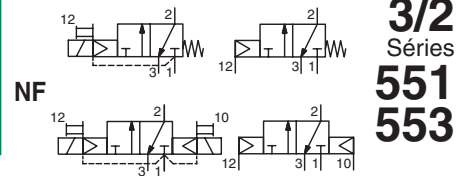




SPOOL VALVES

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



3/2
Séries
551
553

FEATURES

- All the exhaust ports of the 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 in conformity with IEC 61508 Standard (2010 route 2_H version) have TÜV (551 series) and EXIDA (551-553 series) certified with integrity levels: SIL 2 for HFT = 0 / SIL 3 for HFT = 1
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure	2 - 10,4 bar [1 bar = 100 kPa]				
Flow (Qv at 6 bar)	l/min (ANR)				
	<table border="1" style="display: inline-table; border-collapse: collapse;"> <tr> <td style="padding: 2px 10px;">1/4</td> <td style="padding: 2px 10px;">1/2</td> </tr> <tr> <td style="padding: 2px 10px;">860</td> <td style="padding: 2px 10px;">3800</td> </tr> </table>	1/4	1/2	860	3800
1/4	1/2				
860	3800				

fluids (*)	temperature range (TS)	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

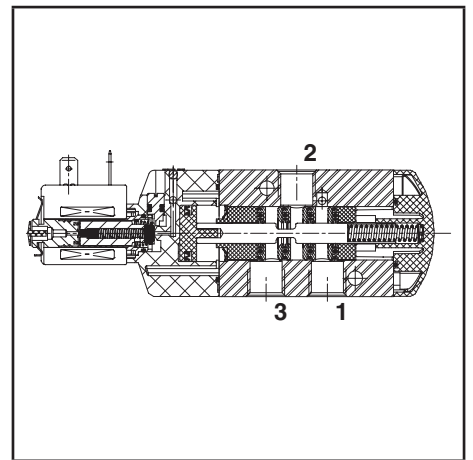
Body, end cover	Aluminium, black anodized
End cover (spring return)	Glass fibre filled PA
Spool valve internal parts	Zamak, stainless steel, POM, aluminium
Seals	NBR + PUR
Core tube	Brass
Core and plugnut	Stainless steel
Shading coil	Copper

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector	Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification	EN 175301-803, 11 mm, industry standard form B (type 01) or ISO 4400 / EN 175301-803, form A (type 02)
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 ~ (VA)	holding ~ (VA) (W)		hot/cold = (W)		~	=	
SC	6	3,5	2,5	2,5 / 3	-25 to + 60	400127-097	400904-542	01
SC	15	7	5	4 / 5	-25 to + 60	400727-117	400727-185	02

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



SPECIFICATIONS

[Configurator - CAD Files](#)

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)					maintained	man.	operator
					air (*)							
G		~	=	~	=	~	=	~/=				
NC - Normally closed, solenoid air pilot operated - spring return (monostable)												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A005	MS	-	-
1/2	13	3,15	52,5	2	10	10	5	5	SCG553A005	MS	-	-
NC - Normally closed, solenoid air pilot operated and return (bistable)												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A006	MS	-	-
1/2	13	3,15	52,5	2	10	10	5	5	SCG553A006	MS	-	-
NC - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A005SL	-	-	-
1/2	13	3,15	52,5	2	10	10	5	5	SCG553A005SL	-	-	-

AIR OPERATED AND OPTIONS

- Versions (Type 03): - pilot air operated, spring return, catalogue numbers: **G551A105 / G551A105SL** (1/4); **G553A105 / G553A105SL** (1/2)
- pilot air operated and return, catalogue numbers: **G551A106** (1/4); **G553A106** (1/2)
- Suffix “**MF**” (air operated only, low temperature version, -40°C)
- Suffix “**GD**” (air operated only, ATEX 2GD c)
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see “Explosionproof solenoids” section)
- [Supply rail](#)
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The valves can be mounted in any position without affecting operation
- Do not connect the pressure supply to the exhaust port 3. The “environmentally-protected” construction is not adapted for a “distributing” function or use in NO function. Contact us for functions available in specific versions
- 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). Check temperature range of valve body and solenoid for suitability. 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	34600419 ⁽¹⁾
553	G 1/2	34600479 ⁽¹⁾
551-553	M5	34600484 ⁽¹⁾

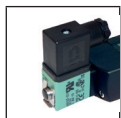
⁽¹⁾ Supplied with suffix “SL”.

ORDERING EXAMPLES:

SC	G	551	A	005	MS	230V / 50 Hz
SC	G	551	A	005	SL	24V / DC
SC	G	553	A	006		115V / 50 Hz
	G	551	A	105	SL	

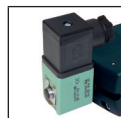
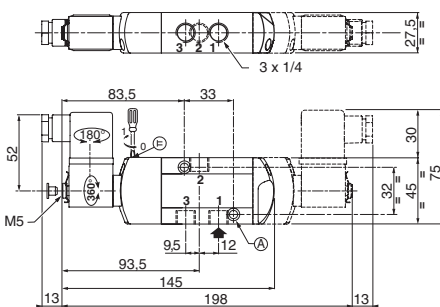
prefix — pipe thread — basic number — voltage — suffix

DIMENSIONS (mm), WEIGHT (kg)



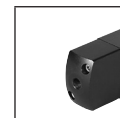
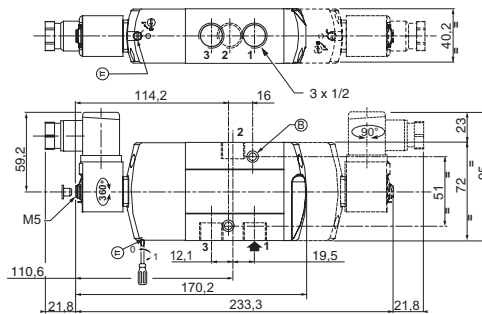
TYPE 01
Prefix “SC” Solenoid
Epoxy moulded
IEC 335 / DIN 43650
IP65

551A005 / A005MS / A005SL / A006 / A006MS



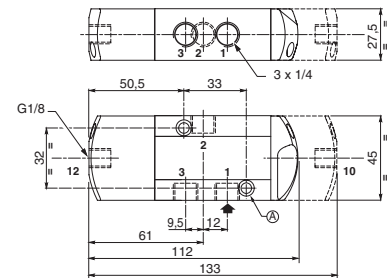
TYPE 02
Prefix “SC” Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

553A005 / A005MS / A006 / A006MS

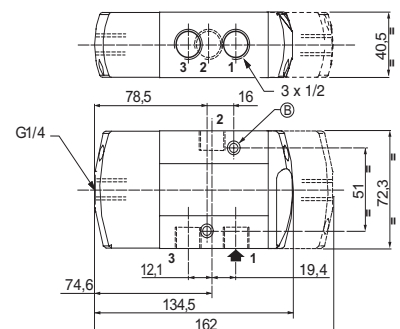


TYPE 03
No Prefix
Air operated version

551A105 / A105SL / A106



553A105 / A105SL / A106



2 mounting holes:

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

type	prefix option	weight	
		monostable	bistable
01 (551)	SC	0,35 ⁽²⁾	0,43 ⁽²⁾
02 (553)	SC	0,69 ⁽²⁾	0,99 ⁽²⁾
03 (551)	-	0,28	0,36
03 (553)	-	0,80	1,06

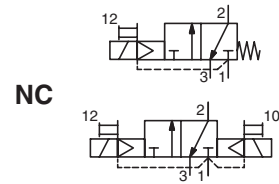
⁽²⁾Incl. coil(s) and connector(s).

[Configurator - CAD Files](#)



SOLENOID VALVES

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



3/2
Series
551
553

FEATURES

- All the exhaust ports of the 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 EN 175301-803, industry standard form C, with 9,4 mm spacing. Versions with M12 connection
- 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 in conformity with IEC 61508 Standard (2010 route 2_H version) have TÜV (551 series) and EXIDA (551-553 series) certified with integrity levels: SIL 2 for HFT = 0 / SIL 3 for HFT = 1
- The solenoid valves satisfy all relevant EU directives

GENERAL

Differential pressure 2 - 10,4 bar [1 bar = 100 kPa]
Flow (Qv at 6 bar) l/min (ANR)

1/4	1/2
860	3800

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

Body, end cover	Aluminium, black anodized
End cover (spring)	Glass fibre filled PA
Spool valve internal parts	Zamak, stainless steel, POM, aluminium
Pilot body	PARA
Pilot internal parts	POM, PET, stainless steel and brass
Pneumatic interface seal	TPE

ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector (type 05)	Spade plug (cable Ø 4-6 mm)
Connector specification	Type 05: DIN 43650, 9,4 mm, form C
Connection	Type 07: M12 (CNOMO E03.62.520.N)
Electrical safety	IEC 335
Electrical enclosure protection	Moulded IP65 [05] or IP67 [07] (EN 60529)
Standard voltages	DC (=): 24V
(Other voltages and 60 Hz on request)	AC (~): 24V-115V-230V / 50 Hz (prefix CFSC)

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

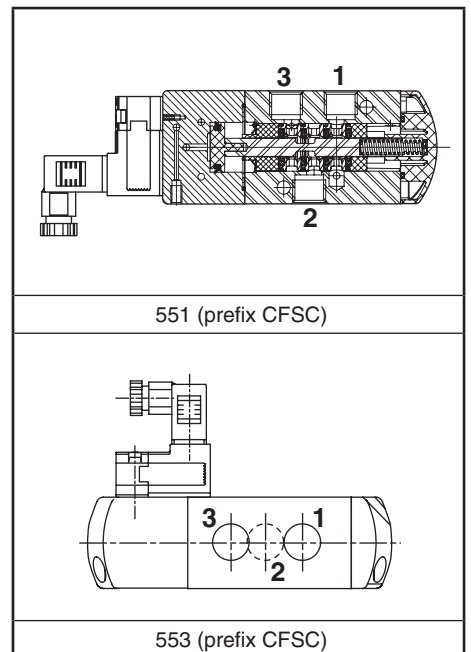
⁽¹⁾ Refer to the dimensional drawings on the following page.
⁽²⁾ Values with LED indicator and protection, use TPL 20674.

⁽³⁾ Supplied with LED indicator and protection.

SPECIFICATIONS

[Configurator - CAD Files](#)

pipe size	orifice size (mm)	flow coefficient Kv (m³/h) (l/min)		operating pressure differential (bar)			power coil (W)		catalogue number		options		
									connector EN 175301-803 (9,4 mm) (type 05)		M12 (type 07)		maintained man. operator
				min.	max. (PS) air (*)	~			=	~	=	~/=	
NC - Normally closed, solenoid air pilot operated - spring return (monostable)													
1/4	6	0,75	12,5	2	10	10	1,1..1,5	1,2	CFSCG551C505	-	MS	MO	-
							-	1,35	-	CFVTG551C505	MS	MO	-
1/2	13	3,15	52,5	2	10	10	1,1..1,5	1,2	CFSCG553A505	-	MS	MO	-
							-	1,35	-	CFVTG553A505	MS	MO	-
NC - Normally closed, solenoid air pilot operated and return (bistable)													
1/4	6	0,75	12,5	2	10	10	1,1..1,5	1,2	CFSCG551C506	-	MS	MO	-
							-	1,35	-	CFVTG551C506	MS	MO	-
1/2	13	3,15	52,5	2	10	10	1,1..1,5	1,2	CFSCG553A506	-	MS	MO	-
							-	1,35	-	CFVTG553A506	MS	MO	-



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SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)				power coil (W)		catalogue number		options	
				min.	max. (PS)		connector EN 175301-803 (9,4 mm) (type 05)			M12 (type 07)	maintained man. operator	impulse man. operator	
					air (*)								=
G	(mm)	(m³/h)	(l/min)	~	=		~	=	-/=	=			
NC - Solenoid air pilot operated - spring return (monostable), certified IEC 61508 Functional Safety data													
1/4	6	0,75	12,5	2	10	10	1,1..1,5	1,2	CFSCG551C505SL	-	-	MO	-
							-	1,35	-	CFVTG551C505SL	-	MO	-
1/2	13	3,15	52,5	2	10	10	1,1..1,5	1,2	CFSCG553A505SL	-	-	MO	-
							-	1,35	-	CFVTG553A505SL	-	MO	-

OPTIONS

- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section)
- LED and protection, prefix CFSC, use TPL number: TPL 20674 (e.g.: CFSCXG551C505TPL20674)
- Straight M12 connector: with 5 m cable length (catalogue number **88130212**)
- Supply rail
- Versions with spade-plug connector type ISO 15217/DIN 43650 form C with 8 mm spacing or with cable ends: contact us
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

INSTALLATION

- The valves can be mounted in any position without affecting operation
- Do not connect the pressure supply to the exhaust port 3. The "environmentally-protected" construction is not adapted for a "distributing" function or use in NO function. Contact us for functions available in specific versions
- 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). Check temperature range of valve body and solenoid for suitability. For probability of failure, contact us
- Threaded pipe connection is standard: 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 1/4	34600419 ⁽¹⁾
553	G 1/2	34600479 ⁽¹⁾
551-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL".

ORDERING EXAMPLES:

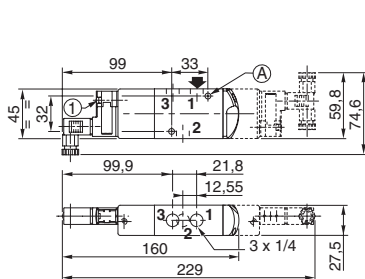
CFSC	G	551	C	505	230V / 50 Hz	
CFSC	G	551	C	505	SL	115V / 50 Hz
CFVT	G	553	A	506	MS	24V / DC
CFSC	G	553	A	505	SLMO	230V / 50 Hz

prefix — pipe thread — basic number — voltage — suffix

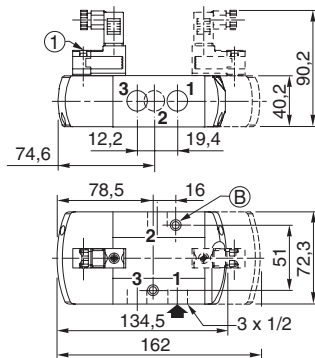
DIMENSIONS (mm), WEIGHT (kg)

TYPE 05
Prefix "CFSC"
Polyaramide
IEC 335 / IP65
DIN 43650, 9,4 mm

551

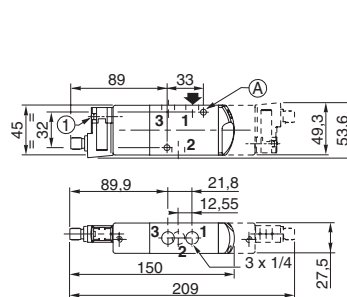


553

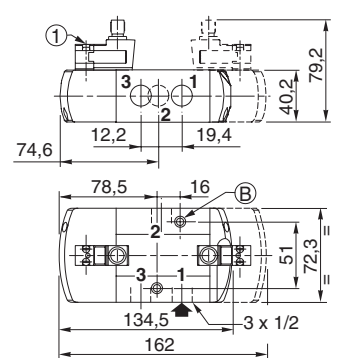


TYPE 07
Prefix "CFVT"
Polyaramide
IEC 335 / IP67
M12

551



553



type	prefix option	weight ⁽²⁾			
		monostable		bistable	
		551	553	551	553
05	CFSC	0,33	1,03	0,46	2,08
07	CFVT	0,35	1,04	0,5	2,12

- ① Manual operator location
- 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)

⁽²⁾ Prefix CFSC: including connector(s).

All leaflets are available on: www.asco.com