

VSP550047 & VSP550060 5/2 (with spool position sensing) Solenoid actuated glandless spool valves

- Sub-base mounted, ISO 5599-1 sizes 3
- Specially coated glandless spool and sleeve for long trouble-free life
- Integrated inductive proximity switch for monitoring to realize high diagnostic coverage according to DIN EN ISO 13849
- Shock and vibration tested to EN 61373, Category 1, class A and B



Technical features

Medium:

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

Operation:

Glandless spool valve, solenoid actuated and spool position sensing

Mounting:

On sub-bases

Sizes:

ISO 3

Maximum operating pressure:

-0,9 ... 16 bar

Ambient/Media temperature:

-40 ... +70°C (-40 ... +158°F)

Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

Materials:

Body: die-cast aluminium
Spool & sleeve: hard anodised aluminium with special PTFE coating, matched aluminium
Seals: NBR, VMQ
Locking plate: die-cast zinc or steel blue zinc coated
Screws: steel, blue zinc coated
Plastic parts: POM

Electrical details for solenoid operators

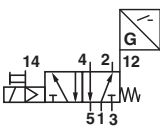
Nominal voltage	24 V DC
Power consumption	6 Watt
Voltage tolerance	± 30% or nominal
Duty cycle	100% ED
Inlet orifice	1,5 mm
Electrical connection	EN 175301-803 - Form A (DIN 43650)
Solenoid coil mounting	3 positions x 90°, not in place of sensor
Manual override	Push only (brass)
Protection class	IP 65 (with sealed plug)

Electrical details for proximity switches

Supply voltage	10 ... 30 V DC
Output current	≤ 200 mA
Switching output	PNP
Output function	NO
Electrical connection	M12 x 1 - 4-pin

Note: The proximity switches must not be altered or replaced. Improper installation could lead to malfunction. Please contact to IMI precision Engineering.

5/2 Solenoid pilot actuated valves

Symbol	ISO size	Flow regulator	Actuation	Pilot supply	Flow (l/min)	Operating pressure (bar)	Pilot pressure (bar)	Weight (kg)	Model
	3	—	Solenoid/spring	Internal	4400	2 ... 12	2 ... 12	0,93	VSP550047
	3	---	Solenoid/spring	External	4400	-0,9 ... 16	2 ... 12	0,93	VSP550060 *1)

*1) As to safety related application you have to consider a protection against operation by mistake

Accessories

Connector	Connector with moulded cable
	
0570275	M/P 43315/1 (1 m)
	M/P 43315/3 (3 m)

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

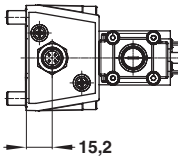
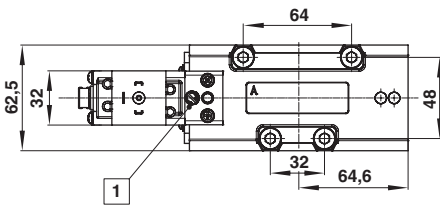
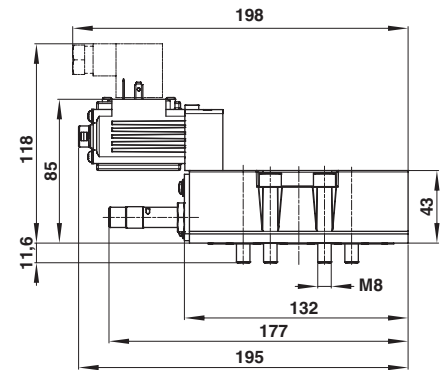
	Single station sub-base, Form A side ported	Single station sub-base Form B bottom ported	Modular sub-base Form C	Form D End plates	Blanking disc for VDMA sub-bases *1)
ISO size	Page 3	Page 13	Page 3	Page 3	Page 3
ISO G thread	NPT thread	ISO G thread	ISO G thread	ISO G thread	ISO G thread
3	M/P19138 (1/2)	C/P19138 (1/2)	M/P19137 (1/2)	CQM/22354/3/21	239-246B
				CQM/22354/3/22	239-293B
					FP 8582
					239-253

Accessories for ISO G parallel and NPT threads

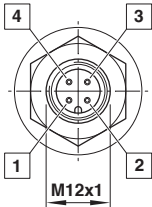
	Blanking plate for VDMA and universal sub-bases	Transition plate for VDMA sub-bases	Sandwich plate with check valves	Flow regulator plate, ports 3 and 5 regulated
ISO size	Page 4	Page 4	Page 5	Page 5
3	CQM/22354/3/23	FP8570 (1 x 3)	FP7070	CQM/22354/3/26

Dimensions

Dimensions in mm
Projection/First angle



Pin assignment

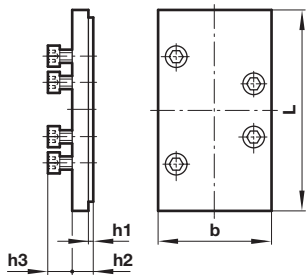


Pin Nr.	Function
1	L + (brown)
2	Not connected
3	M - (blue) Ground
4	Q (black) Closer

1 Manual override

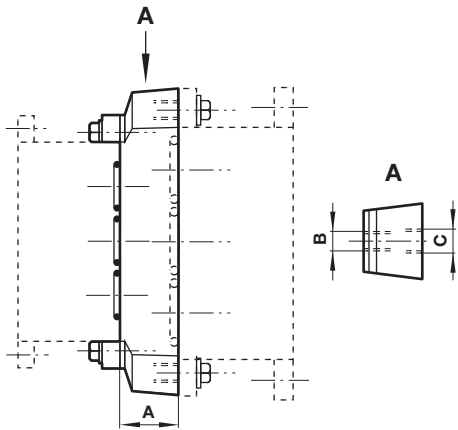
Blanking plate for VDMA & universal sub-bases with ISO G and NPT threads

Dimensions in mm
Projection/First angle



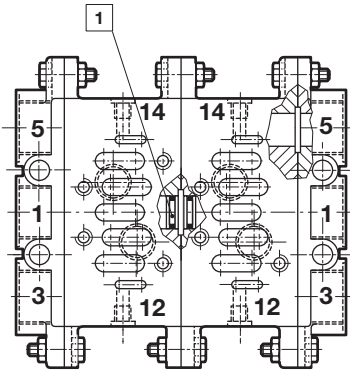
ISO	b	L	h1	h2	h3	kg	Model
3	70	106	2,5	12,5	15,5	0,26	CQM/22354/3/23

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



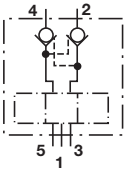
ISO	A	B	C	kg	Model
2 » 3	40	M6	M8	0,65	CQM/22253/3/24
1 » 3	34	M5	M8	0,90	FP8570

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*

Sandwich plate with check valves

Symbol	ISO size	Design	Flow (l/min)	Operating pressure (bar)	Weight (kg)	Model
	3	Sitzventile	3400	3 ... 8	2,05	FP7070

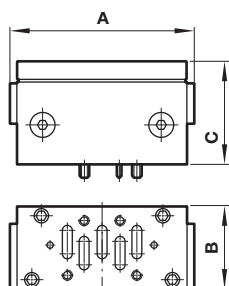
Application:
With this type of intermediate plate together with a 5/3-way valve, center position open, a piston movement can be stopped in any desired position. This position will kept during a long period.

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!

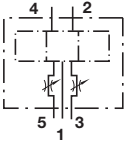
Dimensions

Dimensions in mm
Projection/First angle



ISO	A	B	C	Model
3	165	62	95	FP7070

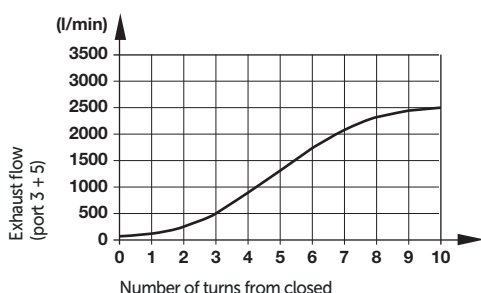
Flow regulator plate

Symbol	ISO size	Regulated port	Operation	Inlet pressure max. (bar)	Weight (kg)	Model
	3	3 and 5	Piston regulator	-0,9 ... 16	0,86	CQM/22354/3/26

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

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

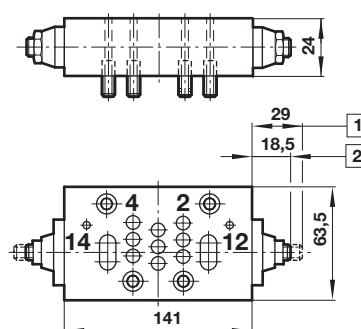
Flow characteristics (inlet pressure: 8 bar)



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 IMI Precision Engineering, IMI International s.r.o.

Dimensions



1 Fully open
2 Fully closed

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.