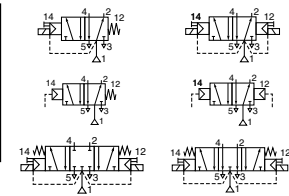




SPOOL VALVES

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



5/2-5/3
Series
551
552
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 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 (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 and core tube	Stainless steel
Shading coil	Copper

ELECTRICAL CHARACTERISTICS

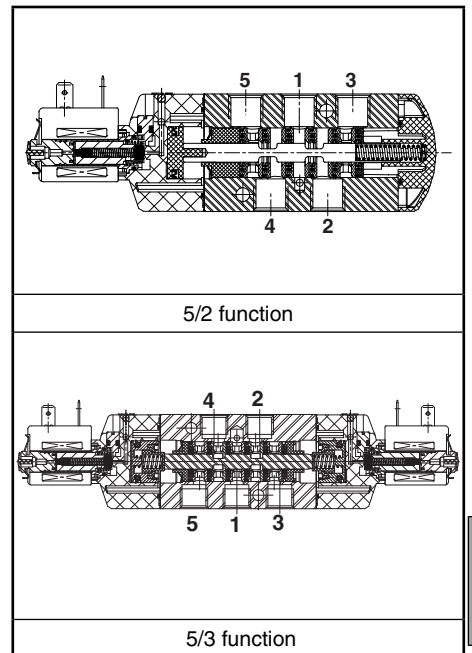
Coil insulation class	F
Connector	Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)
Connector specification	DIN 43650, 11 mm, industry standard B (type 01) or ISO 4400 / EN 175301-803, form A (type 02)
Electrical safety	IEC 335
Electrical enclosure protection	Moulded IP65 (EN 60529)
Standard voltages	DC (=) : 24V - 48V 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	
G	(mm)	(m³/h)	(l/min)		air (*)	~	=	~/=				
5/2 - Solenoid air pilot operated - spring return (monostable)												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A017	MS	-	-
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A017	MS	-	-
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A017	MS	-	-
5/2 - Solenoid air pilot operated and return (bistable)												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A018	MS	-	-
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A018	MS	-	-
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A018	MS	-	-
5/3 - W1 - pressure held, solenoid air pilot operated and return												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A067	MS	-	-
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A067	MS	-	-
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A067	MS	-	-
5/3 - W3 - pressure release, solenoid air pilot operated and return												
1/4	6	0,75	12,5	2	10	10	2,5	3	SCG551A068	MS	-	-
3/8	12	2,49	41,5	2	10	10	5	6,9	SCG552A068	MS	-	-
1/2	13	3,15	52,5	2	10	10	5	6,9	SCG553A068	MS	-	-
5/2 - 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	SCG551A017SL	-	-	-



G

AIR OPERATED AND OPTIONS

- Versions: - pilot air operated, spring return, catalogue numbers: **G551A117** (1/4); **G552A117** (3/8); **G553A117** (1/2)
- pilot air operated and return, catalogue numbers: **G551A118** (1/4); **G552A118** (3/8); **G553A118** (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
- 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
- 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
- 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	34600419 ⁽¹⁾
552	G 3/8	34600478
553	G 1/2	34600479
551-552-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL"

ORDERING EXAMPLES:

SC	G	551	A	017	MS	230V / 50 Hz
SC	G	551	A	017	SL	24V / DC
SC	G	552	A	018		115V / 50 Hz
	G	551	A	117	SL	

prefix: SC, pipe thread: G, basic number: 551, voltage: 230V / 50 Hz, suffix: MS, SL

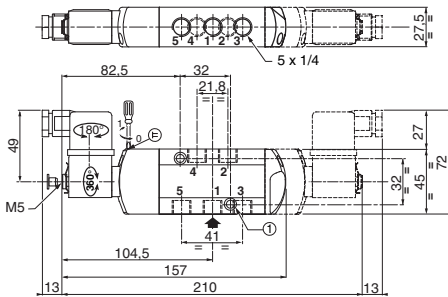
DIMENSIONS (mm), WEIGHT (kg)



TYPE 01

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

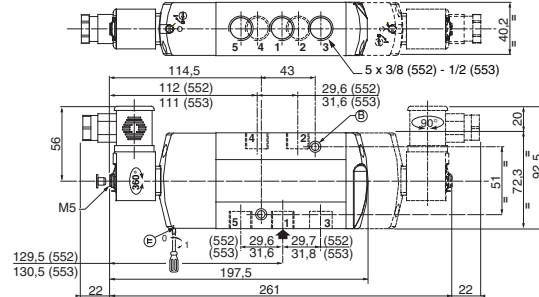
551A017 / A017 MS / A017 SL / A018 / A018 MS
551A067 / A067 MS / A068 / A068 MS



TYPE 02

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

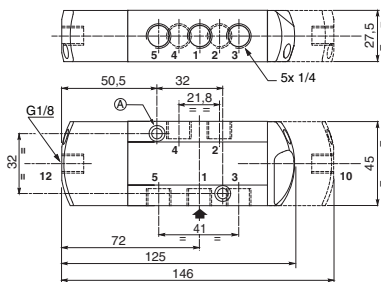
552A017/A017 MS/A018/A018 MS/A067/A067 MS/A068/A068 MS
553A017/A017 MS/A018/A018 MS/A067/A067 MS/A068/A068 MS



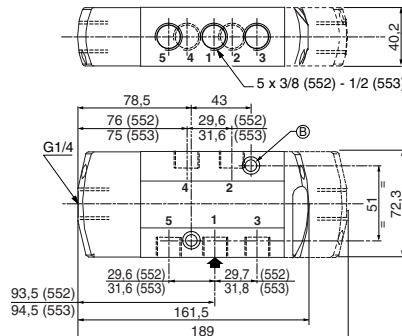
TYPE 03

No prefix
Air operated version

551A117/A117SL/A118



552A117/A118
553A117/A118



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)

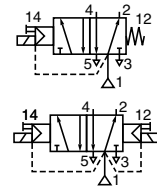
type	prefix option	weight ⁽¹⁾		
		monostable.	bistable	W1-W3
01 (551)	SC	0,48	0,60	0,60
02 (552)	SC	0,85	1,15	1,15
02 (553)	SC	0,84	1,14	1,14
03 (551)	-	0,32	0,40	0,40
03 (552)	-	0,80	1,25	1,25
03 (553)	-	0,79	1,24	1,24

⁽¹⁾ Incl. coil(s) and connector(s).



SOLENOID VALVES

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



5/2
Series
551
552
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 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
- The 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
860	3000	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	Aluminium, black anodized
End cover (spring)	Glass fibre filled PA
Spool valve internal parts	Zamak, stainless steel, POM, aluminium
Pilot body	PAA
Pilot internal parts	POM, PET, stainless steel and brass
Pneumatic interface seal	TPE

ELECTRICAL CHARACTERISTICS

Coil insulation class

Connector (type 05/06)

Connector specification

F
Spade plug (cable Ø 6-7 mm)
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

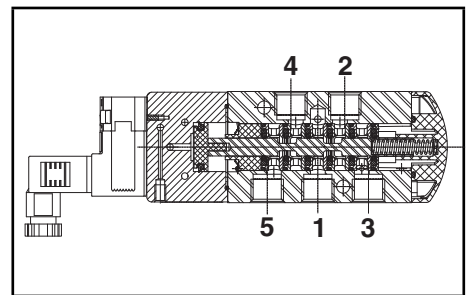
Electrical safety

Electrical enclosure protection

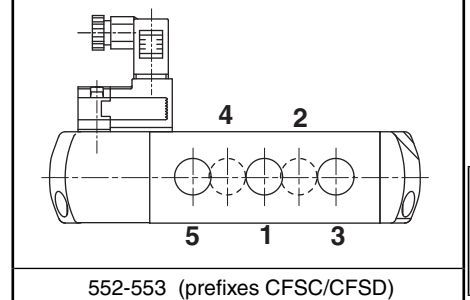
Standard voltages

(Other voltages and 60 Hz on request)

Moulded IP65 [05/06] or IP67 [07/08] (EN 60529)
DC (=): 24V
AC (~): 24V-115V-230V / 50 Hz (prefixes CFSC/CFSD)



551 (prefixes CFSC/CFSD)



552-553 (prefixes CFSC/CFSD)

prefix option	power ratings				operator ambient temperature range (TS) (C°)	voltage		type (1)
	inrush ~ (VA)	holding ~ (VA) (W)		hot/cold = (W)		~ (V)	= (V)	
		1,1	1,1					
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 20674.

(3) Supplied with LED indicator and protection.

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)		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			
				~	=								~	=	
5/2 - Solenoid air pilot operated - spring return (monostable)															
1/4	6	0,75	12,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C517	CFSDG551C517	-	-	MS	MO	-
							-	1,35	-	-	CFVTG551C517	CFLG551C517	MS	MO	-
3/8	12	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG552A517	CFSDG552A517	-	-	MS	MO	-
							-	1,35	-	-	CFVTG552A517	CFLG552A517	MS	MO	-
1/2	13	3,15	52,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG553A517	CFSDG553A517	-	-	MS	MO	-
							-	1,35	-	-	CFVTG553A517	CFLG553A517	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 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)	(m ³ /h)/(l/min)													
5/2 - Solenoid air pilot operated and return (bistable)															
1/4	6	0,75	12,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG551C518	CFSDG551C518	-	-	MS	MO	-
							-	1,35	-	-	CFVTG551C518	CFLG551C518	MS	MO	-
3/8	12	2,49	41,5	2	10	10	1,1..1,9	1,2/1,35	CFSCG552A518	CFSDG552A518	-	-	MS	MO	-
							-	1,35	-	-	CFVTG552A518	CFLG552A518	MS	MO	-
1/2	13	3,15	52,5	2	10	10	1,3/1,5	1,2/1,35	CFSCG553A518	CFSDG553A518	-	-	MS	MO	-
							-	1,35	-	-	CFVTG553A518	CFLG553A518	MS	MO	-
5/2 - 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..1,9	1,2/1,35	CFSCG551C517SL	CFSDG551C517SL	-	-	-	MO	-
							-	1,35	-	-	CFVTG551C517SL	CFLG551C517SL	-	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.: CFSDXG551C505TPL20674)
- 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**)
- 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
- 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
- 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⁾
552	G 3/8	34600478
553	G 1/2	34600479
551-552-553	M5	34600484 ⁽¹⁾

⁽¹⁾ Supplied with suffix "SL"

ORDERING EXAMPLES:

CFSC	G	551	C	517	230V / 50 Hz
CFSD	G	551	C	517	SL 115V / 50 Hz
CFVT	G	552	A	518	MS 24V / DC
CFL	G	551	C	518	SLMO 230V / 50 Hz

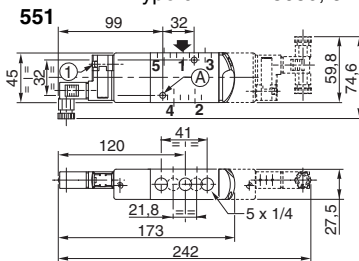
prefix _____ voltage _____
 pipe thread _____
 basic number _____ suffix _____

DIMENSIONS (mm), WEIGHT (kg)



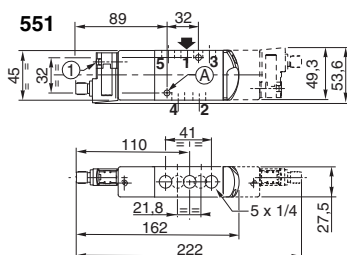
TYPE 05-06

Prefixes "CFSC" / "CFSD"
Polyarilamide
IEC 335 / IP65
Type 01: DIN 43650, 9,4 mm
Type 02: DIN 43650, 8 mm



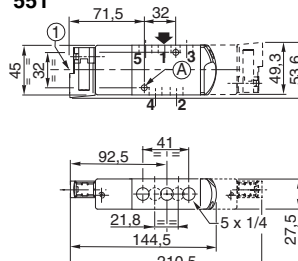
TYPE 07

Prefix "CFVT"
Polyarilamide
IEC 335 / IP67
M12



TYPE 08

Prefix "CFL"
Polyarilamide
IEC 335 / IP67
Cable ends (length 0,3 m)



① Manual operator location
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 ⁽²⁾					
		monostable			bistable		
		551	552	553	551	552	553
05	CFSC	0,36	1,1	1	0,41	2,18	2,08
06	CFSD	0,36	1,1	1	0,41	2,18	2,08
07	CFVT	0,36	1,1	1	0,41	2,18	2,08
08	CFL	0,35	1,09	0,99	0,39	2,17	2,06

⁽²⁾ Prefixes CFSC/CFSD: including connector(s).