

## FEATURES

- The monostable spool valves in conformity with IEC 61508 Standard (2010 route 2<sub>H</sub> version) have TÜV (551 series) certified with integrity levels: SIL 2 for HFT = 0 / SIL 3 for HFT = 1
- The NAMUR version has all ports on the same side and with the same threads for a better resistance to water, dust and better fitting connection
- The valve technology 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 exist with all protection mode: Ex d, Ex e mb, Ex m and Ex ia

## GENERAL

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

Flow (Q<sub>v</sub> at 6 bar) 1/4 = 700 l/min (ANR)

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, filtered	-40°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	Aluminium, black anodized with PBT spring return
End cover (spring return)	Glass-filled PA
Interface plates	Glass-filled PA
Spool valve internal parts	Zamak, stainless steel, (POM), aluminium
Pilot internal parts	Refer to specific solenoid catalogue pages
Pilot end covers	Aluminium
Core tube	Stainless steel
Core and plugnut	Stainless steel
Core spring	Stainless steel
Seals	NBR + PUR
Top disc	PA
Disc holder	POM
Cartridge (low power)	Welded, packless AISI 430
Seat	Brass
Seat insert	POM
Shading coil	Copper
Rider rings (low power)	PTFE

## CONSTRUCTION

Screws of valve assembly Stainless steel

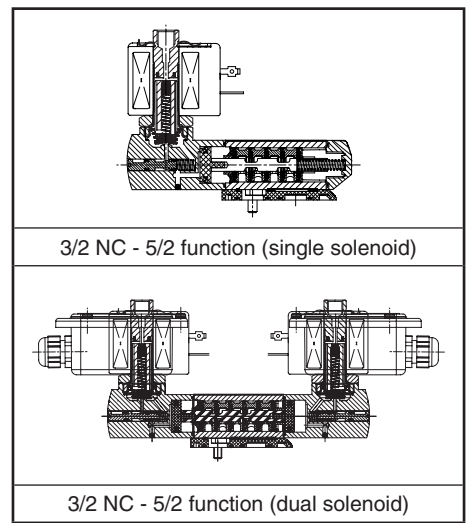
## SPECIFICATIONS

pipe size	orifice size	flow coefficient kv		operating pressure differential (bar)			power level	prefix optional solenoids										basic catalogue number
				min. <sup>(3)</sup>	max. (PS)			NEMA 7 & 9	ATEX / IECEx					IP65				
					air (*)				Ex d	Ex e mb	Ex mb	Ex ia	SC					
(*)	(mm)	(m³/h)	(l/min)	~	=	=	~/=	EF	LPKF	NF		EM	PV	LI	LISC		SC	
<b>3/2 NC - 5/2 - Solenoid air pilot operated - spring return (monostable)</b>																		
1/4	6	0,6	10	0 / 2	10	10	10,5W/9W	-	-	●	-	●	●	-	-	-	●	❖551A482 <sup>(2)</sup>
1/4	6	0,6	10	0 / 2	10	10	10,5W/9W	●	-	-	-	-	-	-	-	-	-	❖551G482 <sup>(2)</sup>
1/4	6	0,6	10	0 / 2	10	10	2,4W/0,5W	-	○	●	-	●	○	○	-	-	●	❖551A382 <sup>(2)</sup>
1/4	6	0,6	10	0 / 2	10	10	2,4W/0,5W	○	-	-	-	-	-	-	-	-	-	❖551G382 <sup>(2)</sup>
1/4	6	0,6	10	0 / 2	10	10	0,5W	-	-	-	-	-	-	-	○	-	-	❖551B282 <sup>(2)</sup>
<b>3/2 NC - 5/2 - Solenoid air pilot operated and return (bistable)</b>																		
1/4	6	0,6	10	0 / 2	10	10	10,5W/9W	-	-	●	-	●	●	-	-	-	●	❖551A484
1/4	6	0,6	10	0 / 2	10	10	10,5W/9W	●	-	-	-	-	-	-	-	-	-	❖551G484
1/4	6	0,6	10	0 / 2	10	10	2,4W/0,5W	-	○	●	-	●	○	○	-	-	●	❖551A384
1/4	6	0,6	10	0 / 2	10	10	2,4W/0,5W	○	-	-	-	-	-	-	-	-	-	❖551G384
1/4	6	0,6	10	0 / 2	10	10	0,5W	-	-	-	-	-	-	-	○	-	-	❖551B284

❖ Select 8 for NPT ANSI 1.20.3 or select G for ISO G (228/1) ● Available feature ○ Available feature in DC only - Not available

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

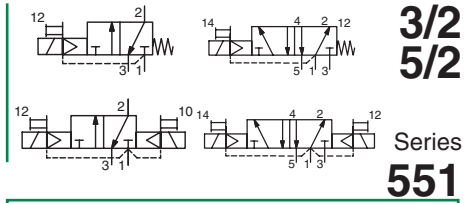
(3) Zero minimum is only achieved if external pressure is applied.



# SOLENOID VALVES

single/dual pilot operated

aluminium body -40°C, 1/4



## FEATURES

- The monostable spool valves in conformity with IEC 61508 Standard (2010 route 2<sub>H</sub> version) have TÜV (551 series) certified with integrity levels: SIL 2 for HFT = 0 / SIL 3 for HFT = 1
- The spool valve exists in 3/2 NC, 5/2, threaded ports
- 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 exist with all protection mode: Ex d, Ex e mb, Ex m and Ex ia

## GENERAL

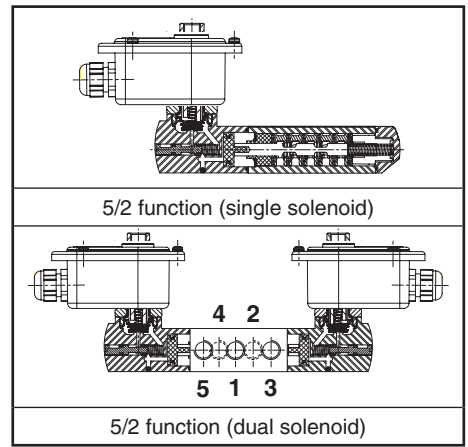
**Differential pressure** 2 - 10 bar [1 bar = 100 kPa]  
**Flow (Qv at 6 bar)** 1/4 = 860 l/min (ANR)

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, filtered	-40°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

<b>Body</b>	Aluminium, black anodized with PBT spring return
<b>End cover (spring return)</b>	Glass-filled PA
<b>Spool valve internal parts</b>	Zamak, stainless steel, (POM), aluminium
<b>Pilot internal parts</b>	Refer to specific solenoid catalogue pages
<b>Pilot end covers</b>	Aluminium
<b>Core tube</b>	Stainless steel
<b>Core and plugnut</b>	Stainless steel
<b>Core spring</b>	Stainless steel
<b>Seals</b>	NBR + PUR
<b>Top disc</b>	PA
<b>Disc holder</b>	POM
<b>Cartridge (low power)</b>	Welded, packless AISI 430
<b>Seat</b>	Brass
<b>Seat insert</b>	POM
<b>Shading coil</b>	Copper
<b>Rider rings (low power)</b>	PTFE



## CONSTRUCTION

**Screws of valve assembly** Stainless steel

## SPECIFICATIONS

pipe size	orifice size	flow coefficient kv		operating pressure differential (bar)			power level	prefix optional solenoids										basic catalogue number
								NEMA 7 & 9	ATEX / IECEx					IP65				
									EF	LPKF	NF	Ex e mb	Ex mb		Ex ia	LI	LISC	
<b>3/2 NC - Solenoid air pilot operated - spring return (monostable)</b>																		
1/4	6	0,6	10	0/2	10	10	10,5W/9W	-	-	●	-	●	●	-	-	-	●	❖551A491 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	10,5W/9W	●	-	-	-	-	-	-	-	-	-	❖551G491 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	-	○	●	-	●	○	-	-	-	-	❖551A391 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	○	-	-	-	-	-	-	-	-	-	❖551G391 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	0,5W	-	-	-	-	-	-	-	○	-	-	❖551B291 <sup>(2)</sup>
<b>3/2 NC - Solenoid air pilot operated and return (bistable)</b>																		
1/4	6	0,6	10	0/2	10	10	10,5W/9W	-	-	●	-	●	●	-	-	-	●	❖551A493
1/4	6	0,6	10	0/2	10	10	10,5W/9W	●	-	-	-	-	-	-	-	-	-	❖551G493
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	-	○	●	-	●	○	-	-	-	-	❖551A393
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	○	-	-	-	-	-	-	-	-	-	❖551G393
1/4	6	0,6	10	0/2	10	10	0,5W	-	-	-	-	-	-	-	○	-	-	❖551B293
<b>5/2 - Solenoid air pilot operated - spring return (monostable)</b>																		
1/4	6	0,6	10	0/2	10	10	10,5W/9W	-	-	●	-	●	●	-	-	-	●	❖551A497 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	10,5W/9W	●	-	-	-	-	-	-	-	-	-	❖551G497 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	-	○	●	-	●	○	-	-	-	-	❖551A397 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	○	-	-	-	-	-	-	-	-	-	❖551G397 <sup>(2)</sup>
1/4	6	0,6	10	0/2	10	10	0,5W	-	-	-	-	-	-	-	○	-	-	❖551B297 <sup>(2)</sup>
<b>5/2 - Solenoid air pilot operated and return (bistable)</b>																		
1/4	6	0,6	10	0/2	10	10	10,5W/9W	-	-	●	-	●	●	-	-	-	●	❖551A498
1/4	6	0,6	10	0/2	10	10	10,5W/9W	●	-	-	-	-	-	-	-	-	-	❖551G498
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	-	○	●	-	●	○	-	-	-	-	❖551A398
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	○	-	-	-	-	-	-	-	-	-	❖551G398
1/4	6	0,6	10	0/2	10	10	2,4W/0,5W	-	-	-	-	-	-	-	○	-	-	❖551B298

❖ Select **B** for NPT ANSI 1.20.3 or select **G** for ISO G (228/1) ● Available feature ○ Available feature in DC only - Not available  
<sup>(2)</sup> Certified IEC 61508 Functional Safety data, use suffix "SL".  
<sup>(3)</sup> Zero minimum is only achieved if external pressure is applied.