

SCSQ10, 3/2

Solenoid actuated, integrated soft start function, safety valves



- > Port size: 1/2 (ISO G/NPT)
- > Redundant valve assembly, pneumatic selfmonitoring with integrated safety silencer
- > Requires no cyclical monitoring or evaluation system
- > With the appropriate application, performance level "e" (cat. 4) of DIN EN ISO 13849-1 is achieved for the safety function " Pressure building up from '1' to '2' and pressure dropping from '2' to '3'- DGUV approval
- > Integrated soft start function
- > Valve interface enables direct mount to the
- > Excelon plus 84 series air preparation products
- > Also available with UL recognized solenoid 



Technical features

Medium:

Compressed air, filtered ≤ 50 μm , lubricated or non-lubricated

Operating pressure:

see table below

B₁₀ (median) characteristic service life value on basis ISO 19973: 10×10^6 cycles

Mounting position:

Preferably upright with solenoids on top

Press control:

Valves are not approved for press clutch and brake applications

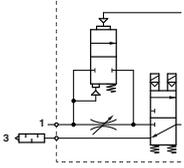
Ambient/Media temperature:

-10 ... +60°C (+14 ... +140°F)
Air supply must be dry enough to avoid ice formation at temperatures below +2°C (35°F).

Materials:

Housing: Aluminium
Seals: PUR, NBR

Technical data

Symbol	Thread form	Orifice (mm)	Power at 24 V d.c. (W)	Pressure range (bar)	Flow		Port sizes			Weight (kg)	Model
					1 » 2 (l/min)	2 » 3 (l/min)	1	2	3		
	ISO G	10	4,5	3,5 ... 10	3000	5700	G1/2	G1/2	G3/4	2,7	SCSQ101D01D02400
	ISO G	10	4,5	3,5 ... 10	3000	5700	G1/2	G1/2	G3/4	2,7	SCSQ101D01E02400 *1)
	NPT	10	4,5	3,5 ... 10	3000	5700	1/2 NPT	1/2 NPT	G3/4	2,7	SCSQ101T01D02400
	NPT	10	4,5	3,5 ... 10	3000	5700	1/2 NPT	1/2 NPT	G3/4	2,7	SCSQ101T01E02400 *1)

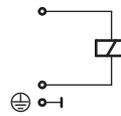
*1) with UL recognized solenoid (24VDC, other voltages on request)

Technical data – solenoids

Model	3030 & 3048 (UL)
Standard voltages	24 V DC, others on request
Duty cycle	100% ED
Protection class	IP65
Electrical connection	DIN EN 175301-803 (DIN 43650), Form A

Model	Power consumption V DC (W)	Connector
3030	4,4	Form A
3048	3,7	Form A

Circuit diagram



Accessories

Plug	Pressure switch - flange/face mounted direct onto valve *1)	Quikclamp® with wall bracket *2)	Quikmount pipe adaptor	Heavy duty silencers
	 Datasheet en 5.11.001	 Page 5	 Page 5	 Page 5
0570275	0881400	840014-52KIT	840015-11R (G1/2) 840015-03R (1/2 NPT)	MBP06B

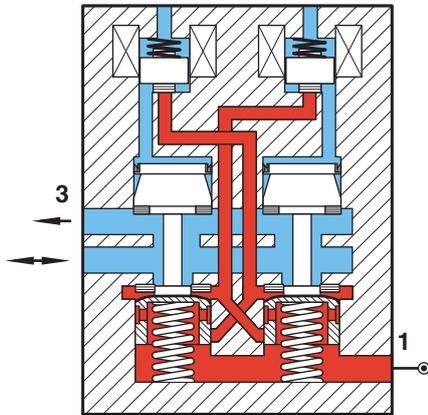
*1) The pressure switch is not required as part of the safe functioning system within the valve, its is offered as a means of indicating that the valve taken up a safe condition ie. no pressure at the output port 2.

*2) Quikclamp in order to connect the SCQS10 safety valve to the outlet of Excelon Plus series 84 Airline units.

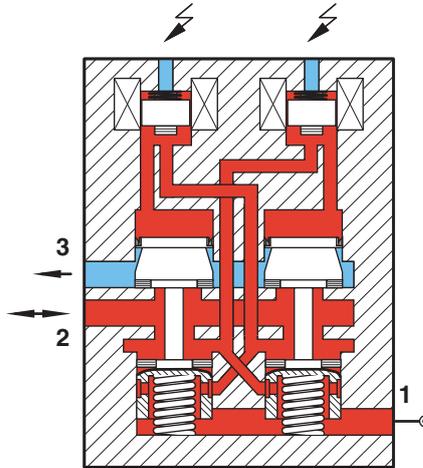
In case the Quikclamp is placed as last piece at the outlet of the SCVAS10 safety valve, an end connector 840015-11R is needed in addition – please order separately

Functional diagram (shown without soft start function)

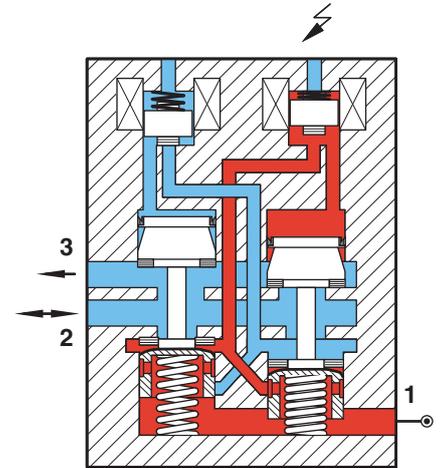
Basic position
Channel "2" onto "3"
Safety silencer relieved



Working position
Both solenoids energized
Channel „1" onto „2" turned o



Safety position
For unbalanced control,
faulty solenoid, dirty valve, etc.



Soft start function

The safety valve with soft start function provides for a controlled build-up of pressure at the valve output in two stages.

Stage 1 – The pressure builds up slowly depending on the setting of the throttle valve and the volume of the system to be filled.

Stage 2 – At a certain pressure level (p_s) an internal pilot valve operates bypassing the throttle allowing full operating pressure at the valve outlet.

This pressure level (p_s) will be dependant on the operating pressure (p_o) of the system and can be estimated to be greater than 60 % of the operating pressure ($p_s > = 0.6 \times p_o$)

Filling time depending on throttle position of soft start valve

From switching signal ON to pressure build-up 90% of rated pressure

Operating pressure (bar)	Volume (dm ³)	Filling time approx. (ms)		
		4	6	12 *1)
5	3	3200	2600	1700
	8	8300	7000	4300
6	3	3000	2400	1500
	8	7800	6500	3900
8	3	2700	2200	1400
	8	7300	5700	3700

1*) at fully opened valve

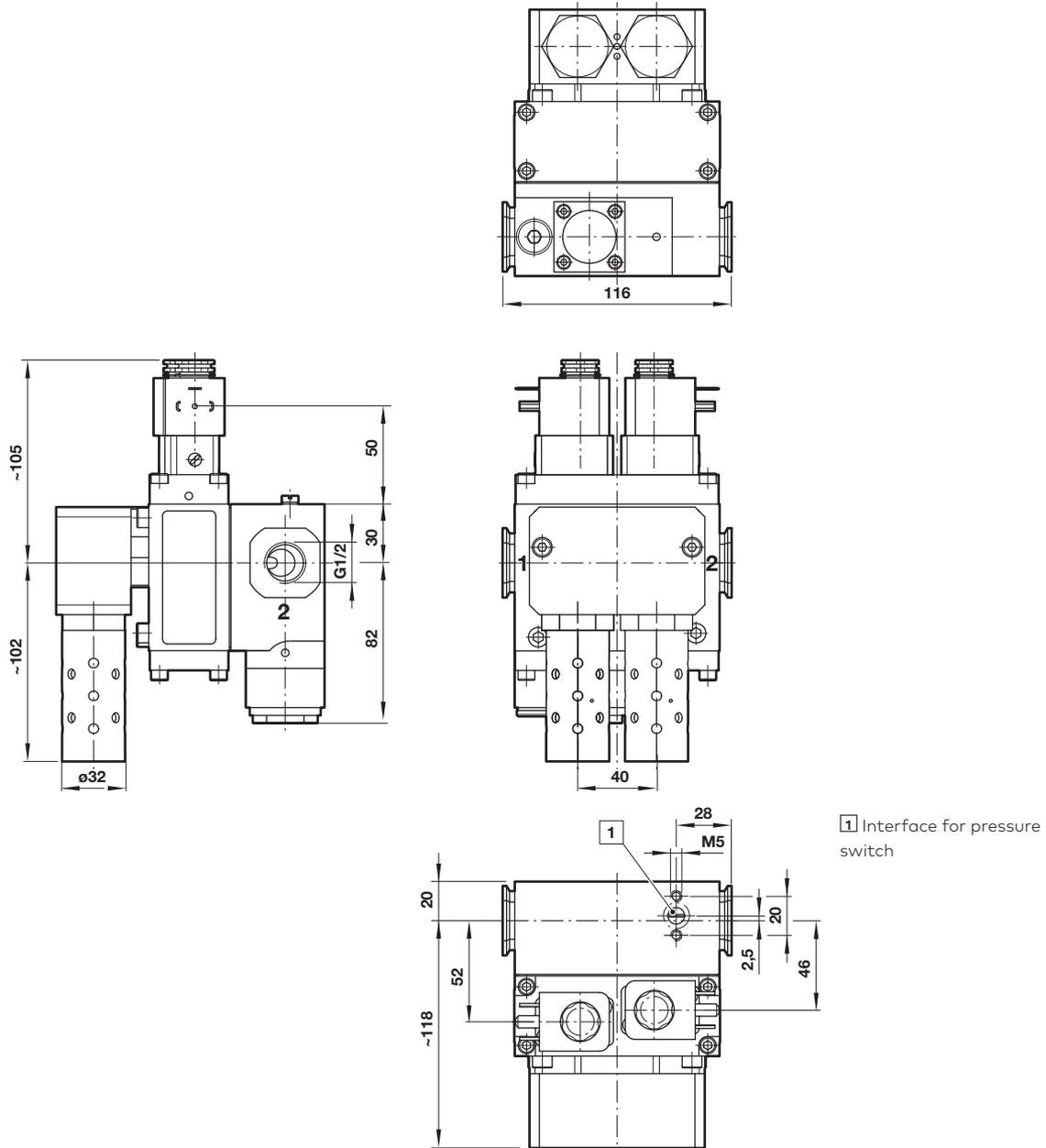
Exhausting time

From switching signal OFF to pressure reduction to 10% of rated pressure

Operating pressure (bar)	Volume (dm ³)	Exhaust time (ms)
5	3	190
	8	440
6	3	200
	8	460
8	3	210
	8	480

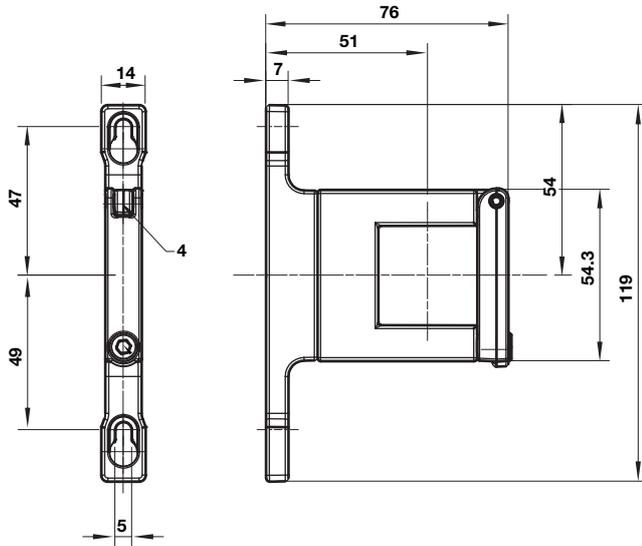
Dimensions

Dimensions in mm
Projection/First angle

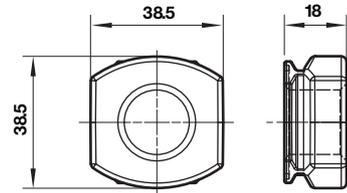


1 Interface for pressure switch

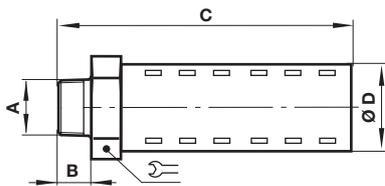
Quikclamp® with wall bracket



Quikmount pipe adaptor



Heavy duty silencer



A	B	C	D		Model
R3/4	17	92	32	32	MBP06

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.

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.