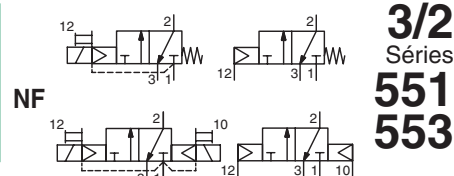




SPOOL VALVES

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



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)

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)	replacement coil		type ⁽¹⁾
	inrush ~	holding ~		hot/cold =		~	=	
		(VA)	(W)					
		(VA)	(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	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)		~	=	~	=	~/=			
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	-	-	-

All leaflets are available on: www.asco.com

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 “**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 (www.asco.com)
- Supply rail (www.asco.com)
- Other pipe connections are available on request
- Connector with visual indication and peak voltage suppression or with cable length of 2 m (www.asco.com)

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 ———

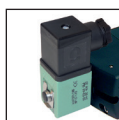
DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

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

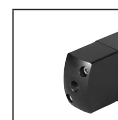
551A005 / A005MS / A005SL / A006 / A006MS



TYPE 02

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

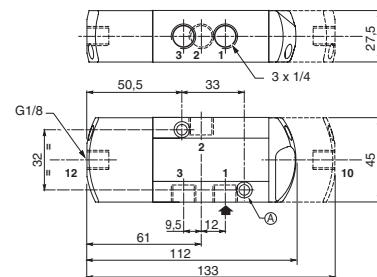
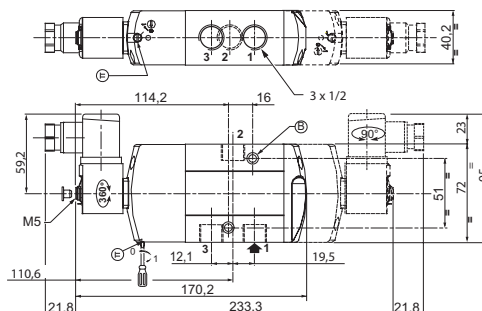
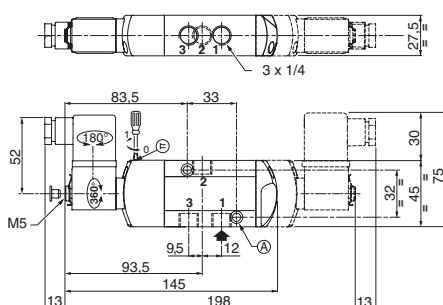
553A005 / A005MS / A006 / A006MS



TYPE 03

No Prefix
Air operated version

551A105 / A105SL / A106

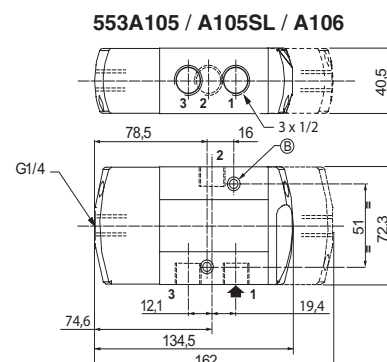


2 mounting holes:

- (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	
		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

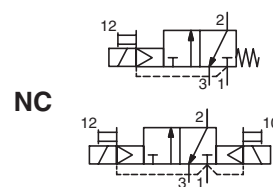
(2) Incl. coil(s) and connector(s).





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)	voltage		type ⁽¹⁾
	inrush ~	holding ~		hot/cold =		~	=	
	(VA)	(VA)	(W)	(W)		(C°)	(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.

⁽³⁾ Supplied with LED indicator and protection.

⁽²⁾ Values with LED indicator and protection, use TPL 20674.

SPECIFICATIONS

[Configurator - CAD Files](#)

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 - 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	-

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)	voltage		type ⁽¹⁾
	inrush ~	holding ~		hot/cold =		~	=	
	(VA)	(VA)	(W)	(W)		(C°)	(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.

⁽³⁾ Supplied with LED indicator and protection.

⁽²⁾ Values with LED indicator and protection, use TPL 20674.

SPECIFICATIONS

[Configurator - CAD Files](#)

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 - 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	-	

All leaflets are available on: www.asco.com

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 0/20-1/21-2/22, categories 1-2-3 to ATEX-Directive 2014/34/EU (www.asco.com)
- 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 (www.asco.com)
- 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
- Connector with visual indication and peak voltage suppression or with cable length of 2 m (www.asco.com)

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:

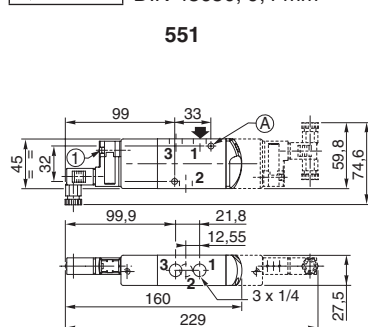
CFSC	G	551	C	505	230V / 50 Hz
CFSC	G	551	C	505	SL 115V / 50 Hz
CFVT	G	553	A	506	MS 24V / DC
CFSC	G	553	A	505	SLMO 230V / 50 Hz

prefix
pipe thread
basic number
voltage
suffix

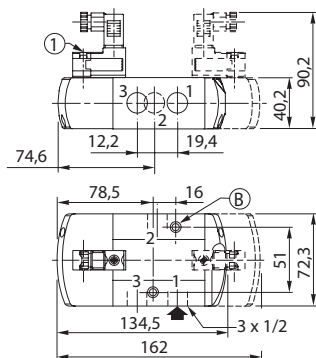
[Configurator - CAD Files](#)

DIMENSIONS (mm), WEIGHT (kg)

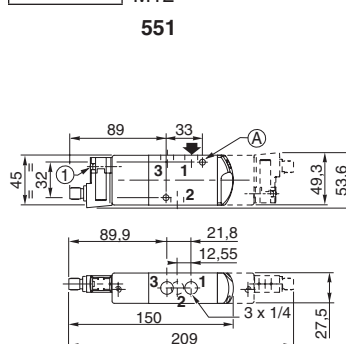
TYPE 05
Prefix "CFSC"
Polyarilamide
IEC 335 / IP65
DIN 43650, 9,4 mm



553

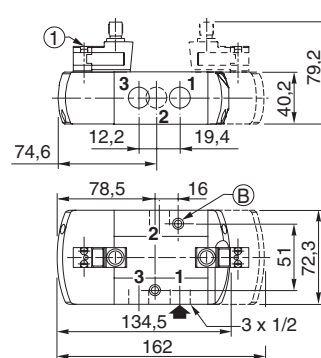


TYPE 07
Prefix "CFVT"
Polyarilamide
IEC 335 / IP67
M12



551

553



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

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

- 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)

All leaflets are available on: www.asco.com