

### FEATURES

- Compact design and low weight enabling easy installation on all series 290 & 390 valves with 32, 50 & 63 mm operators
- Manual operator allows an easy installation
- AC/DC interchangeability of the solenoid without disassembly of the valve
- Simple installation (supply port, solenoid valve body, coil and connector rotatable through 360°), built-in exhaust regulator (pilot valve series 189/banjo coupling)
- Compliance with UL and CSA standards (pilot valve series 356 coupling)
- The solenoid valves satisfy all relevant EC Directives

### GENERAL

**Differential pressure**

See «SPECIFICATIONS» [1 bar = 100 kPa]

**Maximum viscosity**

40 cSt (mm²/s)

**Response time**

See page V402-7

| pilot (series) | fluids (*)             | temperature range (TS) | seal materials (*)    |
|----------------|------------------------|------------------------|-----------------------|
| 189 banjo      | filtered air           | -10°C to +60°C         | NBR (nitrile)         |
| 356            | filtered air and water |                        | FPM (fluoroelastomer) |

### MATERIALS IN CONTACT WITH FLUID

(\*) Ensure that the compatibility of the fluids in contact with the materials is verified

|                  | Banjo pilot 189            | Pilot 356                         |
|------------------|----------------------------|-----------------------------------|
| Body             | PA, glass fibre reinforced | Brass or stainless steel AISI 316 |
| Core tube        | Brass                      | Stainless steel                   |
| Core and plugnut | Stainless steel            | Stainless steel                   |
| Springs          | Stainless steel            | Stainless steel                   |
| Seats            | PA + Stainless steel       | Brass or stainless steel          |
| Seals            | NBR                        | FPM                               |
| Shading coil     | Copper                     | Copper                            |

### ELECTRICAL CHARACTERISTICS

**Coil insulation class**

F

**Connector**

Spade plug (cable Ø 6-8 mm)

**Connector specification**

DIN 43650, 11 mm, industry standard B

**Electrical safety**

IEC 335

**Electrical enclosure protection**

Moulded IP65 (EN 60529)

**Standard voltages**

DC (=) : 24V - 48V

(Other voltages and 60 Hz on request)

AC (~) : 24V - 48V - 115V - 230V / 50 Hz

| prefix<br>option | power ratings |              |     |               | operator<br>ambient<br>temperature<br>range (TS)<br><br>(C°) | replacement coil |            | type <sup>(1)</sup> |
|------------------|---------------|--------------|-----|---------------|--------------------------------------------------------------|------------------|------------|---------------------|
|                  | inrush<br>~   | holding<br>~ |     | hot/cold<br>= |                                                              | ~                | =          |                     |
|                  | (VA)          | (VA)         | (W) | (W)           |                                                              | 230 V/50 Hz      | 24 V DC    |                     |
| -                | 6             | 3,5          | 2,5 | 2,5 / 3       | -10 to +60                                                   | 400127-097       | 400904-142 | 01                  |
| SC               | 12            | 6            | 4   | 5 / 6,9       | -10 to +60                                                   | 400127-197       | 400127-142 | 02                  |

<sup>(1)</sup> Refer to the dimensional drawings on the following page.

### SPECIFICATIONS

| pipe size                                                                    | orifice size |      | flow coefficient Kv |         |        |         | operating pressure differential (bar) |           |       |    |    |     | power coil (W) |                   | catalogue number<br><br>with maintained manual operator |
|------------------------------------------------------------------------------|--------------|------|---------------------|---------|--------|---------|---------------------------------------|-----------|-------|----|----|-----|----------------|-------------------|---------------------------------------------------------|
|                                                                              |              |      |                     |         |        |         | min.<br>(4)                           | max. (PS) |       |    |    |     |                |                   |                                                         |
|                                                                              | air (*)      |      | water (*)           |         |        |         |                                       |           |       |    |    |     |                |                   |                                                         |
|                                                                              |              |      |                     |         | 2↔1    | 1-2→3   |                                       | 2↔1       | 1-2→3 |    |    |     |                |                   |                                                         |
| G                                                                            | (mm)         | (mm) | (m³/h)              | (l/min) | (m³/h) | (l/min) | ~                                     | =         |       |    | ~  | =   | ~/=            |                   |                                                         |
| NC - Normally closed, series 189 banjo pilot                                 |              |      |                     |         |        |         |                                       |           |       |    |    |     |                |                   |                                                         |
| 1/8 (2)                                                                      | 1,2          | 1,2  | 0,03                | 0,5     | 0,04   | 0,7     | 0                                     | 10        | 10    | -  | -  | 2,5 | 3              | 18900032          |                                                         |
| NC - Normally closed, series 189 banjo pilot with built-in exhaust regulator |              |      |                     |         |        |         |                                       |           |       |    |    |     |                |                   |                                                         |
| 1/8 (2)(5)                                                                   | 1,2          | 1,2  | 0,03                | 0,5     | 0,04   | 0,7     | 0                                     | 10        | 10    | -  | -  | 2,5 | 3              | 18900047          |                                                         |
| NC - Normally closed, series 356 pilot, brass body                           |              |      |                     |         |        |         |                                       |           |       |    |    |     |                |                   |                                                         |
| 1/8 (2)                                                                      | 1,6          | 1,2  | 0,08                | 1,33    | 0,05   | 0,8     | 0                                     | 10        | 10    | 10 | 10 | 4   | 6,9            | SCG356B053VMS (3) |                                                         |
| NC - Normally closed, series 356 pilot, stainless steel body                 |              |      |                     |         |        |         |                                       |           |       |    |    |     |                |                   |                                                         |
| 1/8 (2)                                                                      | 1,6          | 1,2  | 0,08                | 1,33    | 0,05   | 0,8     | 0                                     | 10        | 10    | 10 | 10 | 4   | 6,9            | SCG356B058VMS (3) |                                                         |

<sup>(2)</sup> Pipe size:

- Port 1: O.D. 4 mm instant fitting (189 banjo) / 1/8 (series 356)

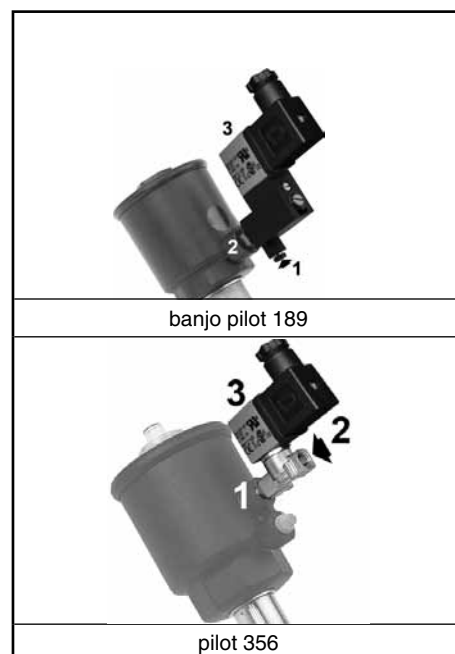
- Port 2: 1/8

- Port 3 (exhaust): M5

<sup>(3)</sup> Solenoid valve with 1/8 adapter.

<sup>(4)</sup> Refer to leaflets on series 290/390 valves which show the minimum pilot pressure for each version of the product.

<sup>(5)</sup> Exhaust regulator integrated at port 3, M5.



### OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 94/9/EC (see "Explosionproof solenoids" section)
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)
- M5 exhaust regulator to fit port 3, catalogue number: **34600380**

### INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Pipe connection identifier is G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

### ORDERING EXAMPLES:

|                        |               |
|------------------------|---------------|
| 18900032               | 230V / 50 Hz  |
| SC G356B053 VMS        | 24V / DC      |
| SC G356B053 VMS        | 230V / 50 Hz  |
| catalogue number _____ | _____ voltage |

### DIMENSIONS (mm), WEIGHT



#### TYPE 01

Pilot 189/banjo  
Epoxy moulded  
IEC 335 / DIN 43650  
IP65

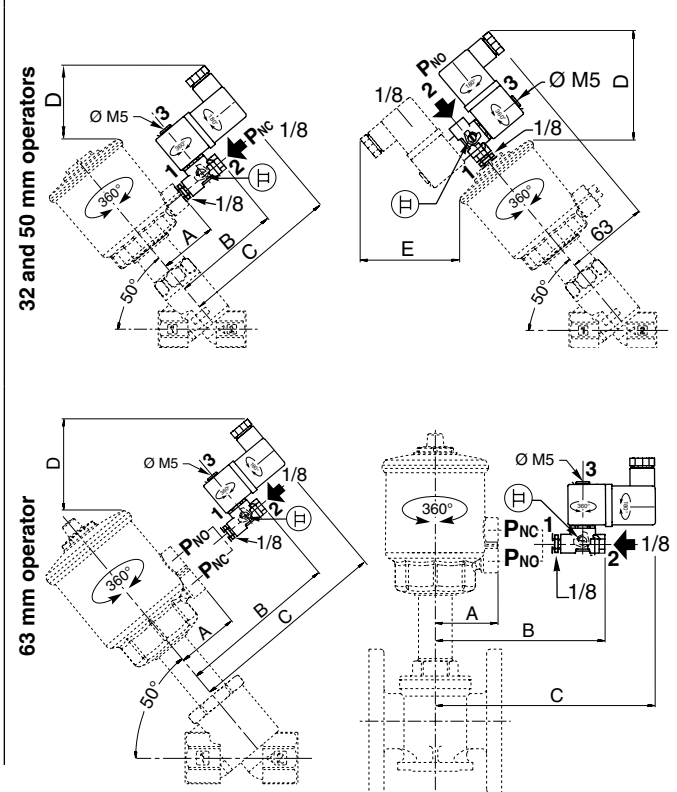
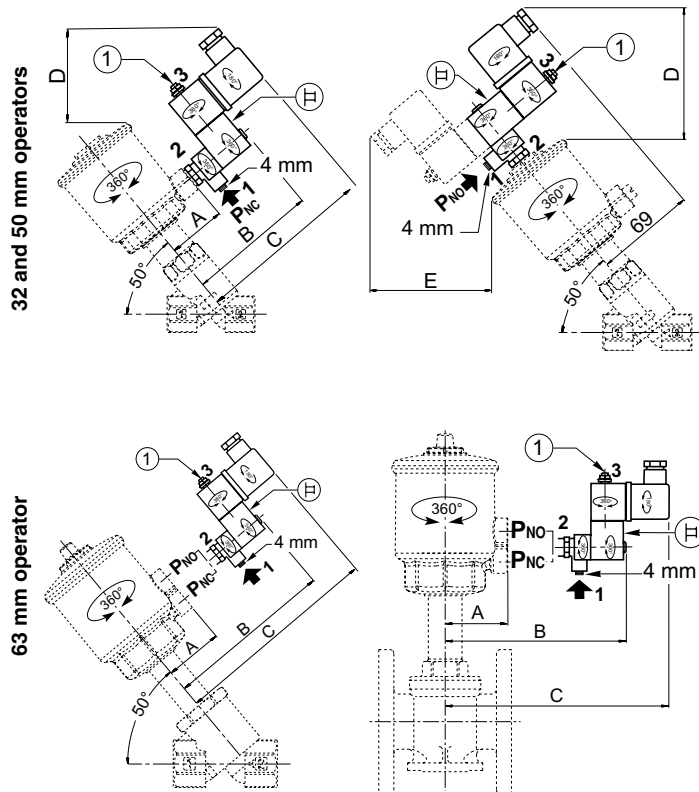
18900032 - 18900047



#### TYPE 02

Prefix "SC" Solenoid  
Pilot 356  
Epoxy moulded  
IEC 335 / DIN 43650 / IP65

SCG356B053VMS - SCG356B058VMS



| type | prefix option | pilot            | operator diameter | A    | B    | C     | D  |     | E  | pilot inlet port |                 | weight <sup>(1)</sup> |
|------|---------------|------------------|-------------------|------|------|-------|----|-----|----|------------------|-----------------|-----------------------|
|      |               |                  |                   |      |      |       | NC | NO  |    | NC               | NO              |                       |
| 01   | -             | 189/banjo series | 32 mm             | 27   | 78,5 | 113,5 | 79 | 102 | 85 | P <sub>NC</sub>  | P <sub>NO</sub> | 0,175                 |
|      |               |                  | 50 mm             | 43   | 93   | 149   | 67 | 83  | 74 |                  |                 |                       |
|      |               |                  | 63 mm             | 50,5 | 100  | 156   | 53 | 62  | -  |                  |                 |                       |
| 02   | SC            | 356 series       | 32 mm             | 27   | 68   | 102   | 65 | 90  | 85 | P <sub>NC</sub>  | P <sub>NO</sub> | 0,165                 |
|      |               |                  | 50 mm             | 43   | 84   | 118   | 56 | 80  | 74 |                  |                 |                       |
|      |               |                  | 63 mm             | 50,5 | 91,5 | 125,5 | 41 | 59  | -  |                  |                 |                       |

① Exhaust regulator location

<sup>(1)</sup> including adapter connection (series 356), coil and connector.