

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)

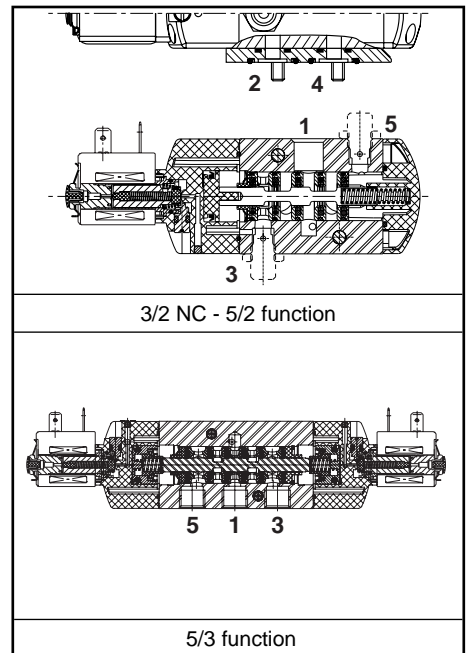
AC (-): 24V - 48V - 115V - 230V / 50 Hz

prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type ⁽¹⁾
	inrush	holding		hot/cold		~	=	
	(VA)	(VA)	(W)	(W)		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".

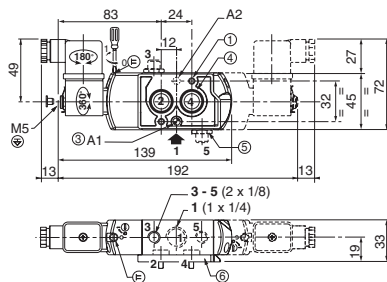
DIMENSIONS (mm), WEIGHT (kg)



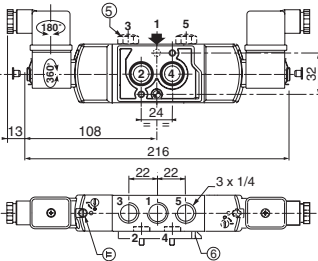
TYPE 01

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

551A001/A001MS/A001SL/A002/A002MS



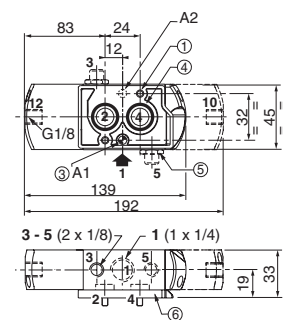
551A065/A065MS/A066/A066MS (W1 - W3)



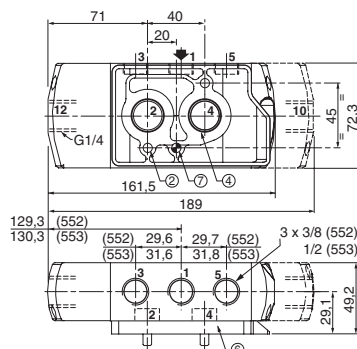
TYPE 03

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

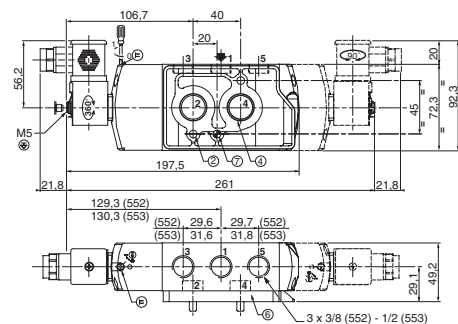
Diagram showing the breakdown of the part number into: prefix, pipe thread, basic number, voltage, and suffix.



TYPE 02

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

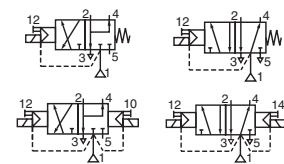
**552A001/A001MS/A002/A002MS/
552A065/A065MS/A066/A066MS
553A001/A001MS/A002/A002MS/
553A065/A065MS/A066/A066MS**



- 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.



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 function 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)
- Solenoid pilot valve with spade-plug connector type DIN 43650, industry standard, form B with 9,4 mm spacing, or to ISO 15217/DIN 43650 form C with 8 mm spacing. Versions with M12 connector and cable ends
- Solenoid pilot valve, CNOMO size 15 interface, with or without integral LED and electrical protection. LED indicator visible from 3 sides
- 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

Pilot mounting interface surface ISO 15218 (CNOMO E06.36.120N, size 15)

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, filtered	- 25°C to + 40°C	NBR (nitrile) + PUR (polyurethane)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified
CNOMO size 15 solenoid (pilot) interface

Body	Aluminium, black anodized
End cover (spring)	Glass-filled polyamide
Interface plates	Glass-filled polyamide
Spool valve internal parts	Zamak, st. steel, POM, aluminium
Pilot body	PAA
Pilot internal parts	POM, PET, stainless steel and brass
Pneumatic interface seal	TPE

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector (types 05/06)	Spade plug (cable Ø 6 - 7 mm)
Connector specification	Type 05: DIN 43650, 9,4 mm, industry standard B Type 06: ISO 15217 / DIN 43650, 8 mm, form C Type 07: M12 (CNOMO E03.62.520.N) Type 08: cable ends (length 0,3 m), EN 60730 IEC 335
Connection	Moulded IP65 [05/06] or IP67 [07/08] (EN 61729)
Electrical safety	DC (=): 24V
Electrical enclosure protection	AC (~): 24V-115V-230V / 50 Hz (prefixes CFSC/CFSD)
Standard voltages	(Other voltages and 60 Hz on request)

prefix option	power ratings				operator ambient temperature ranges (TS) (C°)	voltage		type ⁽¹⁾
	inrush	holding		hot/cold		~	=	
	~	~	=	=		(V)	(V)	
CFSC CFSD	1,4	1,2	1,1	1/1,2	-25 to + 60	24-115	24	05-06
	2,1	1,6	1,5	-	-25 to + 60	230	-	
	1,8 ⁽²⁾	1,6 ⁽²⁾	1,5 ⁽²⁾	1,15/1,35 ⁽²⁾	-25 to + 60	24-115	24	
	2,5 ⁽²⁾	2 ⁽²⁾	1,9 ⁽²⁾	-	-25 to + 50	230	-	
CFVT ⁽³⁾	-	-	-	1,15/1,35	-25 to + 60	-	24	07
CFL ⁽³⁾	-	-	-	-	-	-	-	08

(1) Refer to the dimensional drawings on the following page.
(2) Values with LED indicator and protection, use TPL 21674.
(3) Supplied with LED indicator and protection.

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			power coil (W)		catalogue number				options	
									connector DIN 43650, 9,4 mm (type 05)	connector DIN 43650, 8 mm (type 06)	M12 (type 07)	cable ends (type 08)	maintained man. operator	impulse man. operator
(G)	(mm)	(m³/h)	(l/min)	min.	max. (PS)	air (*)	~	=	~	=	=	=		
3/2 NC - 5/2 - Solenoid air pilot operated - spring return (monostable)														
1/4	6	0,6	10	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C501	CFSDG551C501	-	-	MS/MO	-
							-	1,35	-	-	CFVTG551C501	CFLG551C501	MS/MO	-
3/8	12	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG552A501	CFSDG552A501	-	-	MS/MO	-
							-	1,35	-	-	CFVTG552A501	CFLG552A501	MS/MO	-
1/2	13	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG553A501	CFSDG553A501	-	-	MS/MO	-
							-	1,35	-	-	CFVTG553A501	CFLG553A501	MS/MO	-

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)			power coil (W)		catalogue number				options		
				min.	max. (PS)				connector DIN 43650, 9,4 mm (type 05)	connector DIN 43650, 8 mm (type 06)	M12 (type 07)	cable ends (type 08)	maintained man. operator	impulse man. operator	
					air (*)										
(G)	(mm)	(m³/h)	(l/min)	~	=	~	=	~/=	~/=	=	=				
3/2 NC - 5/2 - Solenoid air pilot operated and return (bistable)															
1/4	6	0,6	10	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C502	CFSDG551C502	-	-	MS	MO	-
							-	1,35	-	-	CFVTG551C502	CFLG551C502	MS	MO	-
3/8	12	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG552A502	CFSDG552A502	-	-	MS	MO	-
							-	1,35	-	-	CFVTG552A502	CFLG552A502	MS	MO	-
1/2	13	2,49	41,5	2	10	10	1,3/1,5	1,2/1,35	CFSCG553A502	CFSDG553A502	-	-	MS	MO	-
							-	1,35	-	-	CFVTG553A502	CFLG553A502	MS	MO	-
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	1,1..1,9	1,2/1,35	CFSCG551C501SL	CFSDG551C501SL	-	-	-	MO	-
							-	1,35	-	-	CFVTG551C501SL	CFLG551C501SL	-	MO	-

OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3, to ATEX Directive 94/9/EC (see "Explosionproof Solenoids" section)
- LED and protection, prefixes CFSC / CFSD, use TPL number: TPL 20674 (e.g.: CFSDXG551C505**TPL20674**)
- Straight M12 connector: cable entry Ø4 to 6 mm (catalogue number **88100304**); with 2 m cable length (catalogue number **88100726**); with 5 m cable length (catalogue number **88130212**)
- 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 **97802212**
- Set of two G 1/8 exhaust reducers, catalogue number **88100344**
- 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
- 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

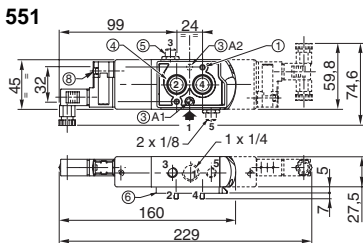
series	pipe size	exhaust protector (stainless steel)
551	G 1/8	34600418 ⁽¹⁾
552	G 3/8	34600478
553	G 1/2	34600479
551-552-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL".

DIMENSIONS (mm), WEIGHT (kg)



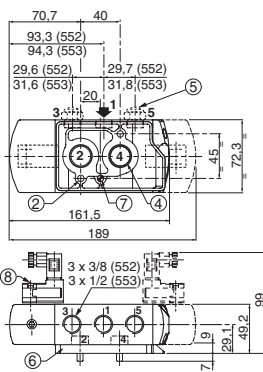
TYPE 05-06
Prefixes "CFSC" / "CFSD"
Polyarilamide
IEC 335 / IP65
Type 05: DIN 43650, 9,4 mm
Type 06: DIN 43650, 8 mm



2 mounting holes:

- 1 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)
- 2 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, series 551) or exhaust protector
- 6 Interface plate
- 7 One 6,5 mm dia. hole for dowel pin, position for 3/2 NC or 5/2 function plate
- 8 Manual operator location

552 - 553



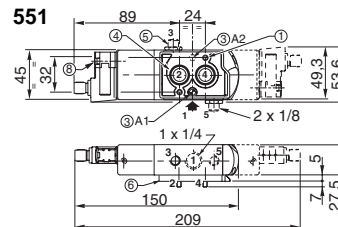
ORDERING EXAMPLES:

CFSC	G	551	C	501	230V / 50 Hz
CFSD	G	551	C	501	SL 115V / 50 Hz
CFVT	G	552	A	502	MS 24V / DC
CFL	G	551	C	502	SLMO 230V / 50 Hz

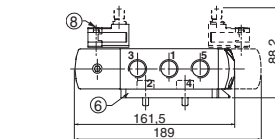
prefix — pipe thread — basic number — voltage — suffix



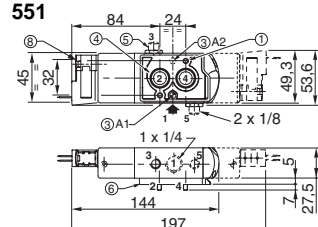
TYPE 07
Prefix "CFVT"
Polyarilamide
IEC 335 / IP67
M12



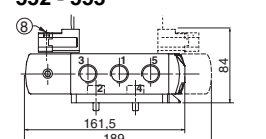
552 - 553



TYPE 08
Prefix "CFL"
Polyarilamide
IEC 335 / IP67
Cable ends 0,3 m



552 - 553



type	prefix option	weight ⁽¹⁾					
		monostable			bistable		
05	CFSC	0,34	1,1	1	0,39	2,18	2,08
06	CFSD	0,34	1,1	1	0,39	2,18	2,08
07	CFVT	0,34	1,1	1	0,39	2,18	2,08
08	CFL	0,33	1,09	0,99	0,38	2,16	2,06

⁽¹⁾ Prefixes CFSC/CFSD: including connector(s).

All leaflets are available on: www.ascojoucomatic.com