



# SOLENOID VALVES

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

3/2  
5/2

Series  
521

## FEATURES

- High quality coil resistance to heat & moisture and suitable for high ambient temperature & harsh environment
- The same spool valve can be adapted for 3/2# or 5/2 functions for controlling double-acting and single-acting actuators
- All the exhaust ports of this spool valve are pipe-able, providing better environmental protection, particularly recommended for sensitive areas such as applications in the pharmaceutical and food industries
- Non Breathing construction where the spring return chambers of the single or double acting actuator are collected with the solenoid valve exhaust
- NAMUR design (LH Orientation & RH Orientation) ensures supply and exhaust ports of the solenoid valve are facing down to prevent water and ingress
- Robust and long lasting 316L Stainless Steel Manual Operator (maintained manual operator)
- The solenoid valves satisfy all relevant EU Directives

\* For NAMUR type, 5/2 can be converted to 3/2 NC by rotating NAMUR plate



## GENERAL

Differential pressure 2 - 8 bar [1 bar = 100 kPa]  
Flow (Qv at 6 bar) 820 l/min (ANR)

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, filtered	-20°C to +60°C	NBR (nitrile)

## MATERIALS IN CONTACT WITH FLUID

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

Body	Aluminium, anodized
Pilot and spring end	Polyamide PA6.6, 30% FV
Internal parts	POM (Polyacetal), stainless steel, aluminium
Seals	NBR
Core tube	Brass
Plugnut	Stainless steel
Shading coil	Copper

## ELECTRICAL CHARACTERISTICS

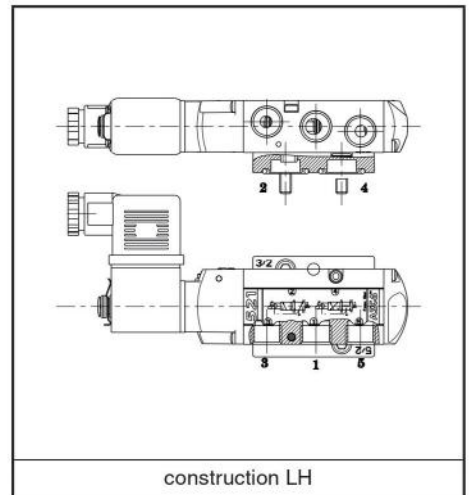
Coil insulation class F  
Electrical safety IEC 335  
Standard voltages DC (=) : 24V - 48V  
AC (~) 50/60Hz : 24V - 48V - 115V - 230V ; Other voltages are available on request

power ratings				operator ambient temperature range (C°) <sup>(1)</sup>	safety code	electrical enclosure protection (EN 60529)	replacement coil / kit		type <sup>(1)</sup>
inrush ~ (VA)	holding ~ (VA)	hot/cold = (W)	= (W)				~ 230V/50/60 Hz	= 24V/DC	
6	3,5	2,5	2,5/3	-20 to +60	EN 60730	IP65, moulded	400125-097	400125-042	01

<sup>(1)</sup> Refer to the dimensional drawings on page 3.

## ELECTRICAL CONNECTIONS

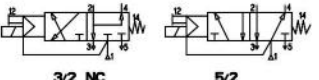
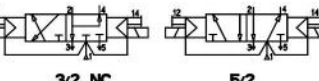
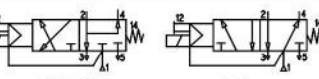
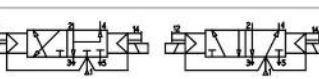
type	connection
01	Spade plug connector with cable gland DIN 43650, 11 mm, industry standard B, for cables with an outer diameter from 6 to 8 mm.



construction LH

## SPECIFICATIONS

Pipe size	1/4
Main valve orifice size	6 mm
Operating pressure differential	2 to 8 bar

function	construction	symbol	thread type	basic code <sup>(2)</sup> (without voltage)
NAMUR 3/2 NF - 5/2 <sup>(1)</sup>	Solenoid air pilot operated - spring return (monostable) LH construction	 3/2 NC      5/2	G	G521A2B12S83M**
			NPT	8521A2B12S83M**
	Solenoid air pilot operated and return (bistable) LH construction	 3/2 NC      5/2	G	G521A2B42S83M**
			NPT	8521A2B42S83M**
	Solenoid air pilot operated - spring return (monostable) RH construction	 3/2 NC      5/2	G	G521A2B12S83P**
			NPT	8521A2B12S83P**
	Solenoid air pilot operated and return (bistable) RH construction	 3/2 NC      5/2	G	G521A2B42S83P**
			NPT	8521A2B42S83P**

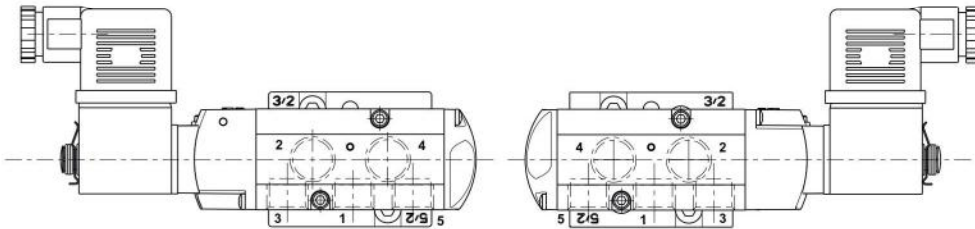
<sup>(1)</sup> For NAMUR type, 5/2 can be converted to 3/2 NC by rotating NAMUR plate

<sup>(2)</sup> For the voltage, please replace the 2 last digits by the ones according to the requested voltage (see below valve selection table)

## ACTUATOR MOUNTING POSITION

NAMUR LH construction

NAMUR RH construction



NOTE: Selection of LH or RH NAMUR construction.

Port No.	NAMUR 3/2 NC	NAMUR 5/2
1	Pilot inlet pressure	Pilot inlet pressure
2	Actuator piloting	Actuator piloting
3	Pilot exhaust	Pilot exhaust
4	Actuator exhaust	Actuator piloting
5	Pilot exhaust	Pilot exhaust

Depending on the actuator's port orientation, the ASCO 521 NAMUR Design (LH construction NAMUR & RH construction NAMUR) is to ensure that the supply port (1) and exhaust ports (3 & 5) are always facing down to prevent water dust ingress.

## HOW TO ORDER

### Valve Selection

	<b>G</b>	<b>521</b>	<b>A</b>	<b>2</b>	<b>B</b>	<b>1</b>	<b>2</b>	<b>S</b>	<b>83P</b>	<b>F1</b>	
<b>Thread connection</b> G = ISO228/1-G 8 = NPTF											<b>Voltage</b> EW = 115/50, 120/60 EY = 110/50-60 FH = 230/50-60 FQ = 24/50-60 FS = 48/50-60 F1 = 24/DC F3 = 12/DC F9 = 48/DC
<b>Product series</b> 521											<b>Options</b> 83M = Namur version LH construction 83P = Namur version RH construction
<b>Revision letter</b> A											<b>Electrical interface</b> S = With spade plug connector <sup>(1)</sup>
<b>Actuation</b> 2 = Rubber Packed											<sup>(1)</sup> For non standard connector (e.g. LED connector), please contact us.
<b>Valve type</b> B = Solenoid air pilot											
<b>Function</b> 1 = 3/2-5/2 NAMUR Spring Return 4 = 3/2-5/2 NAMUR Dual Solenoid											
<b>Port size</b> 2 = 1/4											