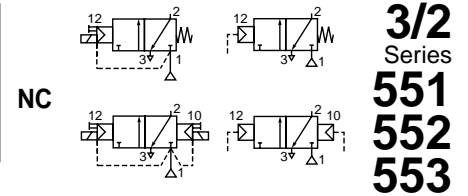




# SPOOL VALVES

pilot operated or air operated, spool type  
single/dual solenoid or air (mono/bistable function)  
aluminium body, 1/4 to 1/2



**3/2**  
Series  
**551**  
**552**  
**553**

## FEATURES

- All the exhaust ports of this spool valve are connectable, providing better environmental protection, particularly recommended for sensitive areas, such as clean rooms, and applications in the pharmaceutical and food processing sectors
- The valves offer environmental protection against the ingress of liquids, dusts or other foreign matter (environmentally-protected construction)
- The monostable spool valves have TÜV certified IEC 61508 Functional Safety data and can be used up to SIL 4/AK 7
- The solenoid valves satisfy all relevant EC Directives

## GENERAL

**Differential pressure** 2 - 10 bar [1 bar = 100 kPa]  
**Flow (Qv at 6 bar)** l/min (ANR)

1/4	3/8	1/2
860	3000	3800

fluids (*)	temperature range	seal materials (*)
air, inert gas, filtered	- 25°C to + 60°C	NBR (nitrile) + PUR (polyurethane)

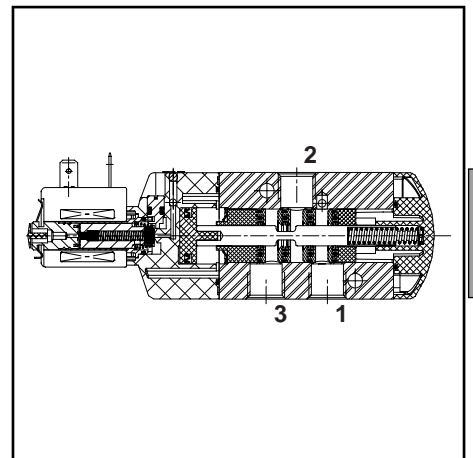
## MATERIALS IN CONTACT WITH FLUID

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

<b>Body, end cover</b>	Aluminium, black anodized
<b>End cover (spring return)</b>	Glass-filled PA
<b>Spool valve internal parts</b>	Zamak, stainless steel, POM, aluminium
<b>Seals</b>	NBR + PUR
<b>Core and core tube</b>	Stainless steel
<b>Shading coil</b>	Copper

## ELECTRICAL CHARACTERISTICS

<b>Coil insulation class</b>	F
<b>Connector</b>	Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
<b>Connector specification</b>	DIN 43650, 11 mm, industry standard B (type 01) or ISO 4400 / EN 175301-803, form A (type 02)
<b>Electrical safety</b>	IEC 335
<b>Electrical enclosure protection</b>	Moulded IP65 (EN 60529)
<b>Standard voltages</b>	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 <sup>(1)</sup>
	inrush ~ (VA)	holding ~ (VA) (W)		hot/cold = (W)		~ 230 V/50 Hz	= 24 V DC	
		2,5	2,5/3					
SC	6	3,5	2,5	2,5/3	-25 to + 60	43004886	43004869	01
SC	15	7	5	2,5/6,9	-25 to + 60	43004649	43004647	02

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

## SPECIFICATIONS

pipe size	orifice size (mm)	flow coefficient Kv (m³/h) (l/min)		operating pressure differential (bar)				power coil (W)		catalogue number	options		
				min.	max. (PS)		air (*)				maintained	man.	operator
					~	=							
<b>NC - Normally closed, solenoid air pilot operated - spring return (monostable)</b>													
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A005	MS	-	-	
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A005	MS	-	-	
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A005	MS	-	-	
<b>NC - Normally closed, solenoid air pilot operated and return (bistable)</b>													
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A006	MS	-	-	
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A006	MS	-	-	
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A006	MS	-	-	
<b>NC - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data</b>													
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A005SL	-	-	-	

### AIR OPERATED AND OPTIONS

- Versions: - pilot air operated, spring return, catalogue numbers: **G551A105** (1/4); **G552A105** (3/8); **G553A105** (1/2)  
- pilot air operated and return, catalogue numbers: **G551A106** (1/4); **G552A106** (3/8); **G553A106** (1/2)
- Suffix "MF" (air operated only, low temperature version, -40°C)
- Suffix "GD" (air operated only, ATEX 2GD c)
- Compliance with "UL" standard is available on request
- Magnetic latch execution for 551 series, TPL 20649
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3, to ATEX Directive 94/9/EC (see "Explosionproof Solenoids" section)
- Supply rail, see pages 5 and 6
- Other pipe threads are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2m (see Solenoids, Coils & Accessories section)

### INSTALLATION

- The valves can be mounted in any position without affecting operation
- It is necessary to connect pipes or fittings to the exhaust ports to protect the internal parts of the spool valve and its pneumatic operator if used outside or in harsh environments (dusts, liquids etc.)
- IEC 61508 Functional Safety (suffix SL), allowable temperature range: -40°C to +60°C. For probability of failure, contact us
- Valves with suffix "SL" are supplied with specific exhaust protectors
- Threaded pipe connection is standard: G = G (ISO 228/1)
- Installation/maintenance instructions are included with each valve

### ACCESSORIES

series	pipe size	exhaust protector (stainless steel)
551	G 1/4	<b>34600419</b> <sup>(1)</sup>
552	G 3/8	<b>34600478</b>
553	G 1/2	<b>34600479</b>
551-552-553	M5	<b>34600484</b> <sup>(1)</sup>

<sup>(1)</sup> Supplied with suffix "SL".


### ORDERING EXAMPLES:

SC	G	551	A	005	MS	230V / 50 Hz
SC	G	551	A	005	SL	24V / DC
SC	G	552	A	006		115V / 50 Hz
	G	551	A	105	SL	

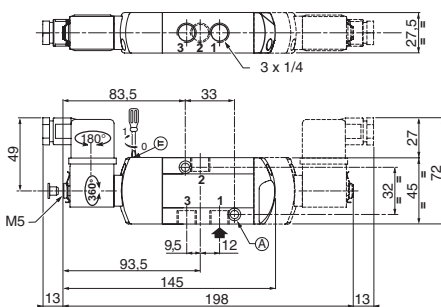
Diagram illustrating the breakdown of the part number: prefix (SC), pipe thread (G), basic number (551), suffix (A), and voltage (MS, SL).

### DIMENSIONS (mm), WEIGHT (kg)


**TYPE 01**  
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / DIN 43650  
IP65



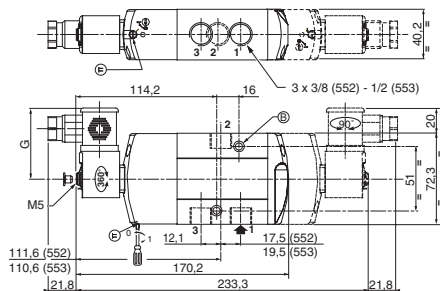
551A005 / A005 MS / A005 SL / A006 / A006 MS




**TYPE 02**  
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / ISO 4400  
IP65



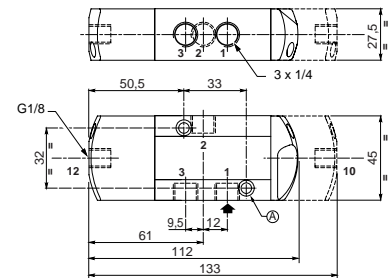
552A005 / A005 MS / A006 / A006 MS  
553A005 / A005 MS / A006 / A006 MS



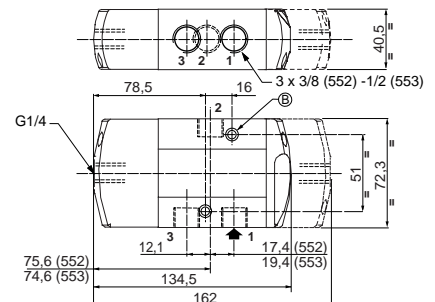
**TYPE 03**  
No Prefix  
Air operated version



551A105/A105SL/A106



552A105/A106  
553A105/A106



2 mounting holes:

- (A) 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
- (B) 6,5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm)

type	prefix option	weight <sup>(2)</sup>	
		monost.	bistable
01 (551)	SC	0,35	0,43
02 (552)	SC	0,70	1,00
02 (553)	SC	0,69	0,99
03 (551)	-	0,28	0,36
03 (552)	-	0,81	1,07
03 (553)	-	0,80	1,06

<sup>(2)</sup> Including coil(s) and connector(s).

All leaflets are available on: [www.ascojoucomatic.com](http://www.ascojoucomatic.com)