



ATLANTIC
Fluid Tech

SECTION 14

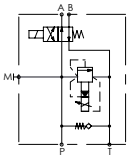
Special
Valves

SPECIAL VALVES

Chapter	Valve type	Page
14. 1	Fan drive blocks	14.100
14. 2	Differential lock valves	14.200
14. 3	Unloading - Inloading valves	14.300
14. 4	Filter blocks	14.400
14. 5	End of stroke valves	14.500
14. 6	Pilot blocks	14.600
14. 7	Automatic Switching Valves	14.700
14. 8	Load Limiting Device	14.800

SPECIAL VALVES - FAN DRIVE BLOCKS

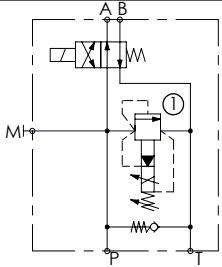
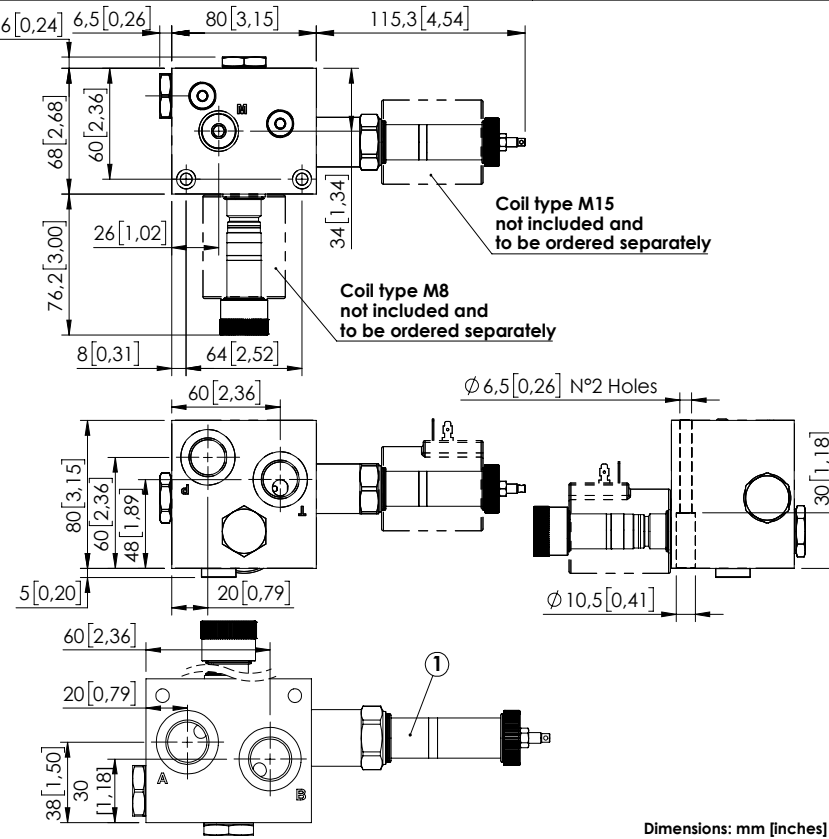


Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	BDFN-045-GLNU	With proportional pressure control	45 (12)	320 (4600)	In line	G 1/2"	14.110

FAN DRIVE BLOCKS

BDFN-045-GLNU

PROPORTIONAL
PRESSURE CONTROL
WITH INVERSION



SPECIFICATIONS

Max. operating pressure:	320 bar (4600 psi)
Rated flow:	45 l/min (12 gpm)
Weight:	3,28 kg (7,2 lbs)
Manifold:	Cast Iron
Coil type:	M15 - M8
Contamination class to ISO 4406:	See technical spec.
MTTF _d :	150 - 1200 years: See technical spec.

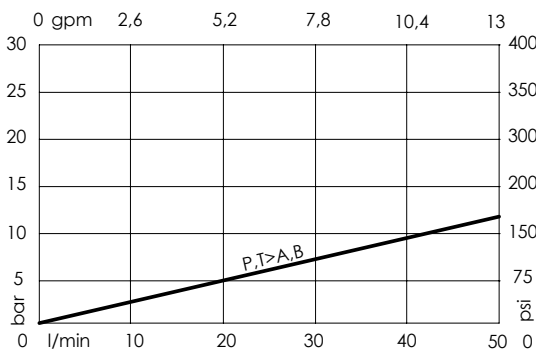
NOTES

When valve n°1 is energize the pressure lower from the setting to.

See chapter 21.00.000 for coil.

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

Quick code	Description	Ports	Standard setting	Setting range
BD000198	BDFN-045-GLNU-NP-G12-N320	P,T,A,B: G 1/2" M: G 1/4"	210 bar (3000 psi)	100-320 l/min (1500-4600 gpm)

SECTION 14. 2

SPECIAL VALVES - DIFFERENTIAL LOCK VALVES

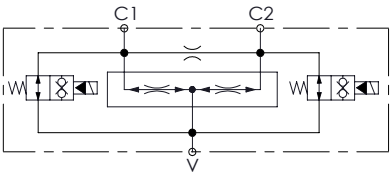
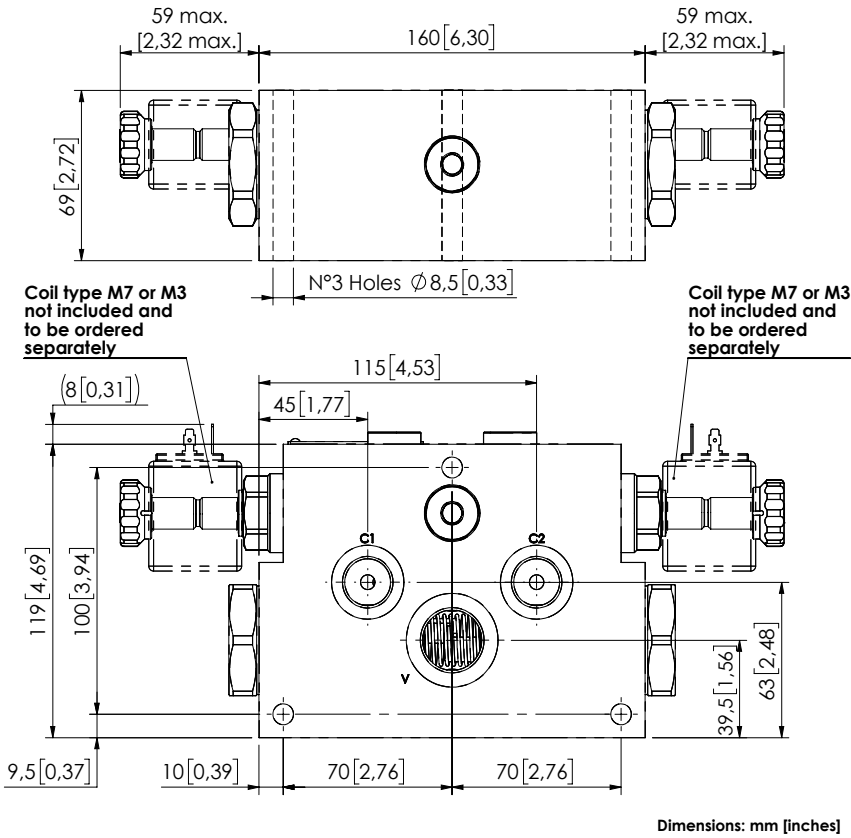


Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	MFDT-150-BFAR-55	With electric bypass	150 (40)	350 (5000)	In line	G 1/2"	14.210
	MFDT-150-BFAR-95	With electric bypass	150 (40)	350 (5000)	In line	G 1/2"	14.210
	BDEN-200-ALED	With electric bypass for three motors transmission	200 (53)	500 (7200)	In line	G 3/4"	14.220

DIFFERENTIAL LOCK VALVE

MFDT-150-BFAR

WITH ELECTRIC BYPASS



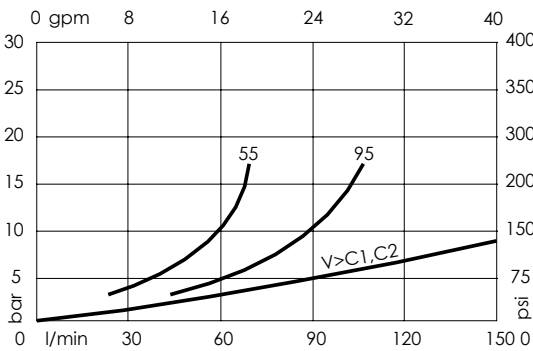
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	150 l/min (40 gpm)
Weight:	8,9 kg (19,6 lbs)
Manifold:	Steel
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

For other flow ranges contact AFT sales network.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



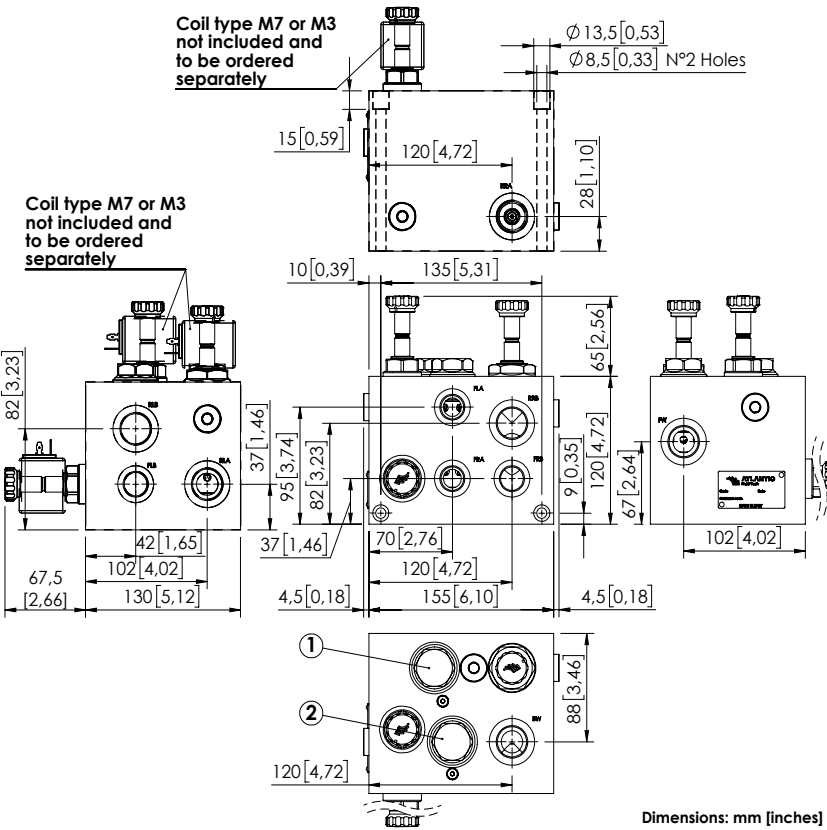
ORDERING CODES

Quick code	Description	Ports	Regulated flow range	
MF000347	MFDT-150-BFAR-55-G34-N350	C1,C2: G 1/2" V: G 3/4"	28-55 l/min (7-15 gpm)	
MF000348	MFDT-150-BFAR-95-G34-N350	C1,C2: G 1/2" V: G 3/4"	56-95 l/min (15-25 gpm)	

DIFFERENTIAL LOCK VALVE

BDEN-200-ALED

WITH ELECTRIC BYPASS
FOR THREE MOTORS
TRANSMISSION

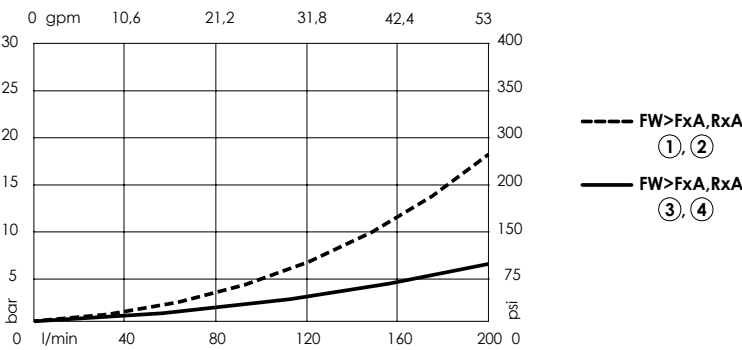


Dimensions: mm [inches]

NOTES

For other flow ranges contact AFT sales network.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

Quick code	Description	Ports	Flow diverter ratio	Inlet range flow
BD000199	BDEN-200-ALED-NP-G34-N500	FW,BW,RLA,RLB,RRR,RRB:G 3/4" FLA,FLB,FRA,FRB:G 1/2"	①: 50%-50% ②: 33%-66%	48-170 l/min (13-45 gpm)

SECTION 14. 3

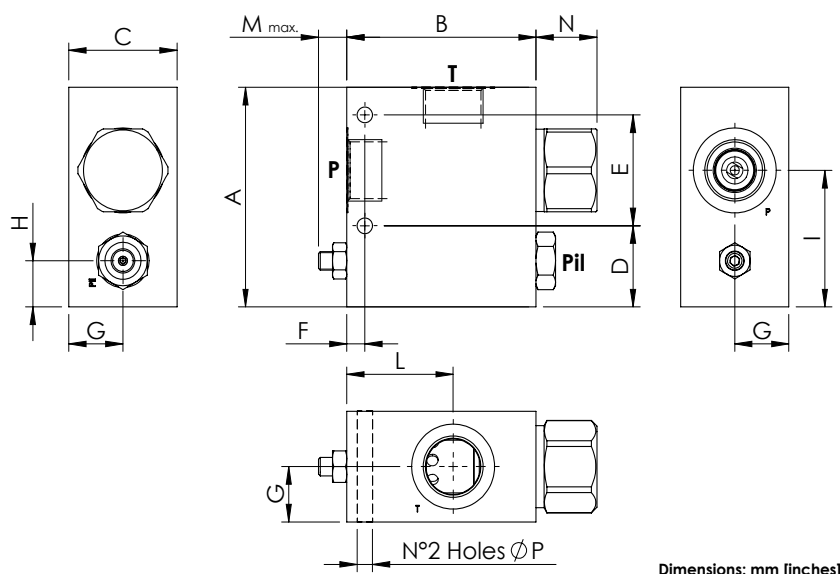
SPECIAL VALVES - UNLOADING INLOADING VALVES



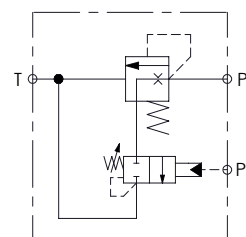
Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	MTP-120-TLSN	Spool type, pump unloading, piloted	120 (32)	210 (3000)	In line	G 1/2"	14.310
	MTP-200-TLSN	Spool type, pump unloading, piloted	200 (53)	210 (3000)	In line	G 3/4"	14.310
	MTP-250-TLSN	Spool type, pump unloading, piloted	250 (66)	210 (3000)	In line	G 1"	14.310
	MFTS-200-DHAN	Solenoid operated unloading valve, with relief	200 (53)	250 (3600)	In line	G 3/4"	14.320
	MFTS-200-DHAN	Solenoid operated unloading valve, with relief	200 (53)	250 (3600)	In line	G 1"	14.330
	MFTS-200-DHAN	Solenoid operated unloading valve, with relief	200 (53)	350 (5000)	In line	G 1"	14.340
	BDEN-040-LLEI		40 (11)	210 (3000)	In line	G 1/2"	14.350
	MTTE-150-SLSN	Solenoid operated unloading valve, piloted	150 (40)	350 (5000)	In line	1 1/16"-15 UNF	14.360
	MTSB-150-SDSN	For Cetop 5	150 (40)	350 (5000)	Flanged	Cetop 5	14.370
	MFTS-150-EFCE		150 (40)	350 (5000)	In line	1 1/16"-12 UNF	14.380
	MTSD-150-TLSN		150 (40)	300 (4300)	In line	G 3/4"	14.390

UNLOADING VALVE

MTP-XXX-XLSN

PUMP UNLOADING
PILOTED

Dimensions: mm [inches]



SPECIFICATIONS

Max. operating pressure:	See table
Rated flow:	See table
Weight:	2,49/5,7 kg (5,5/12,5 lbs)
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

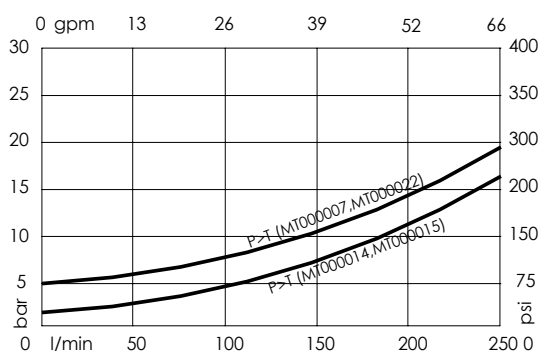
NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

SPECIFICATIONS

A	B	C	D	E	F	G	H	I	L	M	N	P	Code
119 [4,69]	105 [4,13]	60 [2,36]	44 [1,73]	60 [2,36]	10 [0,39]	30 [1,18]	25 [0,98]	74 [2,91]	59 [2,32]	15 [0,59]	33,8 [1,33]	8,5 [0,33]	MT000007
119 [4,69]	105 [4,13]	60 [2,36]	44 [1,73]	60 [2,36]	10 [0,39]	30 [1,18]	25 [0,98]	74 [2,91]	59 [2,32]	15 [0,59]	33,8 [1,33]	8,5 [0,33]	MT000022
105 [4,13]	100 [3,94]	40 [1,57]	35 [1,38]	45 [1,77]	15 [0,59]	20 [0,79]	16 [0,63]	56 [2,2]	52 [2,05]	19,5 [0,77]	18,8 [0,74]	8,5 [0,33]	MT000015
90 [3,54]	100 [3,94]	40 [1,57]	35 [1,38]	45 [1,77]	15 [0,59]	20 [0,79]	16 [0,63]	56 [2,2]	52 [2,05]	19,5 [0,77]	18,8 [0,74]	8,5 [0,33]	MT000014

CURVES



ORDERING CODES

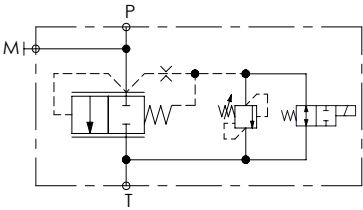
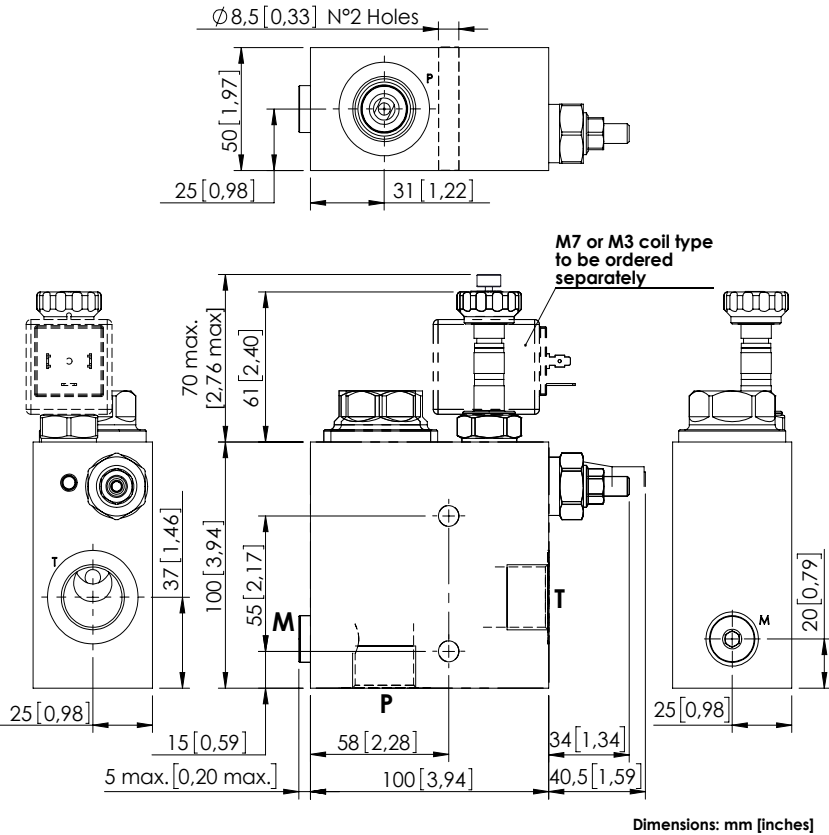
Quick code	Description	Manifold	Ports	Rated flow	Max. operating pressure	Standard setting Q=5 l/min (1,3 gpm)	Adjust. range	Pressure increase
MT000007	MTP-250-TLSN-NP-G10-N210	Aluminium	P,T: G 1" Pil: G 1/4"	250 l/min (66 gpm)	210 bar (3000 psi)	200 bar (2900 psi)	70-210 bar (1000-3000 psi)	49 bar/turn (700 psi/turn)
MT000015	MTP-200-TLSN-NP-G34-N210	Aluminium	P,T: G 3/4" Pil: G 1/4"	200 l/min (53 gpm)	210 bar (3000 psi)	200 bar (2900 psi)	70-210 bar (1000-3000 psi)	49 bar/turn (700 psi/turn)
MT000014	MTP-120-TLSN-NP-G12-N210	Aluminium	P,T: G 1/2" Pil: G 1/4"	120 l/min (32 gpm)	210 bar (3000 psi)	130 bar (1900 psi)	70-210 bar (1000-3000 psi)	49 bar/turn (700 psi/turn)
MT000022	MTP-250-SLSN-NP-G10-N350	Steel	P,T: G 1" Pil: G 1/4"	250 l/min (66 gpm)	350 bar (5000 psi)	200 bar (2900 psi)	70-210 bar (1000-3000 psi)	49 bar/turn (700 psi/turn)

Revision C1

UNLOADING VALVE

MFTS-200-DHAN

SOLENOID OPERATED
UNLOADING VALVE
WITH RELIEF



SPECIFICATIONS

Max. operating pressure:	250 bar (3600 psi)
Rated flow:	200 l/min (53 gpm)
Manifold:	Aluminium
Weight:	1,69 kg (3,7 lbs)
Internal leakage:	80 cm ³ /min (4,88 in ³ /min)
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTTF _d :	150 - 1200 years: See technical spec.

NOTES

Available in steel version for 350 bar (5000 psi) maximum operating pressure.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

OPTIONS

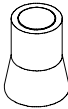
Standard



Push style
override

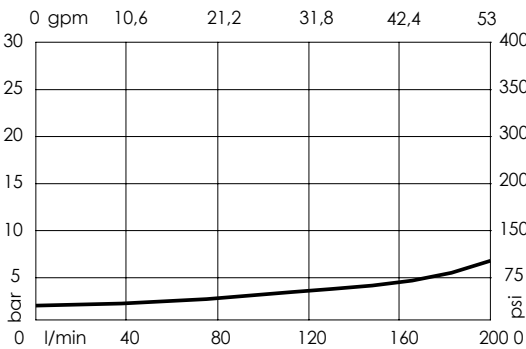


SEALING CAP



Ordering code:
AT000020

CURVES



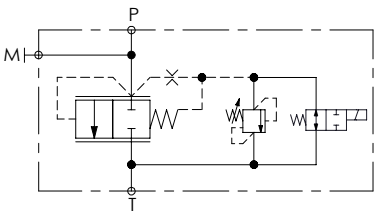
ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Adjustment range	Pressure increase	Options
MF000038	MFTS-200-DHAN-NP-G34-N250	P,T: G 3/4" M: G 1/4"	200 bar (2900 psi)	140-350 bar (2000-5000 psi)	142 bar/turn (2000 psi/turn)	Standard
MF000044	MFTS-200-DHAE-NP-G34-N250	P,T: G 3/4" M: G 1/4"	200 bar (2900 psi)	140-350 bar (2000-5000 psi)	142 bar/turn (2000 psi/turn)	Push style override

UNLOADING VALVE

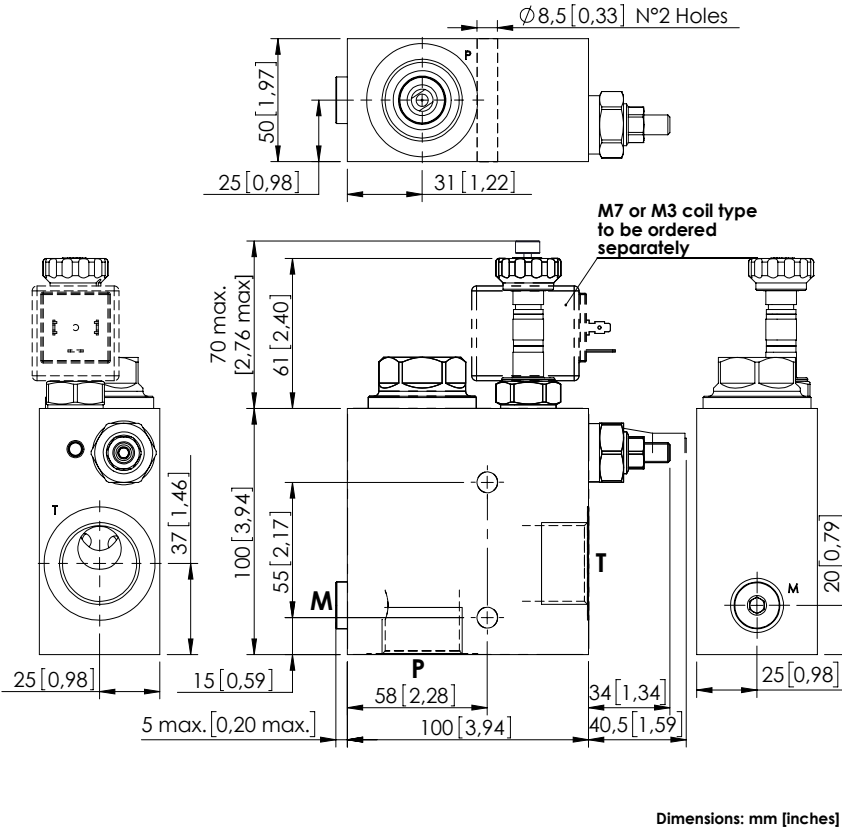
MFTS-200-DHAN

SOLENOID OPERATED
UNLOADING VALVE
WITH RELIEF



SPECIFICATIONS

Max. operating pressure:	250 bar (3600 psi)
Rated flow:	200 l/min (53 gpm)
Manifold:	Aluminium
Weight:	1,65 kg (3.7 lbs)
Internal leakage:	80 cm ³ /min (4,88 in ³ /min)
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.



Dimensions: mm [inches]

NOTES

Available in steel version for 350 bar (5000 psi) maximum operating pressure.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

OPTIONS

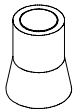
Standard



Push style
override

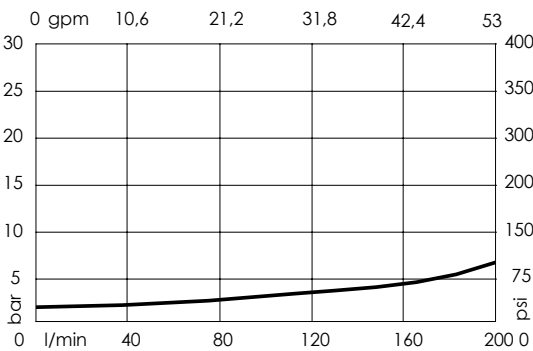


SEALING CAP



Ordering code:
AT000020

CURVES



ORDERING CODES

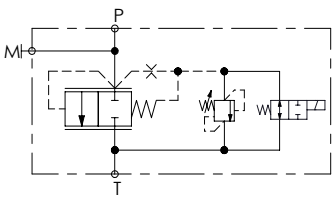
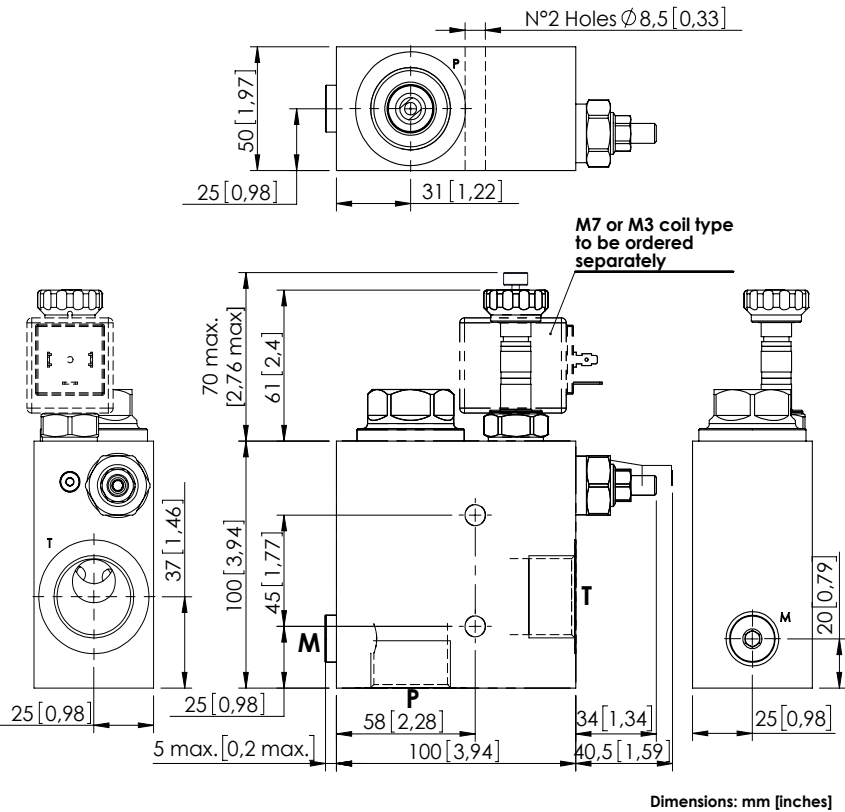
Quick code	Description	Ports	Standard setting Q=5 l/min (1.3 gpm)	Adjustment range	Pressure increase	Options
MF000039	MFTS-200-DHAN-NP-G10-N250	P, T: G 1" M: G 1/4"	200 bar (2900 psi)	140-350 bar (2000-5000 psi)	142 bar/turn (2000 psi/turn)	Standard
MF000043	MFTS-200-DHAE-NP-G10-N250	P, T: G 1" M: G 1/4"	200 bar (2900 psi)	140-350 bar (2000-5000 psi)	142 bar/turn (2000 psi/turn)	Push style override

Revision B1

UNLOADING VALVE

MFTS-200-DHAN

SOLENOID OPERATED
UNLOADING VALVE
WITH RELIEF



SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	200 l/min (53 gpm)
Manifold:	Steel
Weight:	3,57 kg (7,8 lbs)
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTFa:	150 - 1200 years: See technical spec.

NOTES

Available in steel version for 350 bar (5000 psi) maximum operating pressure.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES

OPTIONS

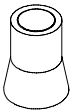
Standard



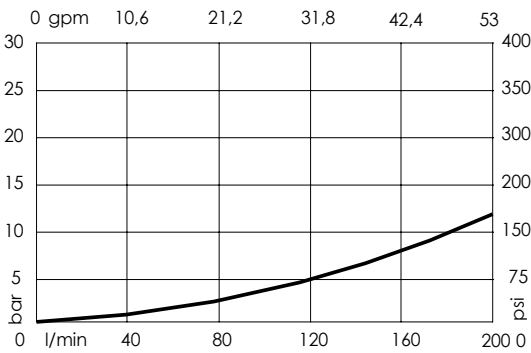
Push style
override



SEALING CAP



Ordering code:
AT000020



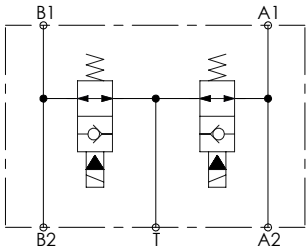
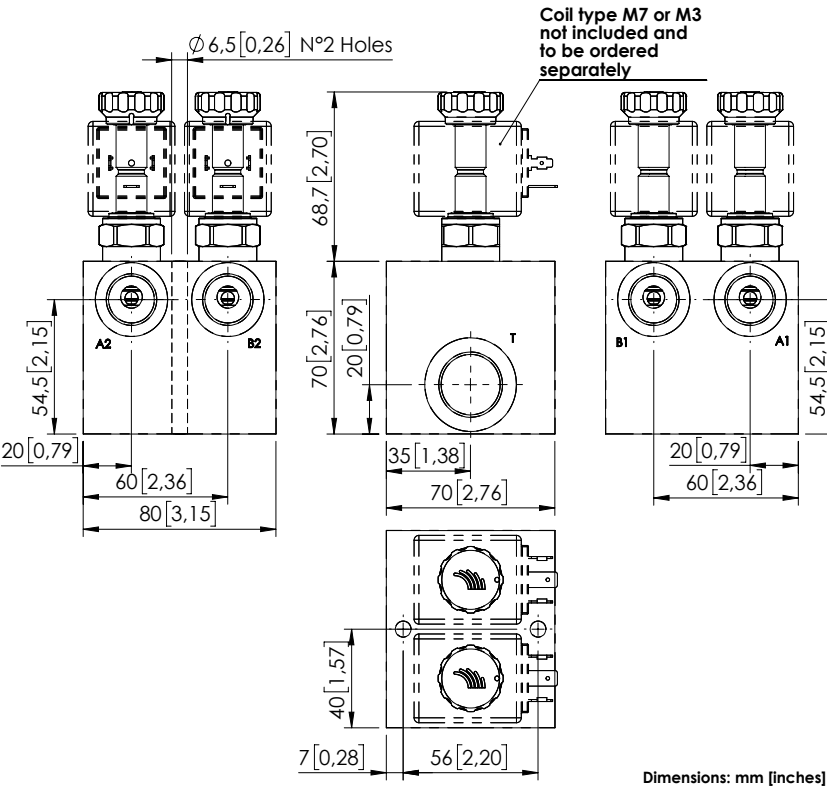
ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Adjustment range	Pressure increase	Options
MF000083	MFTS-200-DHAN-NP-G10-N350	P,T: G 1" M: G 1/4"	350 bar (5000 psi)	140-350 bar (2000-5000 psi)	142 bar/turn (2000 psi/turn)	Standard
MF000103	MFTS-200-DHAE-NP-G10-N350	P,T: G 1" M: G 1/4"	350 bar (5000 psi)	140-350 bar (2000-5000 psi)	142 bar/turn (2000 psi/turn)	Push style override

Revision D1

UNLOADING VALVE

BDEN-040-LLEI



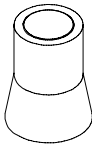
SPECIFICATIONS

Max. operating pressure:	210 bar (3000 psi)
Rated flow:	40 l/min (11 gpm)
Manifold:	Aluminium
Weight:	1,11 kg (2,4 lbs)
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

NOTES

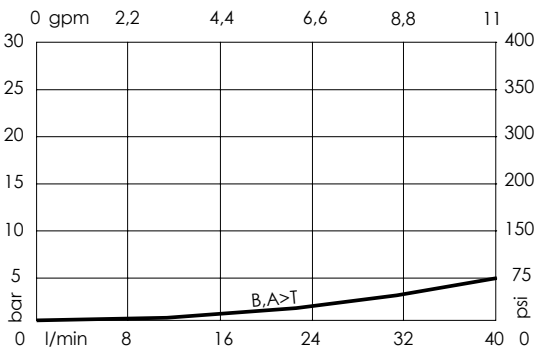
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP



Ordering code:
AT000020

CURVES



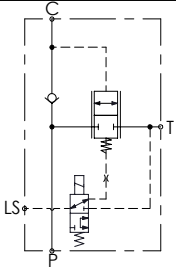
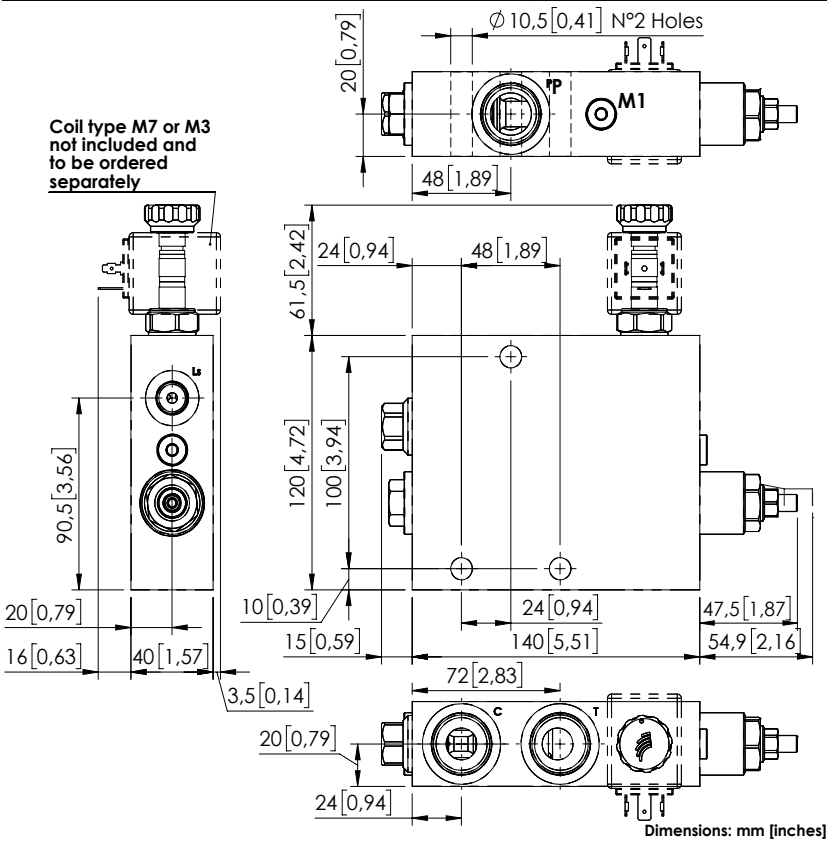
ORDERING CODES

Quick code	Description	Ports	
BD000200	BDEN-040-LLEI-NP-G12-N210	A1,A2,B1,B2: G 1/2" T: G 3/4"	

UNLOADING VALVE

MTTE-150-SLSN

PUMP UNLOADING
PILOTED



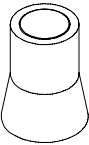
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	150 l/min (40 gpm)
Manifold:	Steel
Weight:	4,68 kg (10,3 lbs)
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

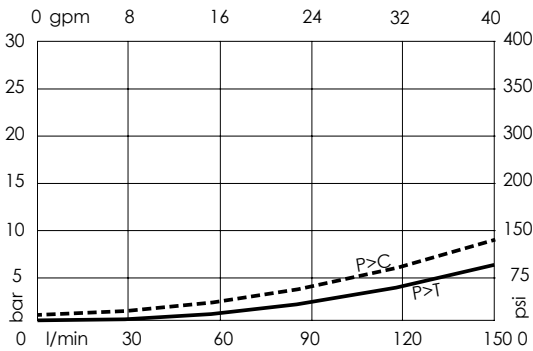
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP



Ordering code:
AT000020

CURVES



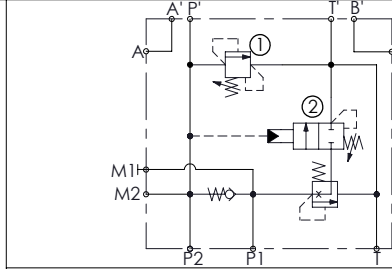
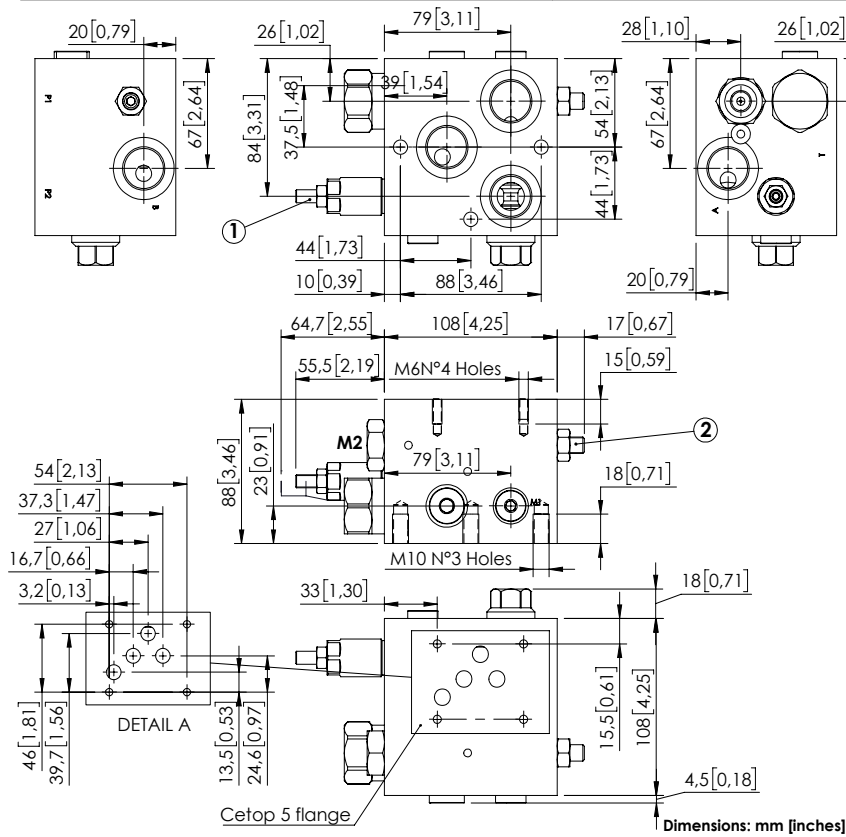
ORDERING CODES

Quick code	Description	Ports
MT000028	MTTE-150-SLSN-NP-U11-N350	P, C, T: 1 1/16" UNF - 2B LS: 9/16" UNF - 2B

UNLOADING VALVE

MTSB-150-SDSN

CETOP 5



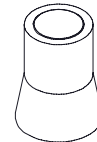
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	150 l/min (40 gpm)
Weight:	7,26 kg (16 lbs)
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

NOTES

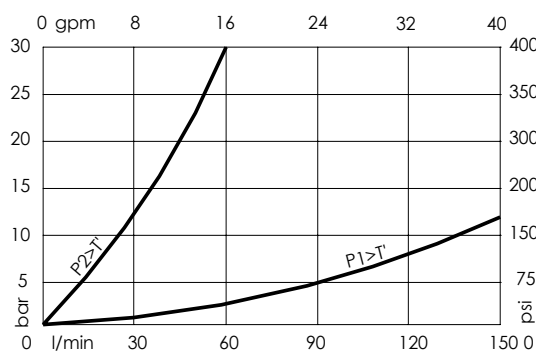
P2 > P' → 50 l/min (13 gpm)
P1 > P' → 100 l/min (26 gpm)
Max flow valve 1: 30 l/min (8 gpm)
For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP



Ordering code:
AT000020

CURVES



ORDERING CODES

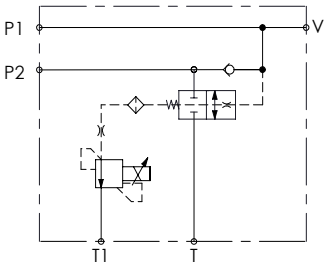
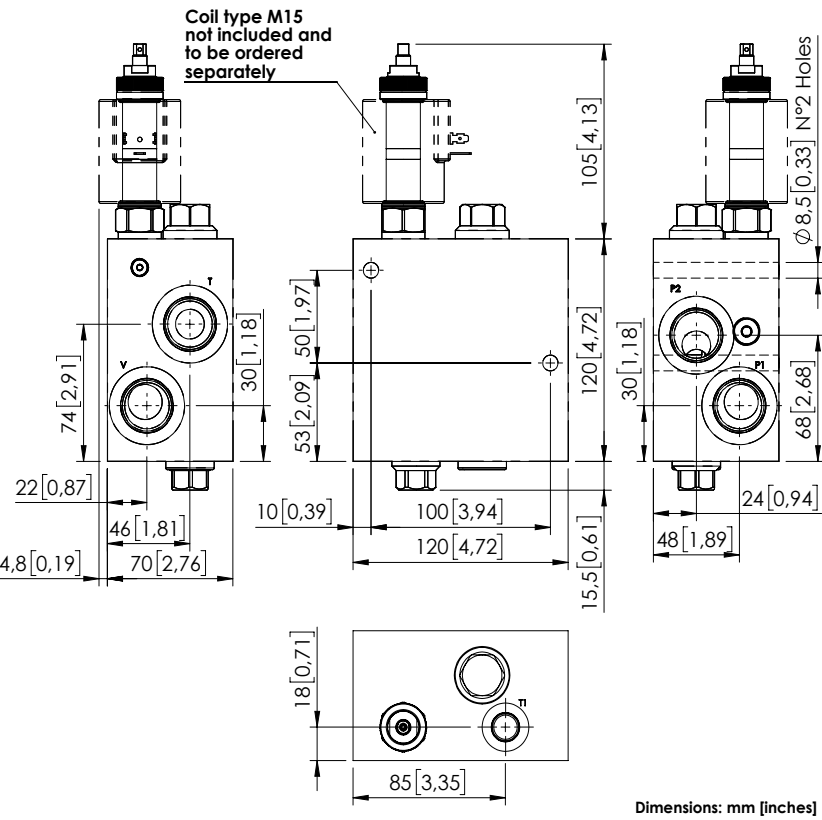
Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase bar/turn (psi/turn)
MT000029	MTSB-150-SDSN-NP-G34-N350	A,B,P1,P2,T: G3/4" A',B',P',T': Cetop 5 M1,M2: G1/4"	① 200 bar (2900 psi) ② 50 bar (700 psi)	① 50-210 bar (700-2900 psi) ② 20-100 bar (300-1500 psi)	① 42 (600) ② 23 (350)

Revision A1

UNLOADING VALVE

MFTS-150-EFCE

SOLENOID OPERATED



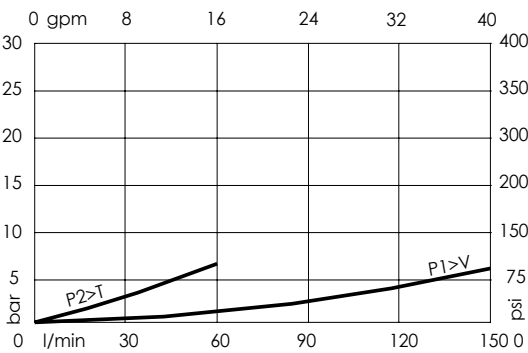
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	150 l/min (40 gpm)
Manifold:	Steel
Weight:	7,2 kg (15,9 lbs)
Coil type:	M15
Contamination class to ISO 4406:	See technical spec.
MTFa:	150 - 1200 years: See technical spec.

NOTES

See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

Quick code	Description	Ports	Standard setting	Adjustment range	
MF000345	MFTS-150-EFCE-NP-U11-N350	V,P1,P2,T: 1" 1/16-12 UNF T1: 9/16-18 UNF	30 bar (400 psi)	25-340 bar (350-4900 psi)	

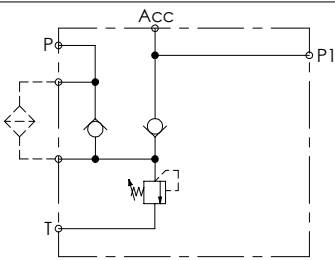
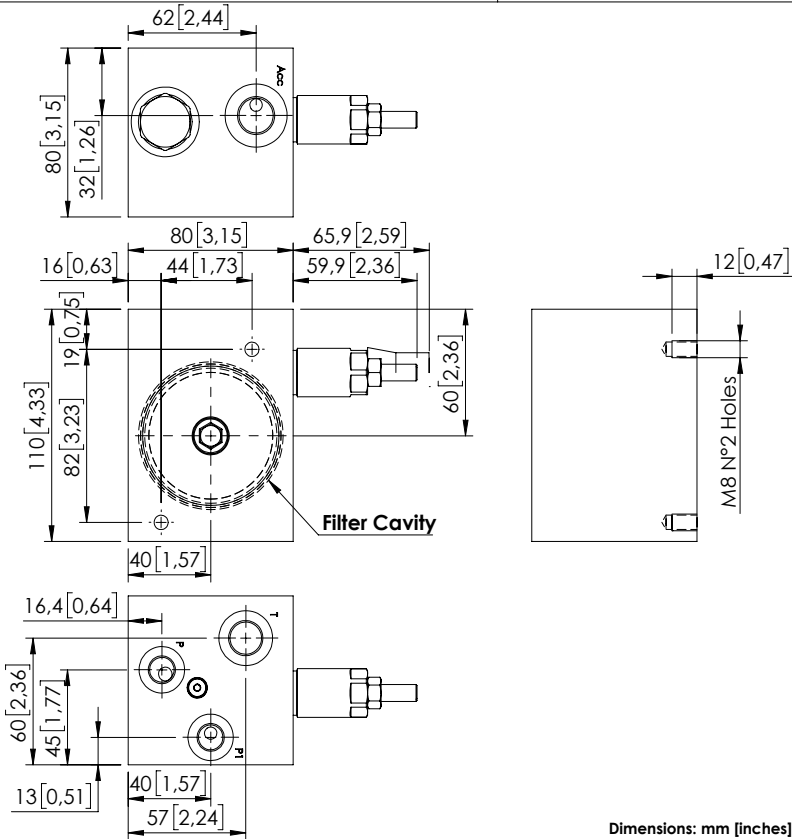
SPECIAL VALVES - FILTER BLOCKS



Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	BPND-025-LLUM		25 (7)	100 (1400)	In line	G 1/4"	14.410
	BPND-025-LLEM		25 (7)	100 (1400)	In line	JIS 1/4"	14.420

FILTER VALVE

BPND-025-LLUM



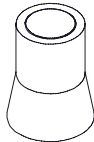
SPECIFICATIONS

Max. operating pressure:	100 bar (1500 psi)
Rated flow:	25 l/min (7 gpm)
Weight:	1,7 kg 3,75 lbs)
Manifold:	Aluminium
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

NOTES

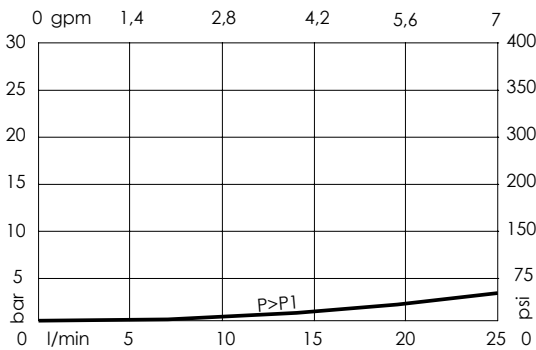
For filter cavity information or special version ask AFT sales network.
For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP



Ordering code:
AT000020

CURVES

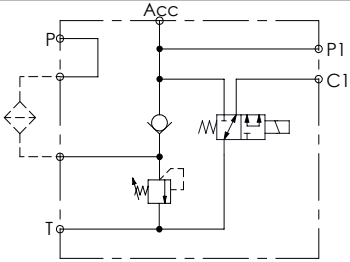
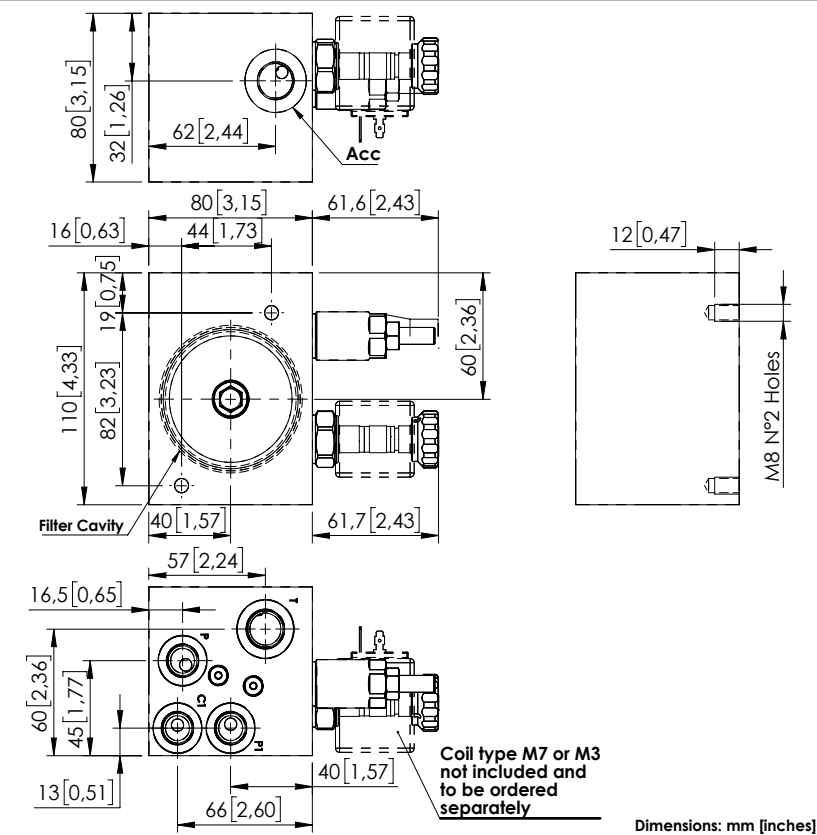


ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
BP000109	BPND-025-LLUM-NP-G38-N100	P1,P: G 1/4" T: G 3/8" Acc: M18x1,5	25 bar (350 psi)	10-50 bar (150-700 psi)	10 bar/turn (150 psi/turn)

FILTER VALVES

BPND-025-LLEM



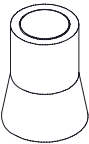
SPECIFICATIONS

Max. operating pressure:	100 bar (1500 psi)
Rated flow:	25 l/min (7 gpm)
Weight:	0,9 kg (1,9 lbs)
Manifold:	Aluminium
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

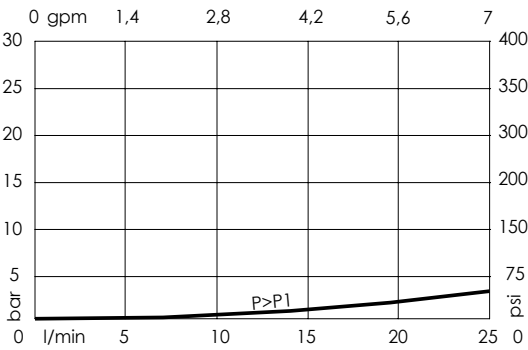
For filter cavity information or special version ask AFT sales network.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP



Ordering code:
AT000020

CURVES



ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
BP000108	BPND-025-LLEM-NP-J38-N100	C1,P1,P: 1/4" JIS T: 3/8" JIS	25 bar (350 psi)	10-50 bar (150-700 psi)	10 bar/turn (150 psi/turn)

SECTION 14. 5

SPECIAL VALVES - END OF STROKE VALVES

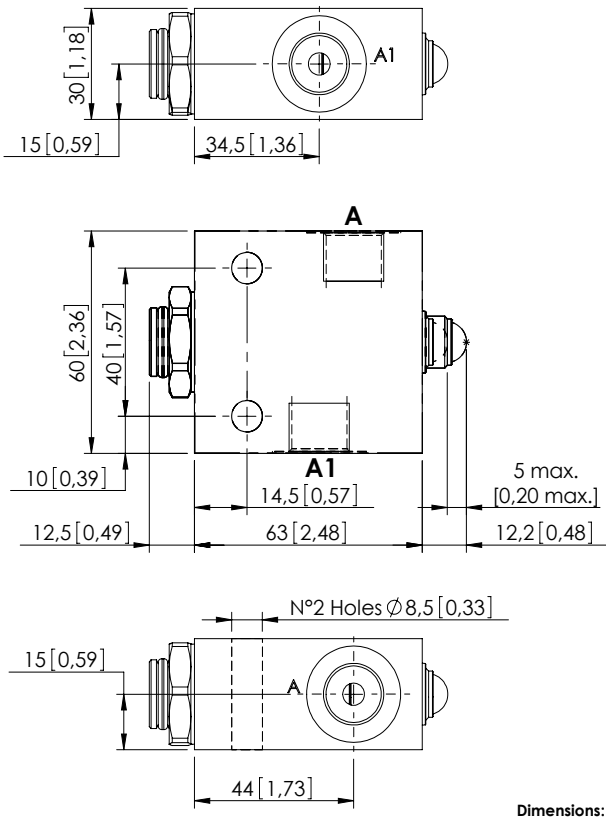


Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	MDTC-060-ABNR	End of stroke, normally open, compensated	60 (16)	350 (5000)	In line	G 3/8"	14.510
	MDTC-100-AVNR	End of stroke, normally closed	100 (26)	350 (5000)	In line	G 1/2"	14.520
	MDTA-060-ABNR	End of stroke, normally open, compensated	60 (16)	350 (5000)	In line	G 3/8"	14.530
	MDTA-100-AVNR	End of stroke, normally open, compensated	100 (26)	350 (5000)	In line	G 1/2"	14.540
	MDTC-030-ABNR	End of stroke, normally closed	30 (8)	350 (5000)	In line	G 3/8"	14.550
	MDTC-080-ABNR	End of stroke, normally closed	80 (21)	350 (5000)	In line	G 3/8"	14.560

END OF STROKE VALVE

MDTC-060-ABNR

NORMALLY CLOSED
COMPENSATED

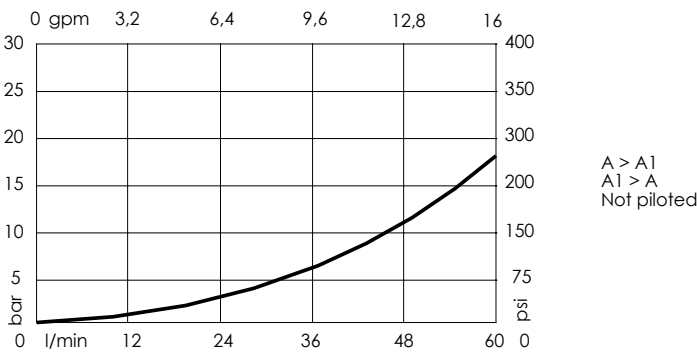


Dimensions: mm [inches]

NOTES

Max. leakage at 150 bar (14,5 psi) when fully closed is 200 cm³/min (12 in³/min).
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

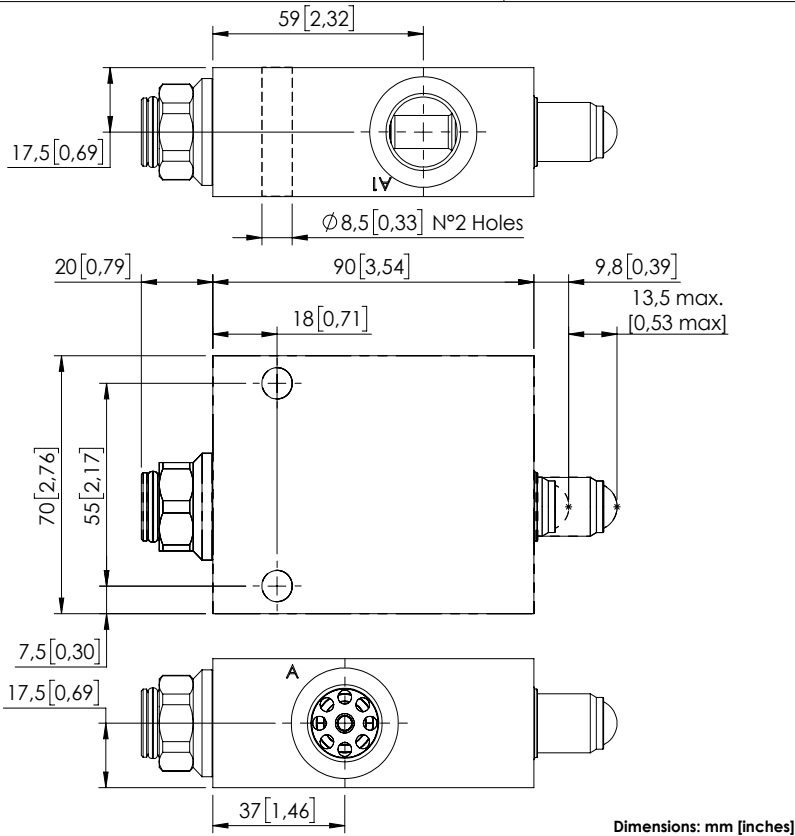
Quick code	Description	Ports	Start opening	Fully open
MD000090	MDTC-060-ABNR-NP-G38-N350	A,A1: G 3/8"	4 kg (8,8 lb)	13 kg (28,6 lb)

Revision A1

END OF STROKE VALVE

MDTC-100-AVNR

NORMALLY CLOSED
AIR VENTED

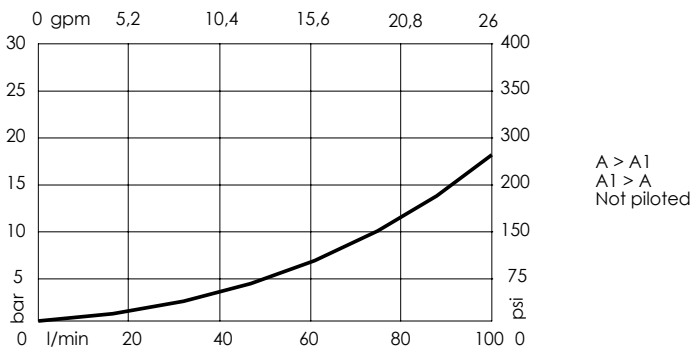


NOTES

Max. leakage at 150 bar (14,5 psi) when fully closed is 200 cm³/min (12 in³/min).

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

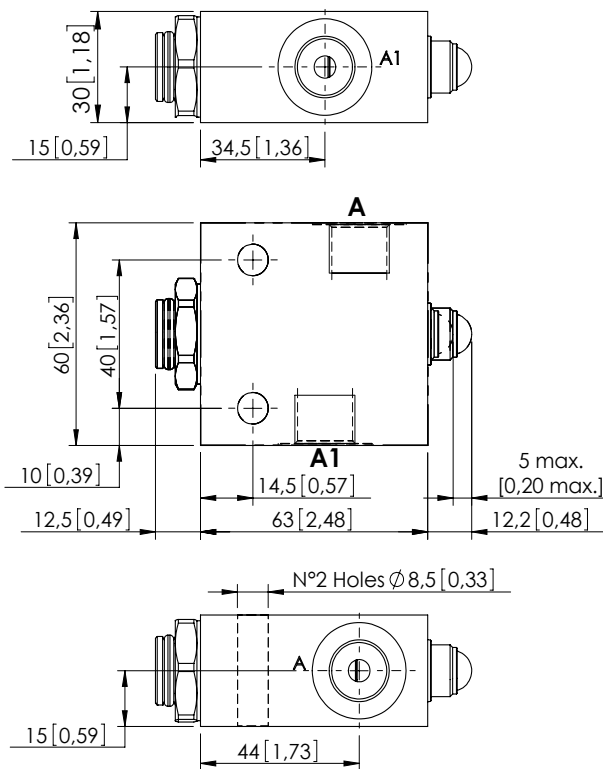
Quick code	Description	Ports	Start opening	Fully open
MD000091	MDTC-100-AVNR-NP-G12-N350	A,A1: G 1/2"	5,3 kg (11,6 lb)	14 kg (30,8 lb)

Revision B1

END OF STROKE VALVE

MDTA-060-ABNR

NORMALLY OPEN
COMPENSATED

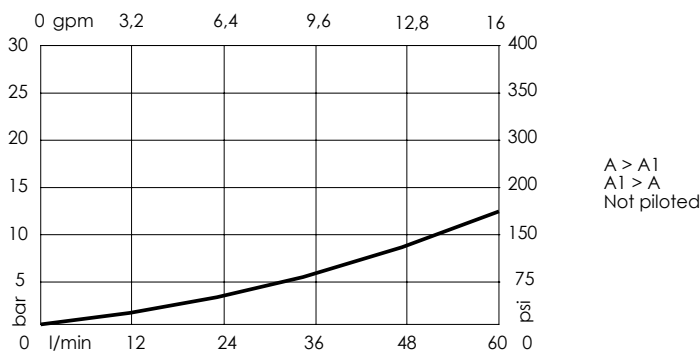


Dimensions: mm [inches]

NOTES

Max. leakage at 150 bar (14,5 psi) when fully closed is 200 cm³/min (12 in³/min).
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

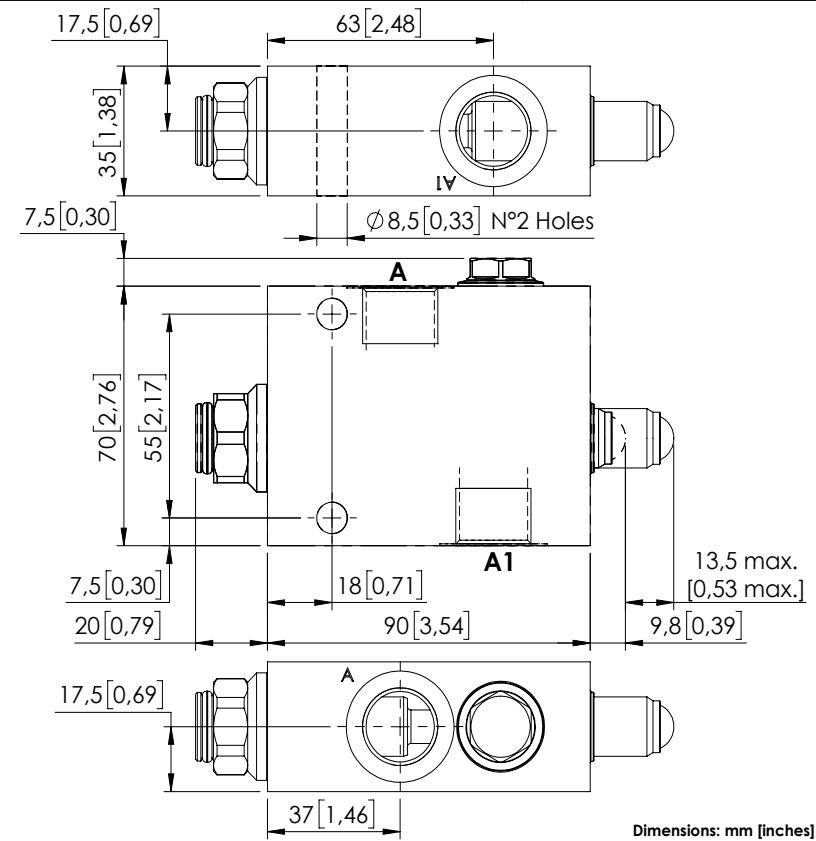
Quick code	Description	Ports	Start closing	Fully closed
MD000043	MDTA-060-ABNR-NP-G38-N350	A,A1: G 3/8"	4 kg (8,8 lb)	13 kg (28,6 lb)

Revision A1

END OF STROKE VALVE

MDTA-100-AVNR

NORMALLY OPEN
COMPENSATED

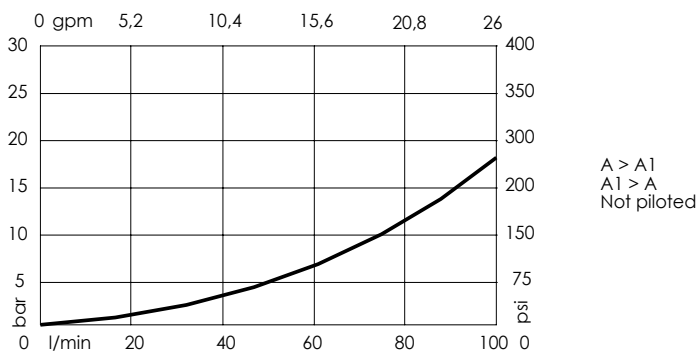


Dimensions: mm [inches]

NOTES

Max. leakage at 150 bar (14,5 psi) when fully closed is 200 cm³/min (12 in³/min).
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

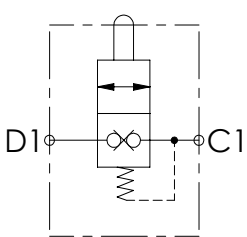
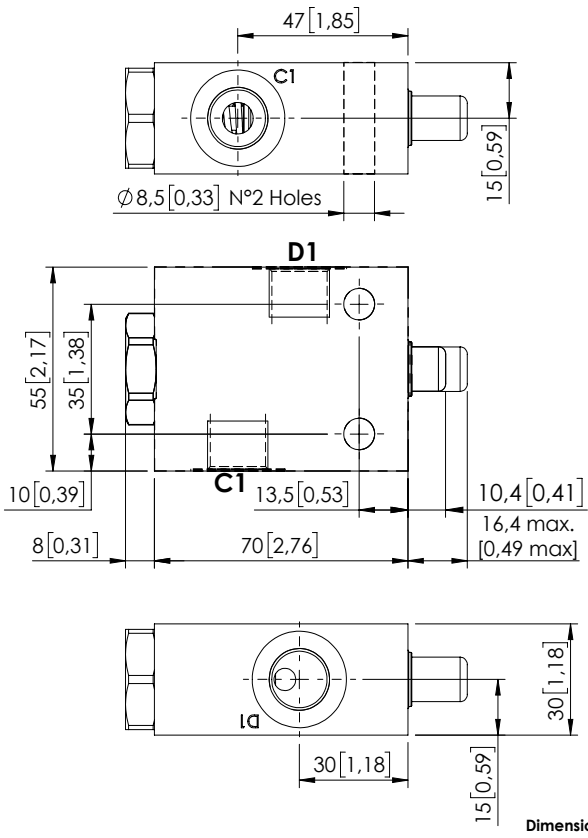
Quick code	Description	Ports	Start closing	Fully closed
MD000032	MDTA-100-AVNR-NP-G12-N350	A,A1: G 1/2"	5,3 kg (11,6 lb)	14 kg (30,8 lb)

Revision C1

END OF STROKE VALVE

MDTC-030-ABNR

NORMALLY CLOSED



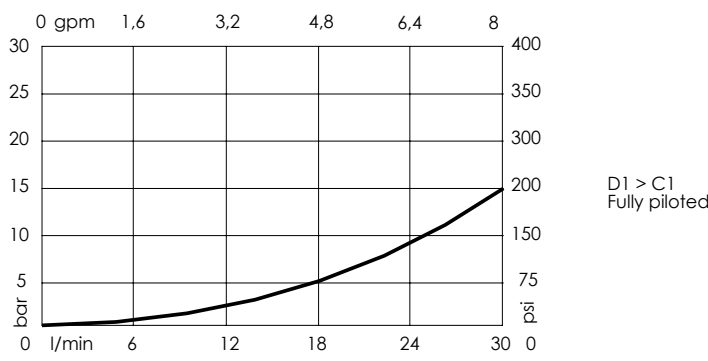
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	30 l/min (8 gpm)
Manifold:	Steel
Weight:	0.78 kg (1,71 lbs)
Maximum stroke:	12,6 mm [0,49 inch]
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



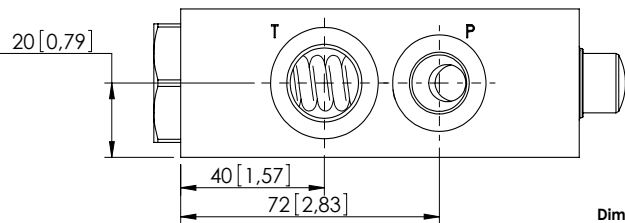
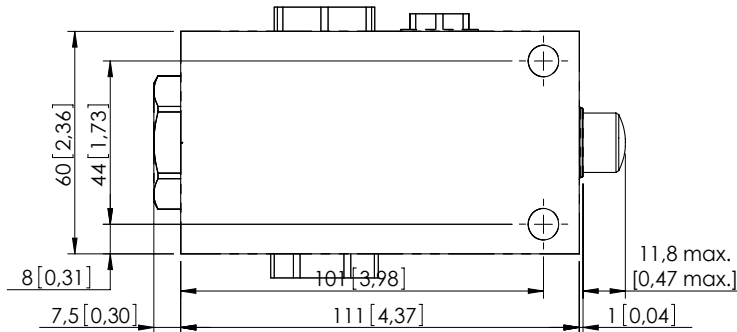
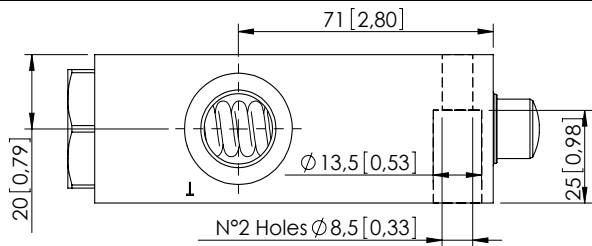
ORDERING CODES

Quick code	Description	Ports	Start opening	Fully open
MD000064	MDTC-030-ABNR-NP-G38-N350	D1,C1: G 3/8"	9 kg (19,8 lb)	19,7 kg (43,4 lb)

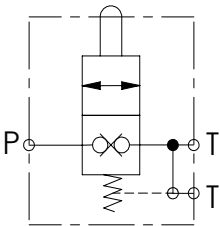
END OF STROKE VALVE

MDTC-080-ABNR

NORMALLY CLOSED



Dimensions: mm [inches]



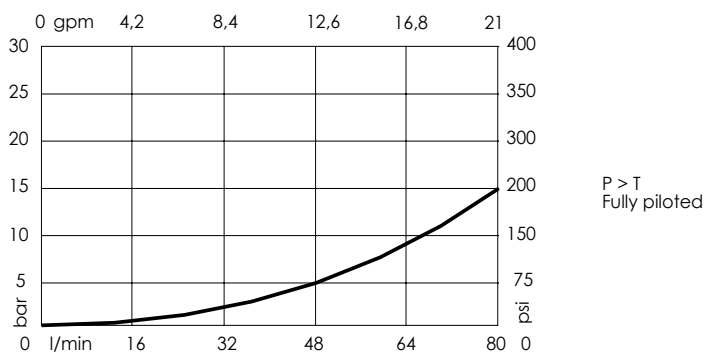
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	80 l/min (21 gpm)
Manifold:	Steel
Weight:	1,72 kg (3,76 lbs)
Maximum stroke:	11,8 mm [0,47 inch]
Contamination class to ISO 4406:	See technical spec.
MTFa:	150 - 1200 years: See technical spec.

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

Quick code	Description	Ports	Start opening	Fully open
MD000044	MDTC-080-ABNR-NP-G38-N350	P: G 3/8" T: G 1/2"	36 kg (79,3 lb)	119 kg (262,3 lb)

Revision A1

SPECIAL VALVES - PILOT BLOCKS

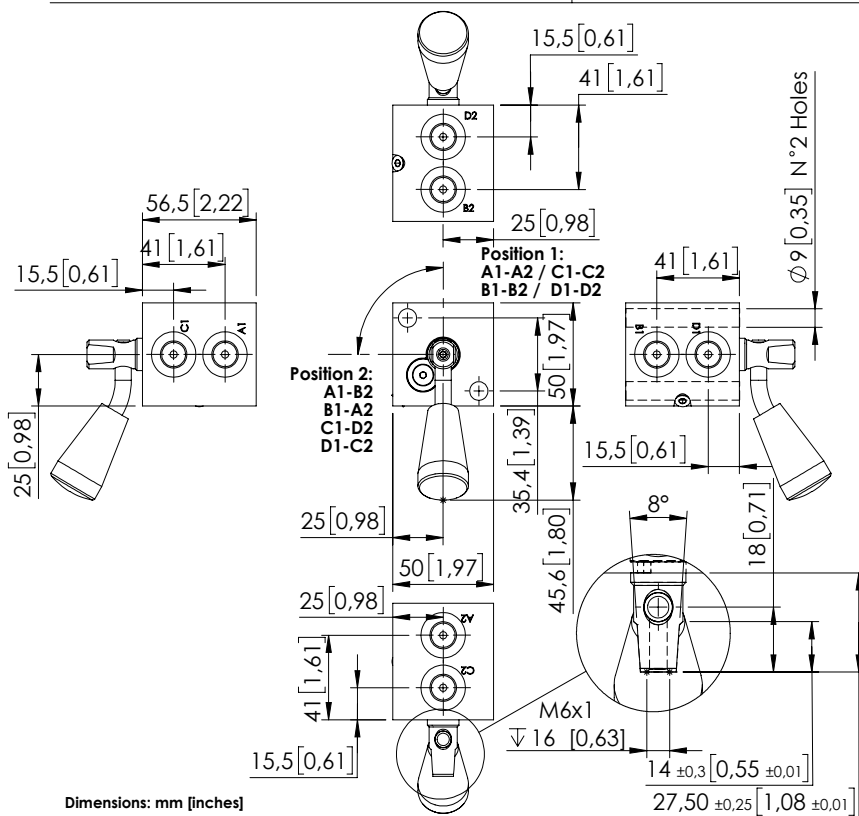


Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	MDRD-020-SLN	ISO-SAE, Changeover valve	20 (5)	50 (700)	In line	G 1/2"	14.610
	BPRD-010-ALLS	Pilot manifold	10 (3)	350 (5000)	In line	G 1/4"	14.620
	BDEN-015-ALRS	Pilot manifold	15 (4)	210-350 (3000-5000)	In line	G 1/4"	14.630
	BDEN-010-ALRU	Joystick safety stop	10 (3)	210 (3000)	In line	G 3/8"	14.640
	BDEZ-005-LLSI-02	Proportional pressure reducing, pilot manifold	5 (1,3)	50 (700)	In line	G 1/4"	14.650
	BDEZ-005-LLSI-06	Proportional pressure reducing, pilot manifold	5 (1,3)	50 (700)	In line	G 1/4"	14.660
	BDEZ-005-LLSI-08	Proportional pressure reducing, pilot manifold	5 (1,3)	50 (700)	In line	G 1/4"	14.670
	BDEZ-005-LLSI-14	Proportional pressure reducing, pilot manifold	5 (1,3)	50 (700)	In line	G 1/4"	14.680

PILOT BLOCK

MDRD-020-SLN

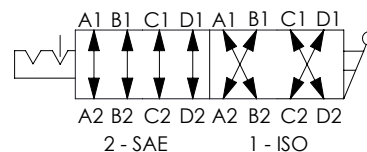
ISO-SAE CHANGEOVER VALVE



Dimensions: mm [inches]

NOTES

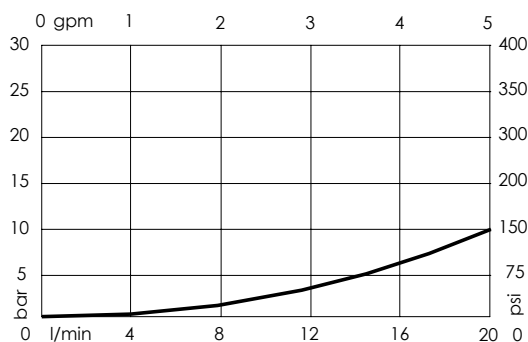
For other configurations/quick codes not available in this catalogue page please consult factory



SPECIFICATIONS

Max. operating pressure:	50 bar (700 psi)
Rated flow:	20 l/min (5 gpm)
Weight:	1.0 kg(2.2 lbs)
Manifold:	Steel
Position shown:	1 - ISO position
Contamination class to ISO 4406:See technical spec.	
MTTF_d:	150 - 1200 years: See technical spec.

CURVES



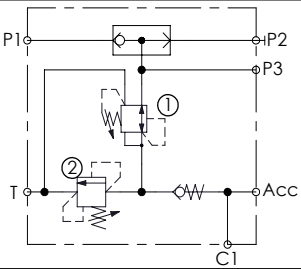
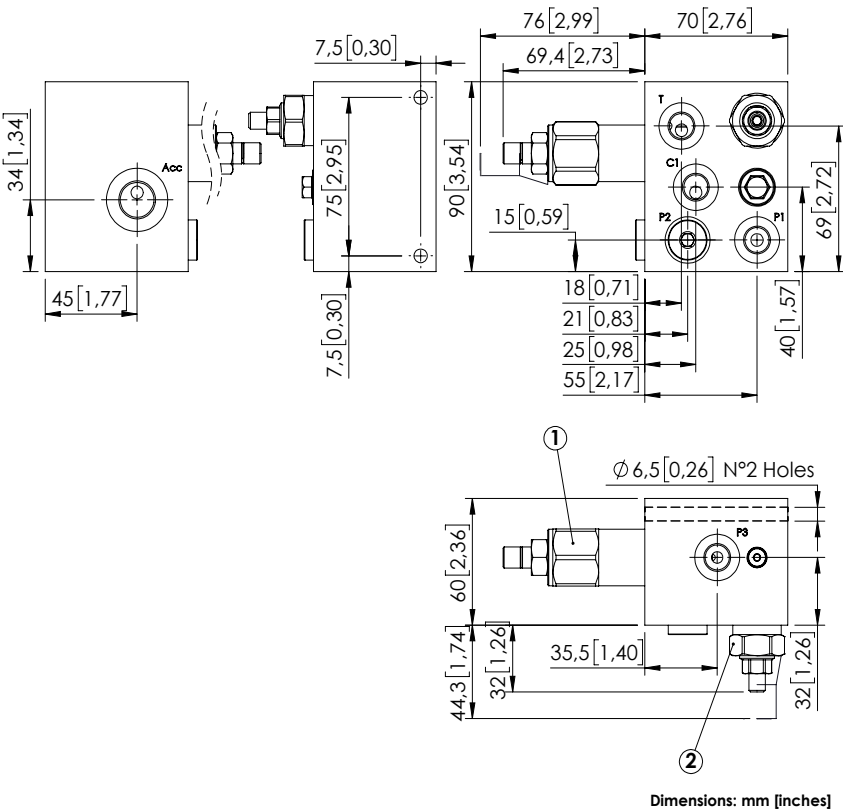
ORDERING CODES

Quick code	Description	Ports	
MD000104	MDRD-020-SLVN-NP-G14-N050	A,B,C,D: G 1/4"	

Revision A

PILOT BLOCK

BPRD-010-ALLS



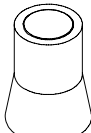
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	10 l/min (3 gpm)
Weight:	3 kg (6,6 lbs)
Manifold:	Steel
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

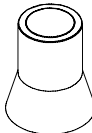
NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP

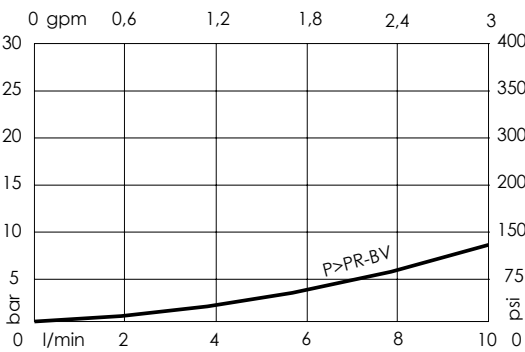


Ordering code:
AT000020
(Valve n°2)



Ordering code:
AT000021
(Valve n°1)

CURVES



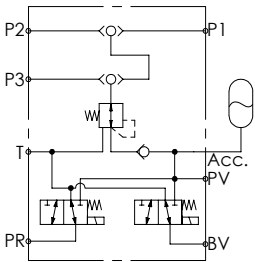
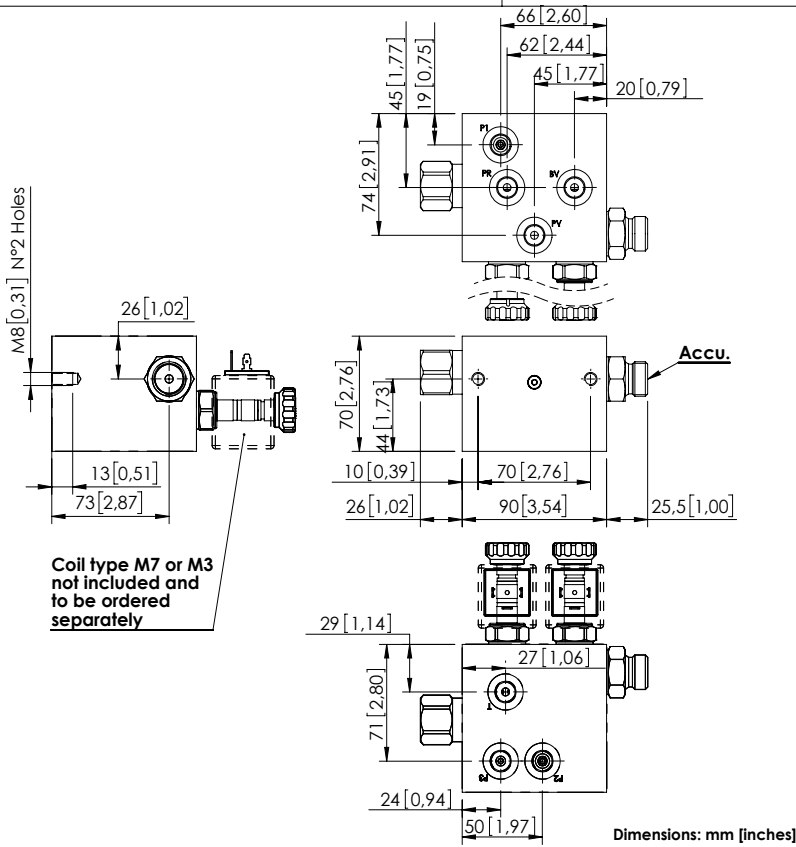
ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase bar/turn (psi/turn)
BP000113	BPRD-010-ALLS-NP-G14-N350	P1,P2,P3,C1,T: G 1/4" Acc: M18x1,5	① 35 bar (500 psi) ② 50 bar (700 psi)	① 20-75 bar (300-1100 psi) ② 10-70 bar (150-1000 psi)	① 11 (150) ② 26 (400)

PILOT BLOCK

BDEN-015-XLRS

PILOT MANIFOLD



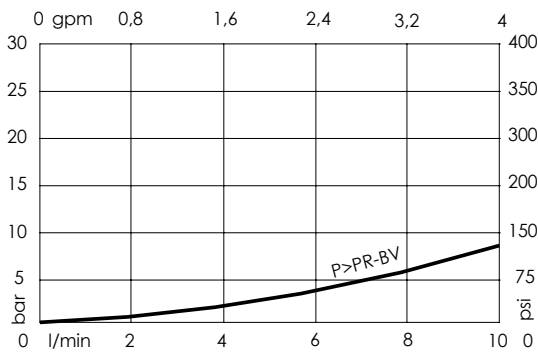
SPECIFICATIONS

Max. operating pressure:	See table
Rated flow:	15 l/min (4 gpm)
Rated flow from accumulator:	45 l/min (12 gpm)
Weight:	4,5/1,9 kg (9,9/4,2 lbs)
Coil type:	M7 or M3 type
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

NOTES

Pressure reducing valve with stabilization system.
Othercoil/voltage available on request.
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



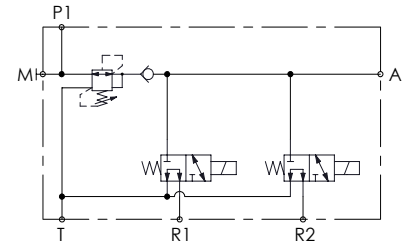
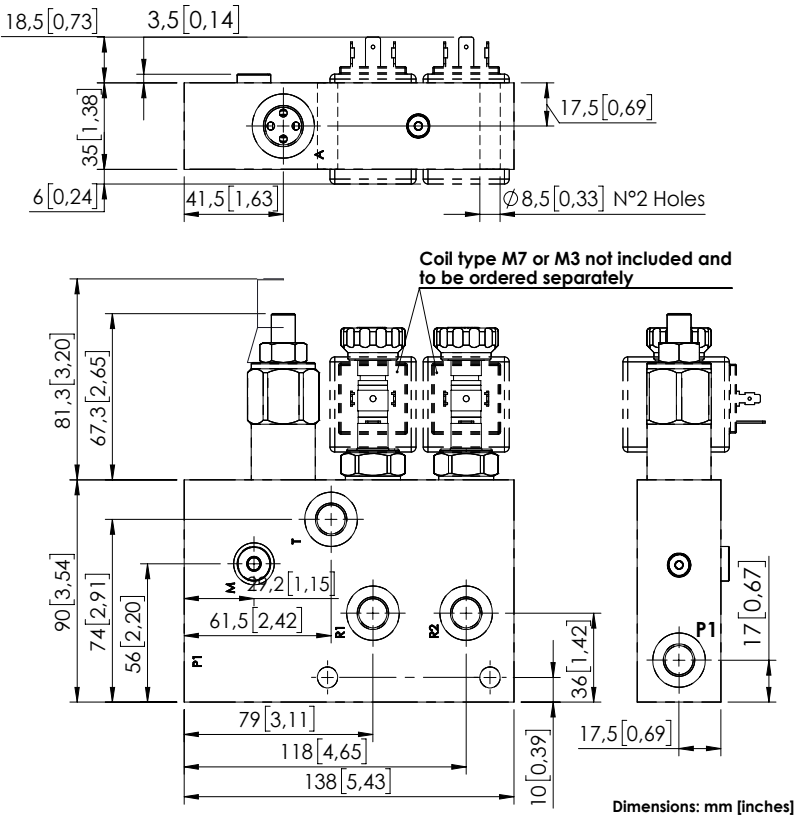
ORDERING CODES

Quick code	Description	Ports	Manifold	Max. pressure operating	Standard setting
BD000205	BDEN-015-ALRS-NP-G14-N350	P1,P2,P3,PR,PV,BV,T: G 1/4" Acc: G 1/2"	Steel	350 bar (5000 psi)	35 bar (500 psi)
BD000206	BDEN-015-LLRS-NP-G14-N210	P1,P2,P3,PR,PV,BV,T: G 1/4" Acc: G 1/2"	Aluminium	210 bar (3000 psi)	35 bar (500 psi)

PILOT BLOCK

BDEN-010-ALRU

JOYSTICK SAFETY STOP
SOLENOID OPERATED



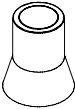
SPECIFICATIONS

Max. operating pressure:	210 bar (3000 psi)
Rated flow:	10 l/min (3 gpm)
Manifold:	Steel
Weight:	1,56 kg (3,4 lbs)
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

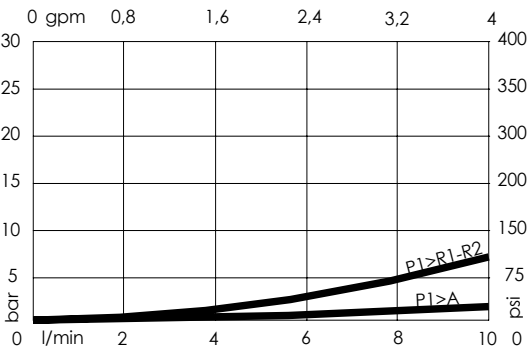
See chapter 21.00.000 for coil.
For other configurations/quick codes not available in this catalogue page please consult factory

SEALING CAP



Ordering code:
AT000021

CURVES



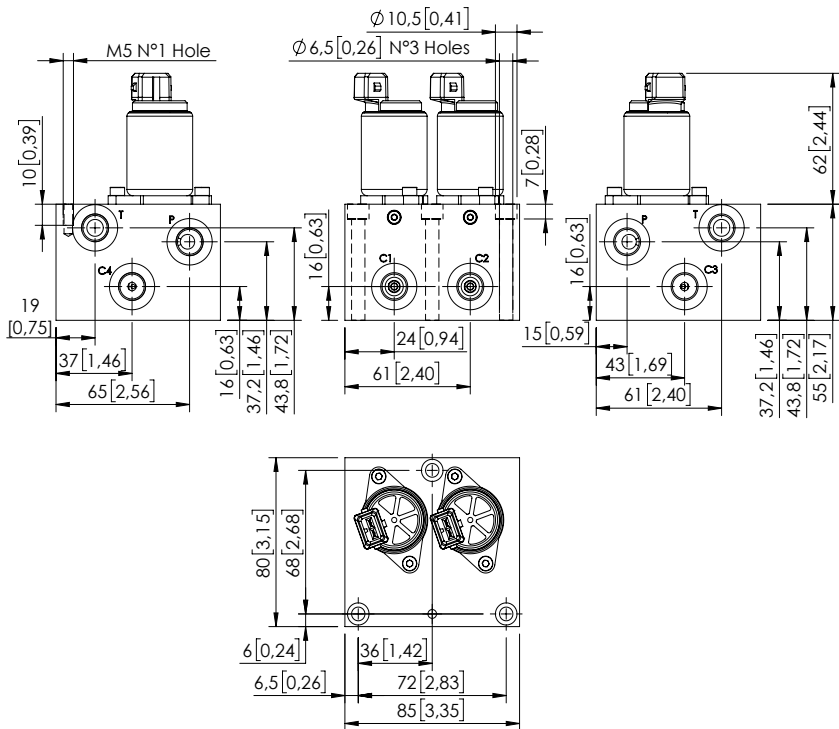
ORDERING CODES

Quick code	Description	Ports	Standard setting	Setting range	Pressure increase
BD000197	BDEN-010-ALRU-NP-G38-N210	R1,R2,T,P1: G1/4" A: G3/8" M: G1/8"	35 bar (500 psi)	10-50 bar (150-700 psi)	7 bar/turn (100 psi/turn)

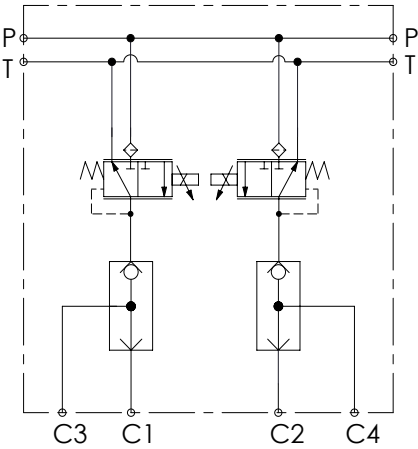
PILOT BLOCK

BDEZ-005-LLSI

PROPORTIONAL
PRESSURE REDUCING
PILOT MANIFOLD



Dimensions: mm [inches]



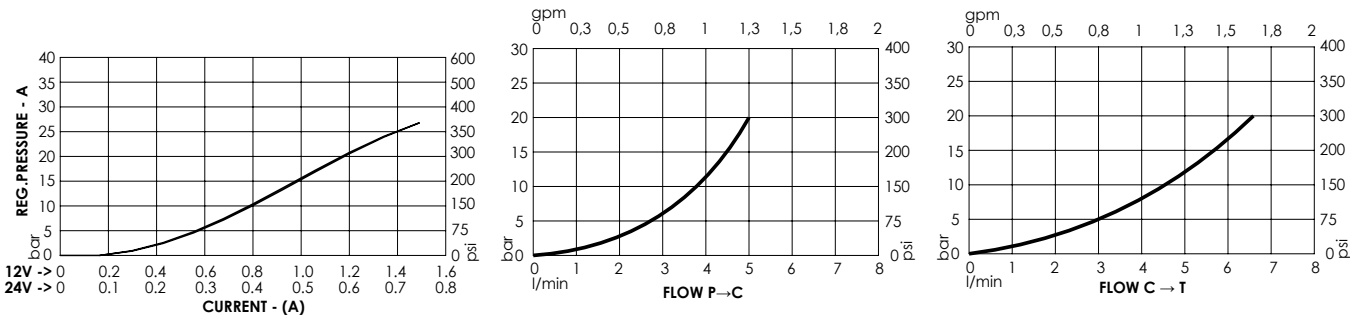
SPECIFICATIONS

Max. operating pressure:	50 bar (700 psi)
Max. operating pressure on port T:	30 bar (400 psi)
Rated flow:	5 l/min (1,3 gpm)
Manifold:	Aluminium
Weight:	1,28 kg (61,7 lbs)
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



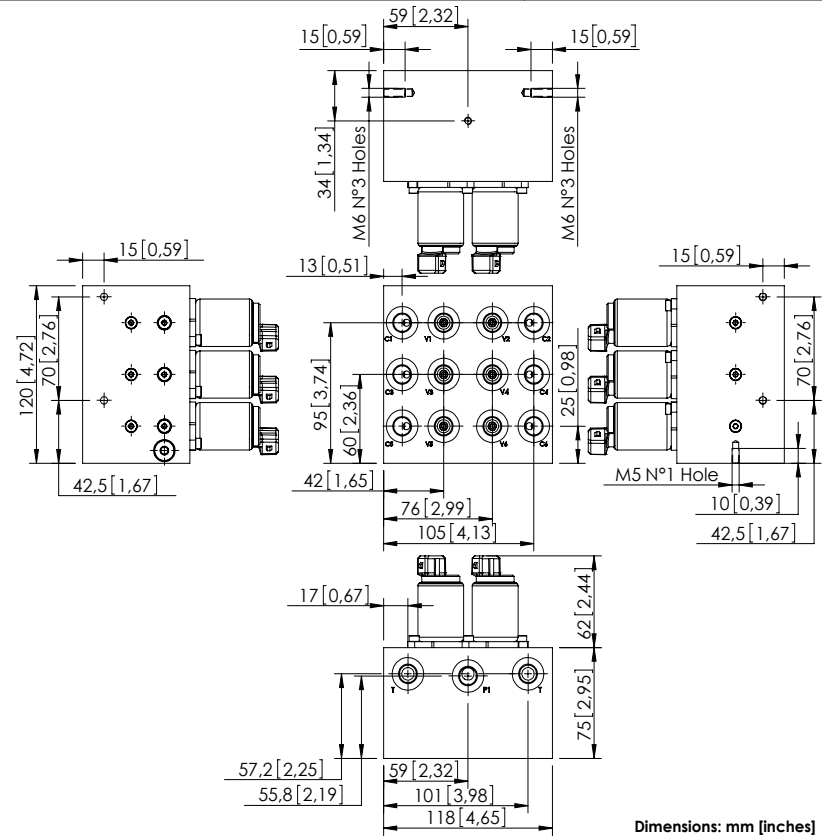
ORDERING CODES

Quick code	Description	Ports	Regulated pressure range	Voltage	Connector type
BD000142	BDEZ-005-LLSI-02-G14-N050-NBAJ	C,P,T: G 1/4"	0-25 bar (0-350 psi)	24V DC	AMP JUNIOR
BD000127	BDEZ-005-LLSI-02-G14-N050-NAAJ	C,P,T: G 1/4"	0-25 bar (0-350 psi)	12V DC	AMP JUNIOR

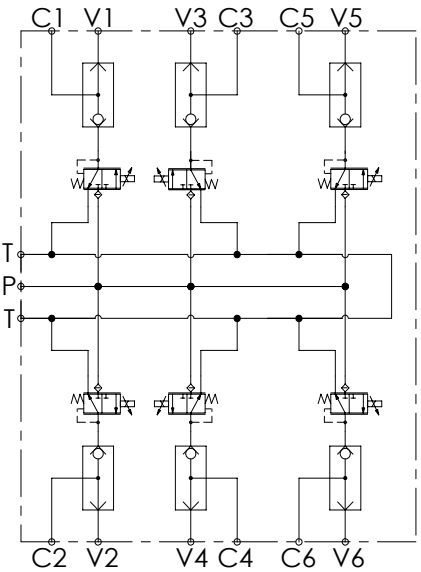
PILOT BLOCK

BDEZ-005-LLSI

PROPORTIONAL
PRESSURE REDUCING
PILOT MANIFOLD



Dimensions: mm [inches]



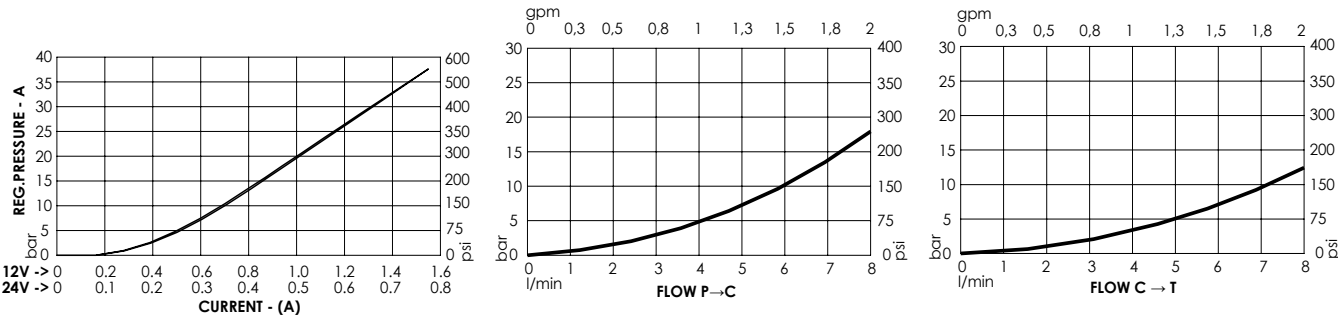
SPECIFICATIONS

Max. operating pressure:	50 bar (700 psi)
Max. operating pressure on port T:	30 bar (400 psi)
Rated flow:	5 l/min (1.3 gpm)
Manifold:	Aluminium
Weight:	3,8 kg (8.3 lbs)
Contamination class to ISO 4406:	See technical spec.
MTTFa:	150 - 1200 years: See technical spec.

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



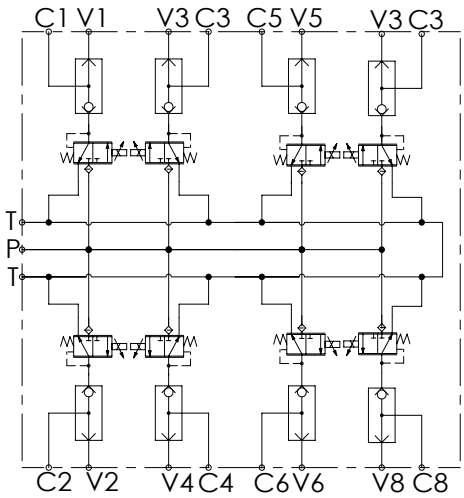
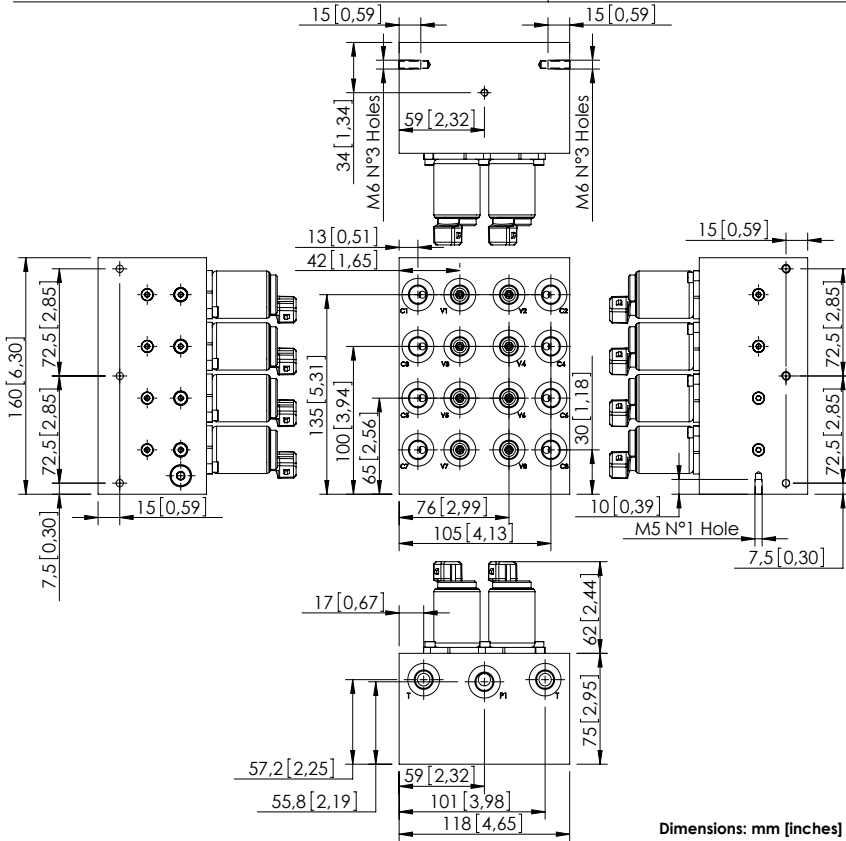
ORDERING CODES

Quick code	Description	Ports	Regulated pressure range	Voltage	Connector type
BD000084	BDEZ-005-LLSI-06-G14-N050-NBAJ	C,V,P,T: G 1/4"	0-20 bar (0-300 psi)	24V DC	AMP JUNIOR
BD000202	BDEZ-005-LLSI-06-G14-N050-NAAJ	C,V,P,T: G 1/4"	0-20 bar (0-300 psi)	12V DC	AMP JUNIOR

PILOT BLOCK

BDEZ-005-LLSI

PROPORTIONAL
PRESSURE REDUCING
PILOT MANIFOLD



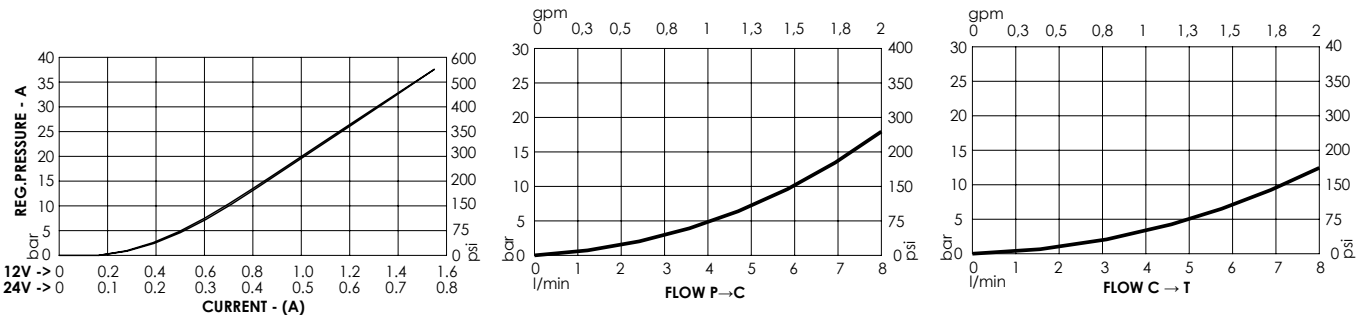
SPECIFICATIONS

Max. operating pressure:	50 bar (700 psi)
Max. operating pressure on port T:	30 bar (400 psi)
Rated flow:	5 l/min (1.3 gpm)
Manifold:	Aluminium
Weight:	5 kg (11 lbs)
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



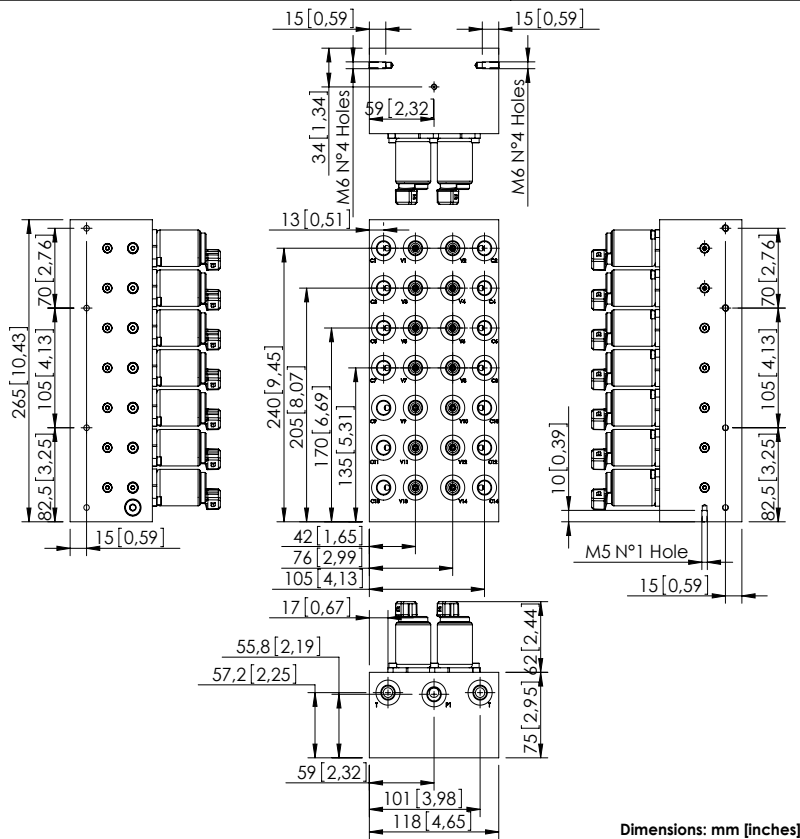
ORDERING CODES

Quick code	Description	Ports	Regulated pressure range	Voltage	Connector type
BD000088	BDEZ-005-LLSI-08-G14-N050-NBAJ	C,V,P,T: G 1/4"	0-20 bar (0-300 psi)	24V DC	AMP JUNIOR
BD000201	BDEZ-005-LLSI-08-G14-N050-NAAJ	C,V,P,T: G 1/4"	0-20 bar (0-300 psi)	12V DC	AMP JUNIOR

PILOT BLOCK

BDEZ-005-LLSI

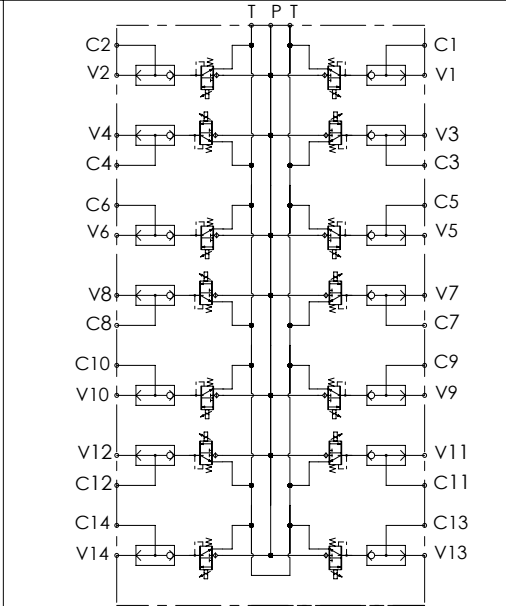
PROPORTIONAL
PRESSURE REDUCING
PILOT MANIFOLD



NOTES

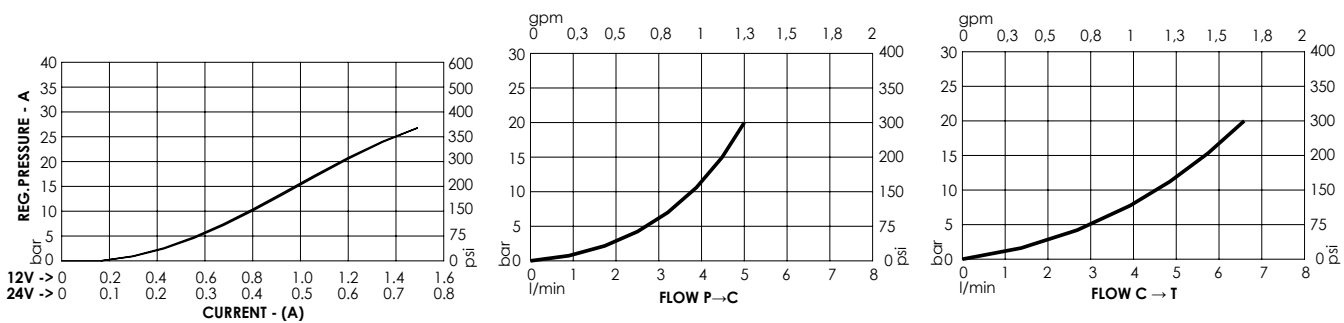
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



SPECIFICATIONS

Max. operating pressure:	50 bar (700 psi)
Max. operating pressure on port T:	30 bar (400 psi)
Rated flow:	5 l/min (1,3 gpm)
Manifold:	Aluminium
Weight:	8,5 kg (18,7 lbs)
Contamination class to ISO 4406:	See technical spec.
MTFa:	150 - 1200 years: See technical spec.



ORDERING CODES

Quick code	Description	Ports	Regulated pressure range	Voltage	Connector type
BD000203	BDEZ-005-LLSI-14-G14-N050-NBAJ	C,V,P,T: G 1/4"	0-25 bar (0-350 psi)	24V DC	AMP JUNIOR
BD000204	BDEZ-005-LLSI-14-G14-N050-NAAJ	C,V,P,T: G 1/4"	0-25 bar (0-350 psi)	12V DC	AMP JUNIOR

SECTION 14. 7

SPECIAL VALVES - AUTOMATIC SWITCHING VALVES

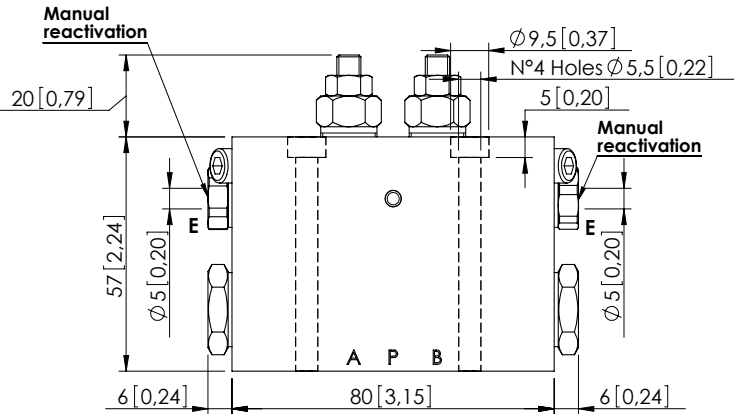
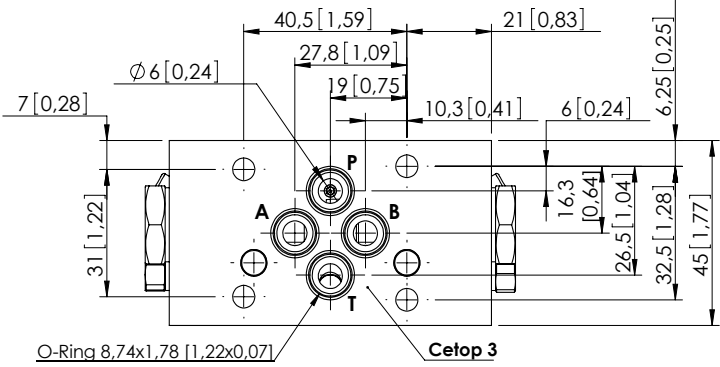


Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	MDAP-040-NNNR	Spool type, pressure switching	40 (11)	350 (5000)	Flanged	Cetop 3	14.710
	MDAP-090-NNNR	Spool type, pressure switching	90 (24)	350 (5000)	Flanged	Cetop 5	14.720
	MDAP-090-NNNR	Spool type, pressure switching	90 (24)	250 (3600)	Flanged	Cetop 5	14.730
	MDAF-080-ANNR	Spool type, flow switching, P in A start	80 (21)	350 (5000)	Flanged	Cetop 5	14.740

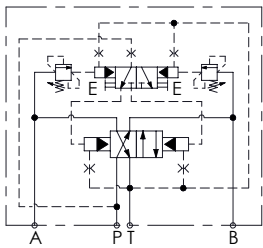
AUTOMATIC DIRECTIONAL VALVE

MDAP-040-NNNR

PRESSURE SWITCHING



Dimensions: mm [inches]



SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	40 l/min (11 gpm)
Weight:	1,48 kg (3,2 lbs)
Manifold:	Cast Iron
Contamination class to ISO 4406:	See technical spec.
MTTFd:	150 - 1200 years: See technical spec.

NOTES

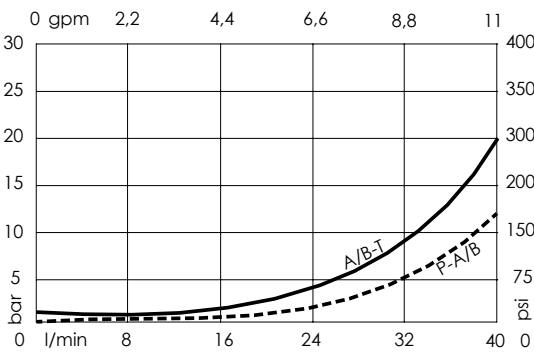
Minimum required flow: 3 l/min (0,8 gpm).

Actuator working pressure should always be lower than the automatic switching valve relief setting.

Automatic switching valve relief setting should always be lower than pump relief valve setting.

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



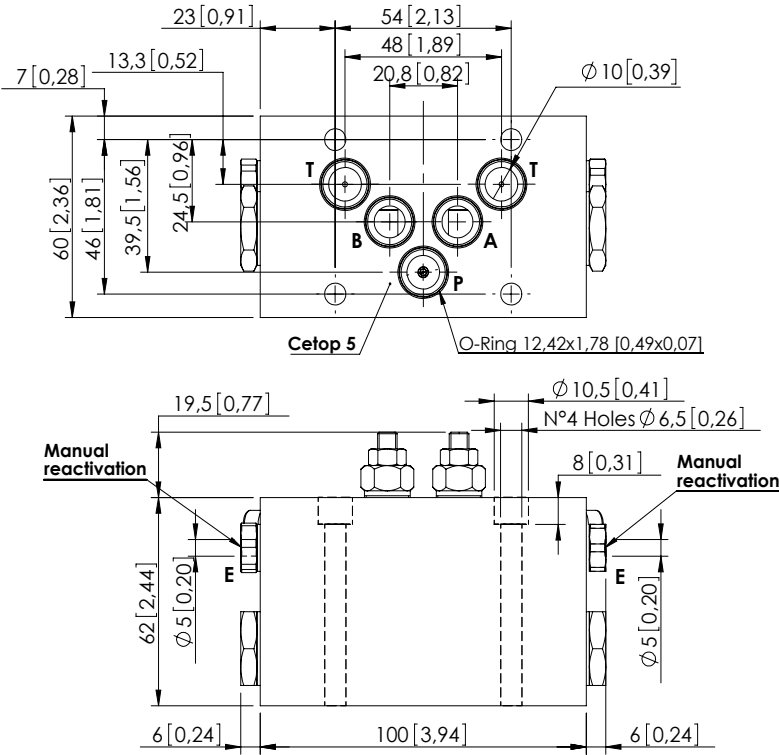
ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
MD000027	MDAP-040-NNNR-NP-N06-N350	A,B,P,T: CETOP 3	350 bar (5000 psi)	100-350 bar (1500-5000 psi)	95 bar/turn (1300 psi/turn)
MD000026	MDAP-040-NNNR-NP-N06-N200	A,B,P,T: CETOP 3	200 bar (2900 psi)	50-210 bar (700-3000 psi)	51 bar/turn (700 psi/turn)
MD000025	MDAP-040-NNNR-NP-N06-N100	A,B,P,T: CETOP 3	100 bar (1500 psi)	15-100 bar (200-1500 psi)	26 bar/turn (400 psi/turn)

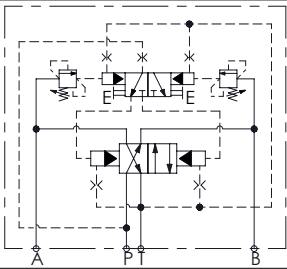
AUTOMATIC DIRECTIONAL VALVE

MDAP-090-NNNR

PRESSURE SWITCHING



Dimensions: mm [inches]



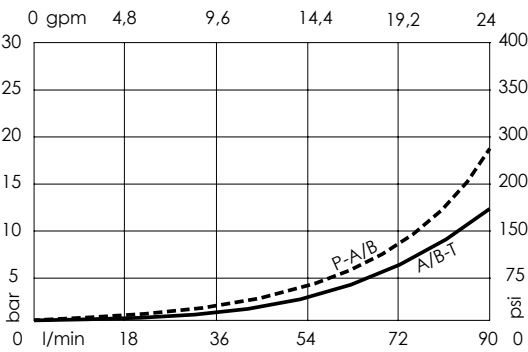
SPECIFICATIONS

Max. operating pressure:	350 bar (4300 psi)
Rated flow:	90 l/min (24 gpm)
Weight:	2,65 kg (5,84 lbs)
Manifold:	Cast Iron
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

NOTES

Minimum required flow: 3 l/min (0,8 gpm).
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

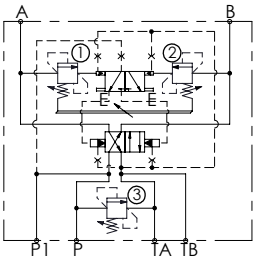
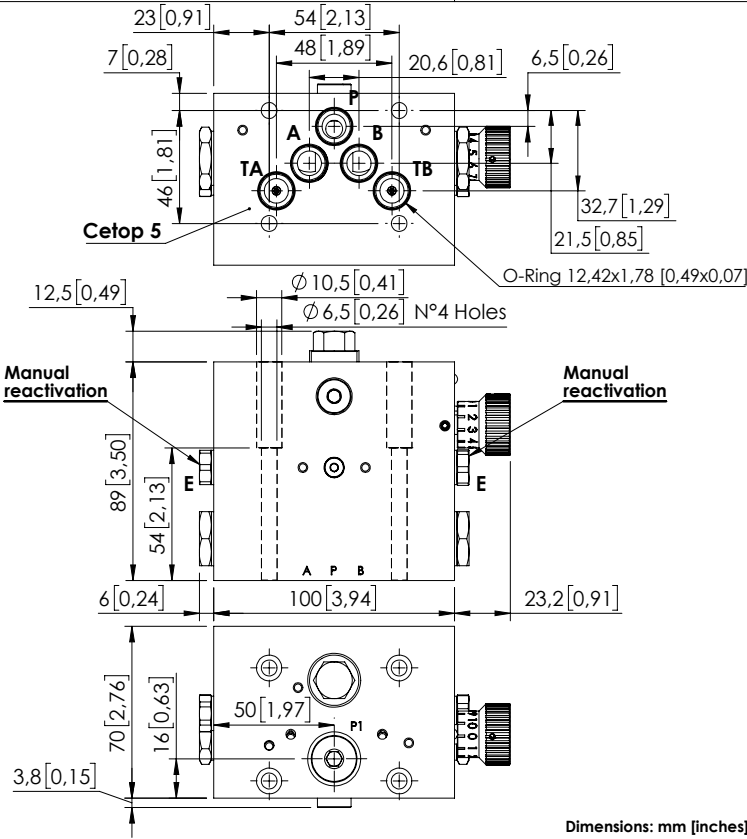
Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
MD000030	MDAP-090-NNNR-NP-N10-N350	A,B,P,T: CETOP 5	350 bar (5000 psi)	100-350 bar (1500-5000 psi)	95 bar/turn (1300 psi/turn)
MD000029	MDAP-090-NNNR-NP-N10-N200	A,B,P,T: CETOP 5	200 bar (2900 psi)	50-210 bar (700-3000 psi)	51 bar/turn (700 psi/turn)
MD000028	MDAP-090-NNNR-NP-N10-N100	A,B,P,T: CETOP 5	100 bar (1500 psi)	15-100 bar (200-1500 psi)	26 bar/turn (400 psi/turn)

Revision B1

AUTOMATIC DIRECTIONAL VALVE

MDAP-090-NNNR

PRESSURE SWITCHING



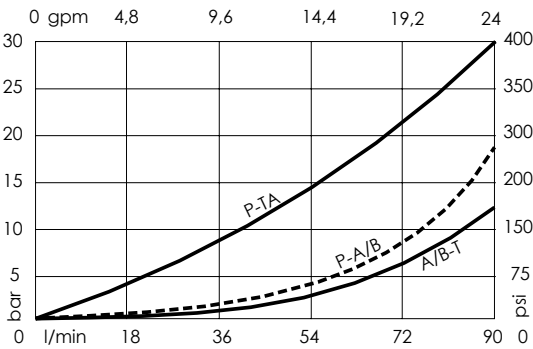
SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	90 l/min (24 gpm)
Weight:	4,45 kg (9,8 lbs)
Manifold:	Cast Iron
Contamination class to ISO 4406:	See technical spec.
MTF _a :	150 - 1200 years: See technical spec.

NOTES

Minimum required flow: 3 l/min (0.8 gpm).
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



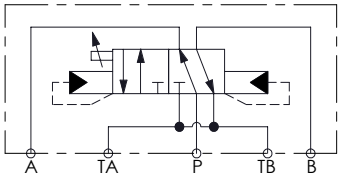
ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
MD000119	MDAP-090-NNNR-NP-N10-N350	A, B, P, TA, TB: CETOP 5 P1: G1/4"	① ② 180 bar (2600 psi) ③ 200 bar (2900 psi)	① ② 140-350 bar (2000-5000 psi) ③ Fix setting	① ② 146 bar/turn (2100 psi/turn)

AUTOMATIC DIRECTIONAL VALVE

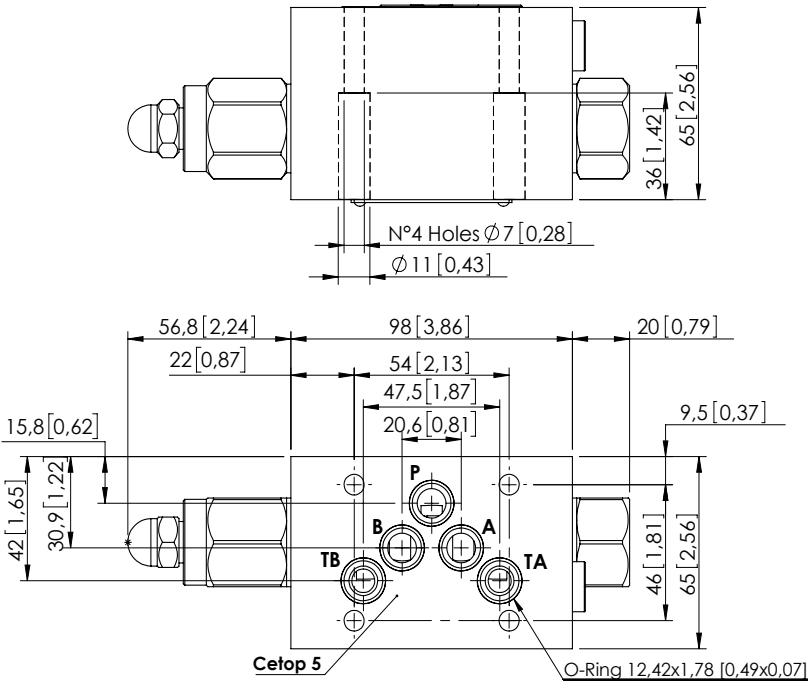
MDAF-080-ANNR

FLOW SWITCHING



SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	80 l/min (21 gpm)
Weight:	3,12 kg (6,8 lbs)
Manifold:	Cast Iron
Contamination class to ISO 4406:	See technical spec.
MTF _d :	150 - 1200 years: See technical spec.

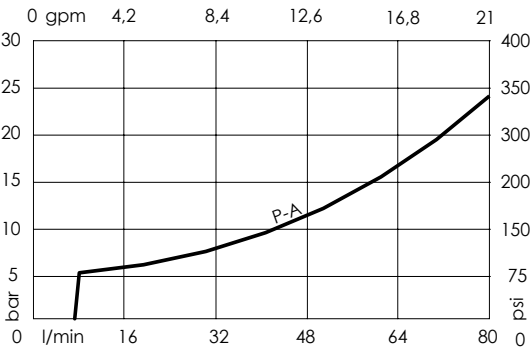


Dimensions: mm [inches]

NOTES

Minimum required flow: 6 l/min (1,6 gpm)
Flexible pipe should be placed between valve and cylinder rod side.
No suitable motor.
For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

Quick code	Description	Ports	
MD000034	MDAF-080-ANNR-NP-N10-N350	A,P,B,TA,TB: CETOP 5	

Revision A1

SECTION 14. 8

SPECIAL VALVES - LOAD LIMITING
DEVICE VALVES

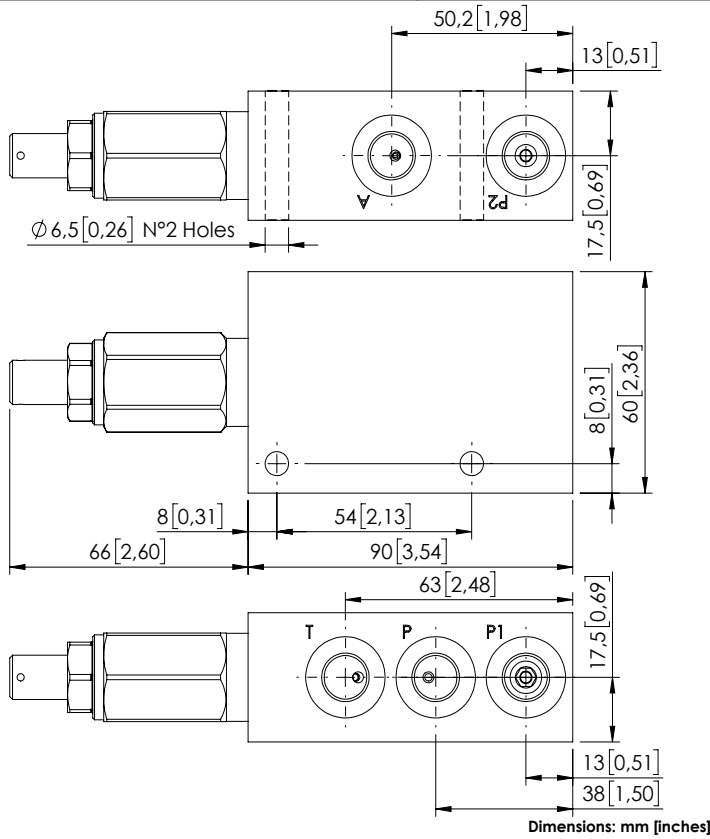


Hydraulic scheme	Valve description	Valve type	Rated flow l/min (gpm)	Max. pressure bar (psi)	Installation	Main port size or cavity type	Page
	BDMN-010-LLCS	Hydraulic pressure, unloading, 3 ways	10 (7)	210 (3000)	In line	G 1/4"	14.810
	MTP-003-TLSN	Hydraulic pressure, unloading, 2 ways	3 (0,8)	350 (5000)	In line	G 1/4"	14.820
	MTSN-120-TLNR	Hydraulic pressure, unloading, kick down system	120 (32)	350 (5000)	In line	G 1/4"	14.830
	MTL-005-TLSR	Pilot pressure, unloading	5 (1,3)	350 (5000)	In line	G 1/4"	14.840
	MTR-005-TLSN	Pilot pressure, unloading, flange for pressure switch	5 (1,3)	350 (5000)	In line	G 1/4"	14.850

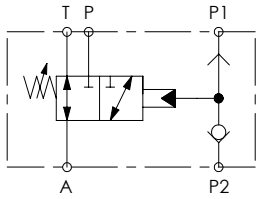
LOAD LIMITING DEVICE

BDMN-010-LLCS

HYDRAULIC PRESSURE
UNLOADING
3 WAYS



Dimensions: mm [inches]



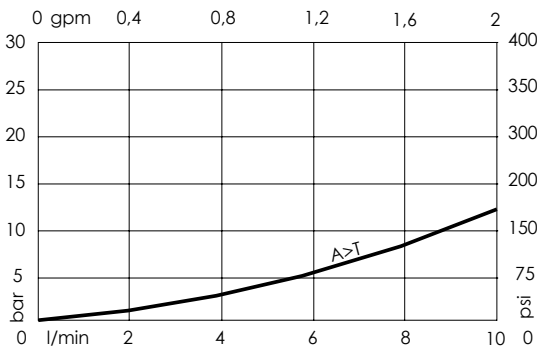
SPECIFICATIONS

Max. operating pressure:	210 bar (3000 psi)
Rated flow:	8 l/min (2 gpm)
Weight:	0,7 kg (1,5 lbs)
Manifold:	Aluminium
Contamination class to ISO 4406:	See technical spec.
MTTF _d :	150 - 1200 years: See technical spec.

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES



ORDERING CODES

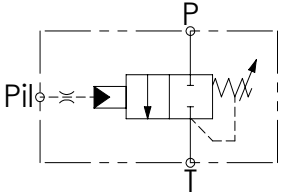
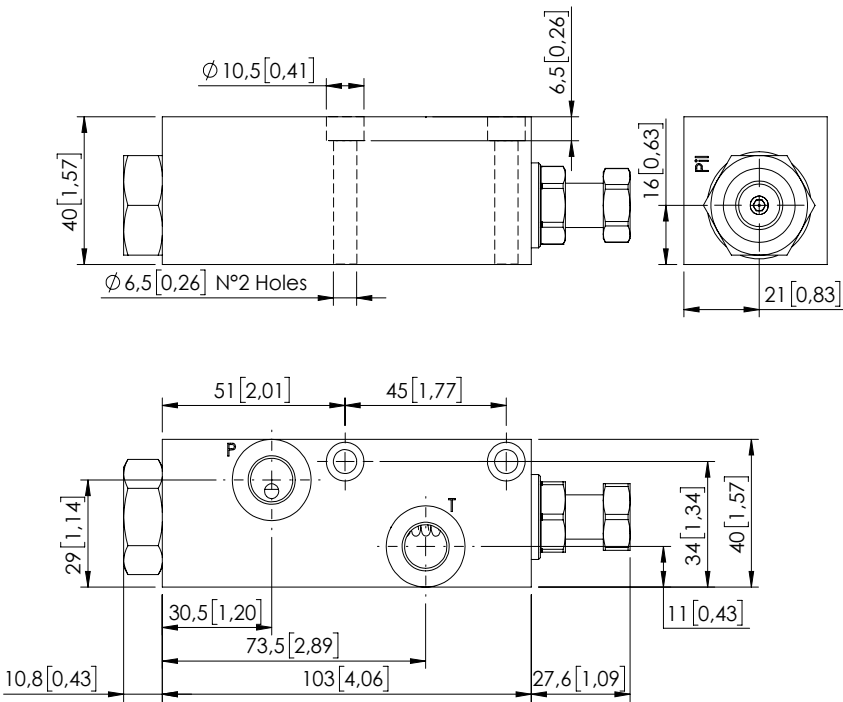
Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
BD000104	BDMN-010-LLCS-NP-G14-N210	T,P,P1,A: G 1/4"	5 bar (70 psi)	4-40 bar (60-600 psi)	3 bar/turn (50 psi/turn)

Revision B1

LOAD LIMITING DEVICE

MTTP-003-TLSN

HYDRAULIC PRESSURE
UNLOADING
2 WAYS



SPECIFICATIONS

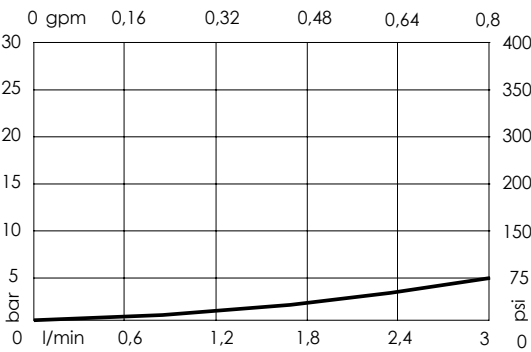
Max. operating pressure:	350 bar (5000 psi)
Rated flow:	3 l/min (0.8 gpm)
Weight:	0,55 kg (1,2 lbs)
Manifold:	Aluminium
Contamination class to ISO 4406:	See technical spec.
MTFd:	150 - 1200 years: See technical spec.

Dimensions: mm [inches]

NOTES

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES

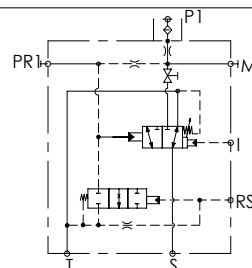
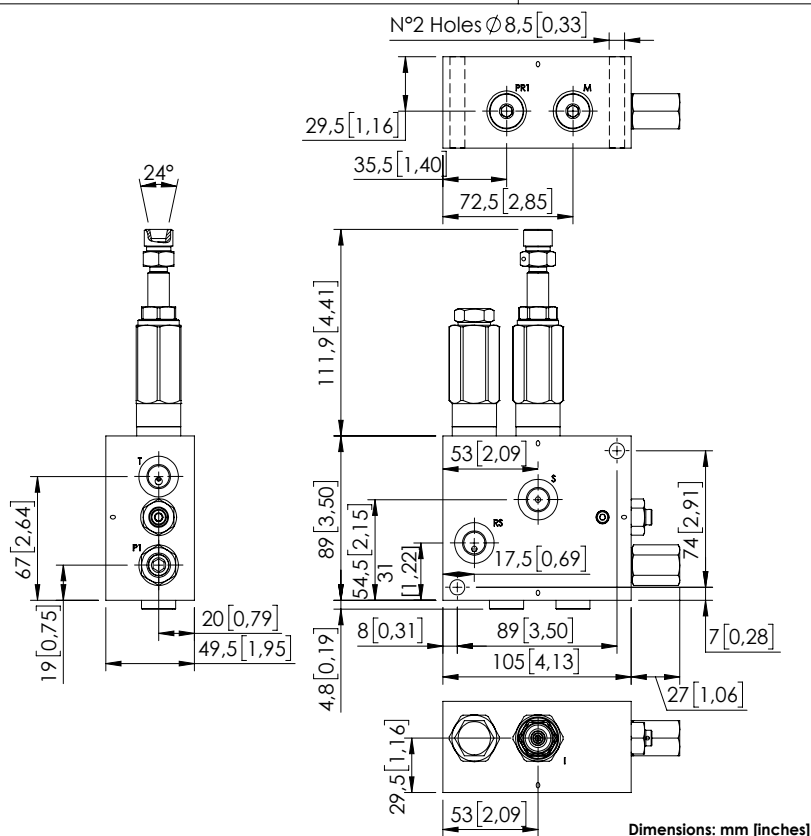


ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
MT000011	MTTP-003-TLSN-01-G14-N006	P,Pil,T: G 1/4"	6 bar (100 psi)	6-55 bar (100-800 psi)	12 bar/turn (200 psi/turn)

Revision A1

PILOT PRESSURE UNLOADING



Max. operating pressure:	350 bar (5000 psi)
Rated flow:	5 l/min (1,3 gpm)
Weight:	1,86 kg (4,07 lbs)
Manifold:	Aluminium
Contamination class to ISO 4406:See technical spec.	
MTTFa:	150 - 1200 years: See technical spec.

**For info or special versions contact AFT sales network.
For other configurations/quick codes not available in this catalogue page please consult factory**

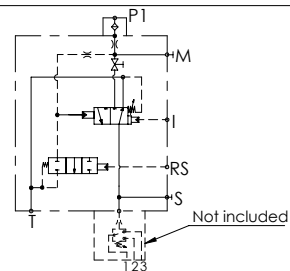
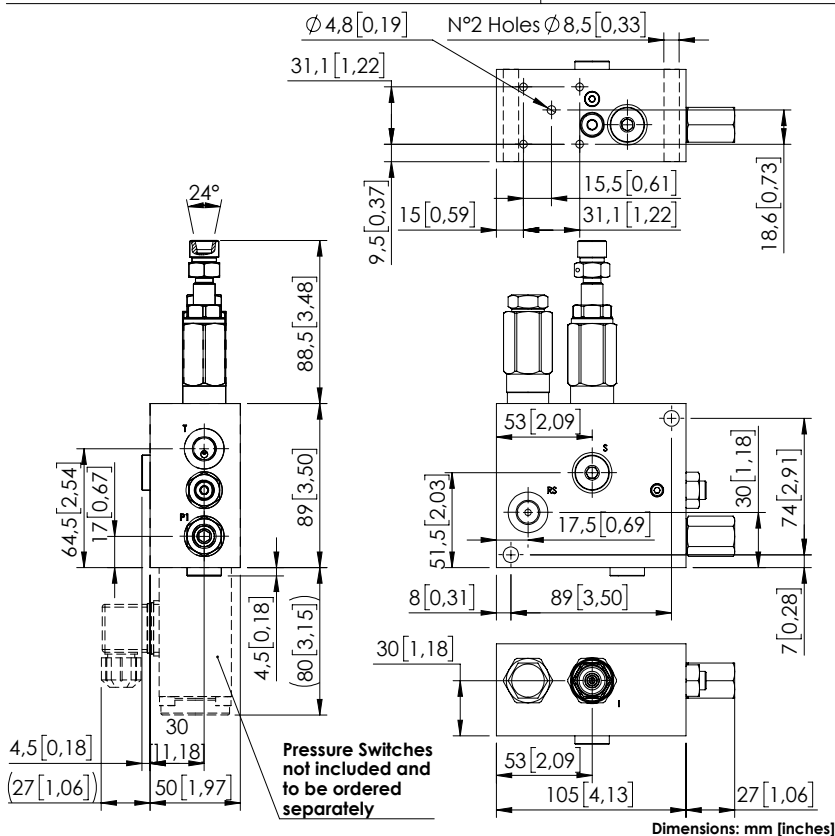
CURVES

Quick code	Description	Ports	Standard setting Q=5 l/min (1,3 gpm)	Setting range	Pressure increase
MT000026	MTTL-005-TLSN-NP-G14-N350	P1,M,PR1,RS,T,S: G 1/4" I: M16x1,5	200 bar (2900 psi)	50-300 bar (700-4300 psi)	23 bar/turn (350 psi/turn)

LOAD LIMITING DEVICE

MTTR-005-TLSN

**PILOT PRESSURE
UNLOADING
FLANGE FOR PRESSURE SWITCH**



SPECIFICATIONS

Max. operating pressure:	350 bar (5000 psi)
Rated flow:	5 l/min (1,3 gpm)
Weight:	1,78 kg (3,9 lbs)
Manifold:	Aluminium
Contamination class to ISO 4406:See technical spec.	
MTTF_d:	150 - 1200 years: See technical spec.

NOTES

For info or special version contact AFT sales network.

For other configurations/quick codes not available in this catalogue page please consult factory

CURVES

ORDERING CODES

Quick code	Description	Ports	Standard setting Q=5 l/min (1.3 gpm)	Setting range	Pressure increase
MT000031	MTTR-005-TLSN-NP-G14-N350	P1,M,PR1,RS,T,S: G 1/4" I: M16x1,5	280 bar (4000 psi)	100-350 bar (1500-5000 psi)	109 bar/turn (1600 psi/turn)

Revision A1