P72F - EXCELON® Modular System
Soft start/dump valves

- Port size: 1/4" or 3/8" (ISO G/NPT)
- Assists machine designers in complying with the European Machineries Directive
- Excelon design allows in-line installation or modular installation with other Excelon products
- Can help existing machinery to comply with PUWER (Provision and Use of Work Equipment Regulations)
- Controlled increase of downstream pressure onstart up
- High forward flow capacity
- High flow dump facility



Technical features

Medium:
Compressed air only

Operating pressure:
17 bar (250 psi) pilot actuated
10 bar (145 psi) solenoid actuated

Minimum operating pressure:
3 bar (44 psi)

Snap pressure:
Full flow when downstream pressure reaches 50 – 80% of inlet
pressure

Port size:
G1/4, G3/8, 1/4" or 3/8" PTF

Air pilot port:
M5 with ISO G main ports
10-32 UNF with PTF main ports

Exhaust port:
Rc1/4 with ISO G main ports
1/4 PTF with PTF main ports

Charge time:
For 2 litre downstream volume and 6,3 bar (90 psi) inlet pressure
0,8 sec. minimum
99 sec. maximum

Flow:
21 dm3/s at port size: G1/4
Operating pressure: 6,3 bar (91 psi) Δp: 0,5 bar (7 psi)
P1 to P2 = Cv 1,59
P2 to P3 = Cv 1,72

Ambient/Media temperature:
Solenoid actuated:
-20° ... +50°C (-4° ... +122°F)
Pilot actuated:
-20° ... +65°C (-4° ... +149°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (+35°F).

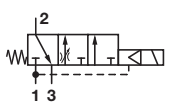
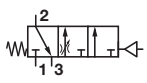
Materials:
Body: Zinc alloy
Elastomers: Synthetic materials
Internal components: Brass/steel

.

Electrical details for solenoid operators

Voltage tolerance	± 10%
Rating	100% continuous duty
Inlet orifice	1,0 mm
Electrical connection	Industrial Standard, 22 mm
Solenoid coil mounting	Four positions x 90°
Protection class	IP 65 (with sealed plug)

Technical data - standard models

Symbol	Port size	Size	Actuation/return	Voltage	Pilot port	Weight (kg)	Typ
	G1/4	Basic	Solenoid/spring	24 V d.c.	-	0,91	P72F-2GC-PFN *1)
	G3/8		Solenoid/spring	24 V d.c.	-	0,90	P72F-3GC-PFN*1)
	G1/4	Basic	Air/spring	–	M5	0,88	P72F-2GA-NNN
	G3/8		Air/spring	–	M5	0,87	P72F-2GA-NNN

*1) To select other solenoid type and coil voltage refer to option selector on page 2

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Voltage codes and spare coils

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
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

Connector plugs

Industrial standard
22 mm 2-pole + PE



0657868

Option selector

P72F-

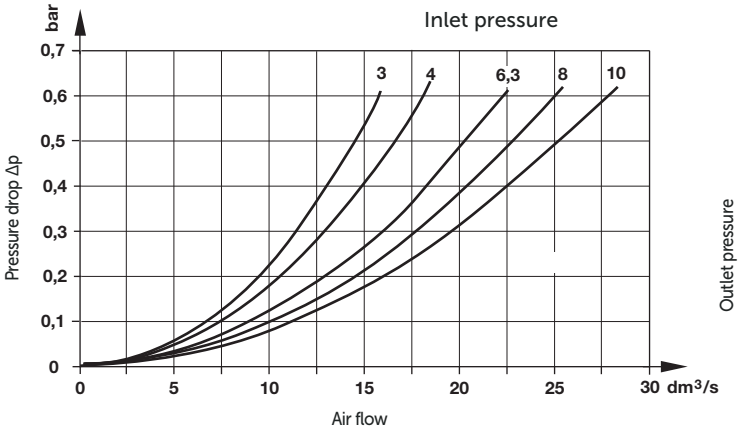
Port size	Substitute
1/4"	2
3/8"	3
Thread size	**Substitute**
ISO G (standard)	G
PTF	A
Operator	**Substitute**
Air pilot *1)	A
22 mm miniature solenoid	C
CNOMO	L

*1)To order air pilot models also substitute 'NNN' at digits 8, 9 and 10 e.g. P72F-2GA-NNN.

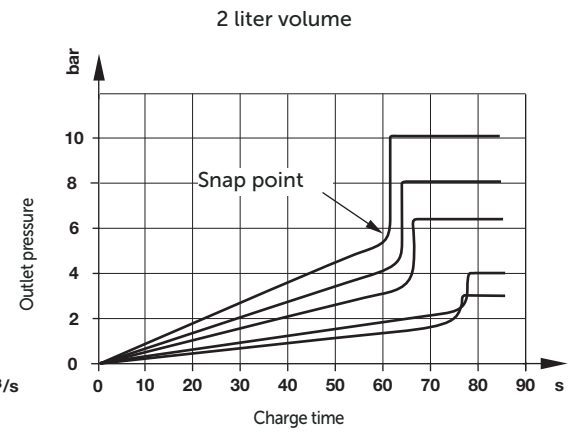
Connector plugs	Substitute
With	A
Without	N
Coil voltage	**Substitute**
24 V d.c.	F
12 V d.c.	E
220/240 V a.c.	B
110/120 V a.c	A
No coil	Z
No solenoid	N
Solenoid operator	**Substitute**
With	P
No solenoid	N

Flow characteristics

Port size: G1/4



Charge time



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Accessories

Quikclamp®	Quikclamp with wall bracket®	Quikmount pipe adaptor *1)	Porting block with three alternative G1/4 ports	2/2 Shut-off valves (for full technical specification see datasheet 8.160.600)	3/2 Shut-off valves (for full technical specification see datasheet 8.160.600)
					
Page 3	Page 3	Page 3	Page 3	Page 3	Page 3
4214-51	4214-52	G1/4: 4215-08	G1/4: 4216-52	G1/4: T72B-2GA-P1N	G1/4: T72T-2GA-P1N
		G3/8: 4215-09	1/4 PTF: 4216-50	G3/8: T72B-3GA-P1N	G3/8: T72T-3GA-P1N
		1/4 PTF: 4215-02		1/4 PTF: T72B-2AA-P1N	1/4 PTF: T72T-2AA-P1N
		3/8 PTF: 4215-03		3/8 PTF: T72B-3AA-P1N	3/8 PTF: T72T-3AA-P1N

Pressure switch

Porting block for pressure switch	Pressure switch (0,5 ... 8 bar)
	
0523109000000000	0881300000000000

Padlock

Padlock (brass) with two keys *1)

0613633000000000

*1) for shut-off valves

Silencer

Page 3
R1/4: MB002B
1/4 PTF: MB002A

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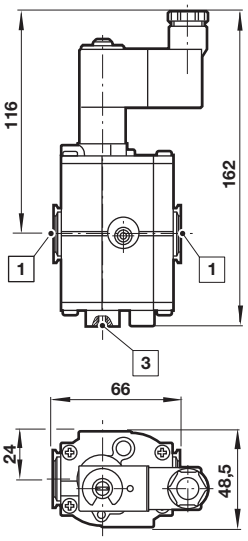
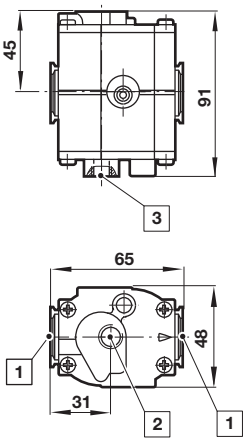
Drawings

Solenoid actuated



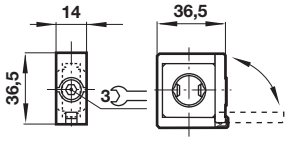
Air pilot actuated



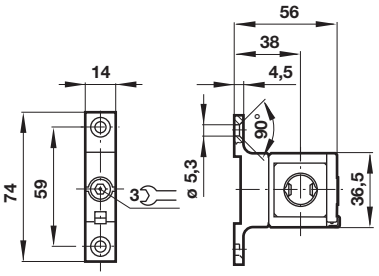
1 Main ports 1/4" or 3/8"
2 Pilot port
3 Exhaust port

Accessories Quikclamp®

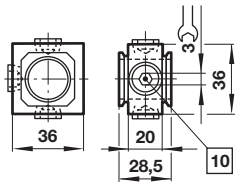
Dimensions in mm
Projection/First angle



Quikclamp® with wall bracket

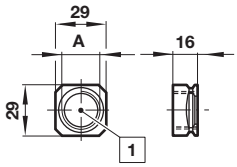


Porting block



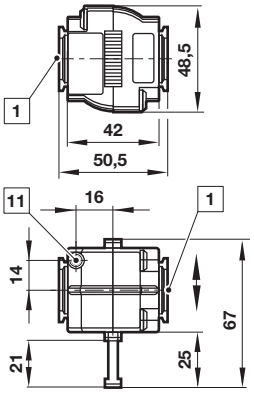
10 Ports (G1/4 or 1/4 NPT) plugged

Pipe adapter



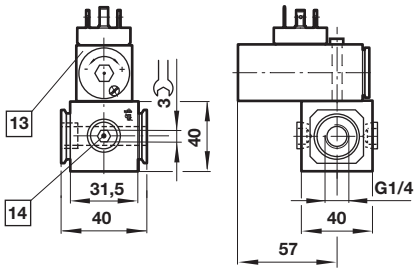
1 Main ports 1/4" or 3/8" ISO G/PTF

Shut-off valves



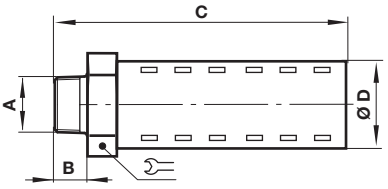
1 Main ports 1/4" or 3/8" ISO G/PTF
11 Exhaust port M5 at 3/2 valve only

Porting block for pressure switch



13 Pressure switch is not in scope of delivery
14 Alternative G1/4 ports plugged

Silencer



A	B	C	D		Model
R1/4	17	92	32	32	MB002B
1/4 NPT	17	92	32	32	MB002A

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. 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.

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