optional directional valve for venting is shown with dotted line.
 Each unit is supplied with appropriate caps, O-rings and tie rods as indicated in the table on the right
 For all tie rods : M8x*** tightening torque = 22 Nm