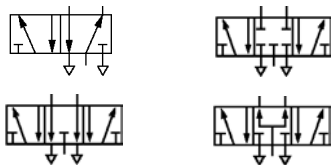


ISO★STAR

Solenoid & pilot actuated spool valves

Sub-base

5/2 & 5/3, ISO #1 to ISO #3



Specially coated glandless spool and sleeve for long trouble-free life

Integral flow regulators available on ISO #1 and #2 sizes

Low power solenoids feature manual override as standard

Wide range of sub-bases and accessories

Technical data

Medium:

Compressed air, filtered, lubricated, non lubricated and dry.

Operating pressure:

Maximum 16 bar, see table for individual details.

Flow:

ISO #1 1230 l/min

ISO #2 2450 l/min

ISO #3 4400 l/min

Ambient temperature:

-15°C to +50°C solenoid models

-15°C to +80°C pilot models.

Consult our Technical Service for use below +2°C.

Materials

Body: die-cast aluminium

Spool & sleeve: hard anodised aluminium with special Teflon coating

Seals: nitrile

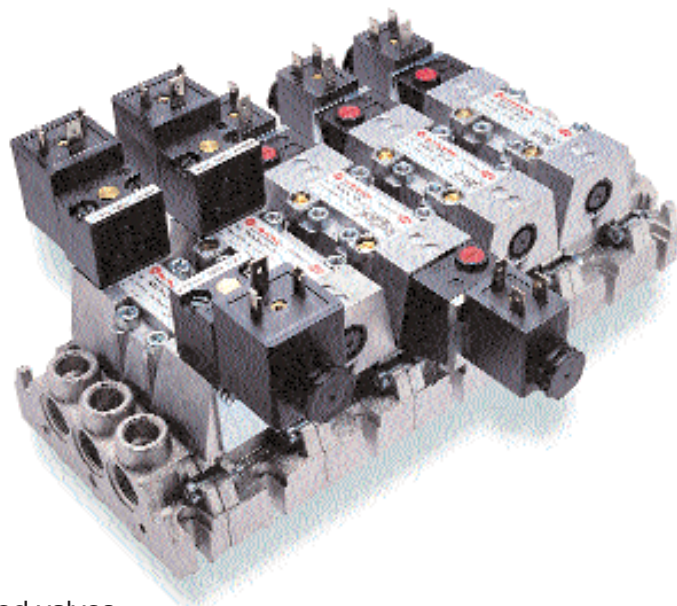
Alternative models

ISO #4 models are also available – contact our Technical Service.

Central M12 x 1 connector

External pilot supply versions.

For details of ISO soft start valves see page 320



Solenoid pilot actuated valves

Size	Function	Actuation	Flow regulator	Mid position	End solenoid models	Operating pressure (bar)	kg	Model	CNOMO solenoid models	Operating pressure (bar)	kg	Model
ISO #1	5/2	Sol/Spring	–	–	1,8 ... 10	0,33	0,33	SXE 9573-A71-00/****	1,8 ... 16	0,33	0,33	SXE 9573-Z71-81/****
ISO #1	5/2	Sol/Spring	Built-in	–	1,8 ... 10	0,33	0,33	SXE 9573-A81-00/****	1,8 ... 16	0,33	0,33	SXE 9573-Z81-81/****
ISO #1	5/2	Sol/Air spring	–	–	1 ... 10	0,33	0,33	SXE 9573-A70-00/****	1 ... 10	0,33	0,33	SXE 9573-Z70-60/****
ISO #1	5/2	Sol/Air spring	Built-in	–	1 ... 10	0,33	0,33	SXE 9573-A80-00/****	1 ... 10	0,33	0,33	SXE 9573-Z80-60/****
ISO #1	5/2	Sol/Sol	–	–	2 ... 10	0,45	0,45	SXE 0573-A50-00/****	2 ... 16	0,45	0,45	SXE 0573-Z50-81/****
ISO #1	5/2	Sol/Sol	Built-in	–	2 ... 10	0,45	0,45	SXE 0573-A60-00/****	2 ... 16	0,45	0,45	SXE 0573-Z60-81/****
ISO #1	5/3	Sol/Sol	Built-in	APB	2 ... 10	0,45	0,45	SXE 9673-A60-00/****	2 ... 16	0,45	0,45	SXE 9673-Z60-81/****
ISO #1	5/3	Sol/Sol	Built-in	COE	2 ... 10	0,45	0,45	SXE 9773-A60-00/****	2 ... 16	0,45	0,45	SXE 9773-Z60-81/****
ISO #1	5/3	Sol/Sol	Built-in	COP	2 ... 10	0,45	0,45	SXE 9873-A60-00/****	2 ... 16	0,45	0,45	SXE 9873-Z60-81/****
ISO #2	5/2	Sol/Spring	–	–	1,8 ... 10	0,57	0,57	SXE 9574-A71-00/****	1,8 ... 16	0,57	0,57	SXE 9574-Z71-81/****
ISO #2	5/2	Sol/Spring	Built-in	–	1,8 ... 10	0,57	0,57	SXE 9574-A81-00/****	1,8 ... 16	0,57	0,57	SXE 9574-Z81-81/****
ISO #2	5/2	Sol/Air spring	–	–	1 ... 10	0,59	0,59	SXE 9574-A70-00/****	1 ... 10	0,59	0,59	SXE 9574-Z70-60/****
ISO #2	5/2	Sol/Air spring	Built-in	–	1 ... 10	0,59	0,59	SXE 9574-A80-00/****	1 ... 10	0,59	0,59	SXE 9574-Z80-60/****
ISO #2	5/2	Sol/Sol	–	–	2 ... 10	0,72	0,72	SXE 0574-A50-00/****	2 ... 16	0,72	0,72	SXE 0574-Z50-81/****
ISO #2	5/2	Sol/Sol	Built-in	–	2 ... 10	0,72	0,72	SXE 0574-A60-00/****	2 ... 16	0,72	0,72	SXE 0574-Z60-81/****
ISO #2	5/3	Sol/Sol	Built-in	APB	2 ... 10	0,72	0,72	SXE 9674-A60-00/****	2 ... 16	0,72	0,72	SXE 9674-Z60-81/****
ISO #2	5/3	Sol/Sol	Built-in	COE	2 ... 10	0,72	0,72	SXE 9774-A60-00/****	2 ... 16	0,72	0,72	SXE 9774-Z60-81/****
ISO #2	5/3	Sol/Sol	Built-in	COP	2 ... 10	0,83	0,83	SXE 9874-A60-00/****	2 ... 16	0,83	0,83	SXE 9874-Z60-81/****
ISO #3	5/2	Sol/Spring	–	–	1,8 ... 10	0,85	0,85	SXE 9575-A71-00/****	1,8 ... 16	0,85	0,85	SXE 9575-Z71-81/****
ISO #3	5/2	Sol/Air spring	–	–	1 ... 10	0,85	0,85	SXE 9575-A70-00/****	1 ... 10	0,85	0,85	SXE 9575-Z70-60/****
ISO #3	5/2	Sol/Sol	–	–	2 ... 10	0,96	0,96	SXE 0575-A50-00/****	2 ... 16	0,96	0,96	SXE 0575-Z50-81/****
ISO #3	5/3	Sol/Sol	–	APB	2 ... 10	0,96	0,96	SXE 9675-A50-00/****	2 ... 16	0,96	0,96	SXE 9675-Z50-81/****
ISO #3	5/3	Sol/Sol	–	COE	2 ... 10	0,96	0,96	SXE 9775-A50-00/****	2 ... 16	0,96	0,96	SXE 9775-Z50-81/****
ISO #3	5/3	Sol/Sol	–	COP	2 ... 10	0,96	0,96	SXE 9875-A50-00/****	2 ... 16	0,96	0,96	SXE 9875-Z50-81/****

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure. Service kits not available for these valves.

**** Insert voltage codes for standard or CNOMO model from correct table below. Order connector plugs separately.

Manual override on end solenoid models: Push to operate spring return, lockable

Manual override on CNOMO solenoid models (-60/****): Screwdriver memory type

Manual override on CNOMO solenoid models (-81/****): Push to operate spring return

Voltage codes and spare coils for 10 bar solenoid models

Voltage	22 mm Coil with connector interface acc. to Industrial Standard			22 mm Coil with connector interface acc. to DIN 43650 table B			30 mm Coil with connector interface acc. to DIN 43650 table A		
	Code	Power inrush/hold	Model	Code	Power inrush/hold	Model	Code	Power inrush/hold	Model
12 V d.c.	12J	2 W	QM/48/12J/21	12L	2 W	V10626-A12L	22N	1,5 W	V10633-A22N
24 V d.c.	13J	2 W	QM/48/13J/21	13L	2 W	V10626-A13L	23N	1,5 W	V10633-A23N
24 V 50/60 Hz	14J	4/2,5 VA	QM/48/14J/21	14L	4/2,5 VA	V10626-A14L	24N	2 VA	V10633-A24N
48 V 50/60 Hz	–	–	–	–	–	–	26N	2 VA	V10633-A26N
110/120 V 50/60 Hz	18J	4/2,5 VA	QM/48/18J/21	18L	4/2,5 VA	V10626-A18L	28N	2 VA	V10633-A28N
220/240 V 50/60 Hz	19J	6/5 VA	QM/48/19J/21	19L	6/5 VA	V10626-A19L	29N	3 VA	V10633-A29N

Voltage codes and spare coils for 16 bar models (CNOMO only)

Voltage	30 mm Coil with connector interface acc. to DIN 43650 table A		
	Code	Power inrush/hold	Model
24 V d.c.	33N	4 W	V10633-A33N
110/120 V a.c.	88N	8 VA	V10633-A88N
230 V a.c.	89N	8 VA	V10633-A89N

Electrical details for end & CNOMO solenoid operators

Voltage tolerance:	±10%
Rating:	100% E.D.
Inlet orifice:	1,0 mm
Electrical connection:	Corresponding to chosen coil. See voltage code tables
Solenoid coil	May be rotated at 90° intervals
Protection class:	IP 65 with sealed plug (ISO 6952)

For details of connector plugs and indicators see page 383

ISO★STAR

Solenoid & pilot actuated spool valves

Sub-base

5/2 & 5/3, ISO #1 ... ISO #3

Air pilot actuated valves

Size	Function	Actuation	Flow regulator	Mid position	Operating pressure (bar)	kg	Model
ISO #1	5/2	Pilot/Spring	–	–	-0,9 ... 16	0,21	SXP 9573-170-00
ISO #1	5/2	Pilot/Spring	Built-in	–	-0,9 ... 16	0,26	SXP 9573-180-00
ISO #1	5/2	Pilot/Pilot	–	–	-0,9 ... 16	0,30	SXP 0573-170-00
ISO #1	5/2	Pilot/Pilot	Built-in	–	-0,9 ... 16	0,30	SXP 0573-180-00
ISO #1	5/3	Pilot/Pilot	Built-in	APB	-0,9 ... 16	0,25	SXP 9673-180-00
ISO #1	5/3	Pilot/Pilot	Built-in	COE	-0,9 ... 16	0,24	SXP 9773-180-00
ISO #1	5/3	Pilot/Pilot	Built-in	COP	-0,9 ... 16	0,25	SXP 9873-180-00
ISO #2	5/2	Pilot/Spring	–	–	-0,9 ... 16	0,45	SXP 9574-170-00
ISO #2	5/2	Pilot/Spring	Built-in	–	-0,9 ... 16	0,45	SXP 9574-180-00
ISO #2	5/2	Pilot/Pilot	–	–	-0,9 ... 16	0,50	SXP 0574-170-00
ISO #2	5/2	Pilot/Pilot	Built-in	–	-0,9 ... 16	0,50	SXP 0574-180-00
ISO #2	5/3	Pilot/Pilot	Built-in	APB	-0,9 ... 16	0,58	SXP 9674-180-00
ISO #2	5/3	Pilot/Pilot	Built-in	COE	-0,9 ... 16	0,58	SXP 9774-180-00
ISO #2	5/3	Pilot/Pilot	Built-in	COP	-0,9 ... 16	0,58	SXP 9874-180-00
ISO #3	5/2	Pilot/Spring	–	–	-0,9 ... 16	0,72	SXP 9575-170-00
ISO #3	5/2	Pilot/Pilot	–	–	-0,9 ... 16	0,72	SXP 0575-170-00
ISO #3	5/3	Pilot/Pilot	–	APB	-0,9 ... 16	0,80	SXP 9675-170-00
ISO #3	5/3	Pilot/Pilot	–	COE	-0,9 ... 16	0,80	SXP 9775-170-00
ISO #3	5/3	Pilot/Pilot	–	COP	-0,9 ... 16	0,80	SXP 9875-170-00

APB = All Ports Blocked, COE = Centre Open Exhaust, COP = Centre Open Pressure. Service kits not available for these valves.

Bases

VDMA 24 345 sub-bases

	Form A Side ported	Form B Bottom ported	Form C Manifold	Form D End plates	Form E Connecting plate	Blanking disk
ISO#1	M/P19126 (G1/4)	M/P19125 (G1/4)	CQM/22152/3/21	CQM/22152/3/22	FP 8361	FP 8382
ISO#2	M/P19132 (G3/8)	M/P19131 (G3/8)	CQM/22253/3/21	CQM/22253/3/22	FP 8461	FP 8482
ISO#3	M/P19138 (G1/2)	M/P19137 (G1/2)	CQM/22354/3/21	CQM/22354/3/22	FP 8561	FP 8582

Universal base options (side & bottom ported)

	Modular base	Transition plate	Blanking disc (dual supply)	End plates*	End plate, side ports open
ISO#1	CQM/22152/3/27 (G1/4)	CQM/22152/3/29 (#1-#2)	M/P43173	CQM/22152/3/28 (G1/4)	CQM/22152/3/31
ISO#2	CQM/22253/3/27 (G3/8)		M/P43174	CQM/22253/3/28 (G3/8)	CQM/22253/3/31

* All ports supplied blanked for optimum system configuration.

Accessories

	Single pressure regulator plate	Single pressure regulator plate	Single pressure regulator plate	Double pressure regulator plate	Flow regulator plate
ISO #1	V71010-KB1 Port 1 reg.	V71012-KB2 Port 2 reg.	V71012-KB3 Port 4 reg.	V71012-KB4 Ports 2+4 reg.	–
ISO #2	V71010-KC1 Port 1 reg.	V71012-KC2 Port 2 reg.	V71012-KC3 Port 4 reg.	V71012-KC4 Ports 2+4 reg.	–
ISO #3	V71010-KD1 Port 1 reg.	V71012-KD2 Port 2 reg.	V71012-KD3 Port 4 reg.	V71012-KD4 Ports 2+4 reg.	CQM/22354/3/26

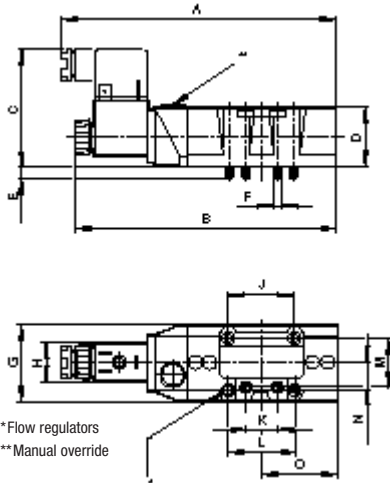
ISO★STAR

Solenoid & pilot actuated spool valves

Sub-base

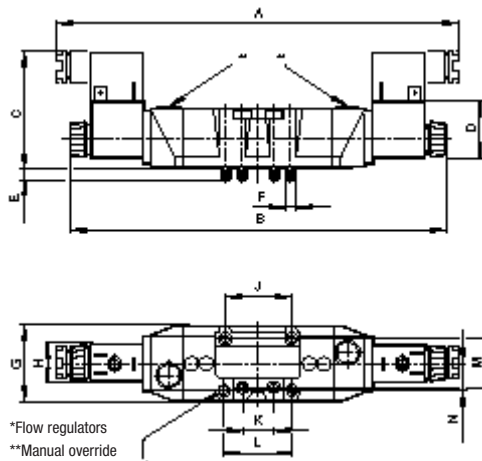
5/2 & 5/3, ISO #1 ... ISO #3

Single end solenoid models



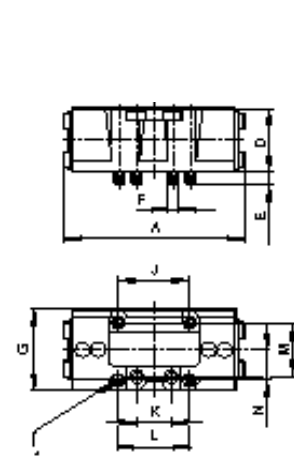
*Flow regulators
**Manual override

Double end solenoid models



*Flow regulators
**Manual override

Single and double pilot models



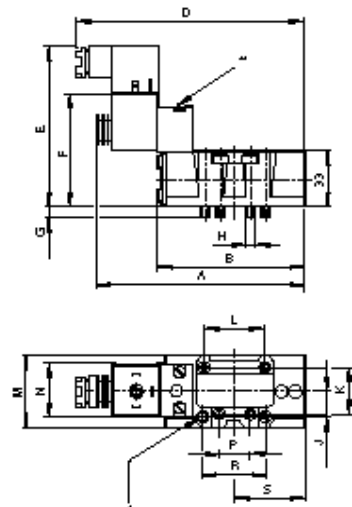
*Flow regulators

	ISO 1	ISO 2	ISO 3
A	155	183	215
B	147	175	208,5
C	66	70	74
D	33	42	47
E	7,5	8	8,5
F	M5	M6	M8
G	42	55	62,5
H	22	22	22
J	36	48	64
K	18	24	32
L	42	53	74,5
M	28	38	48

	ISO 1	ISO 2	ISO 3
A	226	259	281
B	209	243	267,5
C	66	70	74
D	33	42	47
E	7,5	8	8,5
F	M5	M6	M8
G	42	55	62,5
H	22	22	22
J	36	48	64
K	18	24	32
M	28	38	48

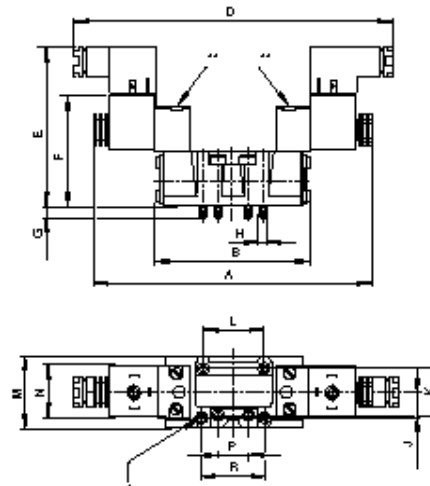
	ISO 1 Single	ISO 2 Double	ISO 2 Single	ISO 2 Double	ISO 3
A	88,5	93	109	120	170
B	36	36	48	48	64
C	18	18	24	24	32
D	42	42	55	55	62,5
E	28	28	38	38	48
G	M5	M5	M6	M6	M8
H	33	33	42	42	47
J	7	7	8	8	8,5
L	-	-	-	-	145

Single CNOMO solenoid valves



* Manual override
** Flow regulator (not on ISO #3 model)

Double CNOMO solenoid valves



* Flow regulator (not on ISO #3 model)
** Manual override

	ISO 1	ISO 2	ISO 3
A	146,5	166	183
B	88,4	109	153
C	33	42	48
D	155,5	175	192
E	97,5	107	122
F	69,5	79	94
G	7,5	8	8,5
H	M5	M6	M8
J	14,85	20	-
K	28	38	48
L	36	48	64
M	42	55	62,5
N	32	32	32
P	18	24	32
R	37,6	48	-
S	42	53	-

	ISO 1	ISO 2	ISO 3
A	209	226	218
B	92	120	158
C	33	42	48
D	190	205	225
E	100	110	115
F	69,5	79	94
G	7,5	8	8,5
H	M5	M6	M8
J	14,85	20	-
K	28	38	48
L	36	48	64
M	42	55	62,5
N*	32	32	32
P	18	24	32
R	37,6	48	-

ISO★STAR

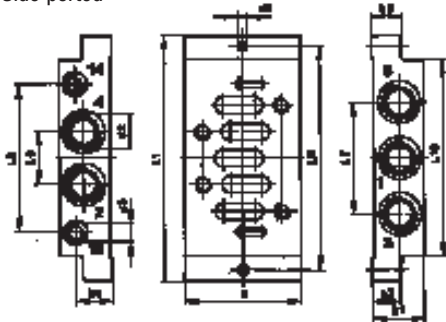
Solenoid & pilot actuated spool valves

Sub-base

5/2 & 5/3, ISO #1 ... ISO #3

VDMA 24 345 Sub-bases

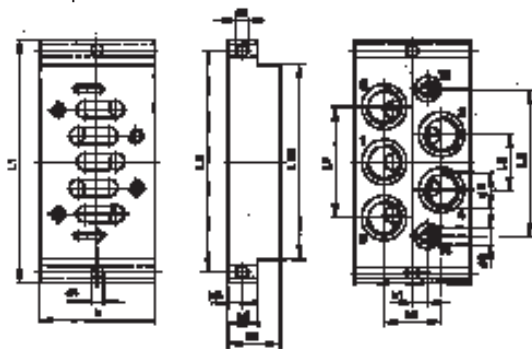
Side ported



ISO	b	d1	d2	d3	h1	h2	h3*	h4	L1	L6	L7	L8	L9	L10	
1	M/P19126	48	5,5	G1/4	G1/8	32	10	10,5 (21,5)	23,5	110	24	43	58	98	84
2	M/P19132	57	6,6	G3/8	G1/8	40	13	14 (26)	30	124	30	56	74	112	95
3	M/P19138	71	6,6	G1/2	G1/8	32	18	179	22	149	32	68	90	136	119

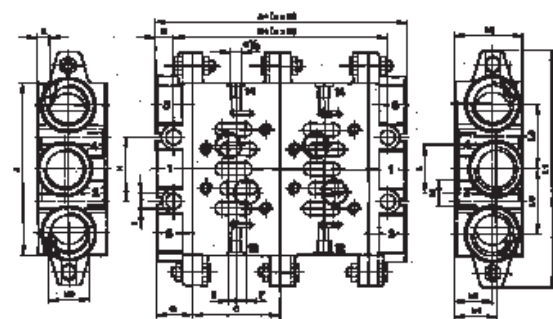
(*) Dimension for ports 3 and 5.

Bottom ported



ISO	b	b1	b2	d1	d2	d3	d4	h1	h2	h3	L1	L6	L7	L8	L9	L10	
1	M/P19125	46	7	23	5,5	G1/4	G1/8	5,5	30	10	5	110	23	46	62	98	84
2	M/P19131	56	8	27	6,6	G3/8	G1/8	6,6	35	13	6,5	124	28	56	73	112	95
3	M/P19137	71	10	34	6,6	G1/2	G1/8	6,69	32	18	9	149	34	68	90	136	119

End plates and manifold

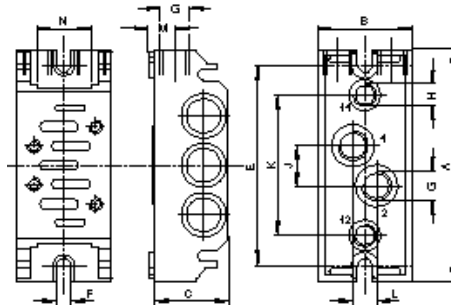


ISO	A	B	C	D	E	F	G	H	I	J	K	L	M	h1	h3	h4	L1	L5	d6
1	44	22	43	11	1,5	7,5	22	28	7	85	8,5	26	G1/4	46	21	24	110	28	G3/8
2	52	26	56	13	5	6	26	35	9	100	9	30	G3/8	47	22	24	135	34	G1/2
3	60	30	71	15	6	8	30	52	12	140	10	38	G1/2	56	31	34	190	52	G1

Maximum 12 stations.

Universal sub-base options

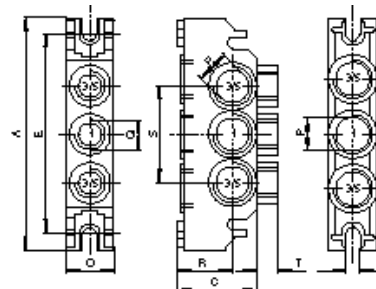
Modular base with side, end and bottom ports open
CQM/22152/3/27, CQM22253/3/27



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

Universal end plate, all ports blocked – CQM/22152/28, CQM/22253/3/28

Universal end plate, side ports open – CQM/22152/3/31, CQM22253/3/31

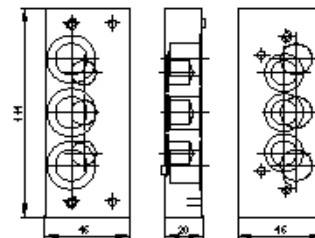


ISO	A	C	E	F	O	P	Q	R	S	T	kg
1	106	36	92	5,5	22	G3/8	G1/4	25	44	9	0,13
2	120	46	102	6,5	29	G1/2	G1/4	31	58	7	0,23

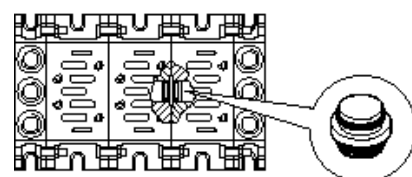
Drill dimensions for opening ports

G1/4	Ø 8
G3/8	Ø 15
G1/2	Ø 15

Transition plate from ISO #1 to ISO #2 universal sub-bases
CQM/22152/3/29



Blanking disk for ISO #1 and ISO #2 universal sub-bases
M/P43173, M/P43174



ISO★STAR

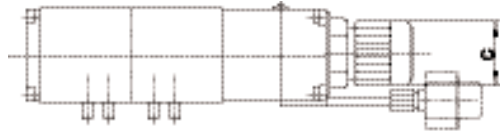
Solenoid & pilot actuated spool valves

Sub-base

5/2 & 5/3, ISO #1 to ISO #3

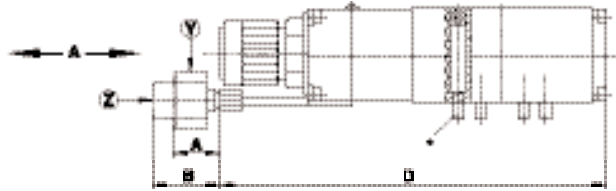
Sandwich plate with pressure regulator on port 1

Regulator on side 12



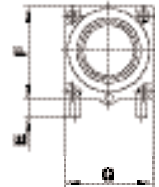
	ISO 1	ISO 2	ISO 3
A	42	42	42
B	49	49	49
C	28	38	46
D	198	256	285
E	10	12	12
F	45	60	67
G	42	54	64

Regulator on side 14



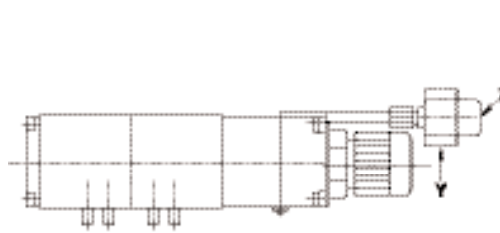
* Captive screws M5 x 20
 Y = Model with centre back gauge
 Z = Model with bottom gauge

View A
 (without gauge and tube)



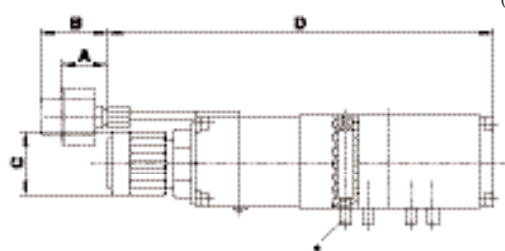
Sandwich plate with pressure regulator on port 2 or port 4

Port 2 reg.



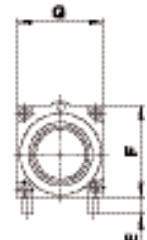
	ISO 1	ISO 2	ISO 3
A	42	42	42
B	49	49	49
C	28	38	46
D	198	256	285
E	10	12	12
F	45	60	67
G	42	54	64

Port 4 reg.

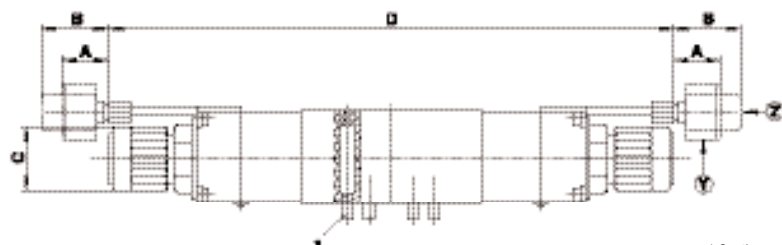


Y = Model with centre back gauge
 Z = Model with bottom gauge

View A
 (without gauge and tube)



Sandwich plate with double pressure regulator on port 2 and 4



	ISO 1	ISO 2	ISO 3
A	42	42	42
B	49	49	49
C	28	38	46
D	290	359	416
E	10	12	12
F	45	60	67
G	42	54	64

* Captive screws M5 x 20
 Y = Model with centre back gauge
 Z = Model with bottom gauge



V40/V41 series

Options selectors

Mini ISO 18 mm Solenoid pilot actuated valves

V ★ ★ 5 ★ ★ ★ D – C 3 ★ ★ A

Spool technology	Substitute
Glandless spool and sleeve	40
Softseal spool	41

Function	Substitute
2x3/2 NC*	A
2x3/2 NO*	B
2x3/2 NO/NC*	C
5/2	5
5/3 APB	6
5/3 COE	7
5/3 COP	8

* Softseal spool only
 ** Glandless spool and sleeve only

Voltage	Substitute
12V d.c.	12
24V d.c.	13
24V a.c.	14
48V a.c.	16
110V d.c.	17
115V a.c.	18
230V a.c.	19

Operation side 14 / Return side 12	Substitute
Solenoid/Air spring – Internal pilot supply	13
Solenoid/Air spring – External pilot supply	23
Solenoid/Spring and air – Internal pilot supply**	16
Solenoid/Spring and air – External pilot supply**	26
Solenoid/Spring – Internal pilot supply*	17
Solenoid/Spring – External pilot supply*	27
Solenoid/Solenoid – Internal pilot supply	11
Solenoid/Solenoid – External pilot supply	22
Solenoid (priority side 14)/Solenoid – Internal pilot supply**	91
Solenoid (priority side 14)/Solenoid – External pilot supply**	92

Mini ISO 18 mm Air pilot actuated valves

V ★ ★ 5 ★ ★ ★ A – X ★ ★ ★ 0

Spool technology	Substitute
Glandless spool and sleeve	40
Softseal spool	41

Function	Substitute
2x3/2 NC*	A
2x3/2 NO*	B
2x3/2 NO/NC*	C
5/2	5
5/3 APB	6
5/3 COE	7
5/3 COP	8

Operation side 14 / Return side 12	Substitute
Air/Air	33
Air/Spring	37

Function code	Substitute
Air pilot actuation on ends 12 and 14; 2x3/2, 5/2 Air/Air and all 5/3 functions only (=substitute 33 on digits 6 and 7)	002
Air pilot actuation on ends 12 and 14, priority pilot end 14; V40 glandless 5/2 Air/Air only (=substitute 33 on digits 6 and 7)	007
Air pilot actuation end 14, spring return end 12 5/2 Air/Spring only (=substitute 37 on digits 6 and 7)	009

* Softseal spool only

