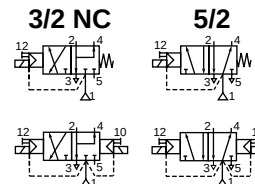


ASCO®

SOLENOID VALVES

pilot operated, spool type
single/dual solenoid (mono/bistable function)
stainless steel body, NAMUR, 1/4


3/2-5/2
Series
551

FEATURES

- The monostable spool valves, series 551, have TÜV certified IEC 61508 Functional Safety data and can be used up to SIL 4/AK 7
- 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 valve offers environmental protection against the ingress of liquids, dusts or any other foreign matter (environmentally-protected construction)
- Can be externally piloted (external air pilot supply) to convert valve to zero minimum operation by flipping a gasket
- The solenoid valves satisfy all relevant EC Directives

GENERAL

Differential pressure 2 - 10 bar [1 bar =100 kPa]

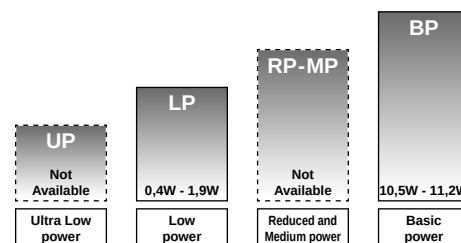
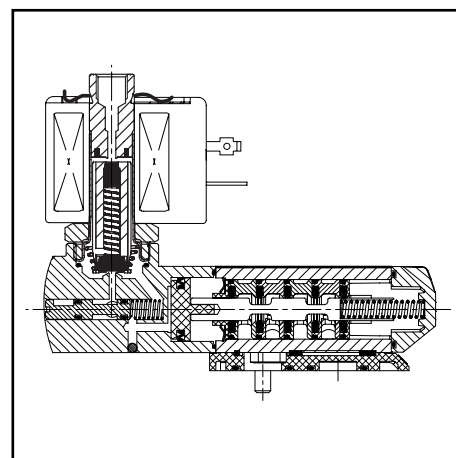
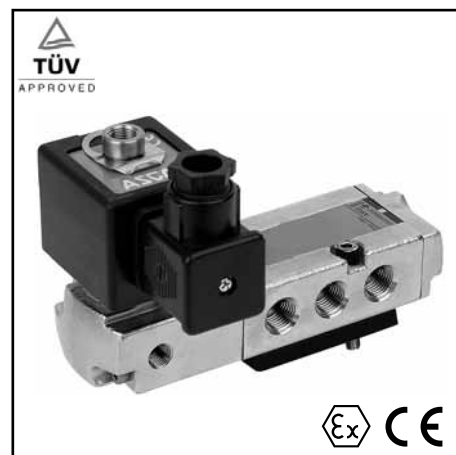
Flow (Qv at 6 bar) 700 l/min (ANR)

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, filtered	- 40°C to + 60°C	VMQ (silicone) + PUR (polyurethane)

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body, end covers	Stainless steel, AISI 316L
Interface plates	Glass-filled PA
Spool valve internal parts	Stainless steel, POM
Core tube	Stainless steel
Core and plugnut	Stainless steel
Core spring	Stainless steel
Seals & discs	NBR
Top disc	FPM
Disc holder	POM
Cartridge (Low power)	Welded, packless AISI 430
Seat	Stainless steel
Seat insert	POM
Shading coil	Copper
Rider ring (Low power)	PTFE



POWER LEVELS - cold electrical holding values (watt)

SPECIFICATIONS

pipe size	orifice size	flow coefficient kv		operating pressure differential (bar)		power level	prefix optional solenoids										basic catalogue number
				min. ⁽²⁾	max. (PS)		NEMA 7 & 9	ATEX/CENELEC (gas/dust)						IP65			
					air (★)			EEx d	EEx em	EEx m	EEx i	EEx n					
(✱)	(mm)	(m³/h)	(l/min)		~	=	~/=	EF	NF	NK	EM	PV	IS	ZN	SC		
Solenoid air pilot operated - spring return (monostable)																	
1/4	6	0,60	10	0 / 2	10	10	BP	-	●	●	●	●	-	●	●	❖551A409 ⁽¹⁾	
1/4	6	0,60	10	0 / 2	10	10	BP	●	-	-	-	-	-	-	-	❖551G409 ⁽¹⁾	
1/4	6	0,60	10	0 / 2	10	10	LP	-	●	-	●	○	○	○	●	❖551A309 ⁽¹⁾	
1/4	6	0,60	10	0 / 2	10	10	LP	○	-	-	-	-	-	-	-	❖551G309 ⁽¹⁾	
Solenoid air pilot operated and return (bistable)																	
1/4	6	0,60	10	0 / 2	10	10	BP	-	●	●	●	●	-	●	●	❖551A410	
1/4	6	0,60	10	0 / 2	10	10	BP	●	-	-	-	-	-	-	-	❖551G410	
1/4	6	0,60	10	0 / 2	10	10	LP	-	●	-	●	○	○	○	●	❖551A310	
1/4	6	0,60	10	0 / 2	10	10	LP	○	-	-	-	-	-	-	-	❖551G310	

❖ Select 8 for NPT ANSI 1.20.3 or select G for ISO G (228/1) ● Available feature ○ Available feature in DC only

⁽¹⁾ Certified IEC 61508 Functional Safety data, use suffix "SL"

⁽²⁾ Zero minimum is only achieved if external pressure is applied

PREFIX TABLE

prefix							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
S	C			D	U		Dustproof ATEX (EN 50281-1-1) *	-	-	-	●
E	F						Explosionproof - NEMA 3, 4, 6, 7, 9	○	-	-	●
E	V						Explosionproof - NEMA 3, 4, 6, 7, 9 - 316 SS	○	-	-	●
E	M						Encapsulated ATEX (EN 50019 & EN 50028) *	●	-	-	●
		E	T				Threaded conduit/hole (M20 x 1.5)	●	-	-	●
I	S						Intrinsically safe with SC coil ATEX (EN 50020) *	○	-	-	-
N	F						Flameproof - Alum. ATEX (EN 50018) *	●	-	-	●
N	L						Flameproof - Cast Iron ATEX (EN 50018) *	●	-	-	●
N	K						Flameproof - Alum. ATEX (EN 50018) *	-	-	-	●
P	V						Encapsulated ATEX (EN 50028) *	○	-	-	●
S	C						Solenoid with spade plug connector (EN 60730)	●	-	-	●
W	P						Waterproof IP67 - Metal enclosure (EN 60730)	●	-	-	●
W	S						Waterproof IP67 - 316 SS enclosure (EN 60730)	●	-	-	●
W	S	E	M				316 SS "EM" enclosure ATEX (EN 50019 & EN 50020) *	●	-	-	●
W	P			D	U		Dustproof ATEX (EN 50281-1-1) - Metal enclosure *	-	-	-	●
W	S			D	U		Dustproof ATEX (EN 50281-1-1) - 316 SS enclosure *	-	-	-	●
W	P			I	S		I.S. with Metal IP67 enclosure ATEX (EN 50020) *	○	-	-	-
W	S			I	S		I.S. with Metal IP67- 316 SS enclosure ATEX (EN 50020) *	○	-	-	-
W	S	N	F				Flameproof - 316 SS ATEX (EN 50018) *	●	-	-	●
Z	N						Encapsulated Non Sparking ATEX (EN 50021) *	○	-	-	●
			T				Threaded conduit (1/2" NPT)	●	-	-	●
				H	T		Class H - High temperature, +80°C ambient temp.	-	-	-	●
						X	Other special constructions	●	-	-	●

PRODUCT SELECTION GUIDE

STEP 1

Select basic catalogue number, including pipe thread identification letter. Refer to the specifications table on page 1.

Example: G551A409

STEP 2

Select prefix (combination). Refer to the specifications table on page 1 and the prefix table on page 2, respect the indicated power level.

Example: EM

STEP 3

Select suffix if required. Refer to the suffix table, respect the indicated power level.

Example: MO

STEP 4

Select voltage. Refer to standard voltages on page 3.

Example: 230V / 50Hz

STEP 5

Final catalogue / ordering number.

Example:

EM G551A409MO 230 V / 50 Hz

SUFFIX TABLE

suffix							description	power level			
1	2	3	4	5	6	7		LP	RP	MP	BP
			M	O			Push type or screw type manual operator	○/●	-	-	●
S	L						Certified IEC 61508 Functional Safety data ⁽²⁾	○/●	-	-	●

OPTIONS & ACCESSORIES

series	pipe size	exhaust protector (stainless steel)
551	G 1/8	34600418 ⁽¹⁾
	NPT 1/8	34600482 ⁽¹⁾
	G 1/4	34600419 ⁽¹⁾
	NPT 1/4	34600483 ⁽¹⁾

● Available feature

○ Available feature in DC only

- Not available

* ATEX solenoids are also approved to EN 50281-1-1 (dust) and EN 13463-1 (non electrical valves)

⁽¹⁾ Provided with "SL" suffix

⁽²⁾ Not to use with MO suffix

ORDERING EXAMPLES:

SC	G	551	A	409		230V / 50 Hz
SC	G	551	A	409	SL	230V / 50 Hz
SC	G	551	A	410	MO	230V / 50 Hz
SCHT	8	551	A	410	MO	230V / 50 Hz
ISSC	G	551	A	410	MO	24V / DC
SC	8	551	A	409		230V / 50 Hz
WPIS	G	551	A	309		24V / DC
EM	8	551	A	409	MO	230V / 50 Hz
EF	G	551	G	409	MO	240V / 60 Hz

⁽³⁾ Prefix EF should always be used with the letter G in the basic number.

ELECTRICAL CHARACTERISTICS

Coil insulation class

F

Connector

Spade plug (cable Ø 6 - 10 mm)

Connector specification

ISO 4400

Electrical safety

IEC 335

Standard voltages

DC (=) 24V - 48V

AC (~) 24V - 48V - 115V - 230V/50Hz; other voltages and 60Hz are available on request

prefix option	power ratings				operator ambient temperature ranges (TS)	safety code	electrical enclosure protection (EN 60529)	replacement coil		type ⁽¹⁾
	inrush ~	holding ~		hot/cold =				~	=	
	(VA)	(VA)	(W)	(W)				(C°)	230 V/50 Hz	
Basic power (BP)										
SC	55	23	10,5	9/11,2	-40 to +75	EN 60730	moulded IP65	400425-117	400425-142	01
SCDU	55	23	10,5	9/11,2	-40 to +75	II 3D IP65 T 200°C(~/135°C(=)	moulded IP65	- ⁽³⁾	- ⁽³⁾	01
WP	55	23	10,5	9/11,2	-40 to +75	EN 60730	steel IP67	400405-117	400405-142	04
WPDU	55	23	10,5	9/11,2	-40 to +75	II 3D IP67 T 200°C	steel IP67	- ⁽³⁾	- ⁽³⁾	04
WS	55	23	10,5	9/11,2	-40 to +75	EN 60730	st. steel IP67	400405-117	400405-142	04
WSDU	55	23	10,5	9/11,2	-40 to +75	II 3D IP67 T 200°C	st. steel IP67	- ⁽³⁾	- ⁽³⁾	04
(WS)/NF/NL	55	23	10,5	-	-60 to +25/40/60	II 2G/D EEx d IIC T6/T5/T4	alu/steel IP67	400405-117	-	02
(WS)/NF/NL	-	-	-	9/11,2	-60 to +40/60/75	II 2G/D EEx d IIC T6/T5/T4	alu/steel IP67	-	400405-142	02
NK	55	23	10,5	9/11,2	-40 to +50/60	II 2G/D EEx d IIB+H ₂ T4(~/=)	aluminium IP65	400405-117	400405-142	03
EM	55	23	10,5	9/11,2	-40 to +40	II 2G/D EEx em II T3	steel IP67	400909-117	400913-142	04
WSEM	55	23	10,5	9/11,2	-40 to +40	II 2G/D EEx em II T3	st. steel IP67	400909-117	400913-142	04
PV	55	23	10,5	9/11,2	-40 to +65	II 2G/D EEx m II T3(~/)T4(=)	moulded IP65	- ⁽³⁾	- ⁽³⁾	05
EF	55	23	10,5	9/11,2	-40 to +54/40	NEMA Types 7 and 9	NEMA 4X	238610-058	238710-006	06
EV	55	23	10,5	9/11,2	-40 to +54/40	NEMA Types 7 and 9-316 SS	NEMA 4X	238610-058	238710-006	06
ZN	55	23	10,5	9/11,2	-20 to +50	II 3G/D EEx nA II T3	moulded IP65	- ⁽³⁾	- ⁽³⁾	01
Low power (LP)										
SC	1,5	1,5	1,5	1,7/1,7	-40 to +60	EN 60730	moulded IP65	- ⁽³⁾	- ⁽³⁾	07
WP	1,5	1,5	1,5	1,7/1,7	-40 to +60	EN 60730	steel IP67	- ⁽³⁾	- ⁽³⁾	09
WS	1,5	1,5	1,5	1,7/1,7	-40 to +60	EN 60730	st. steel IP67	- ⁽³⁾	- ⁽³⁾	09
NF	-	-	1,9	-1,9	-40 to +75	II 2G/D EEx d IIC T6	aluminium IP67	-	- ⁽³⁾	08
NL	-	-	1,9	-1,9	-40 to +75	II 2G/D EEx d IIC T6	cast iron IP67	-	- ⁽³⁾	08
WSNF	-	-	1,9	-1,9	-40 to +75	II 2G/D EEx d IIC T6	st. steel IP67	-	- ⁽³⁾	08
EM	1,5	1,5	1,5	1,7/1,7	-40 to +40/55	II 2G/D EEx em II T6/T5	steel IP67	- ⁽³⁾	- ⁽³⁾	09
WSEM	1,5	1,5	1,5	1,7/1,7	-40 to +40/55	II 2G/D EEx em II T6/T5	st. steel IP67	- ⁽³⁾	- ⁽³⁾	09
PV	-	-	-	1,7/1,7	-40 to +60	II 2G/D EEx m II T6	moulded IP65	-	- ⁽³⁾	10
EF	-	-	-	1,7/1,7	-40 to +40	NEMA Types 7 and 9	NEMA 4X	-	- ⁽³⁾	11
EV	-	-	-	1,7/1,7	-40 to +40	NEMA Types 7 and 9-316 SS	NEMA 4X	-	- ⁽³⁾	11
ISSC ⁽²⁾	-	-	-	0,4/0,4	-40 to +60	II 1G/2D EEx ia IIC T6	moulded IP65	-	268976-001	12
WPIS ⁽²⁾	-	-	-	0,4/0,4	-40 to +60	II 1G/2D EEx ia IIC T6	steel IP67	-	268900-001	09
WSIS ⁽²⁾	-	-	-	0,4/0,4	-40 to +60	II 1G/2D EEx ia IIC T6	st. steel IP67	-	268900-001	09
ZN	-	-	-	1,7/1,7	-20 to +50	II 3G/D EEx nA II T3	moulded IP65	-	- ⁽³⁾	07

- Not available

⁽¹⁾ Refer to the dimensional drawings on pages 4 to 6.⁽²⁾ Intrinsically safe pilots: Check the electrical characteristics in the corresponding catalogue pages (ISSC/WPIS/WSIS operators).⁽³⁾ Multiple coil kits available under ATEX, contact us

prefix option	safety parameters				
	U _i = (DC)	I _i	P _i	L _i	C _i
	(V)	(mA)	(W)	(µF)	(mF)
Low power (LP)					
ISSC	32	500	1,5	0	0
WPIS/WSIS	32	500	1,5	0	0

ADDITIONAL OPTIONS

- Valves configured for external pilot air supply, TPL 20547
- Other pipe threads are available on request
- EEx m (prefix "PV") execution can be supplied in various cable lengths
- Compliance with "UL", "CSA" and other local approvals available on request
- 1/2" NPT (prefix "T") and M20 x 1.5 (prefix "ET") conduits (aluminium or 316 SS) available for steel solenoid housing

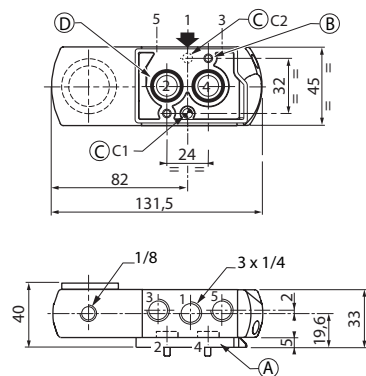
INSTALLATION

- Installation/maintenance instructions are included with each valve
- The solenoid valves can be mounted in any position without affecting operation
- IEC 61508 Functional Safety (Suffix SL), allowable temperature range: -40°C to +60°C. Probability of failure on demand, contact us
- Spool valve supplied with two interface plates with NAMUR mating surfaces. Depending on function (NC 3/2 or 5/2), position one of the two plates on the spool valve body before installing on actuator
- 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.)
- Dowel pin (if necessary), bolts and gaskets are standard supplied
- Threaded pipe connection identifier is: 8 = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- EEx d (prefix "NF") enclosure is provided with a 1/2" NPT threaded entry hole [optionally, M20 x 1,5 (prefix "ET")] and is supplied without cable gland
- EEx d (prefix "NK") enclosure is provided with a 3/4" NPT threaded entry hole [optionally, 1/2" NPT (prefix "T") or M20 x 1,5 (prefix "ET")] and is supplied without cable gland
- EEx em (prefix "EM") execution: solenoid enclosure has a cable gland with integral strain relief for cables with an o.d. from 7 to 12 mm and is provided with an internal and external connection facility for an earthing or bonding conductor
- Valves with suffix "SL" are provided with a specific exhaust protector

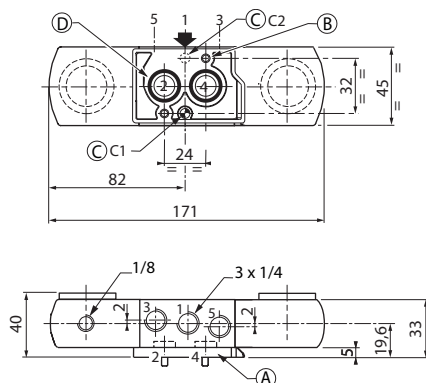
All leaflets are available on: www.asco-process-scope.com

DIMENSIONS (mm), WEIGHT (kg)

Monostable



Bistable



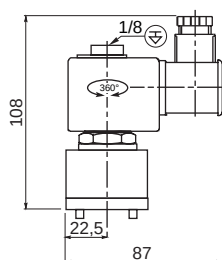
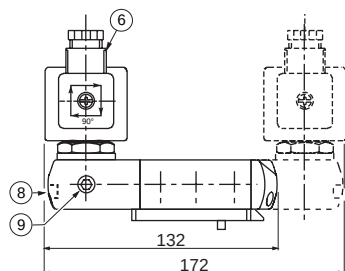
- (A) Interface plates
- (B) 2 mounting holes 5.3 mm dia.;
Spotfacing: 9 mm dia., depth 5 mm;
2 screws (CHc M5 x 35), engaged length: 7 mm
- (C) One 5 mm dia. hole for dowel pin
- in position C1: 3/2 NC function plate
- in position C2: 5/2 function plate
- (D) 2 O-ring seals (supplied)



TYPE 01

Prefix "SC", "ZN" and "SCDU" Solenoid
Basic power
Epoxy moulded
IEC 335 / ISO 4400 (SC/SCDU)
EN 50021 (ZN)
IP65 / II 3 D IP65 T 100°C to 200°C / II 3 G/D EEx nA II

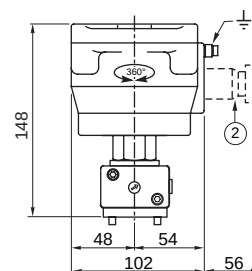
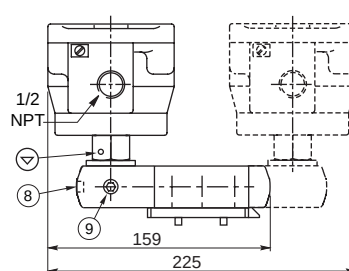
551A409 / 551A410



TYPE 02

Prefix "NF", "NL" and "WSNF" Solenoid
Basic power
Aluminium, steel; epoxy coated (NF and NL)
AISI 316 SS (WSNF)
EN 50018 and EN 50281-1-1
IP67 / II 2 G/D EEx d IIC

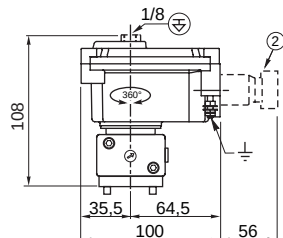
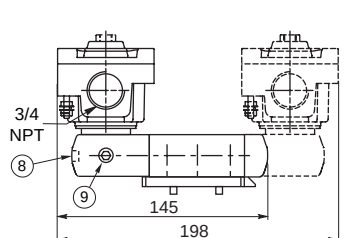
551A409 / 551A410



TYPE 03

Prefix "NK" Solenoid
Basic power
Aluminium; epoxy coated
EN 50018 and EN 50281-1-1
IP65 / II 2 G/D EEx d IIB + H2

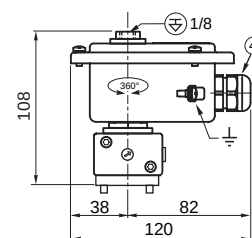
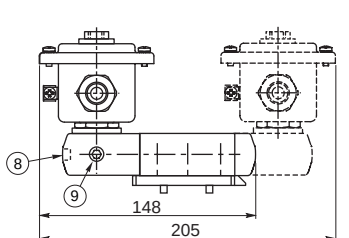
551A409 / 551A410



TYPE 04

Prefix "WP", "WS" / "WPDU", "WSDU" / "EM", "WSEM" Solenoid
Basic power
Steel; epoxy coated (WP, WPDU and EM)
AISI 316 SS (WS, WSDU and WSEM)
IEC 335 / EN 50019 & EN 50028 EN 50281-1-1
IP67 / II 3 D IP65 T 135°C to 200°C / II 2 G/D EEx em II

551A409 / 551A410



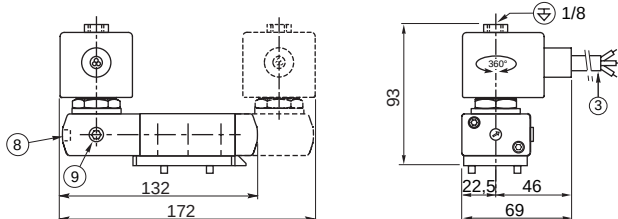
DIMENSIONS (mm), WEIGHT (kg)



TYPE 05

Prefix "PV" Solenoid
Basic power
Epoxy encapsulated
EN 50028 and EN 50281-1-1
II 2 G/D EEx m II
IP65

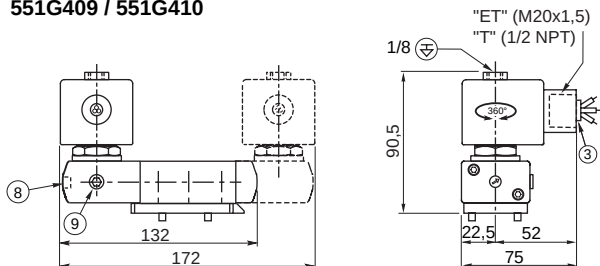
551A409 / 551A410



TYPE 06

Prefix "EF" and "EV" Solenoid
Basic power
Epoxy encapsulated
ICS-6 ANSI / NEMA
Types 7 and 9
Note: applicable to solenoid only

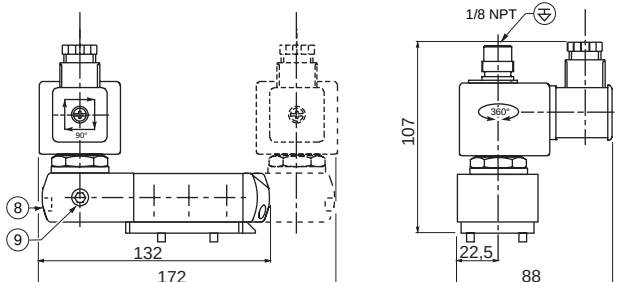
551G409 / 551G410



TYPE 07

Prefix "SC" / "ZN" Solenoid
Low power
Epoxy moulded
IEC 335 / ISO 4400 (SC)
EN 50021 (ZN)
IP65 / II 3 G/D EEx nA II

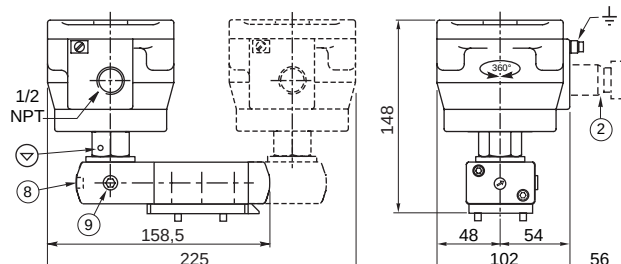
551A309 / 551A310



TYPE 08

Prefix "NF", "NL" and "WSNF" Solenoid
Low power
Aluminium, steel; epoxy coated (NF and NL)
AISI 316 SS (WSNF)
EN 50018 and EN 50281-1-1
IP67 / II 2 G/D EEx d IIC

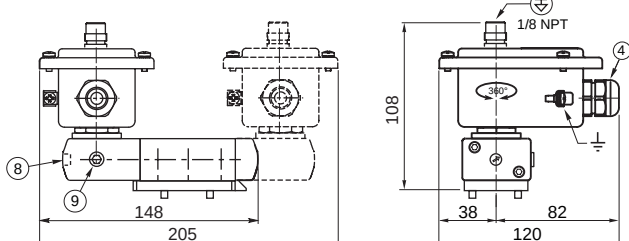
551A309 / 551A310



TYPE 09

Prefix "WP", "WS" / "EM", "WSEM" Solenoid
Prefix "WPIS" / "WSIS" Solenoid
Low power
Metal; epoxy coated / AISI 316 SS
IEC 335 / EN 50019 & EN 50028 / EN 50020 EN 50281-1-1
IP67 / II 2 G/D EEx em II / II 1G/2D EEx ia IIC

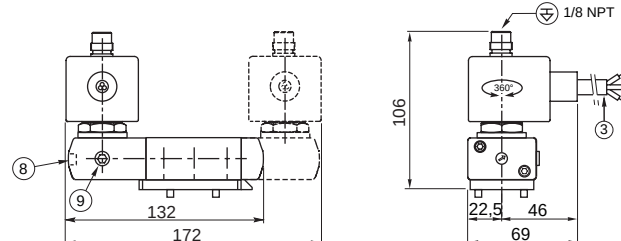
551A309 / 551A310



TYPE 10

Prefix "PV" Solenoid
Low power
Epoxy encapsulated
EN 50028 and EN 50281-1-1
II 2 G/D EEx m II
IP65

551A309 / 551A310



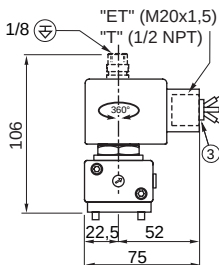
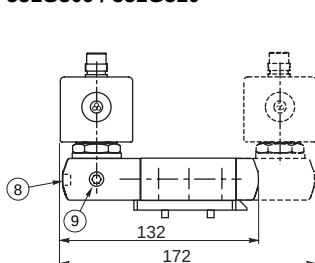
DIMENSIONS (mm), WEIGHT (kg)



TYPE 11

Prefix "EF" and "EV" Solenoid
Low power
Epoxy encapsulated
ICS-6 ANSI / NEMA
Types 7 and 9
Note: applicable to solenoid only

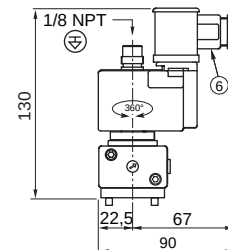
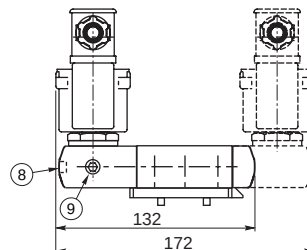
551G309 / 551G310



TYPE 12

Prefix "ISSC" Solenoid
Low power
Polypropylene moulded
EN 50020 and EN 50281-1-1
II 2 G/D EEx ia IIC

551A309 / 551A310

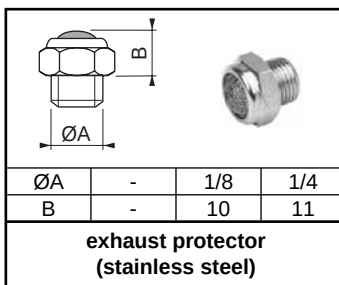
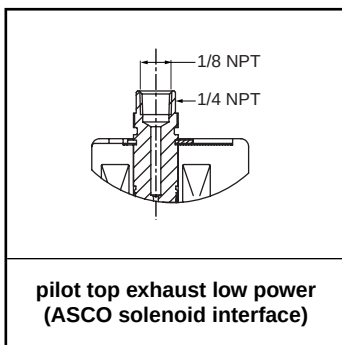
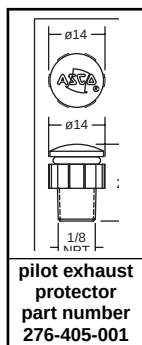


type	prefix option	power level	weight ⁽¹⁾	
			monostable	bistable
01	SC / SCDU / ZN	basic power	1,54	2,30
02	NF	basic power	2,69	4,40
02	WSNF	basic power	3,99	7,00
02	NL	basic power	3,79	6,60
03	NK	basic power	2,08	2,90
04	WP/WPDU/WS/WSDU/EM/WSEM	basic power	1,97	2,90
05	PV	basic power	1,64	2,30
06	EF / EV	basic power	1,64	2,30
07	SC / ZN	low power	1,54	2,30
08	NF	low power	2,69	4,40
08	WSNF	low power	3,99	7,00
08	NL	low power	3,79	6,60
09	WP / WS / EM / WSEM / WPIS / WSIS	low power	1,97	2,96
10	PV	low power	1,64	2,30
11	EF / EV	low power	1,64	2,30
12	ISSC	low power	1,64	2,50

⁽¹⁾ Incl. coil(s) and connector(s)

- ② EEx d certified cable gland (on request)
- ③ Three-core cable, length 2 m
- ④ Cable gland for unarmoured cable with 7 to 12 mm dia. sheath
- ⑥ Connector rotatable by 90° increments (Ø 6 - 10 mm)
- ⑧ Manual operator location, suffix MO
- ⑨ External pilot air supply, 1/8 pipe size
- ⊕ Connectable pilot exhaust port
- ▽ Non-connectable pilot exhaust port

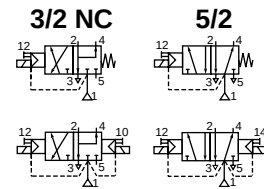
ACCESSORIES





SPOOL VALVES

pilot or air operated, spool type
single/dual solenoid (mono/bistable function)
stainless steel body, NAMUR, 1/4



3/2-5/2
Series
551

FEATURES

- The monostable spool valves, series 551, have TÜV certified IEC 61508 Functional Safety data and can be used up to SIL 4/AK 7
- 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 valve offers environmental protection against the ingress of liquids, dusts or any other foreign matter (environmentally-protected construction)
- The solenoid valves satisfy all relevant EC Directives

GENERAL

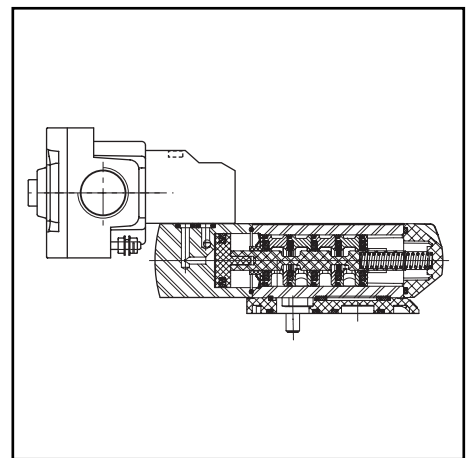
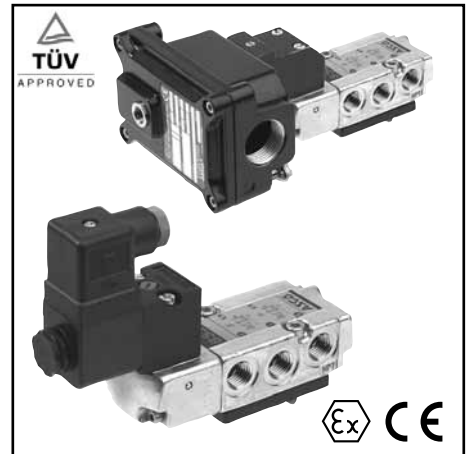
Differential pressure 2 - 10 bar [1 bar =100 kPa]
Flow (Qv at 6 bar) 700 l/min (ANR)

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, filtered	- 40°C to + 60°C	VMQ (silicone) + PUR (polyurethane)

MATERIALS IN CONTACT WITH FLUID

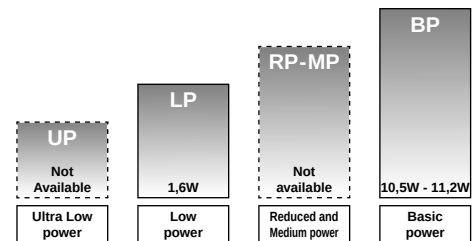
(*) Ensure that the compatibility of the fluids in contact with the materials is verified

	Air operated	CNOMO solenoid (pilot) interface
Body, end covers	Stainless steel, AISI 316L	Stainless steel, AISI 316L
Interface plates	Glass-filled PA	Glass-filled PA
Spool valve internal parts	Stainless steel, POM	Stainless steel, POM
Seals	NBR	NBR
Pilot internal parts	-	Size 30 (E06.05.80N), refer to catalogue pages: 374 pilot (CTNK) and 195 pilot (ISSC)



AIR OPERATED SPECIFICATIONS

pipe size	orifice size	flow coefficient kv		operating pressure differential (bar)			prefix optional	basic catalogue number
				min.	max. (PS)			
					air (*)			
(*)	(mm)	(m³/h)	(l/min)	~	=			
Pilot air operated - spring return (monostable)								
1/4	6	0,6	10	2	10	10	-	❖551A109 ⁽¹⁾
Pilot air operated and return (bistable)								
1/4	6	0,6	10	2	10	10	-	❖551A110



POWER LEVELS - cold electrical holding values (watt)

CNOMO SOLENOID (PILOT) INTERFACE SPECIFICATIONS

pipe size	orifice size	flow coefficient kv		operating pressure differential (bar)			power level	prefix optional solenoids		basic catalogue number
				min.	max. (PS)			ATEX/CENELEC (gas/dust)		
					air (*)			EEx d	EEx i	
(*)	(mm)	(m³/h)	(l/min)	~	=		~/=	CTNK	ISSC	
Solenoid air pilot operated - spring return (monostable)										
1/4	6	0,6	10	2	10	10	BP	●	-	❖551A209 ⁽¹⁾
1/4	6	0,6	10	2	-	8	LP	-	○	❖551A209 ⁽¹⁾
Solenoid air pilot operated and return (bistable)										
1/4	6	0,6	10	2	10	10	BP	●	-	❖551A210
1/4	6	0,6	10	2	-	8	LP	-	○	❖551A210

❖ Select 8 for NPT ANSI 1.20.3 or select G for ISO G (228/1) ● Available feature ○ Available feature in DC only.
⁽¹⁾ Certified IEC 61508 Functional Safety data, use suffix "SL".

PREFIX TABLE

prefix							description				power level			
1	2	3	4	5	6	7					UP	LP	RP	BP
C	T	N	K				Flameproof, pilot 374, ATEX (EN 50018) *				-	-	-	●
I	S	S	C				Intrinsically safe, pilot 195, ATEX (EN 50020) *				-	○	-	-

SUFFIX TABLE

suffix							description				power level			
1	2	3	4	5	6	7					UP	LP	RP	BP
	G	D					Non-electrical, 1 GD EEx c, construction safety, gas/dust-ATEX (EN 13463-5)				-	-	-	-
			M	S			Screw type manual operator				-	-	-	●
			M	O			Push type or screw type manual operator				-	○	-	-
S	L						Certified IEC 61508 Functional Safety data ⁽¹⁾				-	○	-	●

OPTIONS & ACCESSORIES

series	pipe size	exhaust protector (stainless steel)
551	G 1/8	34600418 ⁽²⁾
	NPT 1/8	34600482 ⁽²⁾
	G 1/4	34600419 ⁽²⁾
	NPT 1/4	34600483 ⁽²⁾

● Available feature

○ Available feature in DC only

- Not available

* ATEX solenoids are also approved to EN 50281-1-1 (dust) and EN 13463-1 (non electrical valves)

⁽¹⁾ Not to use with MS or MO suffix

⁽²⁾ Provided with "SL" suffix

PRODUCT SELECTION GUIDE

STEP 1

Select basic catalogue number, including pipe thread identification letter. Refer to the specifications table on page 7.

Example: G551A209

STEP 2

Select prefix (combination). Refer to the specifications table on page 7 and the prefix table on page 8, respect the indicated power level.

Air operated version, does not use prefix.

Example: CTNK

STEP 3

Select suffix (combination) if required. Refer to the suffix table, respect the indicated power level.

GD suffix available for air operated version only (do not use manual operator suffix)

Example: MS

STEP 4

Select voltage. Refer to standard voltages on page 9.

Example: 230V / 50Hz

STEP 5

Final catalogue / ordering number.

Example:

CTNK G551A209MS 230 V / 50 Hz

ORDERING EXAMPLES:

CTNK	G	551	A	209	230V / 50 Hz
CTNK	G	551	A	209 SL	24V / DC
CTNK	G	551	A	209 MS	115V / 50 Hz
CTNK	G	551	A	209	230V / 50 Hz
CTNK	G	551	A	209 MS	48V / DC
CTNK	8	551	A	209	230V / 50 Hz
ISSC	G	551	A	209	24V / DC
ISSC	G	551	A	209 SL	24V / DC
ISSC	G	551	A	209 MO	24V / DC
ISSC	G	551	A	209	24V / DC
ISSC	G	551	A	209 MO	24V / DC
				G 551 A 109	
				G 551 A 109 GD	
				G 551 A 109 GD SL	
				G 551 A 110	
				G 551 A 110 GD	



CNOMO SOLENOID (PILOT) INTERFACE ELECTRICAL CHARACTERISTICS

Coil insulation class	F
Connector	Spade plug (cable Ø 6 - 10 mm)
Connector specification	ISO 4400 / EN 175301-803, form A (ISSC prefix)
Connection	Cable gland (CTNK prefix)
Electrical safety	IEC 335
Standard voltages	DC (=) CTNK: 24V - 48V ISSC: 24V ^{-10%/+10%} AC (~) CTNK: 24V - 48V - 115V - 230V/50Hz; other voltages and 60Hz are available on request

prefix option	power ratings				operator ambient temperature ranges (TS) (C°)	safety code	electrical enclosure protection (EN 60529)	replacement coil		type ⁽¹⁾
	inrush ~	holding ~		hot/cold =				~	=	
	(VA)	(VA)	(W)	(W)				-	-	
	Basic power (BP)									
CTNK	55	23	10,5	9/11,2	-20 to +60	II 2GD EEx d IIB+H ₂ T4 (AC/DC)	moulded IP65	-	-	01
Low power (LP)										
ISSC	-	-	-	1,6	-40 to +50	II 1GD EEx ia IIC T6	moulded IP65	-	-	02

- Not available

⁽¹⁾ Refer to the dimensional drawings on pages 10.

prefix option	safety parameters				
	U _i = (DC)	I _i	P _i	L _i	C _i
	(V)	(mA)	(W)	(μF)	(mF)
Low power (LP)					
ISSC	28	115	1,6	0	0

ADDITIONAL OPTIONS

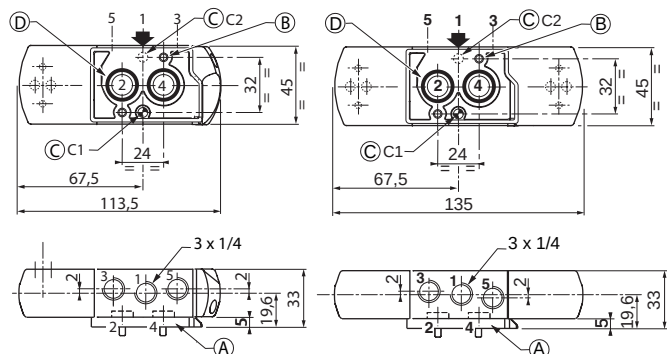
- Other pipe threads are available on request

INSTALLATION

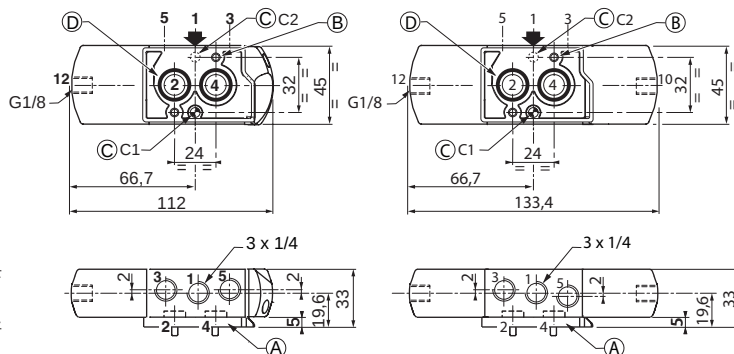
- Installation/maintenance instructions are included with each valve
- The spool valves can be mounted in any position without affecting operation
- IEC 61508 Functional Safety (suffix SL), allowable temperature range: -40°C to +60°C.
Probability of failure on demand, contact us
- Spool valve supplied 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.)
- EEx d (prefix "CTNK") enclosure is provided with a 3/4" NPT threaded entry hole [optionally, 1/2" NPT (prefix "T") or M20 x 1,5 (prefix "ET")] and is supplied without cable gland
- Threaded pipe connection identifier is: 8 = NPT (ANSI 1.20.3); G = G (ISO 228/1)
- Valves with suffix "SL" are provided with a specific exhaust protector

DIMENSIONS (mm), WEIGHT (kg)

**Type 01-02: CNOMO size 30
(E06.05.80)**



Type 03: Air operated



- (A) Interface plates
- (B) 2 mounting holes 5.3 mm dia.;
Spotfacing: 9 mm dia., depth 5 mm;
2 screws (CHc M5 x 35), engaged length: 7 mm
- (C) One 5 mm dia. hole for dowel pin
- in position C1: 3/2 NC function plate
- in position C2: 5/2 function plate
- (D) 2 O-ring seals (supplied)



TYPE 01

Prefix "CTNK" Solenoid
Basic power
374 pilot
Aluminium, epoxy coated
EN 50018 and EN 50281-1-1
IP65 / II 2 GD EEx IIB+H₂

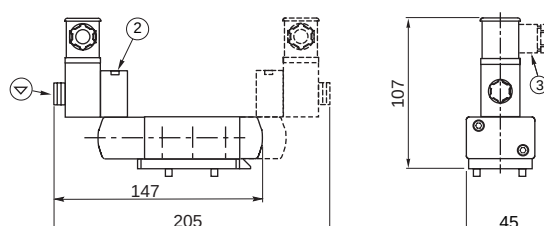
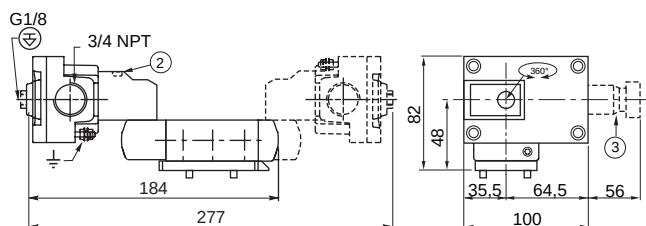
**551A209 / 551A210
551A209MS / 551A210MS**



TYPE 02

Prefix "ISSC" Solenoid
Low power
195 pilot
Polyamide (cable 6 - 10 mm)
EN 50020 and EN 50281-1-1
IP65 / II 1 GD EEx ia IIC

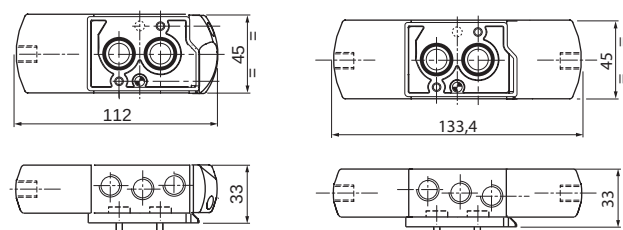
**551A209 / 551A210
551A209MO / 551A210MO**



TYPE 03

Air operated version
No prefix
Use "SL", "GD" or "GDSL" suffix
IP65 / II 1 GD c

551A109 / 551A110

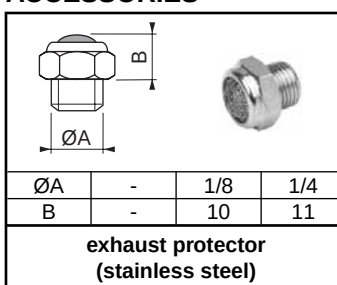


- (1) Connector rotatable by 90° increments (cable 6 - 10 mm)
- (2) Manual operator location
- (3) EEx d certified cable gland (on request)
- ⊕ Connectable pilot exhaust port
- ⊖ Non-connectable pilot exhaust port

type	prefix option	power level	weight ⁽¹⁾	
			monostable	bistable
01	CTNK	basic power	1,93	2,88
02	ISSC	low power	1,33	1,58
03	-	-	1,13	1,27

⁽¹⁾ Incl. connector(s), except CFVT.

ACCESSORIES



exhaust protector (stainless steel)	1/8	1/4
ØA	-	-
B	-	-