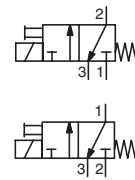




SOLENOID PILOT VALVES

with 290/390 valves, 32, 50 & 63 mm operators
direct operated
1/8

NC



3/2
Series
189/banjo
356

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 EU Directives

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar = 100 kPa]
Maximum viscosity 40 cSt (mm²/s)
Response time See page 7 (www.asco.com)

| 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 option | power ratings | | | | operator ambient temperature range (TS) (C°) | replacement coil | | type ⁽¹⁾ |
|---------------|---------------|-----------|------------|---------|--|------------------|------------|---------------------|
| | inrush ~ | holding ~ | hot/cold = | | | ~ | = | |
| | (VA) | (VA) | (W) | (W) | | 230 V/50 Hz | 24 V DC | |
| - | 6 | 3,5 | 2,5 | 2,5 / 3 | -10 to +60 | 400127-097 | 400904-542 | 01 |
| SC | 12 | 6 | 4 | 5 / 6,9 | -10 to +60 | 400127-197 | 400127-142 | 02 |

⁽¹⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

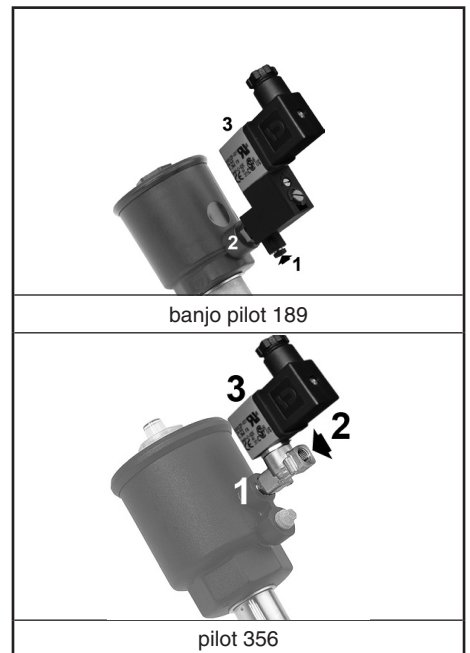
| pipe size | orifice size | | flow coefficient Kv | | | | operating pressure differential (bar) | | | | | | power coil (W) | | catalogue number with maintained manual operator | |
|---|--------------|------------|-------------------------|---------------|-------------------------|---------------|---------------------------------------|-----------|-----------|----|----|-----|----------------|------------------------------|--|---|
| | | | | | | | min. ⁽⁴⁾ | max. (PS) | | | | ~ | | | | = |
| | | | | | | | | air (*) | water (*) | | ~ | | | | | |
| G | 2↔1 (mm) | 1-2→3 (mm) | 2↔1 (m ³ /h) | 1-2→3 (l/min) | 2↔1 (m ³ /h) | 1-2→3 (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⁾ | | |

- ⁽²⁾ Pipe size:
- Port 1: O.D. 4 mm instant fitting (189 banjo) / 1/8 (series 356)
- Port 2: 1/8
- Port 3 (exhaust): M5

⁽³⁾ Solenoid valve with 1/8 adapter.

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

⁽⁵⁾ Exhaust regulator integrated at port 3, M5.



OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (www.asco.com)
- Connector with visual indication and peak voltage suppression or with cable length of 2 m (www.asco.com)
- 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

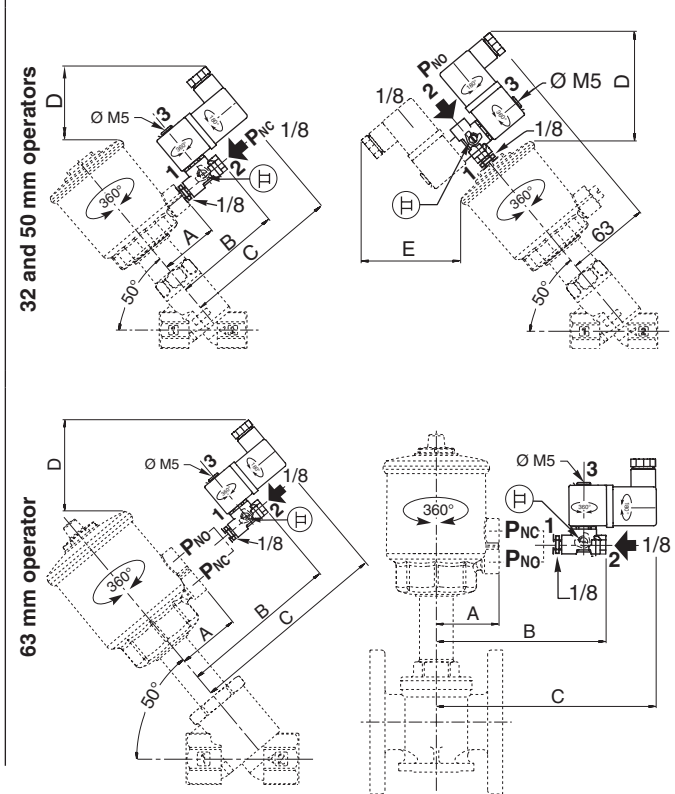
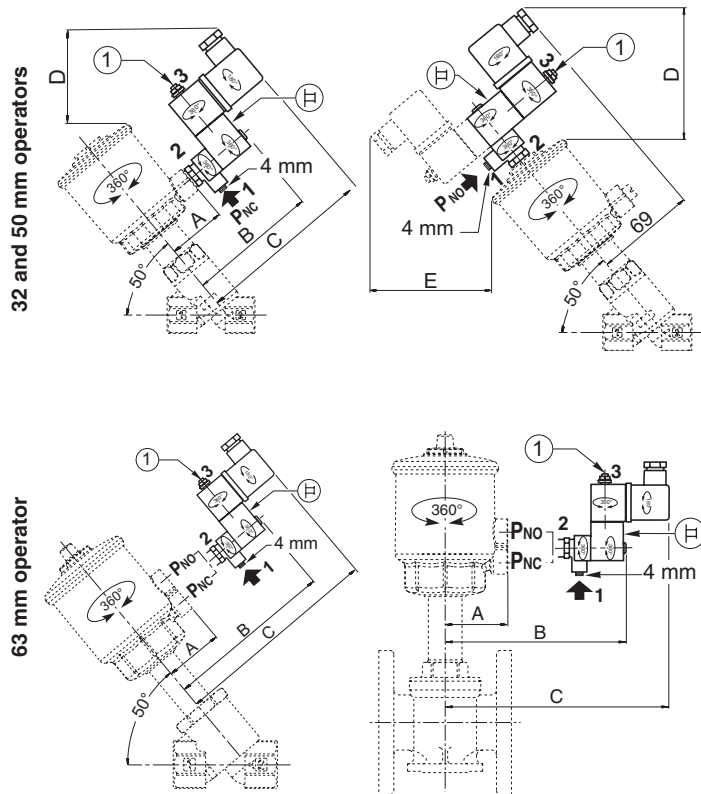
18900032 - 18900047



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 ⁽¹⁾ |
|------|---------------|------------------|-------------------|------|------|-------|----|-----|----|------------------|-----------------|-----------------------|
| | | | | | | | NC | NO | | NC | NO | |
| 01 | - | 189/banjo series | 32 mm | 27 | 78,5 | 113,5 | 79 | 102 | 85 | P _{NC} | P _{NO} | 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 _{NC} | P _{NO} | 0,165 |
| | | | 50 mm | 43 | 84 | 118 | 56 | 80 | 74 | | | |
| | | | 63 mm | 50,5 | 91,5 | 125,5 | 41 | 59 | - | | | |

① Exhaust regulator location

⁽¹⁾ including adapter connection (series 356), coil and connector.