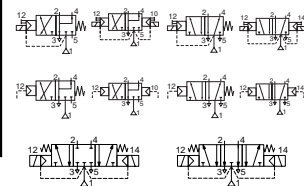




SPOOL VALVES

pilot operated or air operated, spool type
single/dual solenoid or air
aluminium body, "NAMUR" style, 1/4 to 1/2



3/2-5/2
5/3
Series
551-552
553

FEATURES

- The solenoid operated spool valves have threaded port connections and NAMUR interface
- The same spool valve can be adapted for 3/2 NC or 5/2 functions for controlling double-acting and single-acting actuators
- 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
- ASCO/JOUCOMATIC solenoid valves satisfy all relevant EC Directives

GENERAL

Differential pressure
Flow (Qv at 6 bar)

2 - 10 bar [1 bar = 100 kPa]
l/min (ANR)

1/4	3/8	1/2
700	3000	3000

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

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

ELECTRICAL CHARACTERISTICS

Coil insulation class

F

Connector

Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)

Connector specification

DIN 43650, 11 mm, industry standard B (type 01)
or ISO 4400 / EN 175301-803, form A (type 02)
IEC 335

Electrical safety

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)	(C°)	230 V/50 Hz	24 V DC		
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

(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	options			
				min.	max. (PS)		~				=	maintained	man. operator	
					air (*)	~								
G	(mm)	(m³/h)	(l/min)						~/=					
3/2 NC - 5/2 - Solenoid air pilot operated - spring return (monostable)														
1/4	6	0,6	10	2	10	10	2,5	3	SCG551A001	MS	-	-		
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A001	MS	-	-		
1/2	13	2,49	41,5	2	10	10	5	6,9	SCG553A001	MS	-	-		
3/2 NC - 5/2 - Solenoid air pilot operated and return (bistable)														
1/4	6	0,6	10	2	10	10	2,5	3	SCG551A002	MS	-	-		
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A002	MS	-	-		
1/2	13	2,49	41,5	2	10	10	5	6,9	SCG553A002	MS	-	-		
5/3 - W1 - pressure held, solenoid air pilot operated and return														
1/4	6	0,6	10	2	10	10	2,5	3	SCG551A065	MS	-	-		
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A065	MS	-	-		
1/2	13	2,49	41,5	2	10	10	5	6,9	SCG553A065	MS	-	-		
5/3 - W3 - pressure release, solenoid air pilot operated and return														
1/4	6	0,6	10	2	10	10	2,5	3	SCG551A066	MS	-	-		
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A066	MS	-	-		
1/2	13	2,49	41,5	2	10	10	5	6,9	SCG553A066	MS	-	-		
3/2 NC - 5/2 - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data														
1/4	6	0,6	10	2	10	10	2,5	3	SCG551A001SL	-	-	-		

AIR OPERATED AND OPTIONS

- Versions: - pilot air operated, spring return, catalogue numbers: **G551A101** (1/4); **G552A101** (3/8); **G553A101** (1/2)
- pilot air operated and return, catalogue numbers: **G551A102** (1/4); **G552A102** (3/8); **G553A102** (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)
- Valves equipped with exhaust reducers G 1/8 (3/2 NC-5/2, series 551), suffix M
- Set of stainless steel mounting screws (series 551), catalogue number **978 02 212**
- Set of two G 1/8 exhaust reducers (series 551), catalogue number **881 00 344**
- 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 solenoid valves can be mounted in any position without affecting operation
- 3/2 NC-5/2 spool valve supplied with two interface plates with NAMUR mating surfaces. Depending on function (3/2 NC or 5/2), position one of the two plates on the spool valve body before installing on actuator
- Dowel pin (if necessary), bolts and gaskets are standard supplied
- 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, consult ASCO/JOUCOMATIC
- Threaded pipe connection identifier is G = G (ISO 228/1)
- Valves with suffix "SL" are supplied with specific exhaust protectors
- Installation/maintenance instructions are included with each valve

ACCESSORIES

series	pipe size	exhaust protector (stainless steel)
551	G 1/8	34600418 ⁽¹⁾
551 (W1/W3)	G 1/4	34600419
552	G 3/8	34600478
553	G 1/2	34600479
551-552-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL".

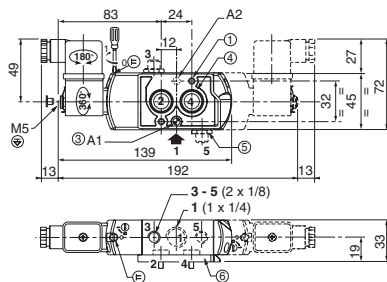
DIMENSIONS (mm), WEIGHT (kg)



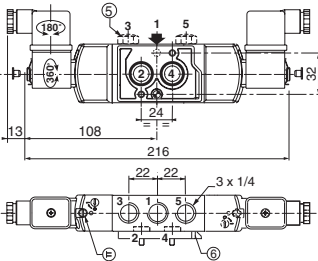
TYPE 01

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

551A001/A001MS/A001SL/A002/A002MS



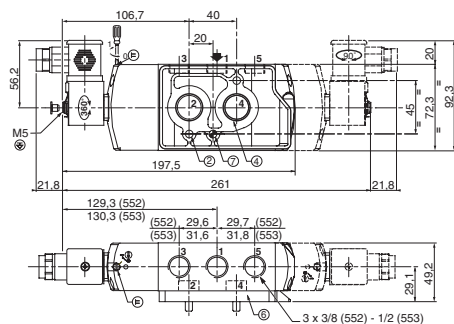
551A065/A065MS/A066/A066MS (W1 - W3)



TYPE 02

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

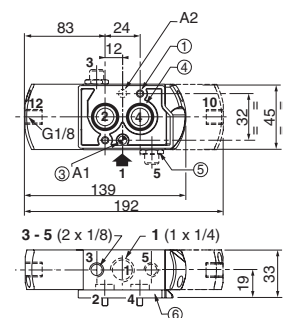
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552A065/A065MS/A066/A066MS
553A001/A001MS/A002/A002MS/
553A065/A065MS/A066/A066MS**



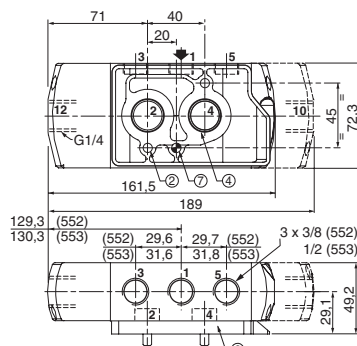
TYPE 03

No Prefix (suffix "GD")
Air operated version

G551A101/A102



G552A101/A102 /G553A101/A102



ORDERING EXAMPLES:

SC	G	551	A	001	MS	230V / 50 Hz
SC	G	551	A	001	SL	24V / DC
SC	G	552	A	002		115V / 50 Hz
		G	551	A	101	SL

prefix | pipe thread | basic number | voltage | suffix

- ① 2 mounting holes: 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
- ② 2 mounting holes: 6,5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm)
- ③ One 5 mm dia. hole for dowel pin:
- in position A1: 3/2 NC function plate
- in position A2: 5/2 function plate
- ④ 2 O-ring seals (supplied)
- ⑤ Exhaust reducer (G 1/8, 3/2 NC-5/2, series 551) or exhaust protector
- ⑥ Interface plate

weight ⁽²⁾ (kg)	type 01		type 02		type 03		
	3/2-5/2	5/3	552	553	551	552	553
monost.	0,34	-	0,91	0,90	0,31	0,86	0,85
bistable	0,46	0,45	1,21	1,20	0,41	1,12	1,11

⁽²⁾ Including coil and connector.