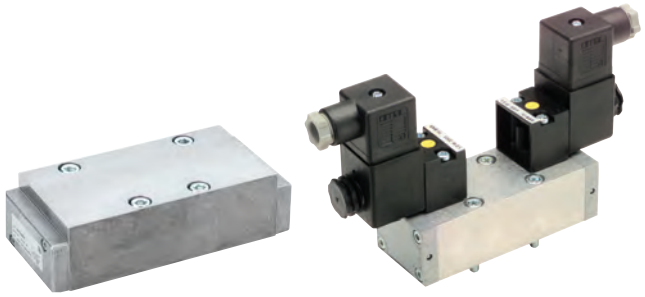
UM/22000 5/2 or 5/3
Solenoid and air pilot actuated soft spool valves

- Sub-base mounted, ISO 5599-1 sizes 1, 2, 3 and 4
- Steel reinforced main seals
- 16 bar and 10 bar CNOMO solenoid pilots with locking or non-locking manual override
- Low power coils (1,5 W)
- Wide range of sub-bases and accessories



Technical features

Medium:
Compressed air, 40 µm filtered, lubricated or non-lubricated

Operation:
Spool valve, solenoid pilot or air pilot actuated

Mounting:
On sub-bases

Sizes:
ISO 1, 2, 3 and 4

Maximum operating pressure:
Solenoid pilot actuated valves
10 bar (145 psi)
Air pilot actuated valves and solenoid pilot actuated valves
16 bar (232 psi)
Details of minimum and maximum pilot pressure see overleaf

Ambient/Media temperature:
Solenoid pilot actuated valves
-10 ... +50°C (+14 ... +122°F)
Air pilot actuated valves
-10 ... +80°C (+14 ... +176°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:
Body: aluminium alloy, die cast aluminium
Spool: light alloy aluminium
Seals: NBR

Electrical details for solenoid operators

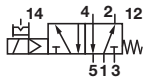
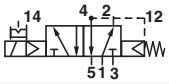
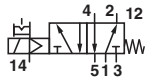
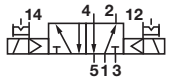
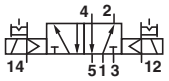
Voltage tolerance	± 10%		
Rating	100% continuous duty		
Inlet orifice	1,0 mm		
Electrical connection (corresponding to choosen coil)	EN 175301-803 - Form A, 30 mm		
	EN 175301-803 - Form B, 22 mm		
	Industrial Standard, 22 mm		
Solenoid coil	May be rotated at 90° intervals		
Manual override	10 bar version	Turn to lock (plastic)	# = 60
		Push only (brass)	# = 61
	16 bar version	Turn to lock (plastic)	# = 80
		Push only (brass)	# = 81
Protection class	IP 65 (with sealed plug)		

The manual override is designed solely for occasional use (maintenance/service, emergency, etc.) and not for routine daily operation. The valve shall be actuated only by a solenoid pilot or an air pilot during regular operation.

Maximum suggested torque

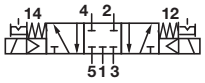
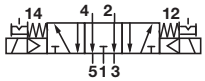
Valve size	Thread size	Maximum suggested torque
ISO 1	M5	5.5 Nm
ISO 2	M6	7.5 Nm
ISO 3	M8	14.5 Nm
ISO 4	M8	14.5 Nm

5/2 Solenoid pilot actuated valves – 10 bar models

Symbol	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Drawing No.	Model
	1	Solenoid/spring	Internal	1200	2 ... 10	–	0,45	1	UM/22152/122/6#/*1)
	2	Solenoid/spring and air	Internal	2130	2,5 ... 10	–	0,70	3	UM/22253/172/6#/*1)
	3	Solenoid/spring and air	Internal	4150	2,5 ... 10	–	1,00	3	UM/22354/172/6#/*1)
	4	Solenoid/spring and air	Internal	5660	2,5 ... 10	–	1,27	3	UM/22456/172/6#/*1)
	1	Solenoid/spring	External	1200	-0,9 ... 16	2,3 *2) ... 10	0,45	1	UM/22152/22/6#/*1)
	2	Solenoid/spring	External	2130	-0,9 ... 16	1,8 *2) ... 10	0,70	3	UM/22253/22/6#/*1)
	3	Solenoid/spring	External	4150	-0,9 ... 16	1,8 *2) ... 10	1,00	3	UM/22354/22/6#/*1)
	4	Solenoid/spring	External	5660	-0,9 ... 16	1,8 *2) ... 10	1,27	3	UM/22456/22/6#/*1)
	1	Solenoid/ solenoid	Internal	1200	2 ... 10	–	0,59	2	UM/22152/123/6#/*1)
	2	Solenoid/ solenoid	Internal	2130	2 ... 10	–	0,84	4	UM/22253/123/6#/*1)
	3	Solenoid/ solenoid	Internal	4150	2 ... 10	–	1,14	4	UM/22354/123/6#/*1)
	4	Solenoid/ solenoid	Internal	5660	2 ... 10	–	1,41	4	UM/22456/123/6#/*1)
	1	Solenoid/ solenoid	External	1200	-0,9 ... 16	2,3 *2) ... 10	0,59	2	UM/22152/23/6#/*1)
	2	Solenoid/ solenoid	External	2130	-0,9 ... 16	1,5 *2) ... 10	0,84	4	UM/22253/23/6#/*1)
	3	Solenoid/ solenoid	External	4150	-0,9 ... 16	1,5 *2) ... 10	1,14	4	UM/22354/23/6#/*1)
	4	Solenoid/ solenoid	External	5660	-0,9 ... 16	1,5 *2) ... 10	1,41	4	UM/22456/23/6#/*1)

 # Insert code for manual override: 0 = turn to lock, 1 = push only
***1) Insert voltage code below. Standard are: '13J' for 24 V d.c. or '19J' for 240 V a.c.**
***2) plus (0,1 x supply pressure)**

5/3 Solenoid pilot actuated valves – 10 bar models

Symbol	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)	Drawing No.	Model
	1	APB	Solenoid/ solenoid	Internal	660	2,5 ... 10	0,59	2	UM/22152/6123/6#/*1)
	2	APB	Solenoid/ solenoid	Internal	1520	2,8 ... 10	0,84	4	UM/22253/6123/6#/*1)
	3	APB	Solenoid/ solenoid	Internal	3750	2,8 ... 10	1,14	4	UM/22354/6123/6#/*1)
	4	APB	Solenoid/ solenoid	Internal	5490	2,8 ... 10	1,41	4	UM/22456/6123/6#/*1)
	1	COE	Solenoid/ solenoid	Internal	660	2,5 ... 10	0,59	2	UM/22162/6123/6#/*1)
	2	COE	Solenoid/ solenoid	Internal	1520	2,8 ... 10	0,84	4	UM/22263/6123/6#/*1)
	3	COE	Solenoid/ solenoid	Internal	3750	2,8 ... 10	1,14	4	UM/22364/6123/6#/*1)
	4	COE	Solenoid/ solenoid	Internal	5490	2,8 ... 10	1,41	4	UM/22466/6123/6#/*1)

 # Insert code for manual override: 0 = turn to lock, 1 = push only
***1) Insert voltage code below. Standard are: '13J' for 24 V d.c. or '19J' for 240 V a.c.**
Function: APB = All Ports Blocked; COE = Centre Open Exhaust

Voltage codes and spare coils for 10 bar models

22 mm coil for connector interface acc. to industrial standard

Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	2 W	QM/48/12J/21	12J
24 V d.c	2 W	QM/48/13J/21	13J
24 V 50/60 Hz	4/2,5 VA	QM/48/14J/21	14J
48 V 50/60 Hz	4/2,5 VA	QM/48/16J/21	16J
110/120 V 50/60 Hz	4/2,5 VA	QM/48/18J/21	18J
220/240 V 50/60 Hz	6/5,0 VA	QM/48/19J/21	19J

22 mm coil for connector interface acc. EN 175 301-803, form B

Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	2 W	V10626-A12L	12L
24 V d.c	2 W	V10626-A13L	13L
24 V 50/60 Hz	4/2,5 VA	V10626-A14L	14L
48 V 50/60 Hz	4/2,5 VA	V10626-A16L	16L
110/120 V 50/60 Hz	4/2,5 VA	V10626-A18L	18L
220/240 V 50/60 Hz	6/5,0 VA	V10626-A19L	19L

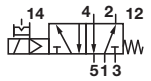
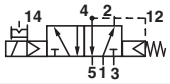
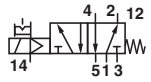
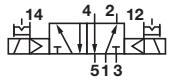
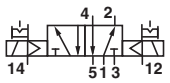
30 mm coil for connector interface acc. EN 175 301-803, form A

Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	1,5 W	V10633-A22N	22N
24 V d.c	1,5 W	V10633-A23N	23N
24 V 50/60 Hz	3/2 VA	V10633-A24N	24N
48 V 50/60 Hz	3/2 VA	V10633-A26N	26N
110/120 V 50/60 Hz	3/2 VA	V10633-A28N	28N
220/240 V 50/60 Hz	3/2 VA	V10633-A29N	29N

Connector plugs - ordered separately

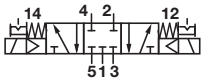
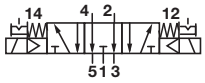
Industrial standard 22 mm 2-pole + PE	22 mm, EN 175301-803 (DIN 43650 B) Form B 2-pole + PE	30 mm, EN 175301-803 (DIN 43650 B) Form A 2-pole + PE
		
0657868	0680003	0570275

5/2 Solenoid pilot actuated valves – 16 bar models

Symbol	ISO size	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Drawing No.	Model
	1	Solenoid/spring	Internal	1200	2 ... 16	–	0,45	1	UM/22152/122/8#/*1)
	2	Solenoid/spring and air	Internal	2130	2,5 ... 16	–	0,70	3	UM/22253/172/8#/*1)
	3	Solenoid/spring and air	Internal	4150	2,5 ... 16	–	1,00	3	UM/22354/172/8#/*1)
	4	Solenoid/spring and air	Internal	5660	2,5 ... 16	–	1,27	3	UM/22456/172/8#/*1)
	1	Solenoid/spring	External	1200	-0,9 ... 16	2,3 *2) ... 16	0,45	1	UM/22152/22/8#/*1)
	2	Solenoid/spring	External	2130	-0,9 ... 16	1,8 *2) ... 16	0,70	3	UM/22253/22/8#/*1)
	3	Solenoid/spring	External	4150	-0,9 ... 16	1,8 *2) ... 16	1,00	3	UM/22354/22/8#/*1)
	4	Solenoid/spring	External	5660	-0,9 ... 16	1,8 *2) ... 16	1,27	3	UM/22456/22/8#/*1)
	1	Solenoid/ solenoid	Internal	1200	2 ... 16	–	0,59	2	UM/22152/123/8#/*1)
	2	Solenoid/ solenoid	Internal	2130	2 ... 16	–	0,84	4	UM/22253/123/8#/*1)
	3	Solenoid/ solenoid	Internal	4150	2 ... 16	–	1,14	4	UM/22354/123/8#/*1)
	4	Solenoid/ solenoid	Internal	5660	2 ... 16	–	1,41	4	UM/22456/123/8#/*1)
	1	Solenoid/ solenoid	External	1200	-0,9 ... 16	2,3 *2) ... 16	0,59	2	UM/22152/23/8#/*1)
	2	Solenoid/ solenoid	External	2130	-0,9 ... 16	1,5 *2) ... 16	0,84	4	UM/22253/23/8#/*1)
	3	Solenoid/ solenoid	External	4150	-0,9 ... 16	1,5 *2) ... 16	1,14	4	UM/22354/23/8#/*1)
	4	Solenoid/ solenoid	External	5660	-0,9 ... 16	1,5 *2) ... 16	1,41	4	UM/22456/23/8#/*1)

Insert code for manual override: 0 = turn to lock,1 = push only
*1) Insert voltage code below. Standard are: '33N' for 24 V d.c. or '89N' for 240 V a.c.
*2) plus (0,1 x supply pressure)

5/3 Solenoid pilot actuated valves – 16 bar models

Symbol	ISO size	Function	Operator/return	Pilot supply	Flow (l/min)	Operating pressure (bar)	Weight (kg)	Drawing No.	Model
	1	APB	Solenoid/ solenoid	Internal	660	2 ,5... 16	0,59	2	UM/22152/6123/8#/*1)
	2	APB	Solenoid/ solenoid	Internal	1520	2,8 ... 16	0,84	4	UM/22253/6123/8#/*1)
	3	APB	Solenoid/ solenoid	Internal	3750	2,8 ... 16	1,14	4	UM/22354/6123/8#/*1)
	4	APB	Solenoid/ solenoid	Internal	5490	2,8 ... 16	1,41	4	UM/22456/6123/8#/*1)
	1	COE	Solenoid/ solenoid	Internal	660	2,5 ... 16	0,59	2	UM/22162/6123/8#/*1)
	2	COE	Solenoid/ solenoid	Internal	1520	2,8 ... 16	0,84	4	UM/22263/6123/8#/*1)
	3	COE	Solenoid/ solenoid	Internal	3750	2,8 ... 16	1,14	4	UM/22364/6123/8#/*1)
	4	COE	Solenoid/ solenoid	Internal	5490	2,8 ... 16	1,41	4	UM/22466/6123/8#/*1)

Insert code for manual override: 0 = turn to lock, 1 = push only
*1) Insert voltage code below. Standard are: '33N' for 24 V d.c. or '89N' for 240 V a.c.
Function: APB = All Ports Blocked; COE = Centre Open Exhaust

Voltage codes and spare coils for 16 bar models

30 mm coil for connector interface acc. acc. EN 175 301-803, form A

Voltage	Power Inrush/Hold	Model	Code
12 V d.c.	4 W	V10633-A32N	32N
24 V d.c.	4 W	V10633-A33N	33N
110 V d.c.	4 W	V10633-A37N	37N
24 V a.c.	10/8 VA	V10633-A84N	84N
110/120 V 50/60 Hz	10/8 VA	V10633-A88N	88N
220/240 V 50/60 Hz	10/8 VA	V10633-A89N	89N

Other Voltages available on request.

Connector plug - ordered separately

30 mm, EN 175301-803
(DIN 43650 B) Form A
2-pole + PE

0570275

Option selector (solenoid actuated valves)

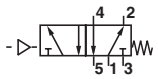
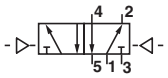
UM/22★★★/★★★★/★★/★★★

ISO size	Substitute
1	1
2	2
3	3
4	4
Valve function	**Substitute**
5/2 monostable & bistable, 5/3 APB	5
5/3 COE only	6
Port size	**Substitute**
ISO 1 (1/4")	2
ISO 2 (3/8")	3
ISO 3 (1/2")	4
ISO 4 (3/4")	6

*1) The manual override is designed solely for occasional use (maintenance/service, emergency, etc.) and not for routine daily operation. The valve shall be actuated only by a solenoid pilot or an air pilot during regular operation.

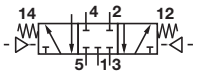
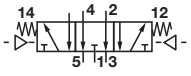
Voltage code	Substitute
For voltage code see tables on page 2 and 3	
Manual override *1)	**Substitute**
Push and turn	0
Push only	1
Pressure	**Substitute**
10 bar	6
16 bar	8
Valve function	**Substitute**
5/2 Solenoid/spring, external pilot, monostable	22
5/2 Solenoid/solenoid, external pilot, bistable	23
5/2 Solenoid/spring, internal pilot, monostable	122
5/2 Solenoid/solenoid, internal pilot, bistable	123
5/2 Solenoid/airspring & spring, internal pilot, monostable	172
5/3 - APB & COE Solenoid/solenoid, internal pilot, monostable	6123

5/2 Air pilot actuated valves – 16 bar models

Symbol	ISO size	Operator/return	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Drawing No.	Model
	1	Air/spring	1200	-0,9 ... 16	2,3 *2) ... 16	0,34	6	UM/22152/40
	2	Air/spring	2130	-0,9 ... 16	1,8 *2) ... 16	0,60	6	UM/22253/40
	3	Air/spring	4150	-0,9 ... 16	2,8 *2) ... 16	1,00	6	UM/22354/40
	4	Air/spring	5660	-0,9 ... 16	1,8 *2) ... 16	1,30	6	UM/22456/40
	1	Air/air	1200	-0,9 ... 16	1,0 *2) ... 16	0,34	5	UM/22152/3
	2	Air/air	2130	-0,9 ... 16	1,5 *2) ... 16	0,50	5	UM/22253/3
	3	Air/air	4150	-0,9 ... 16	1,5 *2) ... 16	0,90	5	UM/22354/3
	4	Air/air	5660	-0,9 ... 16	1,5 *2) ... 16	1,20	5	UM/22456/3

***2) plus (0,1 x supply pressure)**

Standard version
5/3 Air pilot actuated valves – 16 bar models

Symbol	ISO size	Function	Operator/return	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Drawing No.	Model
	1	APB	Air/air	660	-0,9 ... 16	2,3 *2) ... 16	0,34	5	UM/22152/63
	2	APB	Air/air	1520	-0,9 ... 16	2,8 *2) ... 16	0,50	5	UM/22253/63
	3	APB	Air/air	3750	-0,9 ... 16	2,8 *2) ... 16	0,90	5	UM/22354/63
	4	APB	Air/air	5490	-0,9 ... 16	2,8 *2) ... 16	1,20	5	UM/22456/63
	1	COE	Air/air	660	-0,9 ... 16	2,3 *2) ... 16	0,34	5	UM/22162/63
	2	COE	Air/air	1520	-0,9 ... 16	2,8 *2) ... 16	0,50	5	UM/22263/63
	3	COE	Air/air	3750	-0,9 ... 16	2,8 *2) ... 16	0,90	5	UM/22364/63
	4	COE	Air/air	5490	-0,9 ... 16	2,8 *2) ... 16	1,20	5	UM/22466/63

***2) plus (0,1 x supply pressure)**
Function: APB = All Ports Blocked; COE = Centre Open Exhaust

Option selector (pilot actuated valves)

UM/22★★★/★★

ISO size	Substitute
1	1
2	2
3	3
4	4
Valve function	**Substitute**
5/2 monostable & bistable, 5/3 APB	5
5/3 COE only	6

Valve function	Substitute
5/2 Air/air, bistable	3
5/2 Air/air, bistable, priorty port 14	33
5/2 Air/spring, monostable	40
5/3 - APB & COE Air/air, monostable	63
Port size	**Substitute**
ISO 1 (1/4")	2
ISO 2 (3/8")	3
ISO 3 (1/2")	4
ISO 4 (3/4")	6

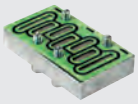
Sub-bases, end plates and blanking disc - VDMA 24345 sub-base options

ISO size	Single station sub-base, Form A side ported		Single station sub-base Form B bottom ported		Modular sub-base Form C		Form D End plates		Blanking disc for VDMA sub-bases *1)	
										
	Page 8		Page 8		Page 8		Page 8		Page 9	
	ISO G thread	NPT thread	ISO G thread		ISO G thread	NPT thread	ISO G thread	NPT thread	ISO G thread	NPT thread
1	M/P19126 (1/4)	C/P19126 (1/4)	M/P19125 (1/4)		CQM/22152/3/21	239-238B	CQM/22152/3/22	239-289B	FP 8382	239-251
2	M/P19132 (3/8)	C/P19132 (3/8)	M/P19131 (3/8)		CQM/22253/3/21	239-242B	CQM/22253/3/22	239-291B	FP 8482	239-252
3	M/P19138 (1/2)	C/P19138 (1/2)	M/P19137 (1/2)		CQM/22354/3/21	239-246B	CQM/22354/3/22	239-293B	FP 8582	239-253
4	M/P19144 (3/4)		M/P19143 (3/4)		CQM/22456/3/21		CQM/22456/3/22			

Universal sub-base options for ISO G parallel threads only

ISO size	Modular base with side, end and bottom ports open	Universal end plate, all ports blocked	Universal end plate, side ports open	Transition plate from ISO 1 » ISO 2	Blanking disk for ISO 1 and ISO 2
					
	Page 10	Page 10	Page 10	Page 10	Page 10
1	CQM/22152/3/27 (G1/4)	CQM/22152/3/28 (G1/4)	CQM/22152/3/31 (G1/4)	CQM/22152/3/29	M/P43173
2	CQM/22253/3/27 (G3/8)	CQM/22253/3/28 (G3/8)	CQM/22253/3/31 (G3/8)	CQM/22152/3/29	M/P43174

Accessories for ISO G parallel and NPT threads

ISO size	Blanking plate for VDMA and universal sub-bases	Transition plate for VDMA sub-bases	Silencer	Sandwich plate with check valves	Flow regulator plate, ports 3 and 5 regulated
					
	Page 9	Page 9	Page 9	Page 12	Page 13
1	CQM/22152/3/23	CQM/22152/3/24 (1 » 2)	0015510	FP7050	CQM/22152/3/26
2	CQM/22253/3/23	CQM/22253/3/24 (2 » 3)		–	CQM/22253/3/26
3	CQM/22354/3/23	FP8570 (1 » 3)		FP7070	CQM/22354/3/26
4	CQM/22456/3/23	–	–	–	CQM/22456/3/26

Sandwich plates - ISO size 1 only, ISO sizes 2 and 3 on request

ISO size	Single pressure regulator plate, port 1 regulated	Single pressure regulator plate, port 1 regulated	Single pressure regulator plate, port 2 regulated	Single pressure regulator plate, port 4 regulated	Double pressure regulator plate, port 2 & 4 regulated
					
	Page 11	Page 11	Page 11	Page 11	Page 12
1	V71010-KB1 (Regulator on side 14)	V71011-KB1 (Regulator on side 12)	V71012-KB2	V71012-KB3	V71012-KB4

Spares kit

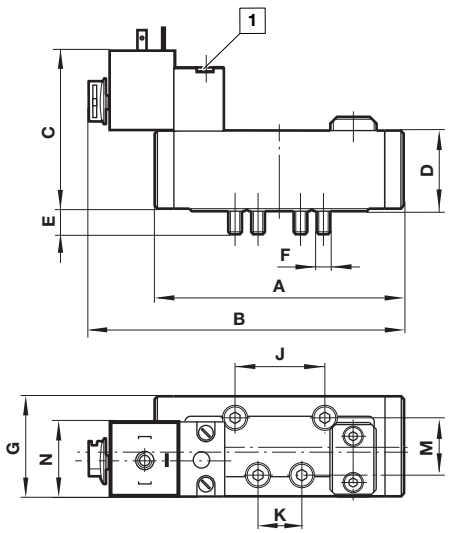
Model	Description
QM/22152/3/00	Spares Kit for ISO #1 Valves (UM/22152)
QM/22253/3/00	Spares Kit for ISO #2 Valves (UM/22253)
QM/22354/3/00	Spares Kit for ISO #3 Valves (UM/22354)
QM/22456/3/00	Spares Kit for ISO #4 Valves (UM/22456)

Drawings

Dimensions in mm
Projection/First angle

5/2 Single solenoid valves ISO size 1

①

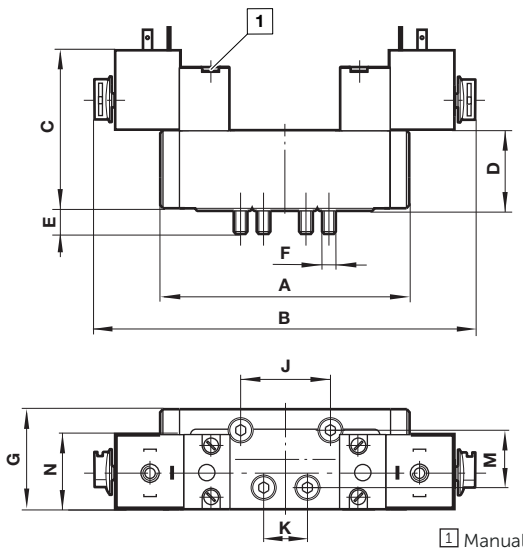


ISO size	A	B	C	D	E	F	G	J	K	M	N *
1	107	135	70	32	9	M5	42,5	36	18	28	22 or 30

* Illustrated with 30 mm coil

5/2 and 5/3 Double solenoid valves ISO size 1

②



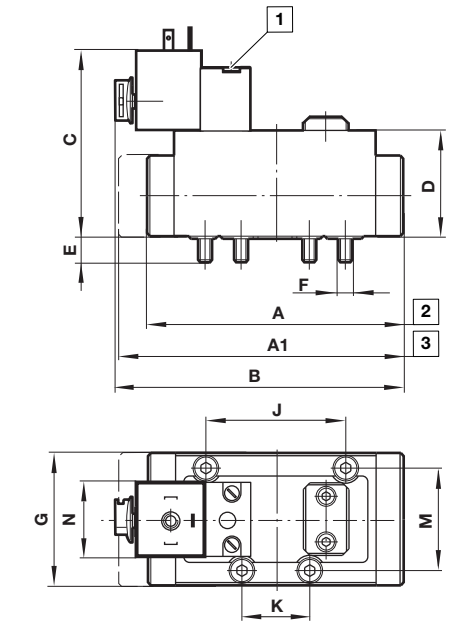
1 Manual override

ISO size	A	B	C	D	E	F	G	J	K	M	N *
1	107	168	70	32	9	M5	42,5	36	18	28	22 or 30

* Illustrated with 30 mm coil

5/2 Single solenoid valves ISO size 2, 3 and 4

③



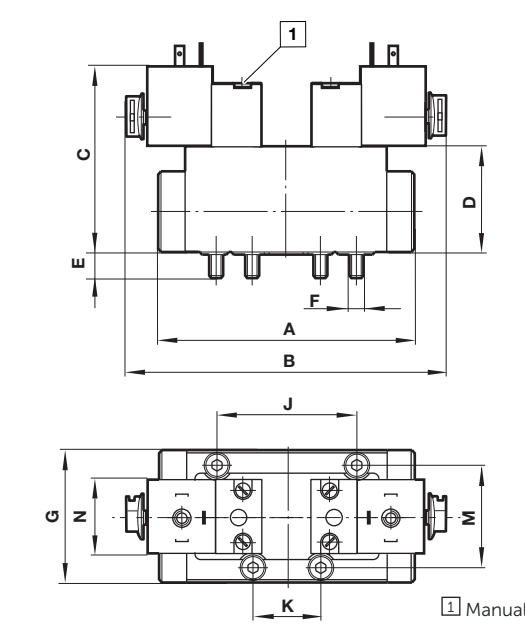
ISO size	A	A1	B	C	D	E	F	G	J	K	M	N *
2	106	124	125	83	45	9	M6	55	48	24	38	22 or 30
3	138	160	139	83	45	14	M8	68	64	32	48	22 or 30
4	177	187	152	83	45	14	M8	75	80	40	58	22 or 30

* Illustrated with 30 mm coil

1 Manual override
2 Model ..../172
3 Model ..../22, .../122

5/2 and 5/3 Double solenoid valves ISO size 2, 3 and 4

④



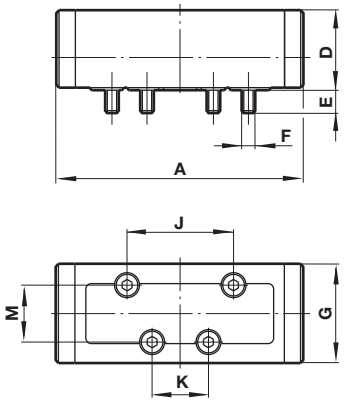
1 Manual override

ISO size	A	B	C	D	E	F	G	J	K	M	N *
2	106	125	83	45	9	M6	55	48	24	38	22 or 30
3	138	140	83	45	14	M8	68	64	32	48	22 or 30
4	177	140	83	45	14	M8	75	80	40	58	22 or 30

* Illustrated with 30 mm coil

5/2 and 5/3 Double air pilot valves
ISO size 1, 2, 3 and 4

(5)

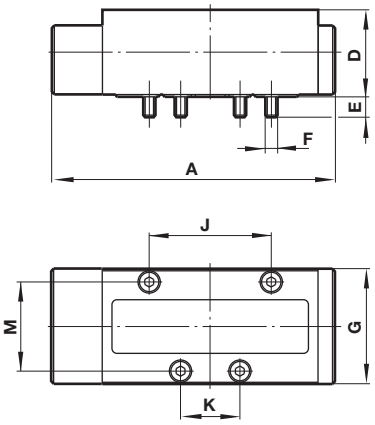


ISO size	Model	A	D	E	F	G	J	K	M
1	All valves	107	32	9,5	M5	42,5	36	18	28
2	.../3, .../63	106	45	9	M6	55	48	24	38
3	.../3, .../63	138	45	14	M8	68	64	32	48
4	.../3, .../63	164	45	14	M8	75	80	40	58

5/2 Single air pilot valves
ISO size 1, 2, 3 and 4

(6)

Dimensions in mm
Projection/First angle

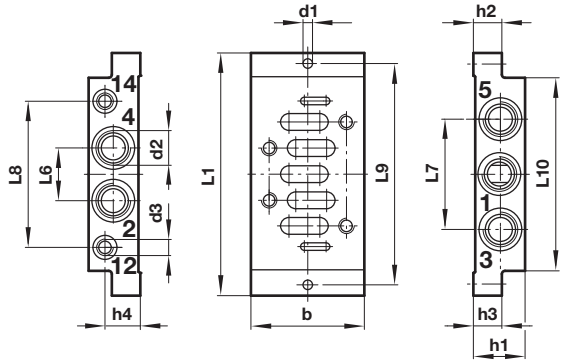


ISO size	Model	A	D	E	F	G	J	K	M
2	.../40	124	45	9	M6	55	48	24	38
3	.../40	160	45	14	M8	68	64	32	48
4	.../40	187	45	14	M8	75	80	40	58

Sub-bases and end plates

Dimensions in mm
Projection/First angle

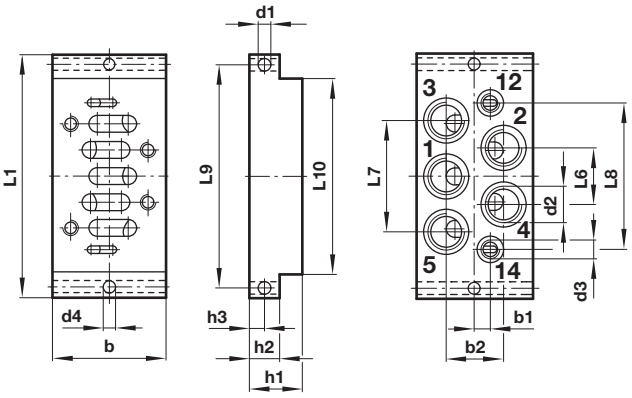
VDMA 24345 sub-base options
Single station sub-base side ported (Form A) for ISO G and NPT threads



ISO size	b	d1	d2	d3	h1	h2	h3	Model
1	48	5,5	1/4"	1/8"	32	10	10,5 (21,5)	#/P19126
2	57	6,6	3/8"	1/8"	40	13	14 (26)	#/P19132
3	71	6,6	1/2"	1/8"	32	18	18	#/P19138
4	85	9	3/4"	1/8"	42	19	22	M/P19144

ISO size	h4	L1	L6	L7	L8	L9	L10	kg	Model
1	23,5	110	24	43	58	98	84	0,16	#/P19126
2	30	124	30	56	74	112	95	0,28	#/P19132
3	22	149	32	68	90	136	119	0,36	#/P19138
4	30	186	42	90	111	170	148		M/P19144

Single station sub-base bottom ported (Form B) for ISO G and NPT threads

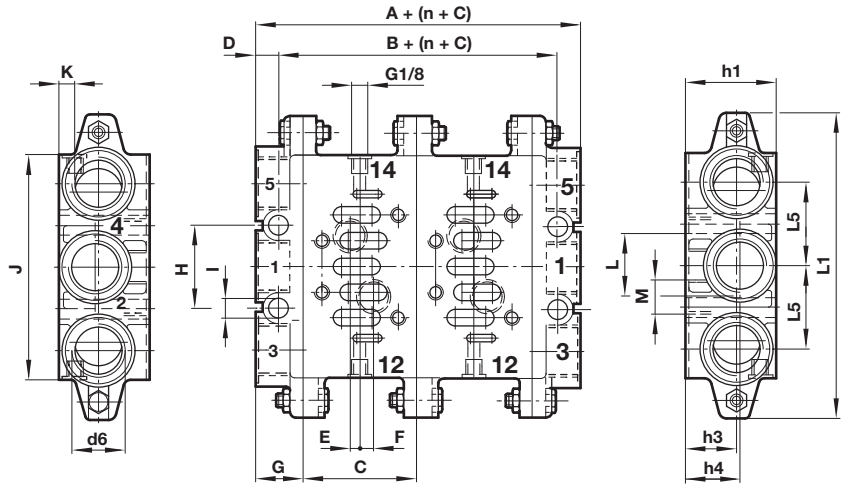


ISO size	b	b1	b2	d1	d2	d3	d4	h1	Model
1	46	7	23	5,5	1/4"	1/8"	5,5	30	#/P19125
2	56	8	27	6,6	3/8"	1/8"	6,6	35	#/P19131
3	71	10	34	6,6	1/2"	1/8"	6,69	32	#/P19137
4	85	15	40	9	3/4"	1/8"	9,5	28	M/P19143

ISO size	h2	h3	L1	L6	L7	L8	L9	L10	kg	Model
1	10	5	110	23	46	62	98	84	0,19	#/P19125
2	13	6,5	124	28	56	73	112	95	0,32	#/P19131
3	18	9	149	34	68	90	136	119	0,40	#/P19137
4	19	9	186	46	90	111	170	148		M/P19143

( ) Dimension for ports 3 and 5.
Insert 'M' for ISO G parallel or 'C' for NPT threads

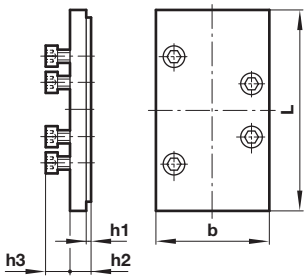
Modular sub-bases (Form C) and end plates (Form D) for ISO G and NPT threads



ISO size	A	B	C	D	E	F	G	H	I	kg	Model ISO G thread	Model NPT thread
1	44	22	43	11	1,5	7,5	22	28	7	0,24	CQM/22152/3/21	239-238B
2	52	26	56	13	5	6	26	35	9	0,36	CQM/22253/3/21	239-242B
3	60	30	71	15	6	8	30	52	12	0,72	CQM/22354/3/21	239-246B
4	60	30	82	15	8	9	30	56	12		CQM/22456/3/21	

ISO size	J	K	L	M	h1	h3	h4	L1	L5	d6	kg	Model ISO G thread	Model NPT thread
1	85	8,5	26	G1/4	46	21	24	110	28	3/8"	0,22	CQM/22152/3/22	239-289B
2	100	9	30	G3/8	47	22	24	135	28	1/2"	0,34	CQM/22253/3/22	239-291B
3	140	10	38	G1/2	56	31	34	190	52	1"	0,66	CQM/22354/3/22	239-293B
4	160	10	52	G1/2	58	30	30	215	54	1"		CQM/22456/3/22	

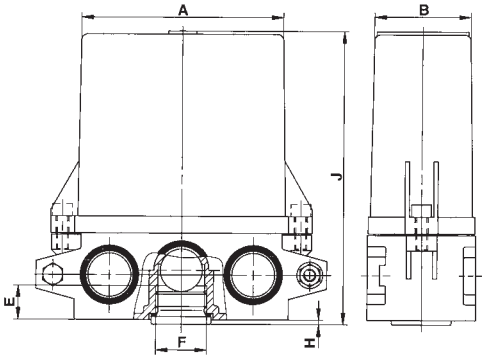
Blanking plate for VDMA & universal sub-bases with ISO G and NPT threads



ISO size	b	L	h1	h2	h3	kg	Model
1	42	80	2	14	11	0,05	CQM/22152/3/23
2	55	85	2,5	12,5	13,5	0,09	CQM/22253/3/23
3	70	106	2,5	12,5	15,5	0,26	CQM/22354/3/23
4	80	145	2,5	12,5	15,5	0,09	CQM/22456/3/23

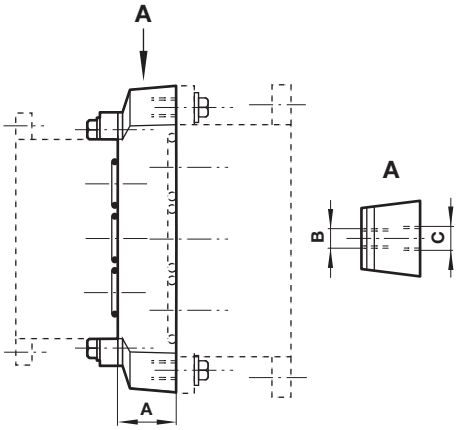
Silencer for VDMA & universal sub-bases with ISO G and NPT threads

Dimensions in mm
Projection/First angle



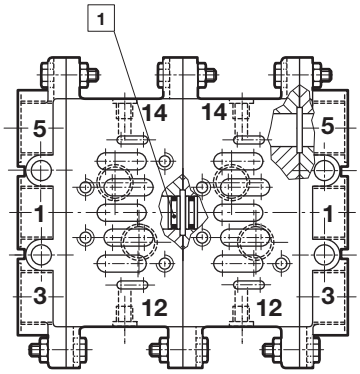
ISO size	A	B	E	F	H	J	Model
1	77	38	15	G3/8	2	122	0015510

Transition plate from ISO 1 » ISO 2, ISO 2 » ISO 3 and ISO1 » ISO 3 for VDMA sub-bases for ISO G and NPT threads



ISO size	A	B	C	kg	Model
1 » 2	25	M5	M6	0,35	CQM/22152/3/24
2 » 3	40	M6	M8	0,65	CQM/22253/3/24
1 » 3	34	M5	M8	0,90	FP8570

Blanking disc
FP8382, FP8482 & FP8582 for ISO G thread
239-251, 239-252 & 239-253 for NPT thread

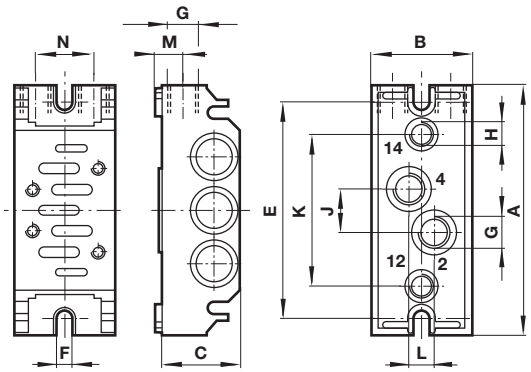


[1] Blanking disc; FP8*82 or 239-25*

Universal sub-base options for ISO G threads only

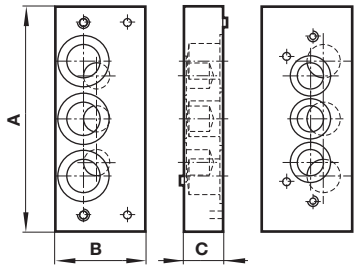
Modular base with side, end and bottom ports open

Dimensions in mm
Projection/First angle



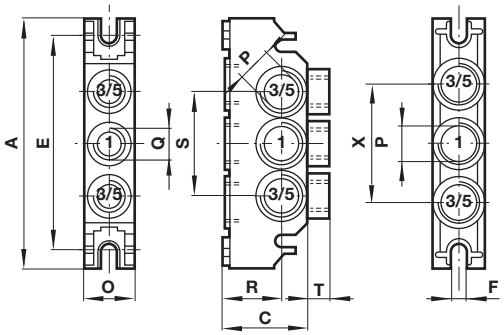
ISO size	A	B	C	E	F	G	H	J	K	L	M	N	kg	Model
1	106	43	36	92	5,5	G1/4	G1/8	18	64	11	12	28	0,16	CQM/22152/3/27
2	120	56	43	102	6,5	G3/8	G1/8	24	68	19	15	38	0,35	CQM/22253/3/27

Transition plate from ISO 1 » ISO 2



ISO size	A	B	C	kg	Model
1 » 2	114	46	20	0,23	CQM/22152/3/29

Universal end plate, all ports blocked

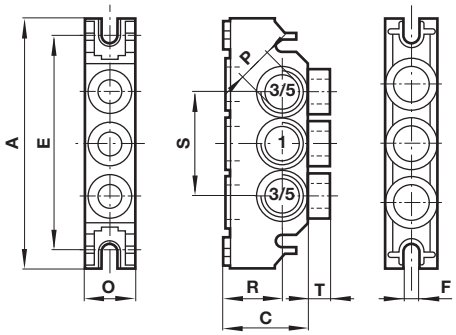


ISO size	A	C	E	F	0	P	Q	R	S	T	X	kg	Model
1	106	36	92	5,5	22	G3/8	G1/4	25	44	9	50	0,13	CQM/22152/3/28
2	120	46	102	6,5	29	G1/2	G1/4	31	58	7	58	0,23	CQM/22253/3/28

Drill dimensions for opening ports

G1/4	Ø 8
G3/8	Ø 15
G1/2	Ø 15

Universal end plate, side ports open



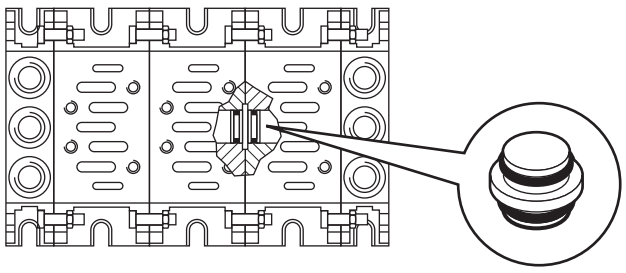
ISO size	A	C	E	F	0	P	R	S	T	kg	Model
1	106	36	92	5,5	22	G3/8	25	44	9	0,13	CQM/22152/3/31
2	120	46	102	6,5	29	G1/2	31	58	7	0,23	CQM/22253/3/31

Drill dimensions for opening ports

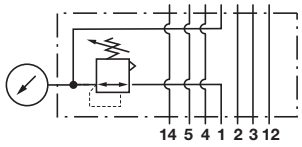
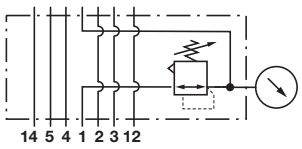
G1/4	Ø 8
G3/8	Ø 15
G1/2	Ø 15

Blanking disc for ISO 1 and ISO 2 universal sub-bases

ISO size	kg	Model
1	0,01	M/P43173
2	0,03	M/P43174



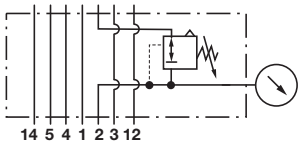
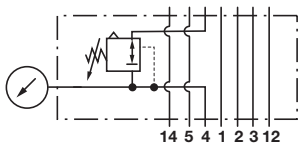
Sandwich single pressure regulator plate with pressure regulator on port 1

Symbol	ISO size	Regulator on side	Operation	Inlet pressure max. (bar)	Pressure range (bar)	Weight (kg)	Model
	1	14	Membrane pressure regulator with relieving valve	16	0,5 ... 12	0,6	V71010-KB1
	1	12	Membrane pressure regulator with relieving valve	16	0,5 ... 12	0,6	V71011-KB1

Application:
Pressure of port 1 can be regulated individually by using this intermediate plate.

Note:
Adjustment knob has push to lock feature.

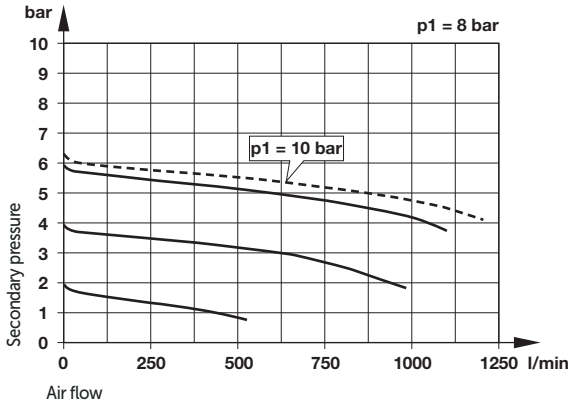
Sandwich single pressure regulator plate with pressure regulator on port 2 or port 4

Symbol	ISO size	Regulated port	Operation	Inlet pressure max. (bar)	Pressure range (bar)	Weight (kg)	Model
	1	2	Membrane pressure regulator with relieving valve	16	0,5 ... 12	0,39	V71012-KB2
	1	4	Membrane pressure regulator with relieving valve	16	0,5 ... 12	0,39	V71012-KB3

Application:
Pressure of port 2 and 4 can be regulated individually by using this intermediate plate.

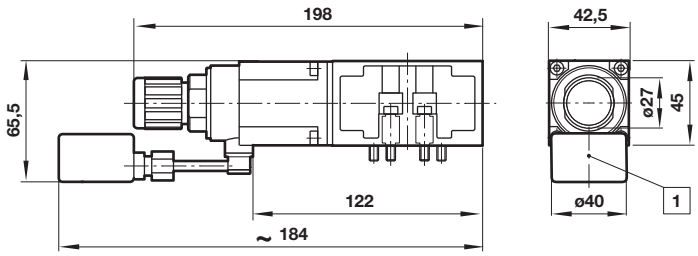
Note:
Adjustment knob has push to lock feature.

Flow characteristics (inlet pressure: 8 bar)



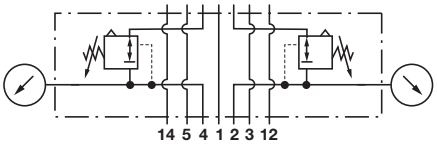
Dimensions:

Dimensions in mm
Projection/First angle



1 Gauge

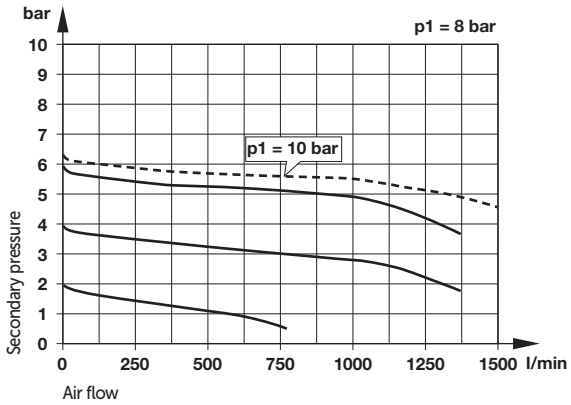
Sandwich double pressure regulator plate with double pressure regulator on port 2 and 4

Symbol	ISO size	Regulated port	Operation	Inlet pressure max. (bar)	Pressure range (bar)	Weight (kg)	Model
	1	2 and 4	Membrane pressure regulator with relieving valve	16	0,5 ... 12	0,39	V71012-KB4

Application:
Pressure of ports 2 and 4 can be regulated individually by using one of the intermediate plates.

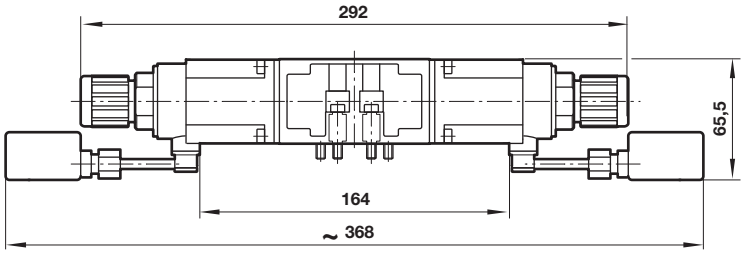
Note:
Adjustment knob has push to lock feature.

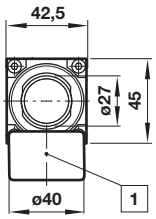
Flow characteristics (inlet pressure: 8 bar)



Dimensions:

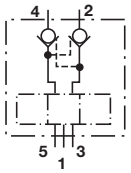
Dimensions in mm
Projection/First angle





1 Gauge

Sandwich plate with check valves

Symbol	ISO	Design	Flow (l/min)	Operating pressure (bar)	Weight (kg)	Model
	1	Poppet valves	500	3 ... 8	0,45	FP7050
	3	Poppet valves	3400	3 ... 8	2,05	FP7070

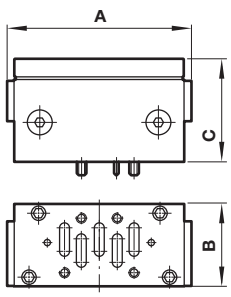
Application:
With this type of intermediate plate together with a 5/3-way valve, center position open, a piston movment can be stopped in any desired position. This position will kept during a long period.

Note:
Metal to metal sealed spool and sleeve valves have always a small amount of leak because of its design. Therefore 5/3-way valves, center position closed, are only applicable for short stops.

Caution: Not suitable for safety applications!

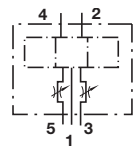
Dimensions

Dimensions in mm
Projection/First angle



ISO	A	B	C	Model
1	96	42	52	FP7050
3	165	62	95	FP7070

Flow regulator plate

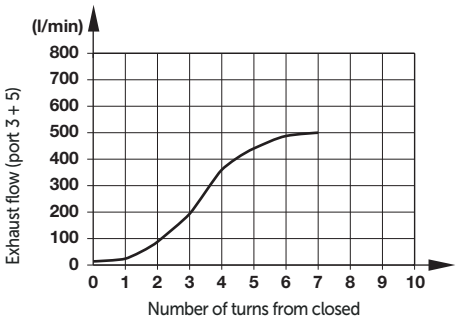
Symbol	ISO size	Regulated port	Operation	Inlet pressure max. (bar)	Model
	1	3 and 5	Piston regulator	-0,9 ... 16	CQM/22152/3/26
	2	3 and 5			CQM/22253/3/26
	3	3 and 5	Piston regulator	-0,9 ... 16	CQM/22354/3/26
	4	3 and 5			CQM/22456/3/26

Application:
Regulation of exhaust ports 3 and 5 allows easy cylinder speed control

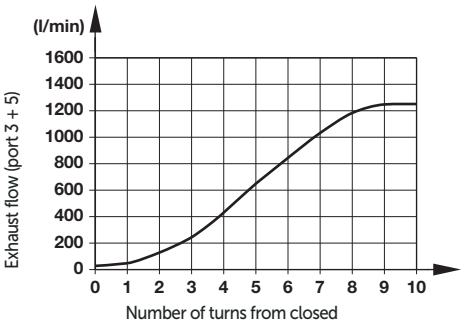
Note:
The regulator screw can be locked with the lock nut.

Flow characteristik (inlet pressure: 8 bar)

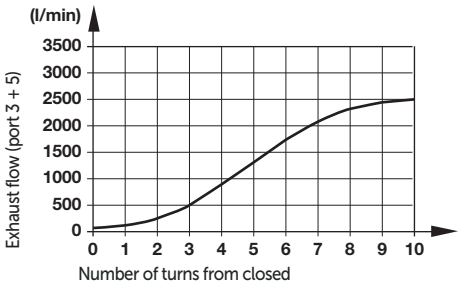
ISO 1



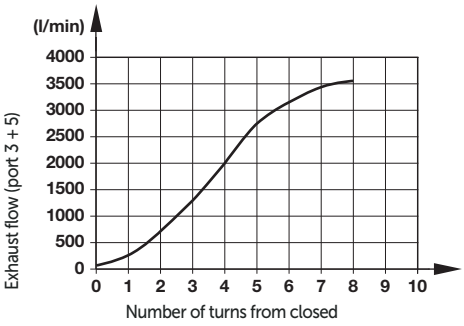
ISO 2



ISO 3

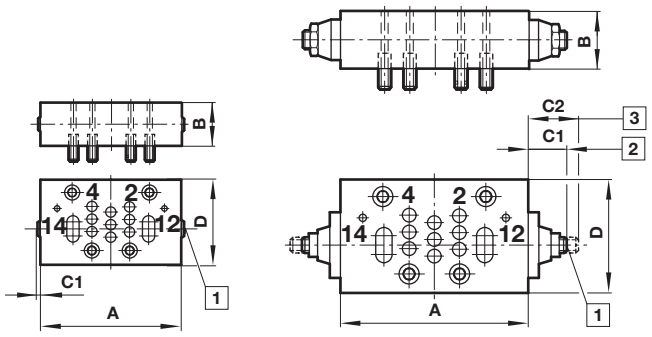


ISO 4



Dimensions

Dimensions in mm
Projection/First angle



ISO	A	B	C1	C2	D	kg	Model
1	112,5	16	1,5	-	38	0,20	CQM/22152/3/26
2	124,5	19	2		51	0,35	CQM/22253/3/26
3	141	25	18,5	29	63,5	0,86	CQM/22354/3/26
4	196	25	19	31	76	1,10	CQM/22456/3/26

1 Regulating screw
2 Closed
3 Open

Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under »Technical features/data«. Before using these products with fluids other than those specified, for non-industrial applications, life-support systems or other applications not within published specifications,
consult Norgren Ltd.
Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes.

The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.
System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.
System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.