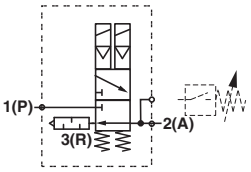
# SCVA08, SCVA10, SCVA20 & SCVA32, 3/2
# Solenoid actuated safety valve

- Port size: 1/4, 1/2, 3/4 and 1 (ISO G, NPT)
- Redundant valve assembly, pneumatic self monitoring with integrated safety silencer
- Ensures safe loading and venting
- Requires no cyclical monitoring or evaluation system
- Range of sizes - DN 8, 10, 20 and 32
- 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.
- SCVA08 & SVA10 also available with UL- recognized solenoids c UL us




## Technical features

**Medium:**
Compressed air, filtered ≤ 50 µm, lubricated or non-lubricated

**Operating Pressure:**
see table below

**B10 (median) characteristic service live value on basis ISO 19973:**
12 x $10^6$ cycles - SCVA08
10 x $10^6$ cycles - SCVA10
10 x $10^6$ cycles - SCVA20
6 x $10^6$ cycles - SCVA32

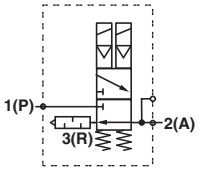
**Mounting:**
Preferably upright with solenoids on top

**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 or NBR

## Technical data

| Symbol | Port size | Orifice | Power at 24 V d.c. | Pressure range | Flow 1 » 2 | Flow 2 » 3 | Port sizes | | | Weight | Model |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | | (mm) | (W) | (bar) | (l/min) | (l/min) | 1 | 2 | 3 | (kg) | |
|  | G1/4 | 8 | 4,8 | 3 ... 10 | 1280 | 1550 | G1/4 | G1/4 | G1/4 | 1,1 | SCVA081BB0A02400 |
| | G1/4 | 8 | 4,8 | 3 ... 10 | 1280 | 1550 | G1/4 | G1/4 | G1/4 | 1,1 | SCVA081BB0E02400 *1) |
| | 1/4 NPT | 8 | 4,8 | 3 ... 10 | 1280 | 1550 | 1/4 NPT | 1/4 NPT | 1/4 NPT | 1,1 | SCVA081RR0A02400 |
| | 1/4 NPT | 8 | 4,8 | 3 ... 10 | 1280 | 1550 | 1/4 NPT | 1/4 NPT | 1/4 NPT | 1,1 | SCVA081RR0E02400 *1) |
| | G1/2 | 10 | 4,8 | 2 ... 10 | 3400 | 6500 | G1/2 | G1/2 | G3/4 | 2,4 | SCVA101DE1A02400 |
| | G1/2 | 10 | 4,8 | 2 ... 10 | 3400 | 6500 | G1/2 | G1/2 | G3/4 | 2,4 | SCVA101DE1E02400 *1) |
| | 1/2 NPT | 10 | 4,8 | 2 ... 10 | 3400 | 6500 | 1/2 NPT | 1/2 NPT | 3/4 NPT | 2,4 | SCVA101TU1A02400 |
| | 1/2 NPT | 10 | 4,8 | 2 ... 10 | 3400 | 6500 | 1/2 NPT | 1/2 NPT | 3/4 NPT | 2,4 | SCVA101TU1E02400 *1) |
| | G3/4 | 20 | 11 | 2 ... 10 | 3500 | 13250 | G3/4 | G3/4 | G1 | 3,6 | SCVA201EF0B02400 |
| | 3/4 NPT | 20 | 11 | 2 ... 10 | 3500 | 13250 | 3/4 NPT | 3/4 NPT | 1 NPT | 3,6 | SCVA201UV0B02400 |
| | G1 | 32 | 16 | 2 ... 10 | 7300 | 23000 | G1 | G1 | G1 1/2 | 10,3 | SCVA321FH0C02400 |
| | 1 NPT | 32 | 16 | 2 ... 10 | 7300 | 23000 | 1 NPT | 1 NPT | 1 1/2 NPT | 10,3 | SCVA321VX0C02400 |

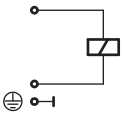


*1) with UL recognized solenoid (24VDC, other voltages on request)

## Technical data – solenoids

| | |
|---|---|
| Model | 0200, 0800, 3048 (UL) and 3052 |
| Standard voltages | 24 V d.c. and 230 V a.c., other on request |
| Duty cycle | 100% ED |
| Protection class | IP65 |
| Electrical connection | DIN EN 175301-803 (DIN 43650), form A & form B |

## Circuit diagram



| Model | Power consumption V DC (W) | Current Inrush V AC (VA) | Hold (VA) | Connector | SCVA Model |
|---|---|---|---|---|---|
| 0200 | 11 | 22 | 15 | Form A | SCVA20 |
| 0800 | 16 | 50 | 27 | Form A | SCVA32 |
| 3048 | 3,7 | - | - | Form A | SCVA08 / SCVA10 (UL) |
| 3052 | 4,8 | 12 | 8,5 | Form B | SCVA08 / SCVA10 |

## Accessories for SCVA

| Model | Plug | Pressure switch - flange/face mounted direct onto valve *1) | Quikclamp® with wall bracket *2) | Quikmount pipe adaptor |
|---|---|---|---|---|
| |  |  Datasheet en 5.11.001 |  Page 6 |  Page 6 |
| SCVA08xxxx | 0680003, EN 175301-803-form B | 0881400*3) | – | – |
| SCVA10xxxx | 0680003, EN 175301-803-form B | 0881400 | 840014-52KIT | 840015-11R (G1/2) |
| SCVA20xxxx | 0570275, EN 175301-803-form A | 0881400 | – | 840015-03R (1/2 NPT) |
| SCVA32xxxx | 0570275, EN 175301-803-form A | 0881400 | – | – |

*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.

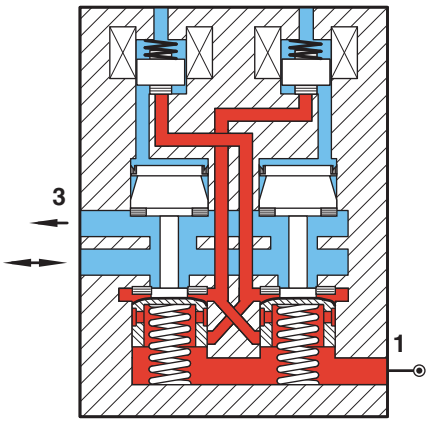
*2) Quikclamp in order to connect the SCVA10 safety valve to the outlet of Excelon Plus series 84 Airline units.

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

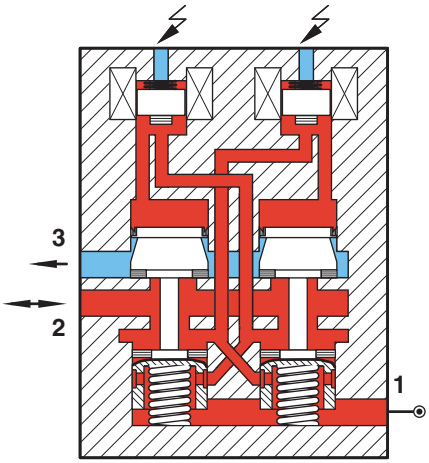
*3) Pressure switch 0881400 can not be used when using solenoid 3048 (UL).

## Functional diagram

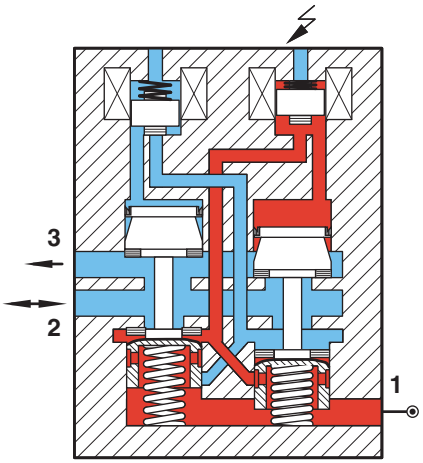
Basic position
Channel "2" onto "3"
Safety silencer relieved




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




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




## Time to vent residual pressure to 0,5 bar

| Model | Volume ($dm^3$) | Operating pressure (bar) | Exhaust time (ms) |
|---|---|---|---|
| SCVA081... | 1 | 5 | 200 |
| | | 8 | 250 |
| | | 10 | 290 |
| | 3 | 5 | 560 |
| | | 8 | 730 |
| | | 10 | 820 |

| Model | Volume ($dm^3$) | Operating pressure (bar) | Exhaust time (ms) |
|---|---|---|---|
| SCVA101... | 3 | 5 | 200 |
| | | 8 | 250 |
| | | 10 | 280 |
| | 8 | 5 | 450 |
| | | 8 | 580 |
| | | 10 | 640 |

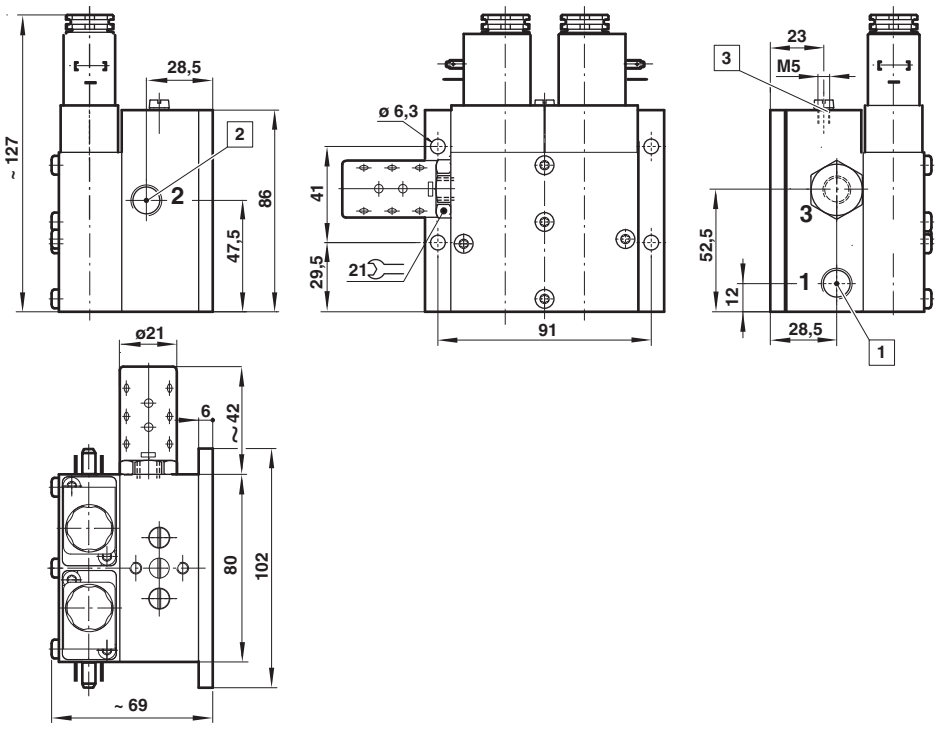
| Model | Volume ($dm^3$) | Operating pressure (bar) | Exhaust time (ms) |
|---|---|---|---|
| SCVA201... | 8 | 5 | 230 |
| | | 8 | 290 |
| | | 10 | 330 |
| | 20 | 5 | 520 |
| | | 8 | 700 |
| | | 10 | 790 |

| Model | Volume ($dm^3$) | Operating pressure (bar) | Exhaust time (ms) |
|---|---|---|---|
| SCVA321... | 20 | 5 | 310 |
| | | 8 | 400 |
| | | 10 | 420 |
| | 50 | 5 | 730 |
| | | 8 | 930 |
| | | 10 | 1100 |

## Dimensions

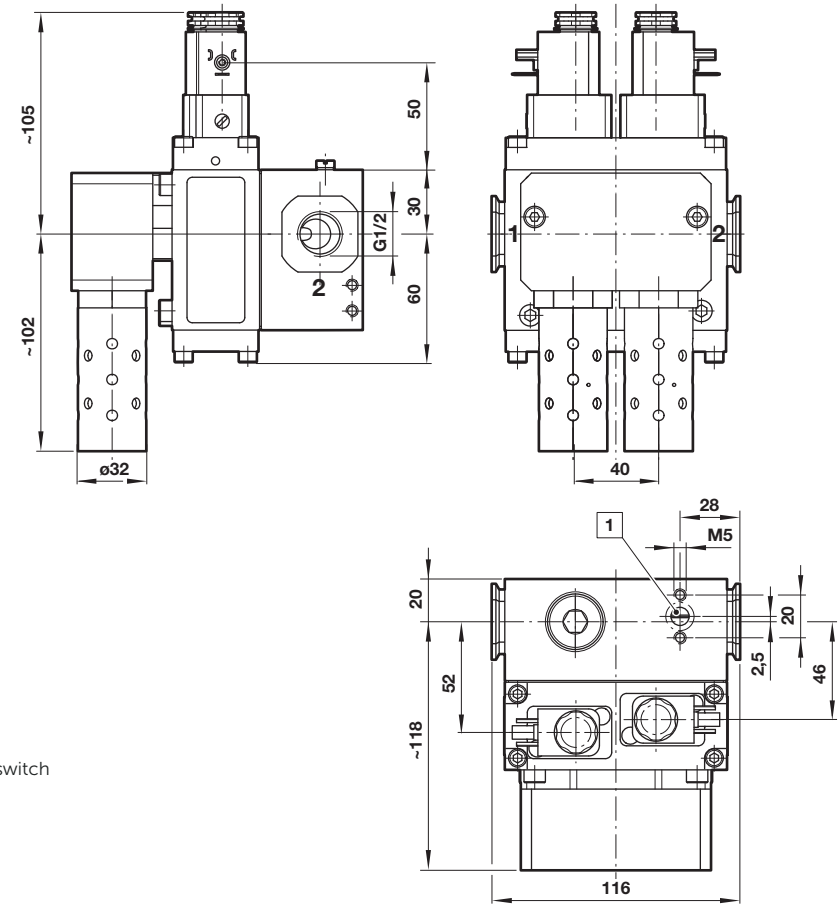
Dimensions in mm
Projection/First angle

### SCVA081BB0A02400 (G1/4), SCVA081RR0A02400 (1/4 NPT), SCVA081BB0E02400 (G1/4, UL), SCVA081RR0E02400 (1/4-NPT, UL)




1 Port 1 (G1/4 or 1/4 NPT)
2 Port 2 (G1/4 or 1/4 NPT)
3 Interface for pressure switch

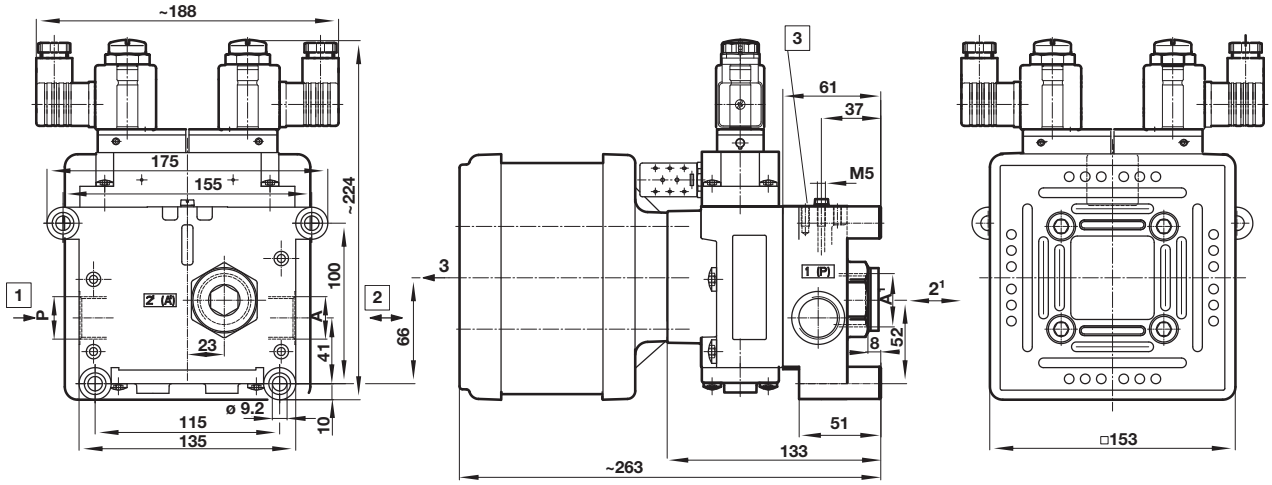
### SCVA101DE1A02400 (G1/2), SCVA101TU1A02400 (1/2 NPT), SCVA101DE1E02400 (G1/2, UL), SCVA101TU1E02400 (1/2-NPT, UL)




1 Interface for pressure switch

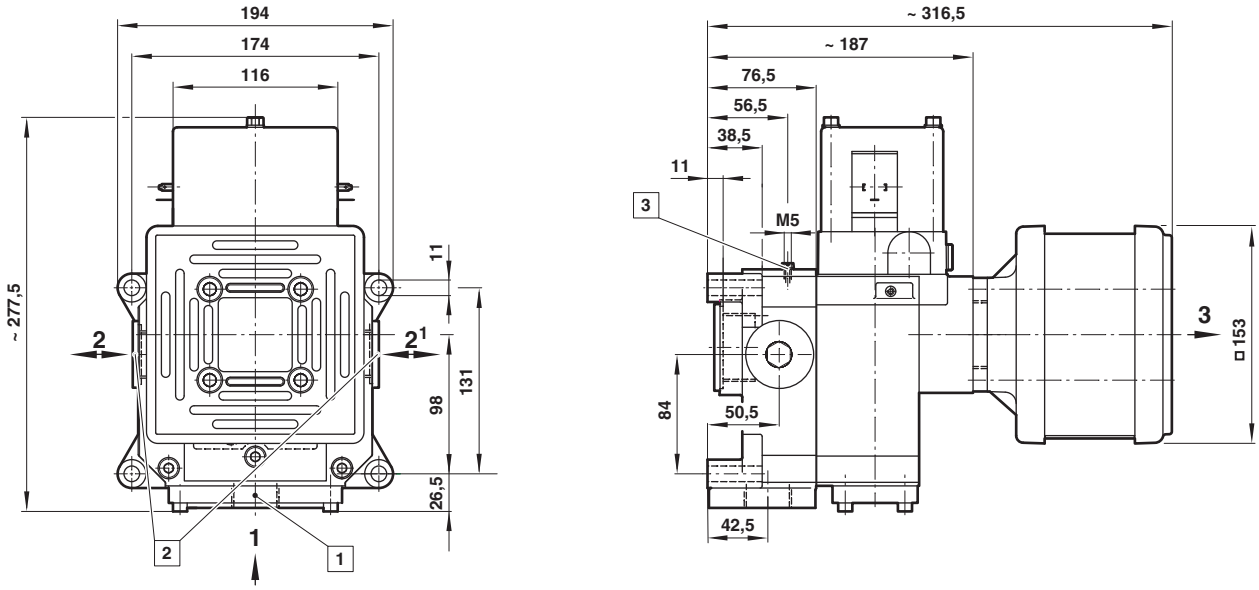
## SCVA201EF0B02400 (G3/4), SCVA201UV0B02400 (3/4 NPT)

Dimensions in mm
Projection/First angle



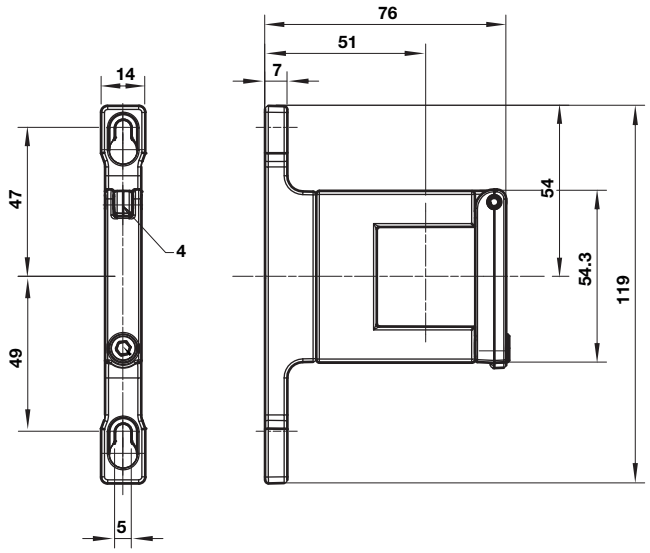

1 Port 1 (G3/4 or 3/4 NPT)
2 Port 2 (G3/4 or 3/4 NPT)
3 Interface for pressure switch

## SCVA321FH0C02400 (G1), SCVA321VX0C02400 (1 NPT)



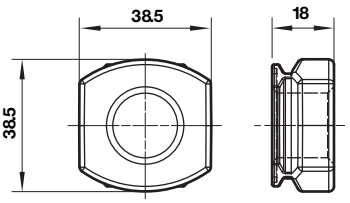

1 Port1 (G1 or 1 NPT)
2 Alternative ports (G1), two plugs are in scope of delivery
NPT version: Port 2 useable only!
3 Interface for pressure switch

## Quikclamp® with wall bracket




## Quikmount pipe adaptor

Dimensions in mm
Projection/First angle




### 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.