# ASCO products overview

### Goal of the training

• This training is dedicated to inside administration sales men

	Level	
	F. Power	2
	Proportional	1
	V. Islands	1
Products	F. Control	2
	Micro	1
	Commercial	1
	Hazardous env.	1
	Automation	1
	Solutions	1
Applications	Specials	1
Applications	Medical	1
	Energy Saving	1
	Safety	1
Support		0
Support E-Tools		2

	Level meaning
1	Awareness / Don't know the products -
2	Basic / Read & Use product datasheet
3	Qualified / Knows select & size product
4	Specialist / Knows how to address with
	•
5	Expert / Bringing adding value whateve

### - Can do pitch talk

cts for the application

th fit support

ver questions are



### Agenda

Emerson and ASCO overview

**Energies and Fluids** 

**Datasheet information** 

Code numbers

**Digital communication** 



### 2017 Emerson At-A-Glance



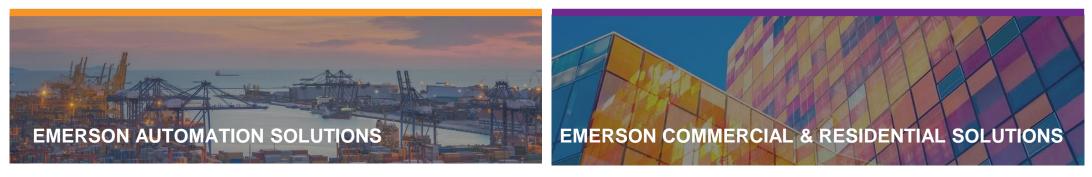
# BILLION **IN GLOBAL SALES FISCAL YEAR 2017**





### **Core Business Platforms**

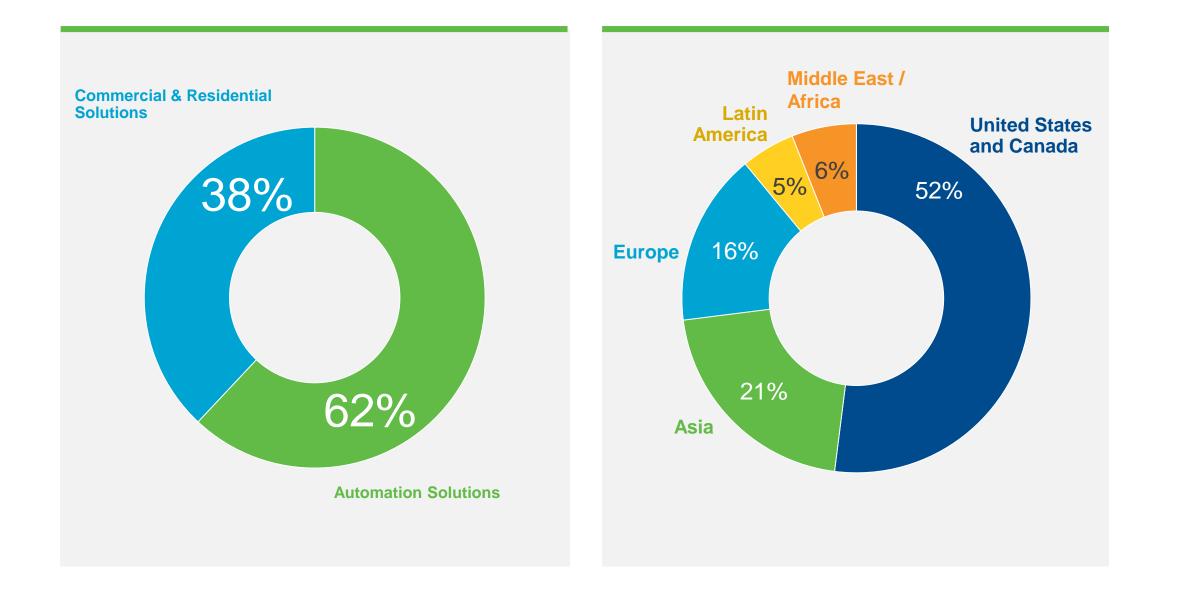
# We concentrate on the most complex and important challenges facing the world in the process, industrial, commercial and residential markets.



- Making the greatest use of the world's valuable resources
- Supporting responsible economic growth globally
- Enabling the performance and safety of industry when it matters most
- Advancing the industries that are the backbone of daily life

- Ensuring human comfort and health
- Protecting food quality and sustainability
- Advancing energy efficiency and environmental conservation
- Creating sustainable infrastructure
- Continuing momentum at our Helix Innovation Center

### Emerson Global Sales 2017 - \$15.3 Billion







### **Improving Process and Industrial Manufacturing Performance** with Measurable Results

### **Industries Served include**

### Oil and Gas/Refining Chemical

Power

Food and Beverage

Metals and Mining

Water and Wastewater

Life Sciences

Automotive

**Electronics** 

### **Core Expertise & Key Brands**

Industrial Internet of Things

Plantweb

Systems and Asset Management

- **DeltaV**
- Ovation •

Measurement Instrumentation

- Rosemount
- Micro Motion

Solenoids and Pneumatics

• ASCO

Valves, Actuators and Regulators

- Bettis
- Crosby
- Fisher
- **TopWorx**

**Precision Welding** 

Branson

**Electrical and Lighting** 

Appleton •

**Industry Services and Solutions** 

### Keystone KTM Vanessa TESCOM

### **Emerson Automation Solutions**

2017 At-A-Glance

Sales

\$9.4 billion

Employees

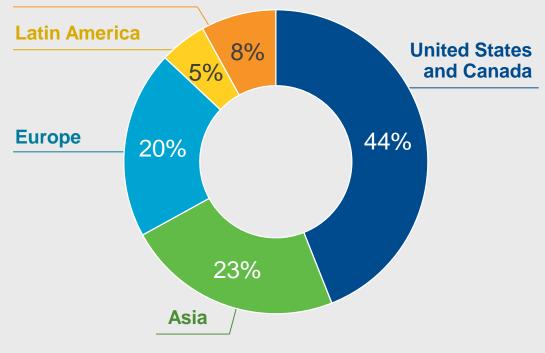
~48,500

### Customers include

Amgen, BASF, BP, Cargill, Dow, Duke Energy, Medtronic, Nestle, Novo Nordisk, Reliance Industries, Sasol, Saudi Aramco, Shell, Sinopec, Tesla

# Sales by Geography

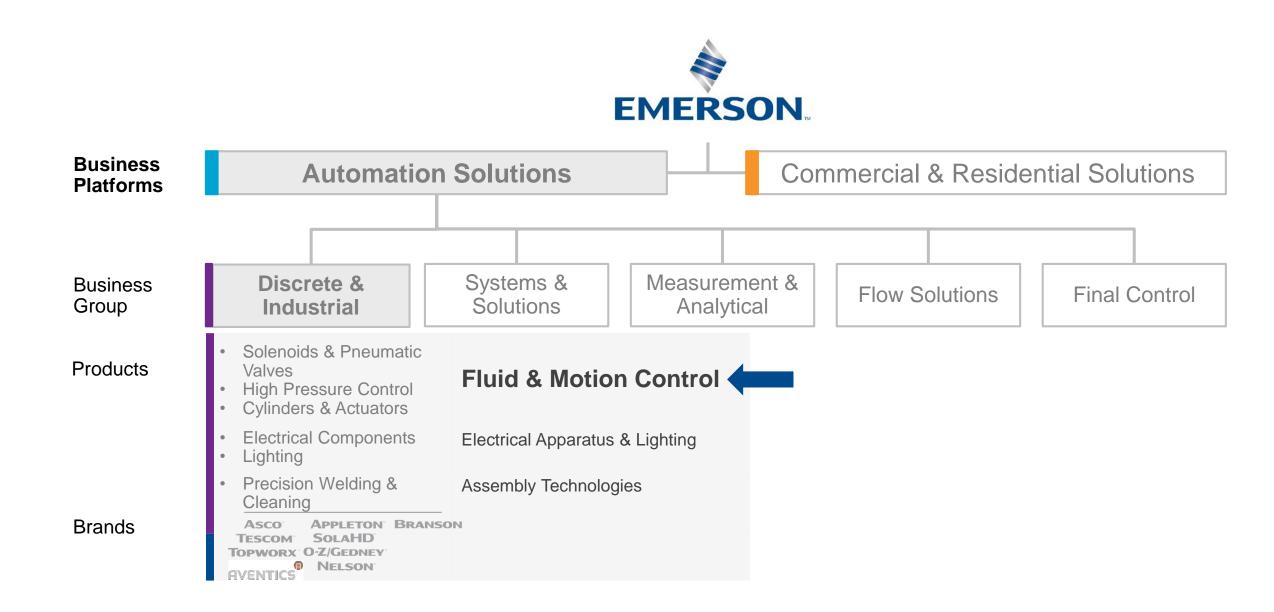
### Middle East / Africa



**Discrete & Industrial Business Group** 



### Emerson Alignment of our Businesses, Brands and Products

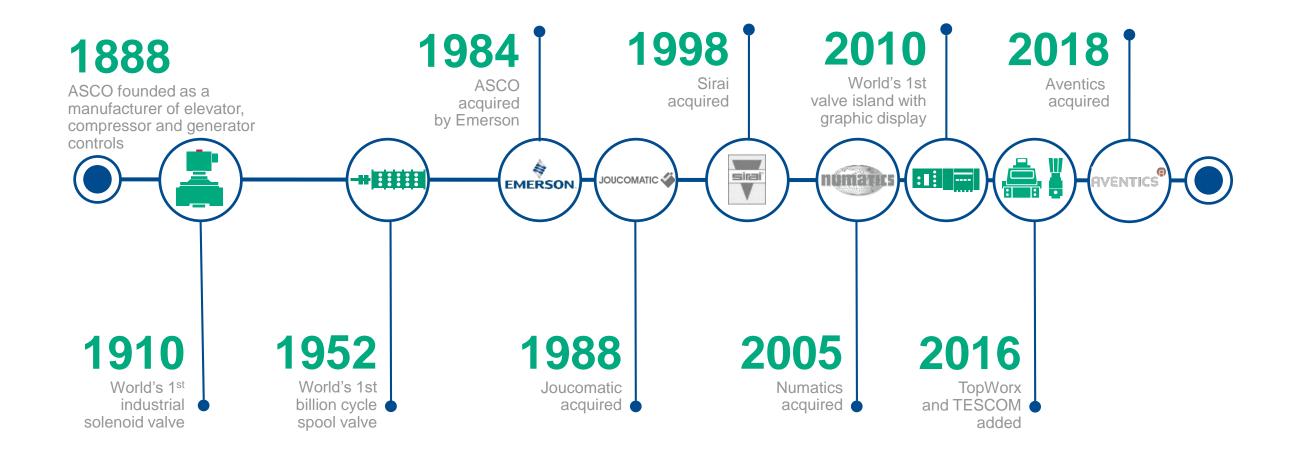




### Fluid & Motion Control Business



### Fluid & Motion Control Business History



A Respected Heritage of Fluid Control & Fluid Power Solutions

### Geographic Footprint – Manufacturing & Service



### **Our Fluid & Motion Control Portfolio**

Trusted reliability and unequaled performance for the most demanding fluid control and fluid power applications in the industry





### **ASCO NUMATICS**<sup>™</sup>

The world's leading manufacturer of solenoid & pneumatic valves, cylinders & actuators, and air preparation products that set the standard for helping customers maximize efficiencies, optimize applications, and transform ideas into measurable outcomes.



### TESCOM

Standard and custom-engineered regulators, valves, and systems for use in critical pressure control solutions for a diverse world market.



### **TOPWORX**<sup>™</sup>

Discrete valve control and position sensing technology providing absolute assurance in the most challenging applications.







### Fluid & Motion Control Product Offering



### Fluid Control

**Control and monitor flow** of air, gas, water, oil and steam in the most critical applications

- Solenoid & Air **Operated Valves**
- Miniature Valves
- High Pressure & **Precision Regulators**
- **Position Indicators**



### **Fluid Power**

Efficient, reliable motion and handling for automation and industrial applications

- Valve Islands & **Directional Control**
- Cylinders & Actuators
- **Proportional Valves**
- Air Preparation
- Machine Safety



**Connected device** insights and integrated fluid automation solutions

- **Fieldbus Electronics** •
- **Proximity Sensors**
- **Panel Solutions** •
- **Custom Fluidic** • Assemblies
- Industry 4.0 •



## Fluid & Motion Control Served Segments & Brands

# PROCESS



- Oil & Gas
- Chemicals
- Refining
- Nuclear
- Food & Beverage
- Life Science

# **MACHINE AUTOMATION**



- Case Erecters/Packers
- PET & Glass Blowing
- Automotive Assembly
- Automotive Powertrain
- Automotive Tier I, II
- Tire Industry

# **INDUSTRIAL**



- Industrial Machinery
- Combustion
- Dust Collector
- Infrastructure
- Aerospace & Defense
- Manufacturing & Test

# **MEDICAL & ANALYTICAL**



- Clinical Diagnostics
- Industrial Analyzers
- Bioinstrumentation
- Ventilators
- Oxygen Therapy
- Surgical Instruments

# ASCO ASCO NUMATICS TESCOM TOPWORX



## Industrial & Commercial – Products and applications

**Fuel vending** 

**Commercial Kitchens & Laundries** 



### **Industrial boilers**



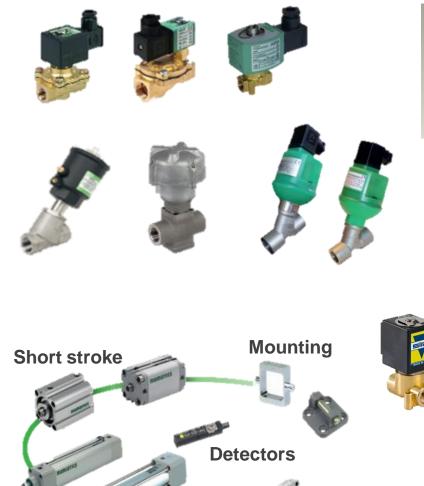
Water treatment



**Dust collectors** 



- Solenoid valves •
- Pressure operated valves
- Motorised valves •
- Engineered solutions
- Cylinders
- Sirai general purpose solenoid valves, pinch valves and pressure switches



**Profiles Tie rods** 











### Machine Automation – Products and applications

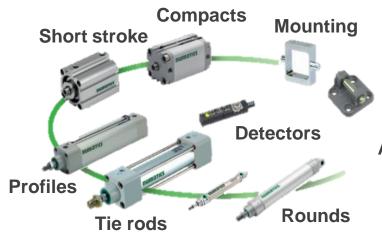
### Pneumatic systems



Filling, injection and dosing



- Pneumatic cylinders •
- Proportional control
- Valve islands
- Air treatment •
- Solenoid valves
- Pressure operated ٠ valves
- Motorised valves
- Machine safety ٠
- Fieldbus
- Cabinets and panels
- Engineered solutions



















### **Process Automation – Products and Applications**

### Oil & Gas



### Food & Bev



### **Power generation**



### Water & Waste water



Pharma and life sciences



### Chemical



- Solenoid valves
- Pressure operated valves
- Motorised valves
- Valve islands
- Cabinets & Panels
- Filter regulators
- Actuator control systems
- Fieldbus
- Functional safety
- Engineered solutions





**Emerson Confidential** 









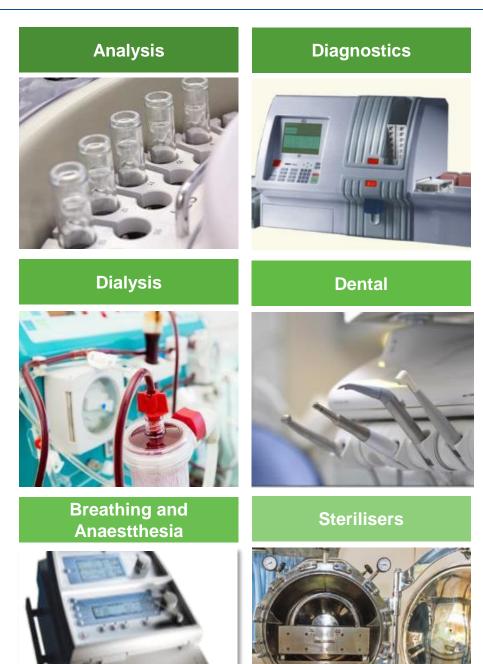








# Analytical and Medical – Products and Applications



- Engineered complete fluidic solutions
- Manifold systems
- Proportional technology
- Micro Solenoid valves
- Isolated valves
- Pinch valves
- Clean room build























# ASCO Solutions - The specialist for Plug & Play assemblies

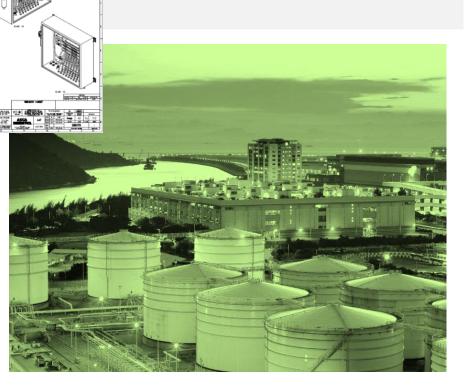


Designed by our experts:

- Time savings for customers
- Products are 100% tested
- Fully certified •
  - ATEX certificate
  - Test certificate
  - Material certificate
  - Drawing (2D or 3D), Pneumatic system etc...

Simplified process

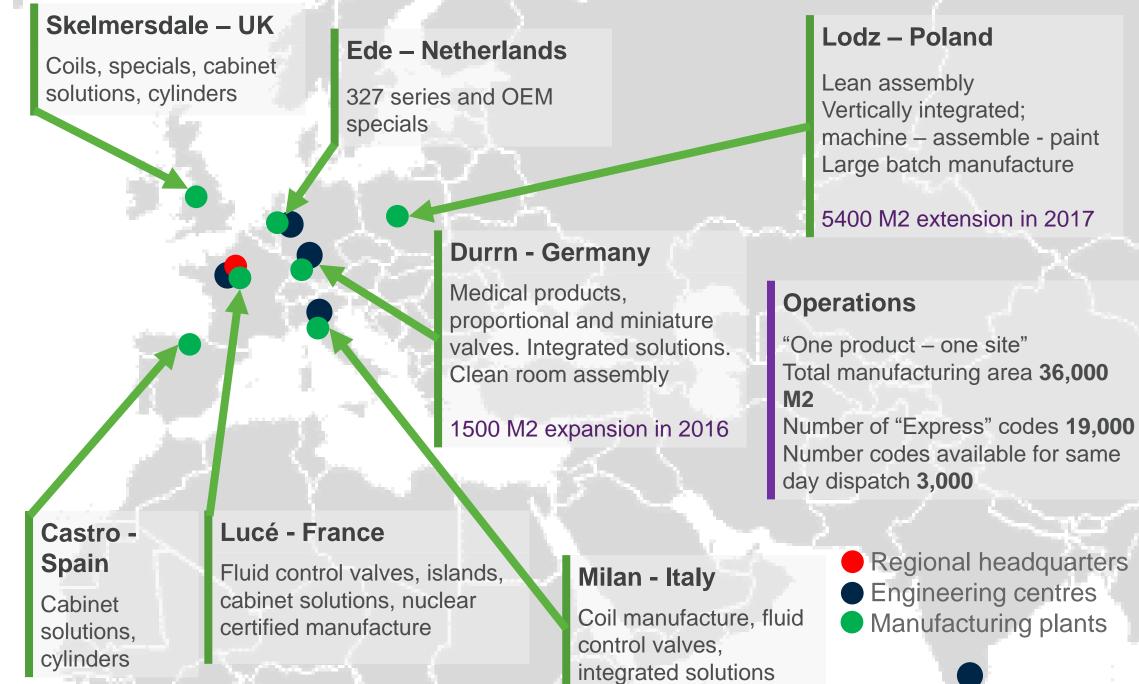
- One order, one delivery
- Simplified management, fewer departments involved
- The customer can keep their own resources mobilised for their core business







# European manufacturing operations

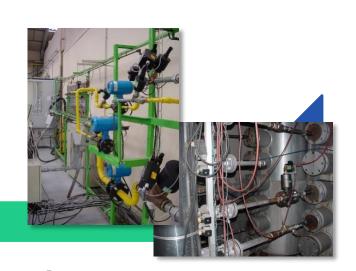


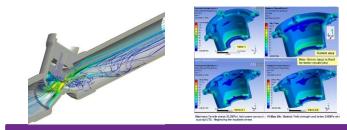
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# Engineering

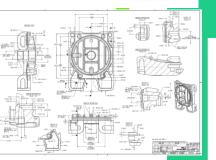






# Analytical capabilities





# Laboratory capabilities

# Product development

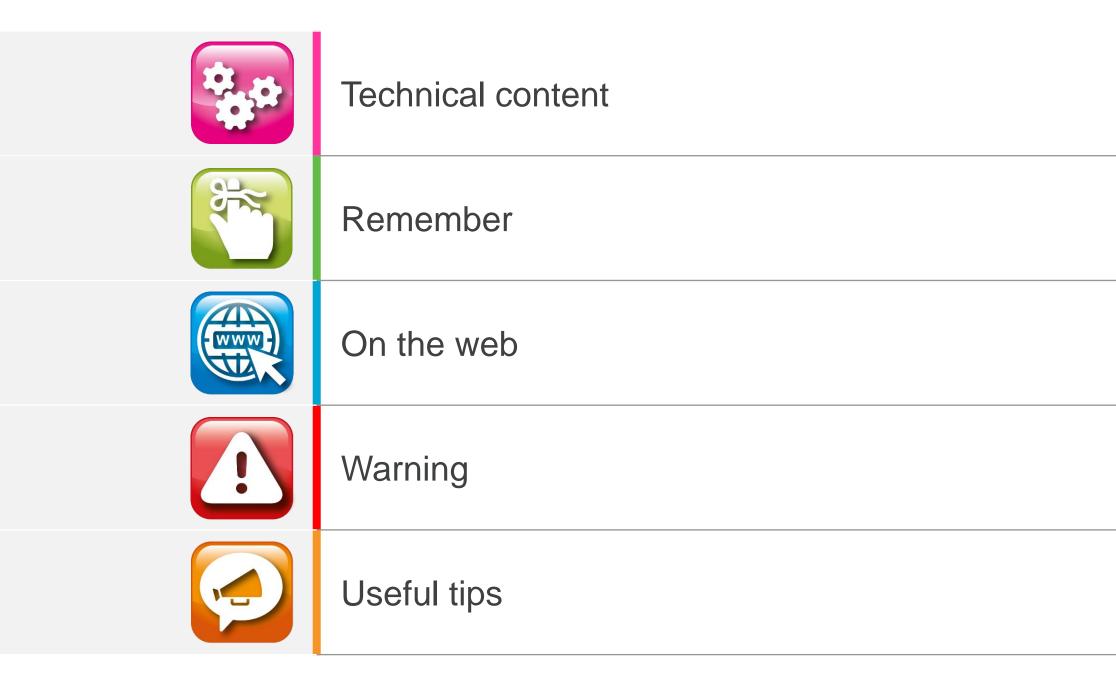


### **Energies and fluids**

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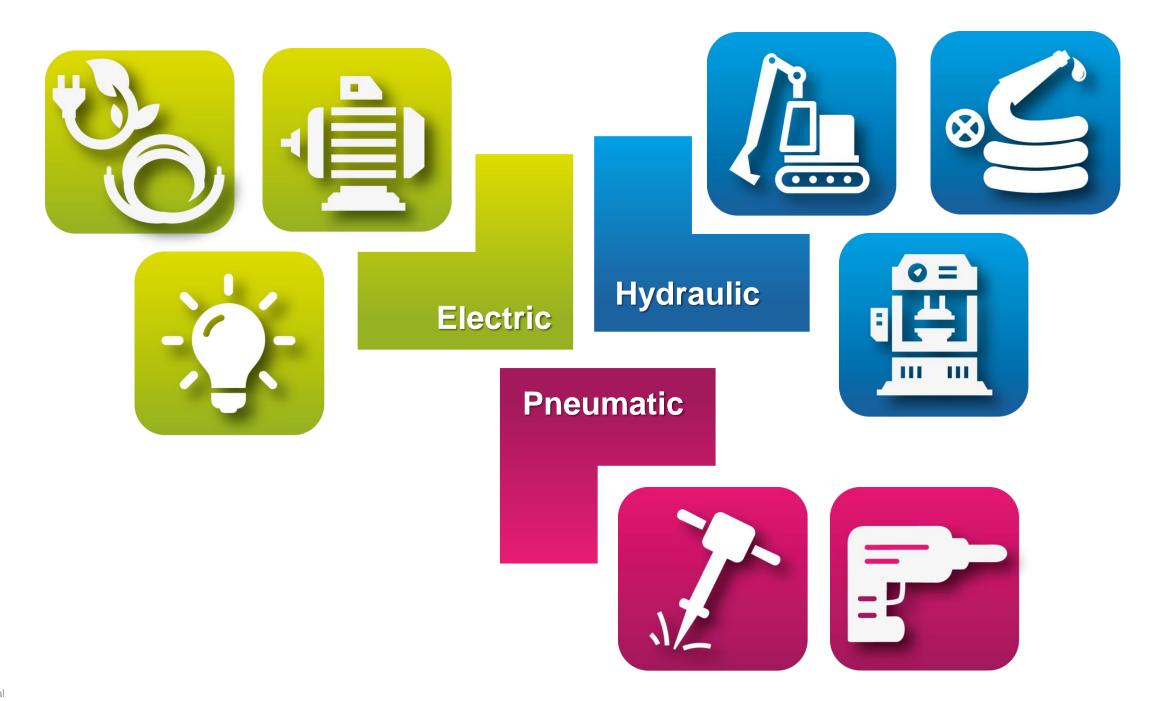


# Legend



25

### The main energies used in the industy





### Fluids and their nature



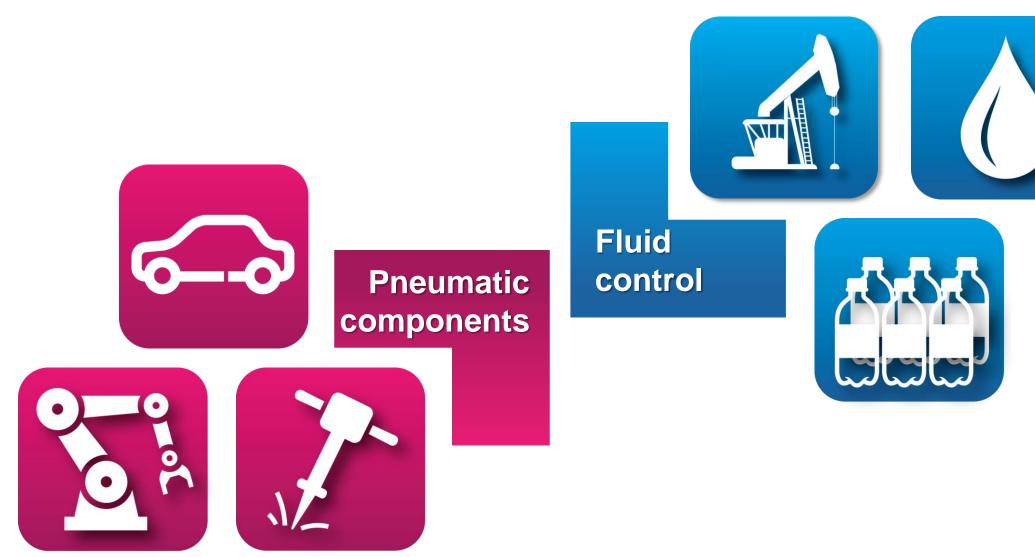


### **Datasheet information**

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### ASCO industry solutions





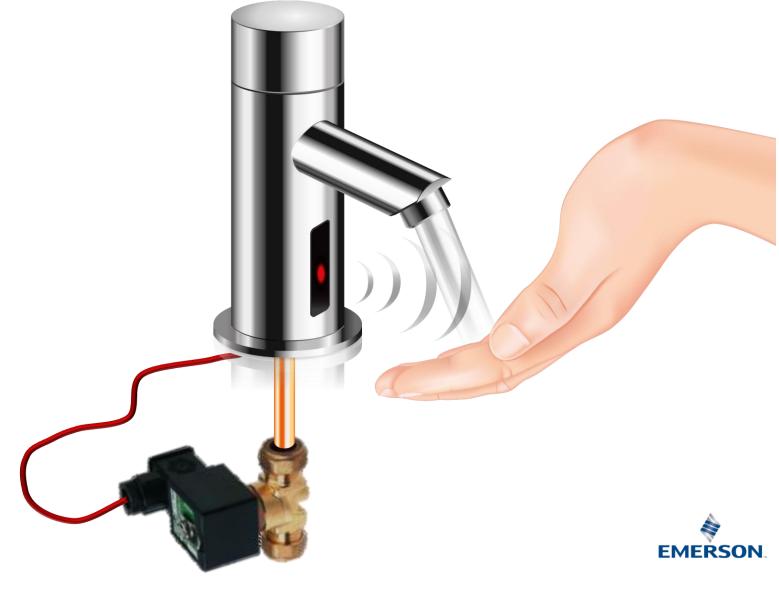


### Fluid control

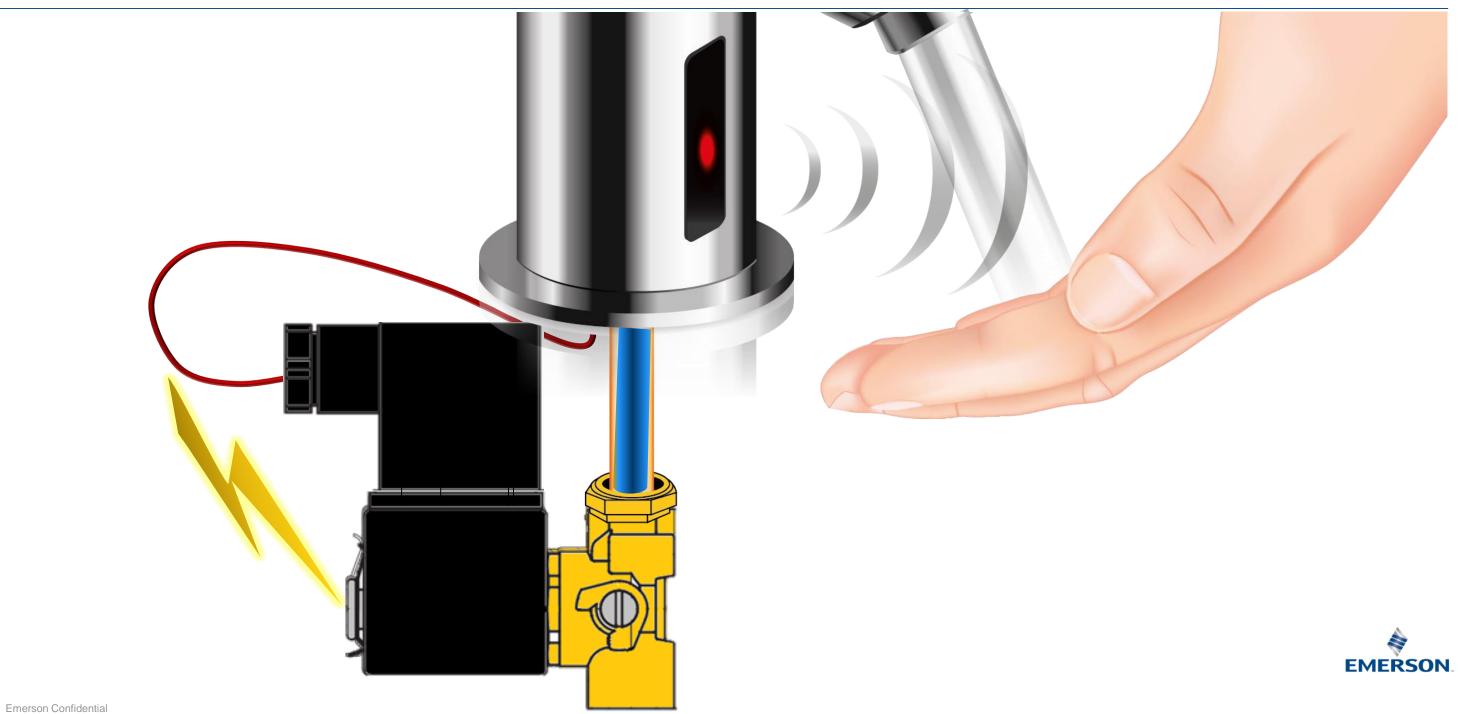
### Manual tap

Automatic tap

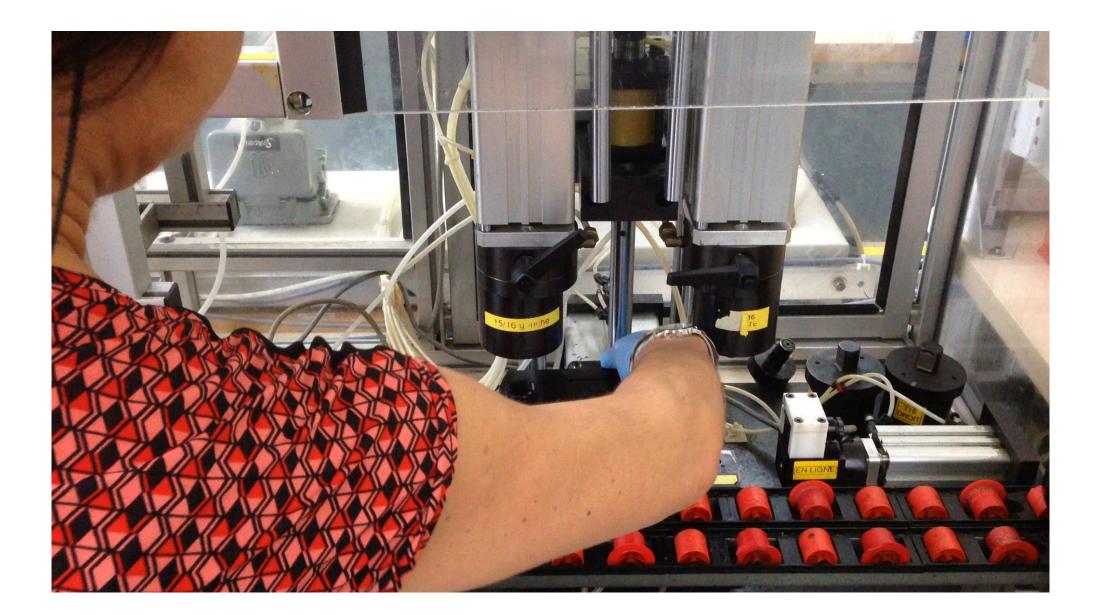




# Fluid control

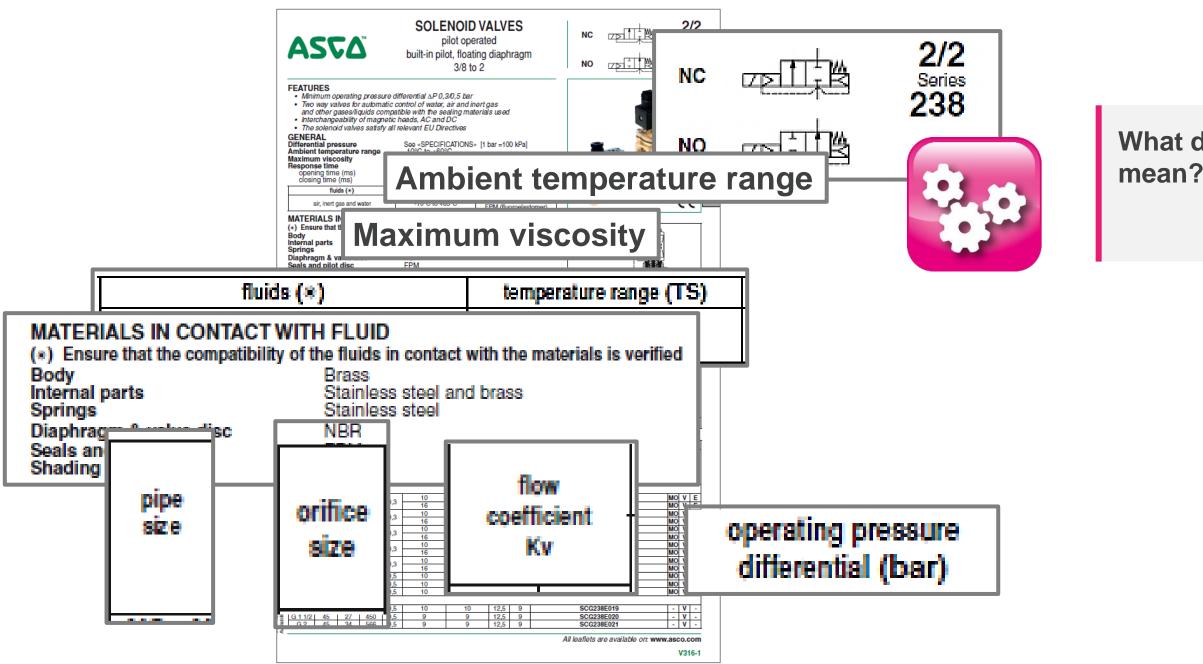


# Pneumatic components





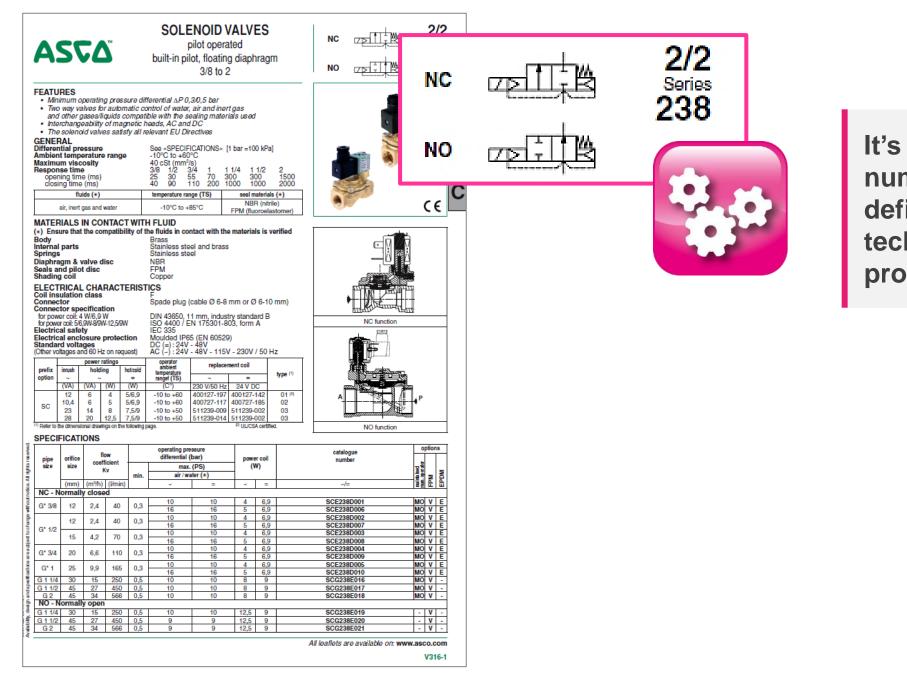
# Data sheet information meaning



# What does that mean?



# Data sheet information meaning



### It's the series number that defines the technology and product design.

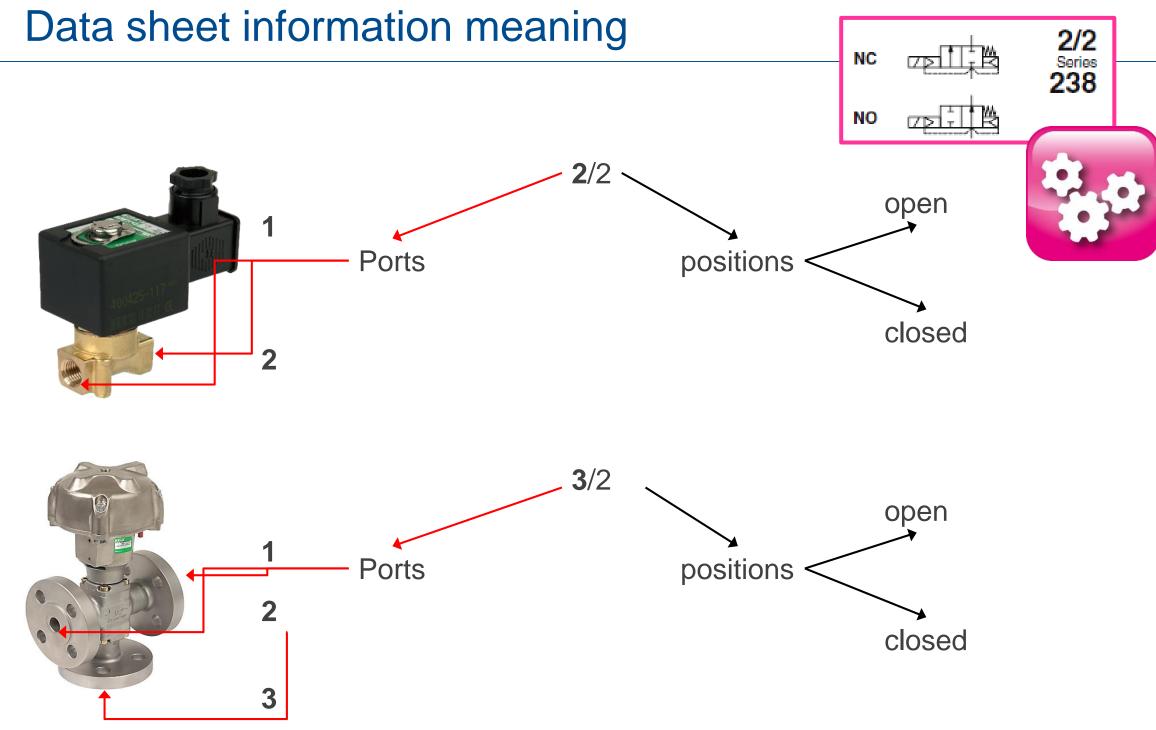


# Data sheet information meaning

ASζΔ	SOLENOID VALVES pilot operated built-in pilot, floating diaphragm 3/8 to 2		2/2		
and other gases/liquids com Interchangeability of magne The solencid valves satisfy i GENERAL Differential pressure Ambient temperature range Maximum viscosity Response time opening time (ms) closing time (ms) fluids (*) air, inert gas and water MATERIALS IN CONTACT Y	ic control of water, air and inert gas patible with the sealing materials used tic heads, AC and DC all relevant EU Directives See «SPECIFICATIONS» [1 bar =100 kPa] -10°C to +60°C 40 cSt (mm*/s) 3/8 1/2 3/4 1 11/4 11/2 2 2/8 30 55 70 300 300 1500 40 90 110 200 1000 1000 2000 temperature range (TS) seal materials (*) 10°C to +85°C FPM (fluoroelastomer) VITH FLUID of the fluids in contact with the materials is verified Brass Stainless steel and brass Stainless steel NBR FPM Copper IISTICS F Spade plug (cable Ø 6-8 mm or Ø 6-10 mm) DIN 43650, 11 mm, industry standard B ISO 4400 / EN 175301-803, form A IEC 335 n Moulded IP86 (EN 60529) DC (=): 24V - 48V the fluids mean formation of the fluids of	C C C	Series 238	3	This number defines the product type and its function
<sup>10</sup> Refer to the dimensional drawings on the folio SPECIFICATIONS	wing page. PI ULICSA certified.	NO function			
pipe orifice flow size size Kv	operating pressure differential (bar) power coil max. (PS) (W) nin. air / water (*) = =	catalogue options number transformer trans			
NC - Normally closed		, - <del>-</del> , - , -			
G* 1/2         12         2,4         40         0           15         4,2         70         0           G* 3/4         20         6,6         110         0           G* 1         25         9,9         165         0           G 1 1/2         45         27         450         0	0,5 10 10 8 9	SCE238D001         MO         V         E           SCE238D006         MO         V         E           SCE238D002         MO         V         E           SCE238D003         MO         V         E           SCE238D003         MO         V         E           SCE238D003         MO         V         E           SCE238D004         MO         V         E           SCE238D005         MO         V         E           SCE238D005         MO         V         E           SCE238D010         MO         V         E           SCE238D010         MO         V         E           SCE238D010         MO         V         E           SCE238D010         MO         V         E           SCE238E016         MO         V         E			
NO - Normally open	0,5 10 10 12,5 9 0,5 9 9 12,5 9	SCG238E018         MO         V         -           SCG238E019         -         V         -           SCG238E020         -         V         -           SCG238E021         -         V         -			
		All leaflets are available on: www.asco.com V316-1			



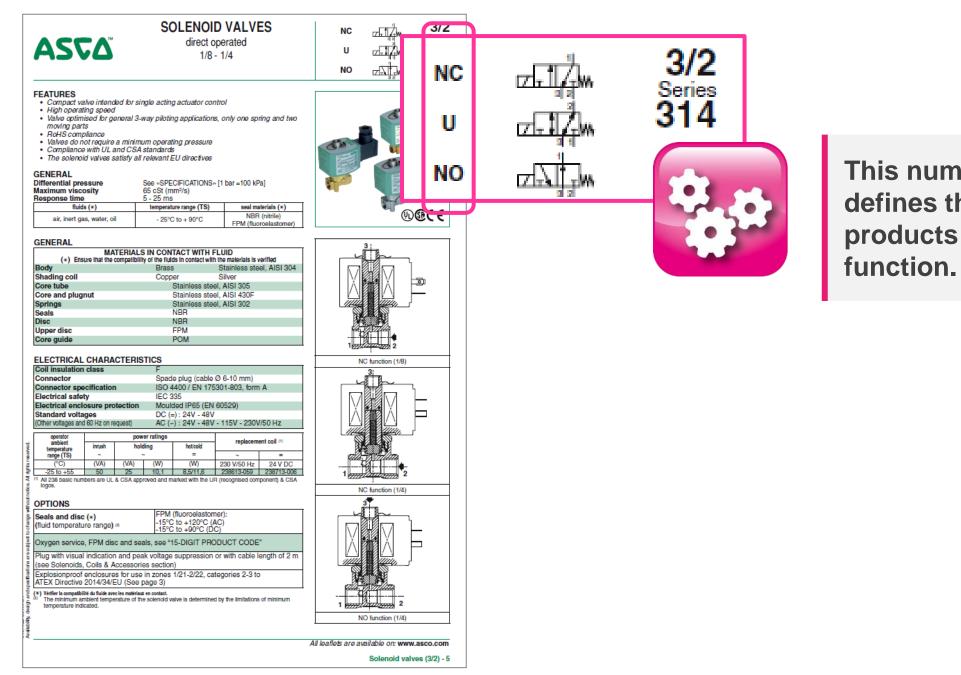






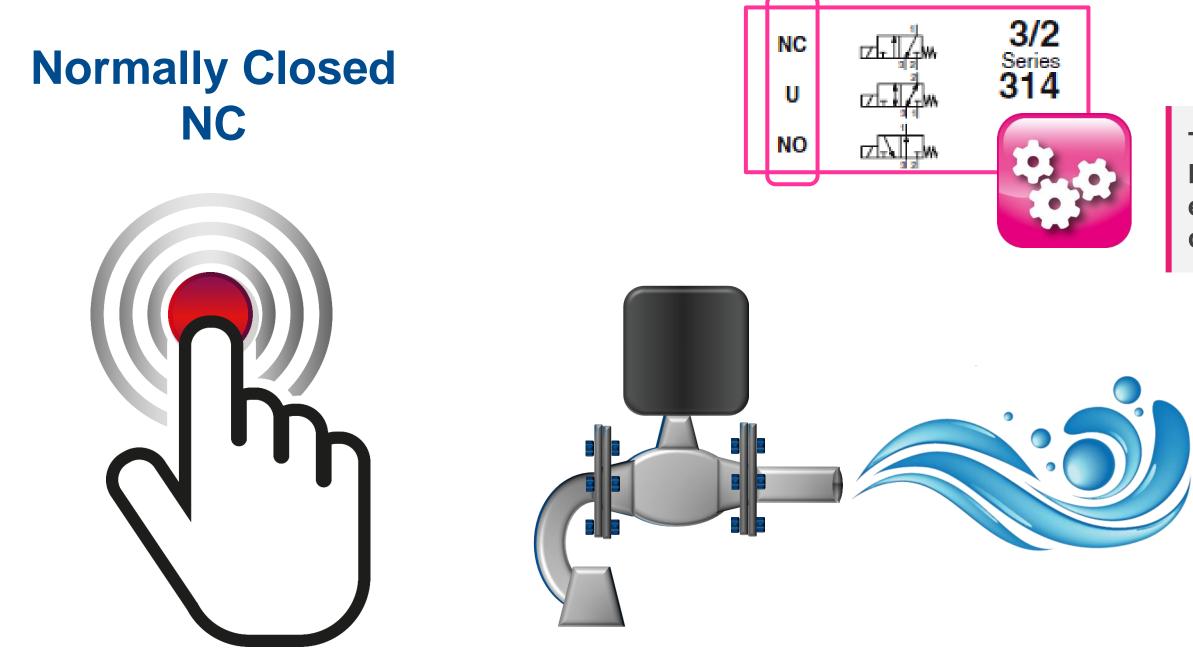
This number defines the product type and its function.





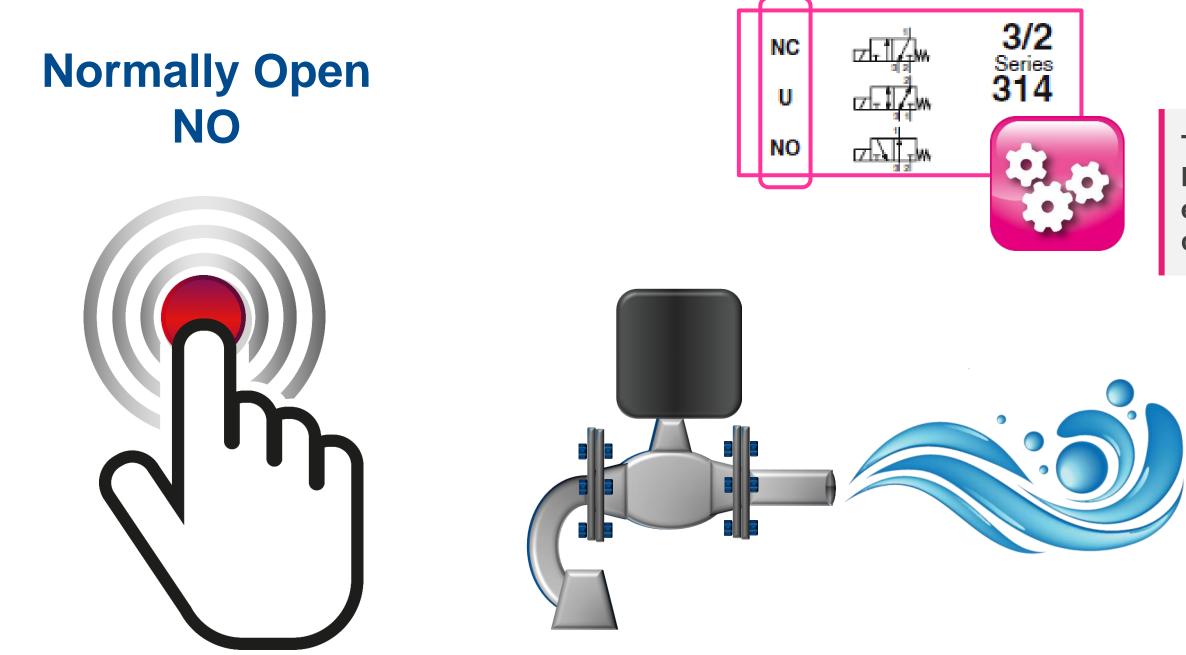
# This number defines the





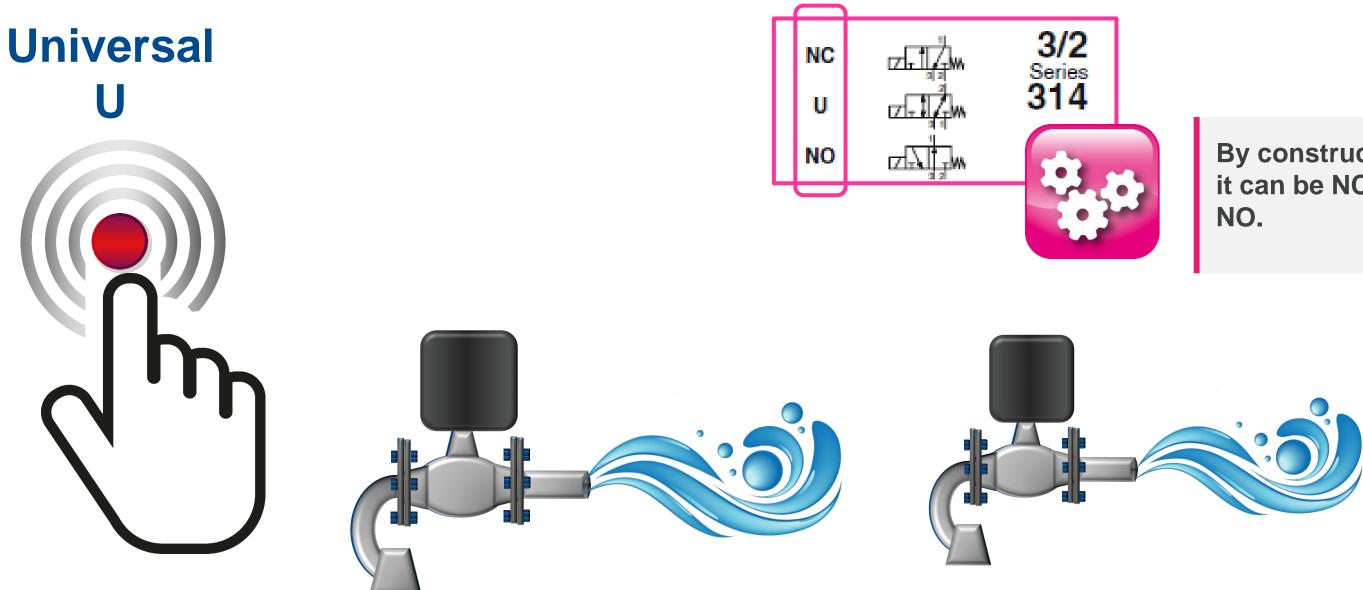
#### To open, you have to energise the coil.





#### To close, you have to energise the coil









SOLENOID VALVES	2/2		
ACCA™ pilot operated	NC ZEIL Series 238		
built-in pilot, floating diaphragm 3/8 to 2	NO		
FEATURES - Minimum operating pressure differential △P 0,30,5 bar - Two way valves for automatic control of water, air and inert gas and other gases/liquids compatible with the sealing materials used - Interchangeability of magnetic heads, AC and DC - The solencid valves satisfy all relevant EU Directives	Ambie	ent temperature r	ange
GENERAL Differential pressure Amblent temperature range Maximum viscosity         Sae «SPECIFICATIONS» [1 bar =100 kPa] -10°C to +60°C           Maximum viscosity         40 cSt (mm²/s) 40 cSt (mm²/s)         1 1/4 1 1/2 2           Response time opening time (ms)         2/6 3/6 3/2 3/4 1 01/4 1 1/2 1/2 000         1000 1000           fluids (*)         temperature range (TS)         seal materials (*)	C	23	A pro
air, inert gas and water -10°C to +85°C FPM (fluoroelastomer) MATERIALS IN CONTACT WITH FLUID			
(*) Ensure that the compatibility of the fluids in contact with the materials is verified Body Brass Internal parts Stainless steel and brass Springs Stainless steel Diaphragm & valve disc NBR Seals and pilot disc FPM Shading coll Copper			within amb
ELECTRICAL CHARACTERISTICS Coli insulation class Connector Spade plug (cable Ø 6-8 mm or Ø 6-10 mm)			temp
Connector specification for power ceil: 4 W/5,9 W DIN 43650, 11 mm, industry standard B tor power ceil: 56,9/W-89W-12,59W ISO 4400 / EN 175301-803, form A	NC function		temp
Electrical safety IEC 335			rang
Electrical enclosure protection Standard voltages (Other voltages and 60 Hz on request) DC (=): 24V - 48V AC (-): 24V - 48V - 115V - 230V / 50 Hz power ratings correct on the standard optimized			
operatings         operatings         reflex         reflex <th< td=""><td></td><td></td><td>-</td></th<>			-
28         20         12,5         7,5/9         -10 to +50         511239-014         511239-002         03 <sup>(1)</sup> Refer to the dimensional drawings on the following page.	NO function		
SPECIFICATIONS	options		
pipe orifice flow collicient Kv min. ai//water(*)	cstalogue number 44.867 WQ		Ambient temp
(mm) (m?h) (Vinin) ~ = ~ = NC - Normally closed	22目仕 出 SCE238D001 MO V E		
G* 3/8         12         2,4         40         0,3         10         10         4         6,9           1         1         2,4         40         0,3         16         16         5         6,9           1         1         2,4         40         0,3         10         10         4         6,9           1         1         2,4         40         0,3         10         10         4         6,9	SCE238D006 MO V E SCE238D002 MO V E		the temperatu
Ge 1/2         Ge 1/2         Z,A         40         0,3         16         16         5         6,9           15         4,2         70         0,3         10         10         4         6,9	SCE238D007         MO         V         E           SCE238D003         MO         V         E           SCE238D008         MO         V         E		surrounding
G* 3/4 20 6,6 110 0,3 10 10 4 6,9 16 16 5 6,9	SCE238D004         MO         V         E           SCE238D009         MO         V         E		cancering
6         G* 1         25         9.9         165         0.3         10         10         4         6.9         10           G 1 1/4         30         15         250         0.5         10         10         8         9         9	SCE238D005         MO         V         E           SCE238D010         MO         V         E           SCG238E016         MO         V         -		
G         G         1/2         45         27         450         0,5         10         10         8         9           G         G         2         45         34         566         0,5         10         10         8         9	SCG238E017         MO         V         -           SCG238E018         MO         V         -		
G         NO - Normally open           01         1/2         5         250         0.5         10         10         12,5         9           G         1 1/2         45         27         450         0,5         9         9         12,5         9           G         2         45         34         566         0,5         9         9         12,5         9	SCG238E019         -         V         -           SCG238E020         -         V         -           SCG238E021         -         V         -		
2	All leaflets are available on: www.asco.com		
	V316-1		

#### roduct can / be used hin it's bient perature ge

#### perature is ure of the air



#### Ambient temperature range



You must choose the solenoid valve that will work in these different situations

		ENOID VALVES pilot operated bilot, floating diaphragm 3/8 to 2		_	
6     7     25     9,9     165     0,3     10     10     4     6,9     SCE2380005     MO V E       G 1 1/4     30     15     250     0,5     10     10     8     9     SCE2380010     MO V E       G 1 1/2     45     27     450     0,5     10     10     8     9     SCE238016     MO V -	FEATURES           Minimum operating pressure differential $\Delta P$ !           • Minimum operating pressure differential $\Delta P$ !           • The oway valves for automatic control of wate and other gases/ligids compatible with the entrentangeability of magnetic heads, AC and the pressure and other gases/ligids compatible with the entrentangeability of magnetic heads, AC and the entrentangeability of the light of the entrentangeability of the fluids in the entrentange entrent is the entrentangeability of the fluids in the entrentange entremt is the entrentangeability of the fluids in the entrentange entremt is the entrentangeability of the fluids in the entrentange entremt is the entrentangeability of the fluids in the entrentange entremt is the entremt in the entremt is thenteeff entremt is the entremt is thenteeff entremt	3/8 to 2       3/8 to 2       0,30,5 bar rr, air and inert gas sealing materials used of DC       Sealing materials (s) (CCC)       Sign colspan="2">Sign colspan="2"Sign col	No function		Valv sele the the pas

#### ves should be ected based on viscosity of fluid that is sing through it



#### It's the resistance of flow







Hight Viscosity, hard flow rate.

Low viscosity, easy flow rate.

Viscosity decreases with heat

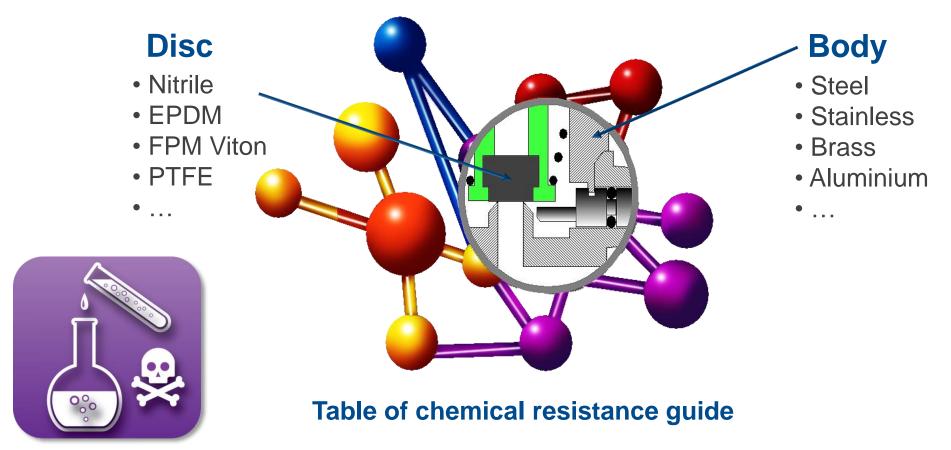
#### Maximum viscosity

	ASTA	SOLENOID VALVES direct operated 1/8 - 1/4	NC ZE U ZE NO ZE	3/2 Series 2 314	
	FEATURES • Compact valve intended for sir • High operating speed • Valve optimised for general 3-1 moving parts • Poll Seampleace	gle acting actuator control way piloting applications, only one spring and two			
fluids (	*)	temperature range	e (TS)	sea	l materials (*)
air, inert gas,	water, oil	- 25°C to + 90	)°C		IBR (nitrile) fluoroelastomer)
GENERAL					
(*) Ensure		LS IN CONTACT W bility of the fluids in con			s is verified
Body		Brass	S	Stainless	steel, AISI 304
hading coil		Copper	S	Silver	
ore tube		Stainle	ss steel,	AISI 305	
ore and plugnu	ıt	Stainle	ss steel,	AISI 430	F
Springs		Stainle	ss steel,	AISI 302	
Seals		NBR			
Disc		NBR			
Jpper disc		FPM			
Core guide		POM			
	Plug with visual indication and pea (see Solenoids, Coils & Accessorie Explosionproof enclosures for use ATEX Directive 2014/34/EU (See [ (*) Vifier la compatibilité di fuide avec les matricas	in zones 1/21-2/22, categories 2-3 to age 3) recontact. escended valve is determined by the limitations of minimum	NO function All leaflets are available Soler		

# The components of the product have to be compatible with the fluid



The choice of material is classified by how aggressive the fluids are





	temperature range (TS)	seal materials (*)
er, oil	- 25°C to + 90°C	NBR (nitrile) FPM (fluoroelastomer)

air, inert gas, wa

GENERAL

Shading coil

Core tube Core and plugnut

Springs

Disc Upper disc Core guide

Body

#### MATERIALS IN CONTACT WITH FLUID (\*) Ensure that the compatibility of the fluids in contact with the materials is verified Stainless steel, AISI 304 Brass Silver Copper Stainless steel, AISI 305 Stainless steel, AISI 430F Stainless steel AISL3 NBB NBR FPM POM

# Pages V011-1 to V011-4

	fluids						body	materi	ials									other	mater	ials in	conta	ct with	fluid			T				
	† = Excellent			ee	ee	8	11																			F	fluids (*)	temperature range (TS		terials (*)
	-> = Acceptable			stainless steel AISI 303/304	sst	ts_	Ę		_																	- II	air, inert gas, water, oil	- 25°C to + 90°C	NBR FPM (fluc	(nitrile) roelastomer)
	Not recommended			les 03%	1es 316	88	Ē	8	<u>ē</u> ,			$\mathbf{x}$			Je l		×	=					_			c	GENERAL			
	I = Do not use - = No data available		steel	tair Si S	<b>ISI</b>		aluminum	borze	cast iron	brass	番	PEEK	PPS	Silver	Copper	5	EPDM	FFPM	FPM	NBR	s	E	8	PTFE	Ш	10	MATERIAL (*) Ensure that the compatibil	S IN CONTACT WITH	HFLUID with the materials is	rerified
	Acetaldehyde		~	*	*	<u>∞~</u>	•	4	*		-	*	<u> </u>	*	ŭ	Ň	*	*	1	-	-	~	*	*		F	Body Shading coil	Brass Copper	Stainless ste Silver	el, AISI 304
	Acetic acid			-+		-+	~	-	5	Ť		4	*	4	1	1	+	+		*	Ť	-	+	4	1	C	Core tube Core and plugnut	Stainless s	steel, AISI 305 steel, AISI 430F	
	Acetic anhydride		1	-+		-+		~	-	i	~	+		+	<u> </u>		-+	+	1	~	i	-+	i	4	i	S	Springs Seals		steel, AISI 302	
	Acetone		1	+	+	+	+	1	+	÷	~	•	•	+	+	~	+	÷	i	1	i	1	-+	+	i		Disc Upper disc	NBR		- A
	Acetonitrile		-	1	1	1		-	+	-	-	1	-	- 1	-	1	-	1	i	×.	i	-	-	ŧ	-		Core guide	POM		
	Acetophenone		-	•	+	÷		-	÷	<b>†</b>	t			-	-	i	+	•	i	1	i	-+	-	÷	-					
	Acetyl chloride		t	-	†	†	Ţ	1	-+	-+	~	-	1	-	1	i	ζ.	t	Ť	i	ţ	ŧ	Ŧ	t	ŧ					5.
	Acetylene		1	1	1	1	1	~	1		~	1	×.	Ŧ	ŧ	*	1	t	ŧ	ŧ	ŧ	ŧ	1	t	1					5
	Air (lubricated)		1	1	1	1	1	1	t	t	1	1	1	-	-	1	*	t	1	1	1	1	t	t	t					
	Air (unlubricated, dry)		1	1	1	1	1	1	t	t	1	1	1	-	-	1	1	t	t	t	1	t	t	t	t					
	Alcohol ethyl (ethanol)		1	1	1	1		1	1	ŧ	1	-	-	1	-+	1	1	1	-+	1	ŧ	1	1	1	1					
	Alcohol methyl (methanol)		1	1	1	1	->	1	t	ŧ	1	-	1	1	->	1	1	t	ŧ	1	ŧ	1	1	t	t					
	Aluminium sulfate		1		1	1	1	*	ŧ	$\mathbf{x}$	$\sim$	1	1			1	1	1	1		ŧ	1	1	1						
	Ammonia, anhydrous		1	1	1	1	*	•	-+	*	1	1	*	*	ŧ	1	1	-+	ŧ		ŧ	~	*	1	× .					
	Ammonia, aqueous		1	ţ	1	1	ŧ	$\mathbf{x}$	٠	ŧ	1	-	*	*	*	•	1	ŧ	÷	*	ŧ	1	ŧ	1	-					
	Ammonia, water		1	÷	1	1	ŧ	*	•	ŧ	1	-	*	$\mathbf{x}$	$\sim$	-+	1	-	÷	1	ŧ	1	ŧ	1	-					
	Ammonium hydroxyde		$\sim$	•		ŧ	$\mathbf{x}$	$\mathbf{x}$	×.	ŧ	$\mathbf{x}$	1		Ŧ	ŧ		1	÷	-+	$\sim$	Ŧ	1		1						
	Amyl acetate		1	ţ	+	÷	+	1	8	ŧ	1	1	1	-	1	4	1	1	ţ.	+	ŧ	÷	ţ.	1	1					
	Aniline		$\sim$		1	1	$\mathbf{x}$	$\mathbf{x}$	-+	-+	$\mathbf{x}$	1		1	ŧ	ŧ		1	->	ŧ	ŧ	1	1	1	× .					
	Argon		1	1	1	1	1		••	1	1	1	1	1	$\mathbf{x}$	ŧ	1	1	1	$\mathbf{x}$	1	-	-	1	1					
	Barium chloride		1	-+	1	1	ŧ	1	8	1	$\mathbf{x}$	1	1	-	-+	1	1	1	1	1	1	1	1	1	-+					
	Barium hydroxide		1	-+	1	1	ŧ	$\mathbf{x}$	8	-+	$\mathbf{x}$	-	1	1	ŧ	1	1	1	1	1	-+	1	ŧ	1	-+					
	Benzaldehyde		1	1	1	1	1	1	1	-+		1	->	Ŧ	->	ŧ	-+	1	ŧ	ŧ	ŧ	ŧ	1	1	-+					
	Benzene pure		->	1	1	1		1	-+	->	$\mathbf{x}$	1	->	1	->	ŧ	ŧ	1	1	ŧ	ŧ	->	1	1	->					
	Benzene sulfonic acid		+	1	1	1	ŧ	->	ŧ	-+	*	ŧ	->	1	*	->	*	1	1	*	ŧ	->	*	1	-+					
	Borax		->	1	1	1	*	1	1	->	$\mathbf{x}$	1	1	-	->	->	1	1	1	->	1	1	1	1	1					
	Bromine		1	L I	1	~	Ŧ	Ŧ	+ I	-	1	Ŧ	Ŧ		$\sim$	I I	Ŧ	1	1	1	Ŧ	->	Ŧ	1	+			_		
Butadiene		1	1	1		t	1	1		1	1	•	<b>x</b>	-	1		-	$\sim$	•	•	ζ.	1			ŧ	Ļ	+ 1 1	+		
Butane		<b>N</b>	1	1		t	•••		•	•	1	1	Ц	1	1	ł.		$\sim$	1		ŧ.	1	⊥		1	- 26		-+		
Rutanol (aqueous		+	<u>+</u>	t			-					1	Ш	_				-			-	1	⊥		†	1	1 1			
	Butyl acetate		1	1	1	1	1	1	1		1	1	1		1	Ŧ		1	۰ŧ	+	Ŧ	->	->	1	8	-				
	Butylamine		1	1	1	1	1	->	1	-	1	-	Ŧ	-	-	Ŧ	+	1	+	+	+	->	Ŧ	1	ŧ	Ŧ				
	Butyl ether		1	1	1	1	1	-	1	-	ŧ	1	1	-	-	*	*	1	ŧ	->	-+	ŧ	ŧ	1	ŧ					
	Calcium chloride		1	-+	->	-+	ŧ	->	ŧ	-	$\mathbf{x}$	1	1	1	-+	1	1	1	1	1	1	1	ŧ	1	1					
	Calcium sulfate		->		1	1	->	->	1	ŧ	*	1	1	1	->	1	1	1	1	1	1	1	ŧ	1	-					
	Carbon dioxide (wet/dry)		1	1	1	1	1		1	ŧ	1		1	1	1			1			1	1	1	1	× .					
	Carbon tetrachloride		1	*	*	*	ŧ	1	ŧ	1	*	1		->	*	ŧ	ŧ	1	1	*	ŧ	->	1	1	ŧ					
	Caustic soda		->	1	1	1			_	-+	1	1		-	-	<b>→</b>	1	1	->	$\sim$	-+	-	1	1						
	Cellosolve	-1	1	->	1	1	->		-+	1	1	-	1	-	<u> </u>	ŧ	-+	1	×.	ŧ	ŧ	1	1	1	ŧ					
	Please note that the chemic This data is for information of		tanc	e ma	ly De	Influ	lence	d by	ma	ny ta	ctor	s, su	ich a	is ter	mper	ratur	e, co	nce	ntrat	ion, e	HC.									
	This data is for information of	nuy.																												

# 

		A	51	72				Dilot ope lot, float 3/8 to	erated ing diap		m		2/2 Serie 238
		Tw     ani     Inti     Th     GENE     Differe     Ambie     Maxim     Respo     ope     clos	nimum oj o way va d other g erchange e soleno RAL ntial pre nt tempo um visc nse time ning time flu air, inert	elives foi gases/lin eability id valve essure erature osity e (ms) (ms) ids (*) gas and v	vater	atic co ompati netic h fy all re	ferential △ P 0, ntrol of water, ble with the si- eads, AC and elevant EU Dir See «SPECIF −10°C to +80 40 90 1 temperature rar −10°C to +4 1 FLUID	air and in ealing mat IDC rectives ICATIONS °C (s) 3/4 1 55 70 10 200 nge (TS)	erials use ■ [1 bar = 1 1/4 300 1000 seal N	00 kPa 1 1/2 300 1000 material BR (nitr	2 1500 2000		CE
		Body Interna Spring Diaphr Seals a Shadir ELEC Coll in Conne for pow Electri Electri Electri Standa	al parts s agm & v and pilot ng coil TRICAL sulation	valve di t disc CHAI class ccificati W/6,9 V 9W-89W ty osure p osure p osure p	isc RACTE N I-12,5/9W protect	ERIST	he fluids in col Brass Stainless ste NBR FPM Copper ICS F Spade plug ( DIN 43650, 1 ISO 4400 / E IEC 335 Moulded IP6 DC (=):24V AC (-):24V	cable Ø 6 1 mm, indi N 175301	-8 mm or ustry stan -803, fori	Ø 6-10 dard B n A	0 mm)	NC function	
		prefix option	(VA) (VA) 12 10,4 23 28 the dimension	vover ra holdir (VA) 6 6 6 14 20	tings g h (W) 4 8 5 8 12,5 1	oticold = (W) 5/6,9 5/6,9 7,5/9 7,5/9	operator ambient temperature rangef (TS) (C°) -10 to +60 -10 to +60 -10 to +50 -10 to +50		rement coll = Hz 24 V 97 40012 17 40072 09 51123 14 51123	DC 7-142 7-185 9-002	type (1) 01 (2) 02 03 03	A NO function	P
			FICATI		gaoneren	oloning p	ayo.			an oaran		NO function	
pipe eiz e			orifice size	coeff	ow icient (v	min.		(bar) . (PS) ater (*)	_	ver coil (W)		catalogue number	options main defailed FPM EPDM
			(mm) Normally	(m³/h) y close			~	=	~	=		~/=	
			12	2,4	40	0,3	10	10	4	6,9 6,9		SCE238D001 SCE238D006	MOVE MOVE
			12	2,4	40	0,3	10	10	4	6,9	1	SCE238D002 SCE238D007	MO V E
			15	4.2	70	0.3	10	10	4	6,9		SCE238D003	MOVE MOVE
				-,			16 10	16 10	5	6,9 6,9		SCE238D008 SCE238D004	MO V E MO V E
			20	6,6	110	0,3	16	16	5	6,9		SCE238D009 SCE238D005	MO V E
			25	9,9	165	0,3	16	16	5	6,9		SCE238D010	MOVE MOVE
	đ	G 1 1/2	4 30 2 45	15 27	250 450	0,5	10	10	8	9		SCG238E016 SCG238E017	MOV-
	and	G 2	45	34	566	0,5	10	10	8	9	1	SCG238E018	MO V -
		NO -	Normall			0,5	10	10	12,	9		SCG238E019	- V -
	- Filler		4 00					1 10	1 12.	1 54	1	5CG238E019	- V -
	welability, design and ap-	G 1 1/4 G 1 1/4		15 27	250 450	0,5	9	9	12,			SCG238E020	- V -

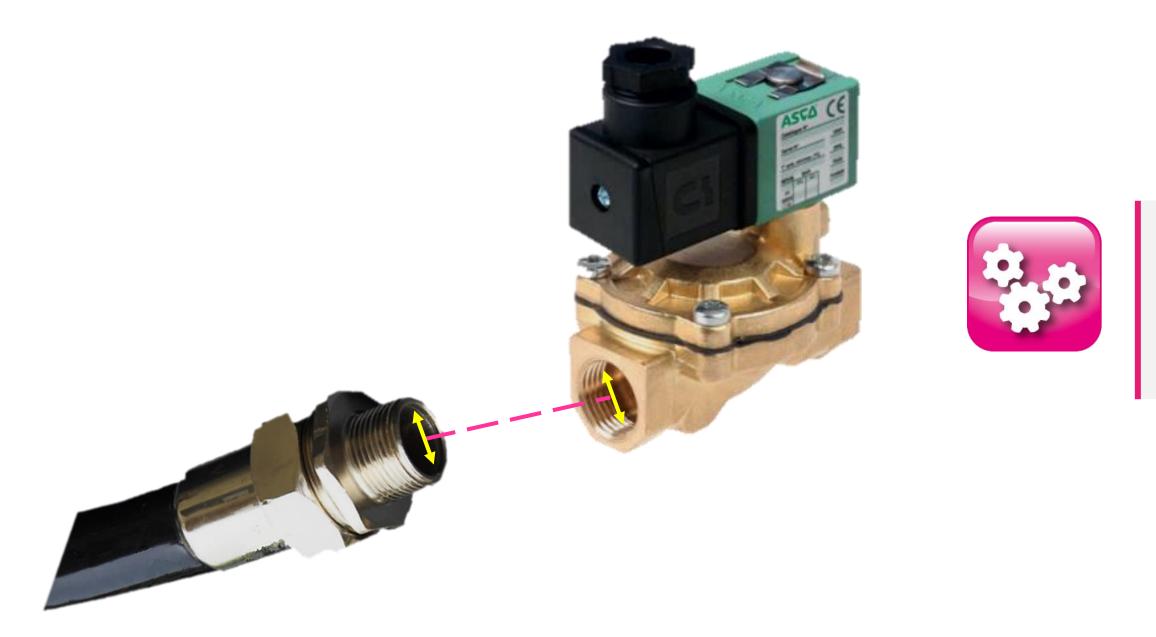


to be the valve

#### This is the size of the pipe which is going

# connected to







#### The pipe sizes need to be the same in order to be connected together

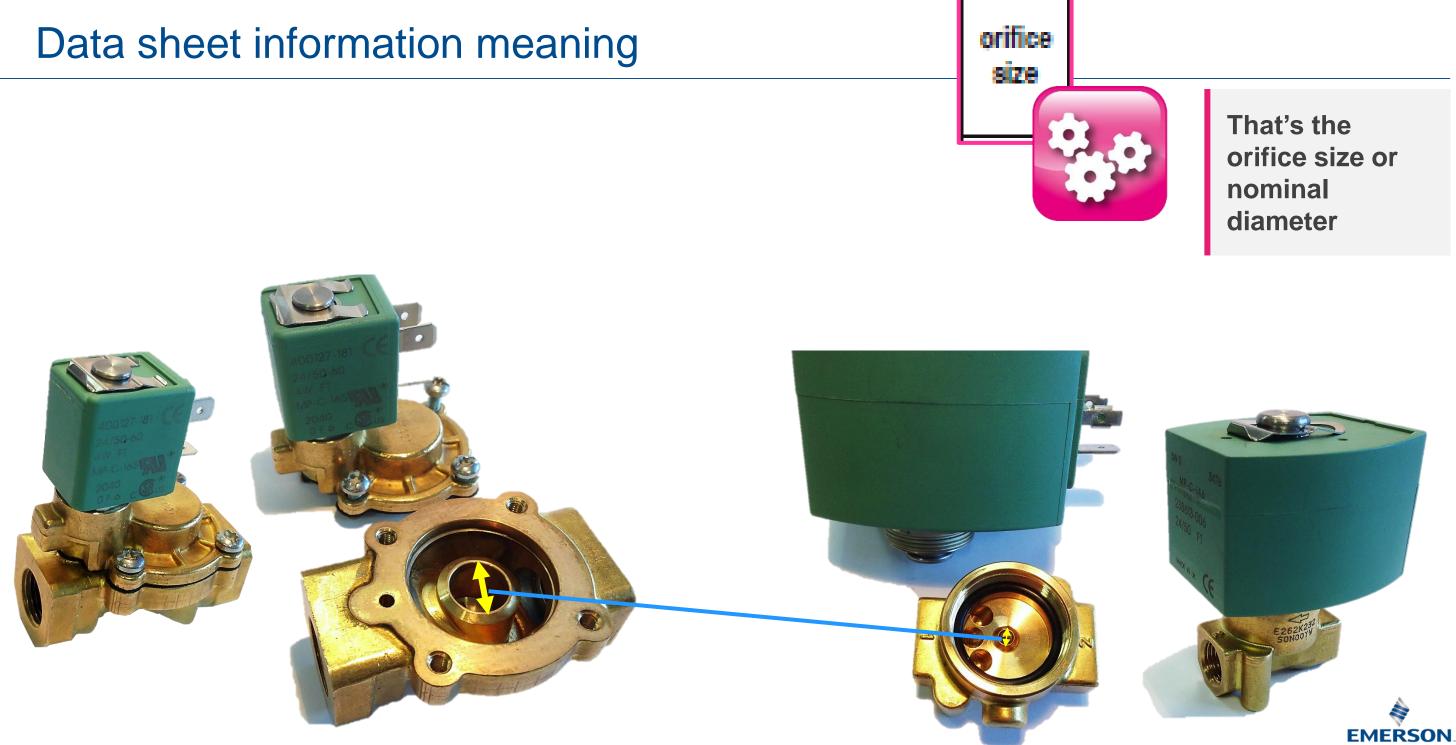


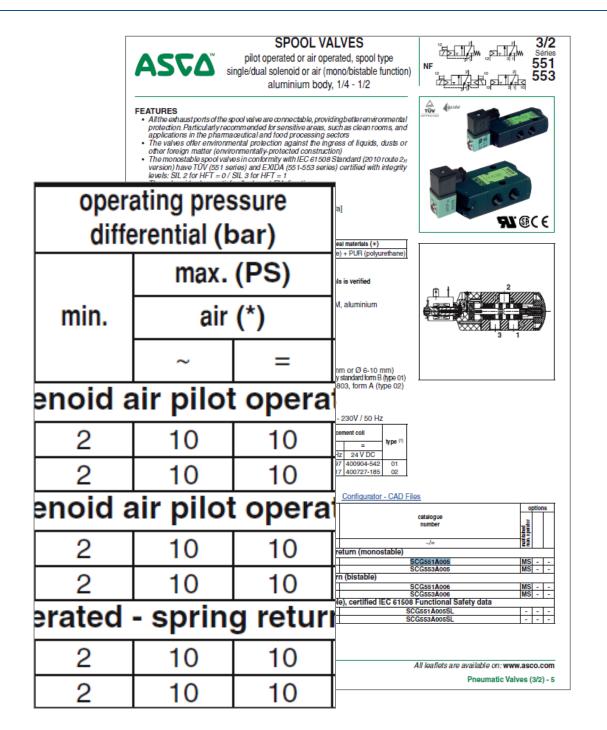
		A	51	72				ENOID pilot oper lot, floatir 3/8 to	ated ng diapl		m		5	2/2 Series 238
		Two and	himum ojo way va d other g erchange esclence RAL ntial pre- titempo um visc nse time ning time flu air, inert ( RIALS I sure that	tives for pases/lic pability id valve erature osity e (ms) (ms) ids (*) gas and v	vater	atic compation pation of the second s	25 30 5 40 90 1 temperature rar -10°C to +1 H FLUID he fluids in cool Brass	air and ine ealing mate IDC rectives ICATIONS* °C (S) 3/4 1 55 70 (10 200 nge (TS) 85°C	rials used [1 bar =1( 1 1/4 1 300 3 1000 1 seel r NB FPM (flu	00 kPa 1/2 000 naterial IR (nitr Joroela	2 1500 2000 s (*) ile) istomer)			Ξ.
		Seals a Shadin ELECI Coil ins Connect for pow for pow Electric Standa	s agm & v ind pilot g coil FRICAL sulation	t disc CHAI class clficati W/6,9 V 9W-89W ty osure p osure p	RACTE	ion	Stainless ste Stainless ste NBR FPM Copper ICS F Spade plug ( DIN 43650, 1 ISO 4400 / E IEC 335 Moulded IP6 DC (=): 24V AC (-): 24V	cable Ø 6-8 1 mm, indu: N 175301-1 5 (EN 6052 - 48V	3 mm or 6 stry stand 803, form 29)	lard B I A		NC function		
		prefix option	inrush ~ (VA) 12 10,4 23 28 be dimensio	6 6 14 20	g h (W) 4 9 5 9 8 7 12,5 7	oticold = (W) 5/6,9 5/6,9 7,5/9 7,5/9 oliowing p	operator ambient temperature rangef (TS) (C°) -10 to +60 -10 to +60 -10 to +50 -10 to +50 wage.	replace ~ 230 V/50 Hz 400127-197 400727-117 511239-009 511239-014	7 400127 7 400727 9 511239 4 511239	-142 -185 -002	type (1) 01 (2) 02 03 03 ed.	A NO function	P	
			ICATI	ONS							_			
rific		•	orifice size	coeff K	w icient (v	min.		(bar) (PS) ater (*)		er coil W)		catalogue number	ada ada	MD WILLIAM
817 P			(mm) ormalh	(mª/h) v close			~	=	~	=		~/=		± b
			12	2,4	40	0,3	10 16	10	4	6,9 6,9		SCE238D001 SCE238D006	MO	V E V E
			12	2,4	40	0,3	10	10 16	4	6,9 6,9		SCE238D002 SCE238D007	MO	V E V E
			15	4,2	70	0,3	10	10	4	6,9 6,9		SCE238D003 SCE238D008		V E V E
			20	6.6	110	0.3	10	10	4	6,9		SCE238D004	MO	VE
	8			-,-		-,-	16 10	16 10	5	6,9 6,9		SCE238D009 SCE238D005	MO	V E V E
I	andapecfication	G* 1	25	9,9	165	0,3	10	10	5	6,9		SCE238D010	MO	VE
	a di	G 1 1/4		15	250	0,5	10	10	8	9		SCG238E016	MO	V -
	1	G 1 1/2	45	27 34	450 566	0,5	10	10	8	9		SCG238E017 SCG238E018		V - V -
	١ĕ.				000	0,5	10	10	0	1 9		3032302010	Imo	• •
	an and	G 2 NO - 1	Vormall	y open										
	6	NO - 1 G 1 1/4	Normall 30	15	250	0,5	10	10	12,5			SCG238E019		- ۷
	slability, design and	NO - 1	Normall 30		250 450 566	0,5 0,5 0,5	10 9	10 9	12,5 12,5 12,5	9		SCG238E019 SCG238E020 SCG238E021	- 1	V - V - V -



#### This is the size of the valve seat. The bigger the diameter, the more flow can be passed





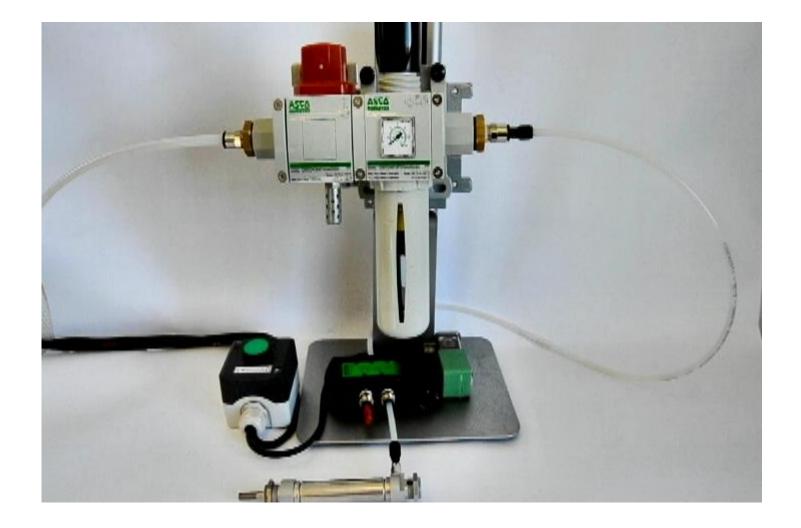




#### This information guarantees the proper valve function.

#### What happens if we don't respect these pressures?







#### The mimimum pressure for a 551 is 2 bar. What happens if we don't apply this differential pressure?



			FEATUR • Com cycle • Wick • Quic • Stan tures • Stan	pact design for th s range of flow an k disassembly of dard disc seal ma and compatible dard manual opei	SOLENOID VALVES direct operated 1/8 - 1/4 e control of single-acting actuators or filling and draining d pressure ratings core tube for easy maintenance of internal parts de of FPM suitable for a wide range of operating tempera- with many fluids rator allows an easy installation lifty of the solenoid without disassembly of the valve	NC ET Market 3/2 U ET Market 356 NO ET Market 356
	ating pres erential (k		<ul> <li>Com</li> </ul>	pliance with UL a pact and low wei	nd CSA standards (coil 4/6,9 W)	<b>RV</b> @C €
	max.	(PS)		er coil V)	nur	3
min.	· · ·	vater,	, ,	v)		
	oil	(*)			brass	
	~	=	~	=	~/=	NC function
0	15	15	4	6,9	SCG356B001VMS	
0	10	10	4	6,9	SCG356B002VMS	
0	5	5	4	6.9	SCG356B003VMS	NO function
0	4	4	4	6,9	SCG356B004VMS	options
0	10	10	5	5	SCG356B466VMS	catalogue number
0	4	4	5	5	SCG356B470VMS	ss stainless steel
						001VMS SCG356B013VMS E 002VMS SCG356B014VMS E
0	4,5	4,5	4	6,9	SCG356B010VMS	003VMS SCG356B015VMS E 004VMS SCG356B016VMS E 466VMS SCG356B434VMS
0	3	3	4	6,9	SCG356B011VMS	470VMS SCG356B436VMS
0	2	2	4	6,9	SCG356B012VMS	011VMS SCG356B023VMS E 012VMS SCG356B024VMS E
						006VMS SCG356B018VMS E
0	8,5	8,5	4	6,9	SCG356B006VMS	leaflets are available on: www.asco.com Solenoid valves (3/2) - 23
-	-,-	-,-		-,-		Solenoid valves (3/2) - 23



is 4 bar.

#### The maximum operating pressure for a 356 B004 What happens if we go over the maximum differential pressure?



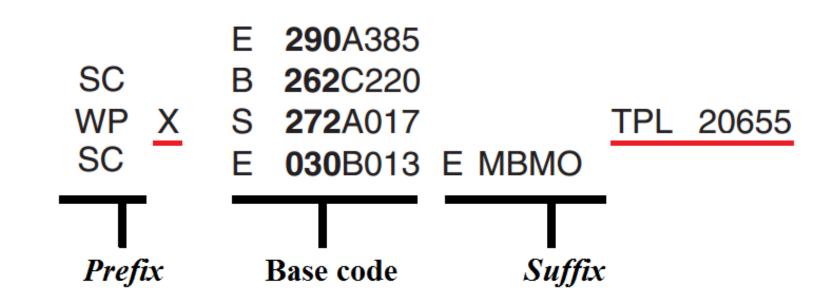




# **Code numbers**

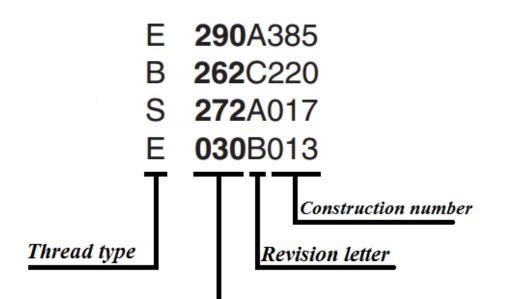


## **Alpha-numerical code**





**Base code - alpha-numerical** 





**Product series** 

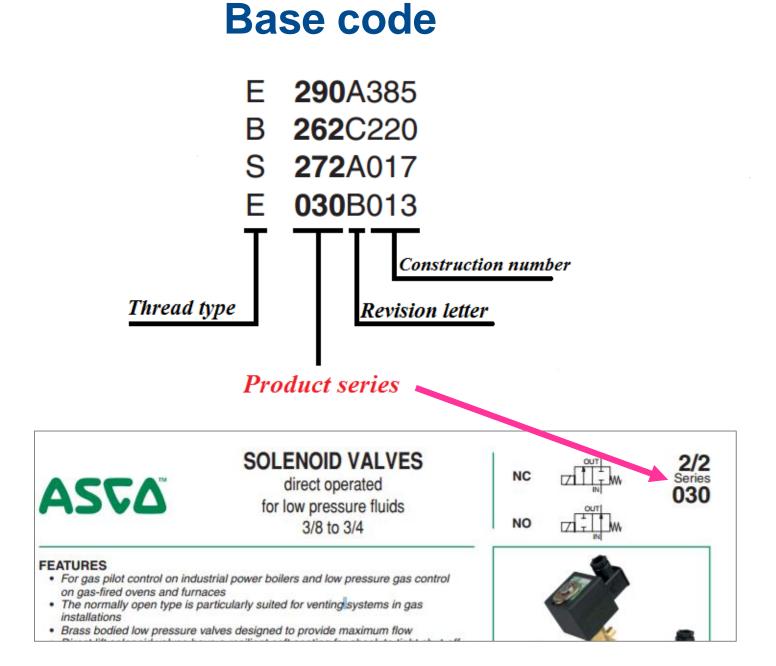
Base code is 8 characters long

# E**290**A385

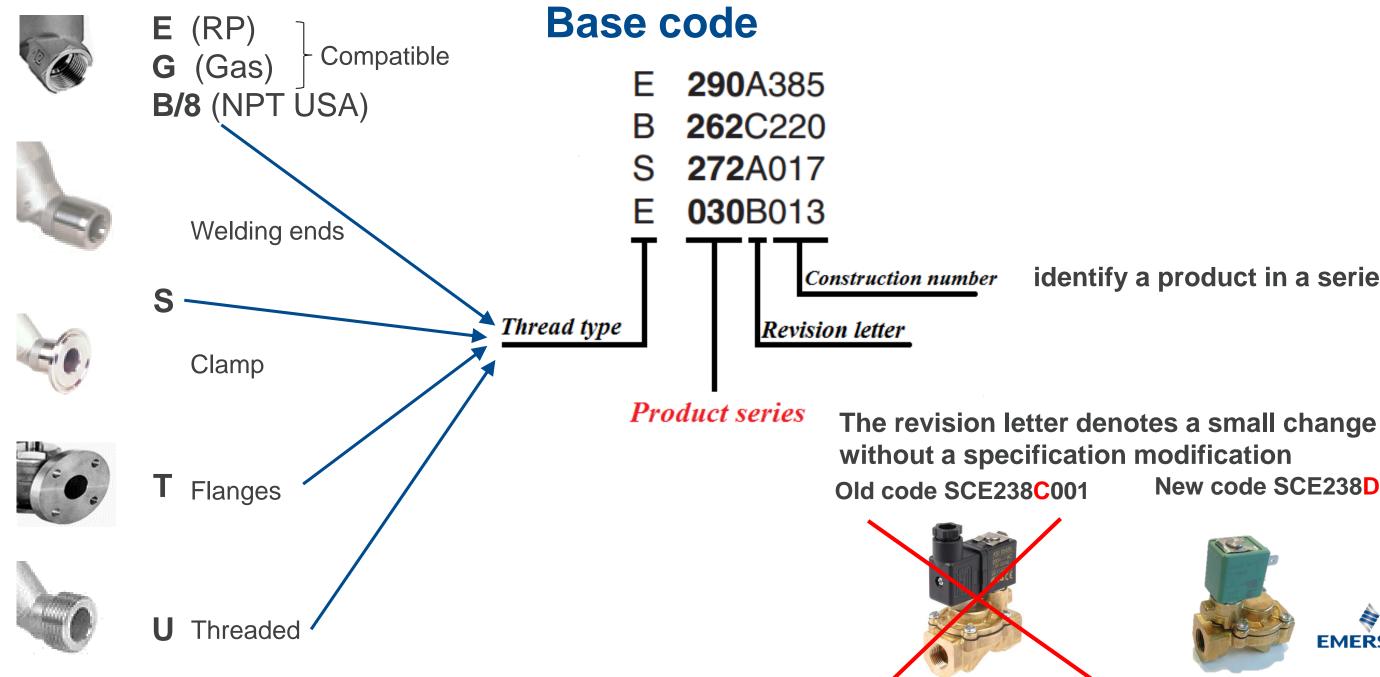


#### The same rule applies to numerical codes!







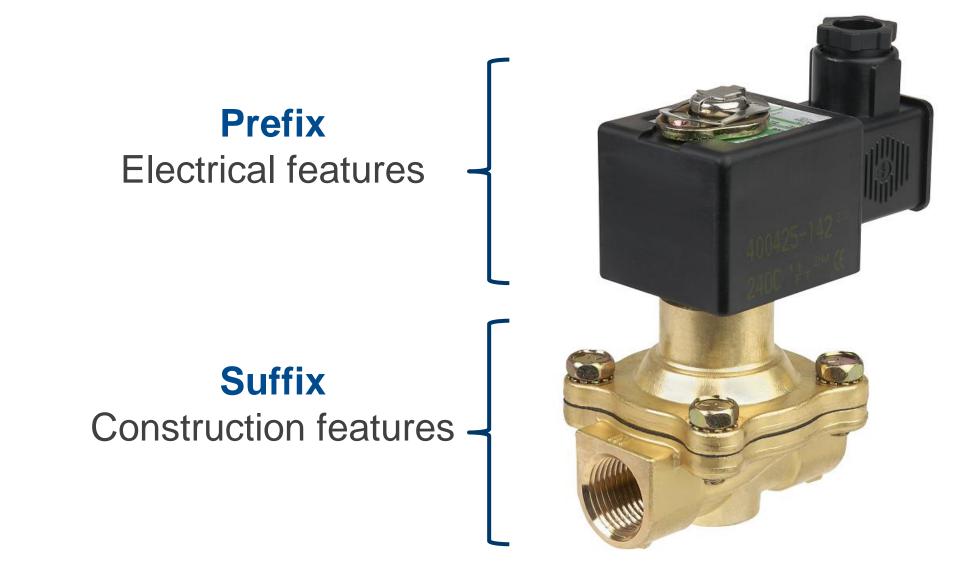


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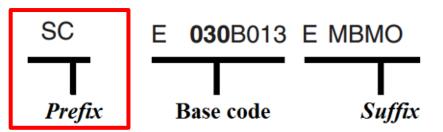
# New code SCE238D001

#### identify a product in a series





# Prefix – describes the electrical component of the valve



**SC** – the standard coil enclosure It offers the most basic protection



#### Catalogue page: V003-1

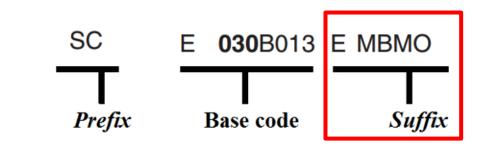
		P	ref	x			description
1	2	3	4	5	6	7	description
-	F		C				Solenoid with connector DIN 43650, 9,4 mm, pilot 302
-	F	V	Т				Solenoid with connector M12, LED and protection, pilot 302
E	F						Explosionproof - NEMA 3, 4, 6, 7, 9
E	۷						Explosionproof - NEMA 3, 4, 6, 7, 9 - 316 SS
W	в	L	P				Increased safety / encapsulation - moulded enclosure ATEX-IECES
E	М		1				Encapsulated ATEX-IECEx
		E	T				Threaded conduit / ext. thread (M20 x 1.5)
				H	Т		Class H - high temperature , +80°C ambient temp.
L	P	K	F				Flameproof - Alum, ATEX-IECEx
N	F						Flameproof - Alum. ATEX-IECEx
P	V						Encapsulated ATEX-IECEx
S	C						Solenoid with spade plug connector
		Т					Threaded conduit / ext. thread (1/2* NPT)
w	P						Waterproof IP67 - metal enclosure
L	1						Intrinsically safe - Alum, enclosure ATEX-IECEx
N	F			1	S		I.S. with Aluminium IP67 enclosure ATEX-IECEx
W	S			1	83		Waterproof IP67 - 316 SS enclosure
w	S	E	M				Encapsulated ATEX-IECEx, 316 SS enclosure
W		L					Intrinsically safe - 316L enclosure ATEX-IECEx
w	S	L	P	ĸ	F		Flameproof - 316L SS ATEX-IECEx
W			F				Flameproof - 316L SS ATEX-IECEx
		N			S		I.S. with 316 SS IP67 enclosure ATEX-IECEx
S	G	100		1	8		Dust applications - coils and connectors - II 3 D, Ex to IIIC
						x	Other special constructions *

NF **WSNF** EM PV **LPKF** 





# Suffix – describes construction (mechanical) features



#### **Seal materials:**

E - EPDM

T - PTFE

V - FPM

J - CR

#### **Other options:**

**MB** – mounting brackets **MO**, **MS** – manual operators LT – low temperature **N** – Oxygen service VM, VH – Vacuum servic Etc...

#### Catalogue page: V003-1

		s	uffi	х			
1	2	3	4	5	6	7	description
	C	0					Epoxy coating on all external surfaces
Е							EPDM (ethylene-propylene)
Ν							Oxygen service (CR (chloroprene)
N	V						FPM (fluoroelastomer) parts cleaned for oxygen service
н	W						Diaphragm for hot water service
J							CR (chloroprene / neoprene)
			L	T			Low temperature
	M	B		100			Mounting bracket
			M	0			Impulse or maintained manual operator
			M	S			Maintained manual operator
		P					Dry gas, non-lubricated air construction
		Q					Long life construction
	S	L					Certified IEC 61508 Functional Safety data
т							PTFE (polytetrafluoroethylene)
V							FPM (fluoroelastomer)
			V	M			Primary vacuum
			V	H			Secondary vacuum

See page V006-1



**TPL number** – special option or construction feature given to a specific product.



The prefix **X** is always associated with a **TPL number** 

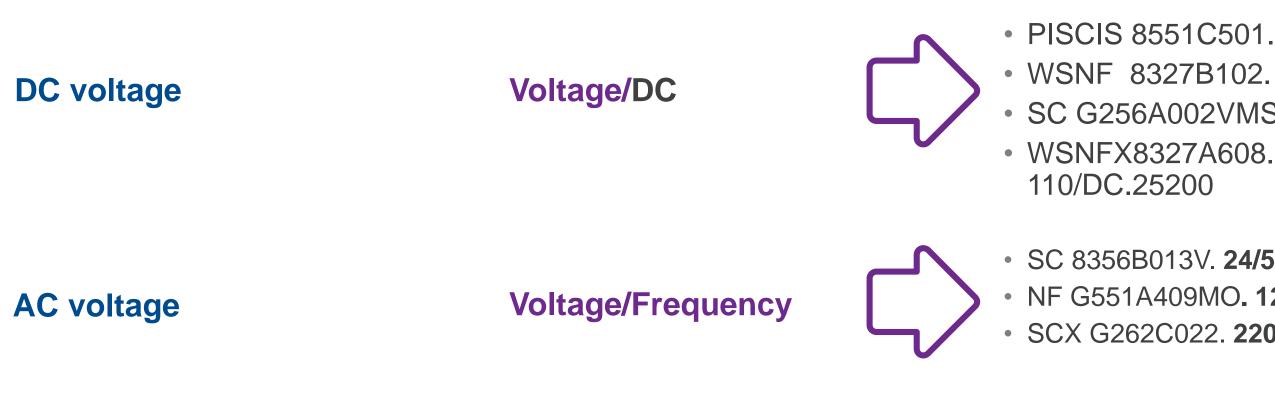
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# TPL – Temporary Parts List







#### **Special codification for 15 digit codes**

Series 262-263-314 (Check catalogue for identification)

Į.,	VO	Itag	e co	de	
24 V/50 Hz	48 V/50 Hz	115 V/50 Hz	230 V/50 Hz	24 V/DC	48 V/DC
FL	FR	FT	F8	F1	F9



E262K019S1N00F8 E263K003S1N00FL E314K068S1N00F1

# • PISCIS 8551C501. 6/DC • WSNF 8327B102.24/DC SC G256A002VMS.48/DC

 SC 8356B013V. 24/50-60 • NF G551A409MO. 120/60 SCX G262C022. 220/50.18273

## Understanding catalogue numbers



Hello I have a valve but I don't know what the code means. Can you tell me?

SCX8551B401MO.24/DC.18275



#### ASCO PRODUCT IDENTIFICATION Catalogue number identification system Products in this catalogue are identified by an alphanumerical or numerical identification system ALPHANUMERICAL CATALOGUE NUMBERS The catalogue number appears on the product label: E 290A385 SC B 262C220 SC X" S 272A017 TPL 20655 E 030B013 E MBMO WP ASCA AT.N :E290A385 NC INLET PORT 2 prefix -PICE/PIPE: DN20 G 3/4" EDUM : AR/WATER/LOL pipe thread 10 bar Temp 180°C STEAM 10 bar Temp 190°C series no. LOT : AR/WATER 4-10 bar basic number suffix TPL no. (1) The prefix X is always associated with the TPL (temporary parts list) number PREFIX - Electrical characteristics, connectors etc. SUFFIX - Seal materials, manual operator etc. prefix description (under the "options" column in the SPECIFICATIONS table) 1 2 3 4 5 6 7 suffix CFSC Solenoid with connector DIN 43650, 9,4 mm, pilot 302 description CFVT 1 2 3 4 5 6 7 Solenoid with connector M12, LED and protection, pilot 302 Epoxy coating on all external surfaces Explosionproof - NEMA 3, 4, 6, 7, 9 CO EPDM (ethylene-propylene) EV Explosionproof - NEMA 3, 4, 6, 7, 9 - 316 SS Oxygen service (CR (chloroprene) WBLP Increased safety / encapsulation - moulded enclosure ATEX-IECEx NV FPM (fluoroelastomer) parts cleaned for oxygen service EM Encapsulated ATEX-IECEx HW Diaphragm for hot water service Threaded conduit / ext. thread (M20 x 1.5) ET CR (chloroprene / neoprene) Class H - high temperature , +80°C ambient temp. HIT Low temperature LPKF Flameoroof - Alum, ATEX-IECEx MB Mounting bracket NF Flameproof - Alum, ATEX-IECEx Impulse or maintained manual operator M O PV Encapsulated ATEX-IECEx MS Maintained manual operator SC Solenoid with spade plug connector Dry gas, non-lubricated air construction Iτ Threaded conduit / ext. thread (1/2" NPT) 0 Long life construction WP Waterproof IP67 - metal enclosure Certified IEC 61508 Functional Safety data LI Intrinsically safe - Alum, enclosure ATEX-IECEx PTFE (polytetrafluoroethylene) NF IS LS, with Aluminium IP67 enclosure ATEX-IECEx FPM (fluoroelastomer) WS Waterproof IP67 - 316 SS enclosure Primary vacuum WSEM Encapsulated ATEX-IECEx, 316 SS enclosure VH Secondary vacuum WSLI Intrinsically safe - 316L enclosure ATEX-IECEx TPL (temporary parts list) number - always associated with the prefix X WSLPKF Flameproof - 316L SS ATEX-IECEx (under "options" in the catalogue) WSNF Flameproof - 316L SS ATEX-IECEx TPL description WSNFIS LS. with 316 SS IP67 enclosure ATEX-IECEx 20547 Version for external pilot air supply (series 551-553) SG Dust applications - coils and connectors - II 3 D. Ex to IIIC 20655 Manual operator with pushbutton (series 272-374) X Other special constructions \* 20674 LED and protection (prefix CFSC) \* If prefix X is used, always specify Temporary Parts List (TPL) number 23012 2 Mounting holes øM4, 7 mm depth (stainless steel body, series 370)



Check Engineering Information to review information and for examples



# Understanding catalogue numbers

#### **Remember:**



- Find the chapter you need
- Use the first pages of the chapter to search what you need
- Find the page for your code in the index
- Each line of products (valve, pistons, FRL, etc) has different codifications.
- Check catalogues to understand them.





# **Digital communication**



# Web tools



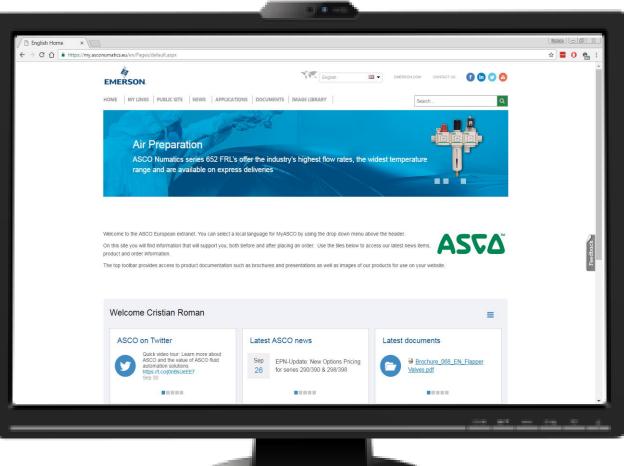
#### **Digital communication**

- Website
  - Find information fast
  - The "Product catalogue"
- My ASCO

- How do you access it?
- Communication products
- DPM
- Order tracking
- The catalogues

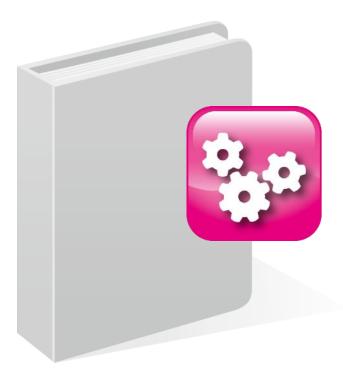


# The website www.asconumatics.eu









I want to mount an E314K036S1N00 in my circuit. Fluid: air Pressure: 10 bar Current: 30 V AC

Is it possible?



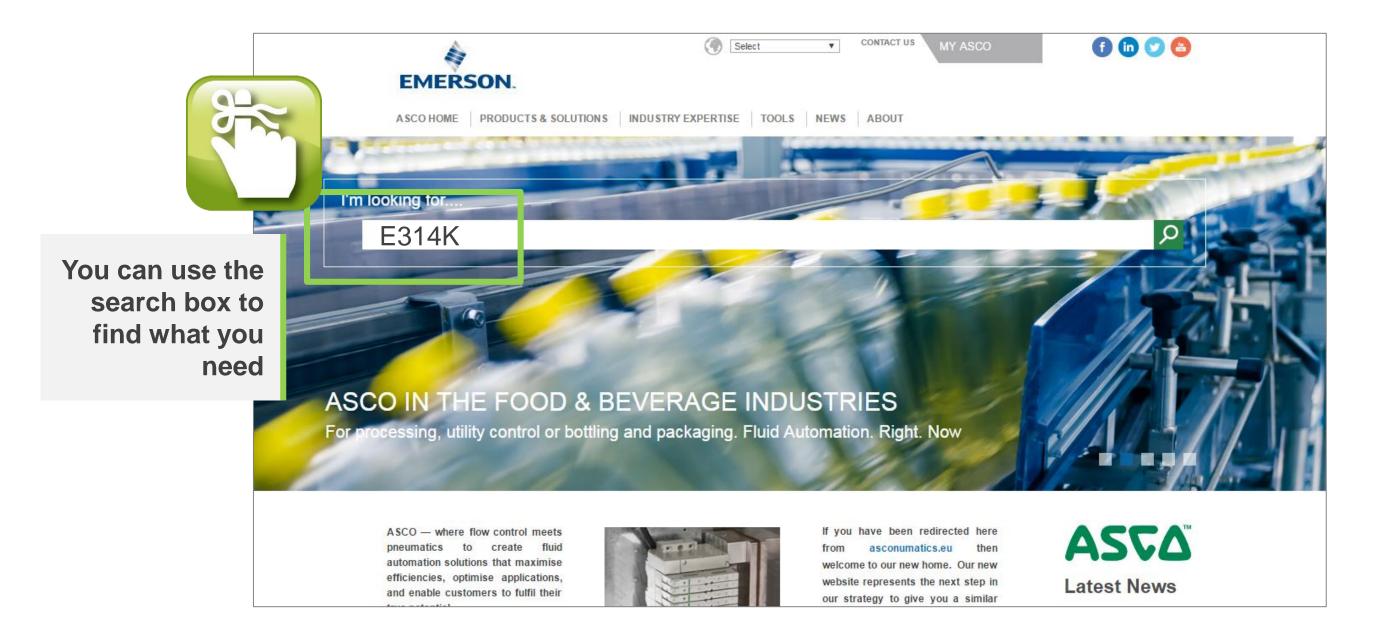


Where am I going to find the answer?



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REFINE BY Result Type	1 Re 	-	ve-General Service FPM (oxygen) E314K 006 007	e-314-1/4-Dire M200074 N00 V00		The description of what you will find in the document is below the document name
	PRODUCTS & SOLUTION S Products Catalogue Pages Product & CAD Configurators I&M Sheets	INDUSTRY EXPERTISE Industries Applications Capabilities & Expertise Customer Success Stories	TOOLS Flow Calculator Literature Videos Training	ABOUT Company History Brands FAQ Careers Exhibitions	OTHER LINK S NEWS CONTACT US OFFICE & DISTRIBUTOR LOCATOR	EMERSON

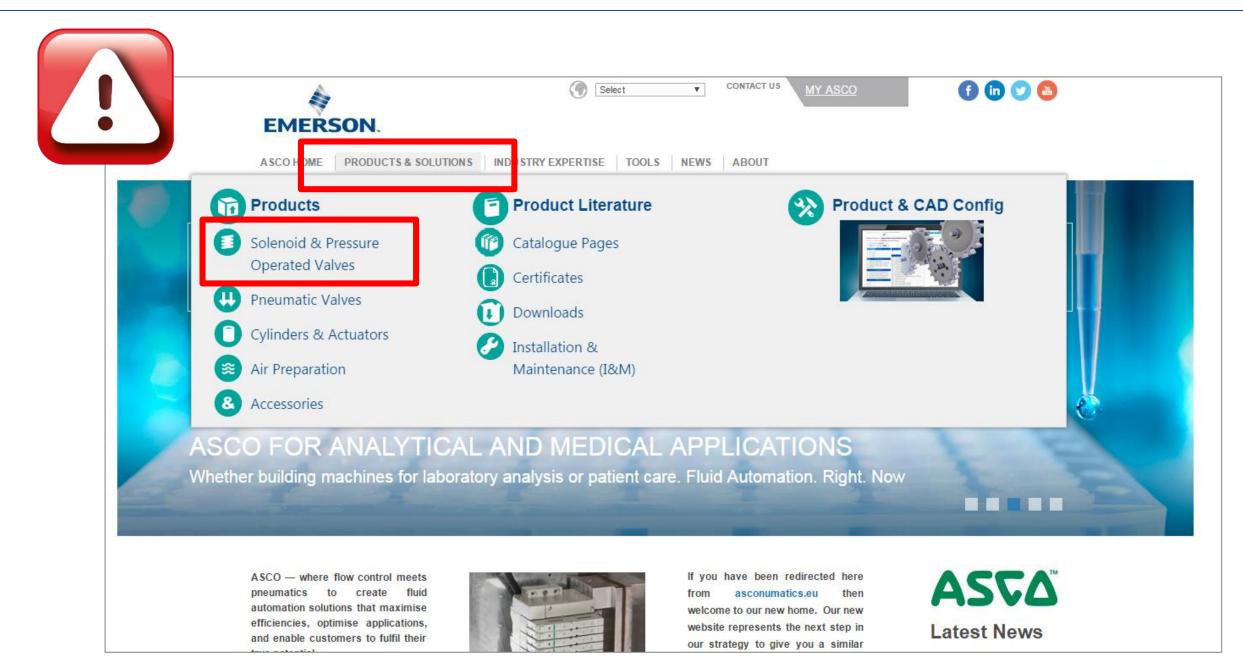
### **ASZA** SOLENOID VALVES SERIES 314 SPECIFICATIONS 15-DIGIT PRODUCT CODE flow operating pressure voltage code power differential (bar) 24 V/50 Hz 48 V/50 Hz 115 V/50 Hz 230 V/50 Hz 24 V/DC 48 V/DC coefficient orifice ions coil pipe max. (PS) Kν size brass stainless steel (W) size p $2 \rightarrow 1$ 1**→**3 min. air (\*) water (\*) oil (\*) type type (mm) (m<sup>3</sup>/h) (l/min) (m<sup>3</sup>/h) (l/min = = WITHOUT MANUAL OPERATOR NC - Normally closed, NBR seal and disc 1,2 0.04 0,7 0.05 0.8 0 20 17 20 17 20 17 10,111,6 G 01 G314K031S1N00 G314K037S1N00 2,4 0,13 2,2 0,17 2,8 0 14 10 14 8 | 13 | 6 |10,1|11,6 G | 01 |G314K032S1N00|G314K038S1N00 1/8 3,7 0,17 2,8 10 6 6 6,5 4,5 10,1 11,6 G 01 G314K033S1N00 G314K039S1N00 0,22 0 10 3,2 0 20 17 20 17 20 17 10,111,6 G\* 01 E314K034S1N00 E314K068S1N00 1,2 0,04 0,7 0,05 0,8 0 14 10 14 8 13 6 10 1116 G\* 01 F314K035S1N00 F314K121S1N00 FL FR FT 2,4 0,13 2,2 0,17 2,8 10 6 6.5 4.5 10,111,6 G\* 01 E314K036S1N00 314K126S1N00 3,2 0,22 3,7 0,17 2,8 10 6 0 1/4 4 0,43 7,1 0,17 2,8 0 5 3 5 3 5 3 5 3 10,111,6 G 01 E314K130S1N00 2314K230S1N00 0 2,5 1,7 2,5 1,7 2,5 1,7 1,7 10,1 11,6 G\* 01 E314K131S1N00 E314K231S1N00 5.6 0.60 10 0.17 2.8 7,1 | 0,73 | 12,1 | 0,17 | 2,8 | 0 | 1,7 | 1 | 1,7 | 1 | 1,7 | 1 | 10,1 | 11,6 | G\* | 01 | E314K132S1N00 | E314K232S1N00 U - Universal, NBR seal and disc 1,2 0,04 0,7 0,05 0,8 0 13 13 13 13 13 13 10,111,6 G 01 G314K041S1N00G314K042S1N00 4 10,1 11,6 G 01 G314K043S1N00 G314K044S1N00 2,4 0,13 2,2 0,17 2,8 0 7 7 5,5 5,5 4 1/8 0 4,5 3,5 4,5 3 2,5 3 10,1 11,6 G 01 G314K045S1N00 G314K040S1N00 3,2 0,22 3,7 0,17 2,8 0 | 13 | 13 | 13 | 13 | 13 | 13 | 10,1|11,6| G\* | 01 | E314K006S1N00 | E314K123S1N00 1,2 0,04 0,7 0,05 0,8 7 | 7 | 5,5 | 5,5 | 4 | 4 | 10,1 | 11,6 | G\* | 01 | E314K007S1N00 | E314K120S1N00 | FL | FR | F1 | F8 | F1 | F9 2.4 0.13 2.2 0.17 2.8 0 0.22 3,7 0,17 2.8 0 4,5 3,5 4,5 3 2,5 3 10,1 11,6 G\* 01 **E314K008S1N00 E314K124S1N00** 3,2 1/4 0,43 7,1 0,17 2,8 0 2,5 1,7 2,5 1,7 2,5 1,7 10,1 11,6 G\* 01 E314K127S1N00 E314K227S1N00 4 5,6 0,60 10 0,17 2,8 0 1,2 0,8 1,2 0,8 1,2 0,8 1,0 10,1 11,6 G\* 01 E314K128S1N00 E314K228S1N00 7,1 0,73 12,1 0,17 2,8 0 0,680,550,680,550,680,5510,111,6 G\* 01 E314K129S1N00 E314K229S1N00 NO - Normally open, NBR seal and disc 1,2 0,04 0,7 0,05 0,8 0 20 17 20 17 20 17 10,1 11,6 G 01 G314K049S1N00 G314K055S1N00 2,4 0,13 2,2 0,17 2,8 0 12 11 12 11 12 11 10,111,6 G 01 G314K050S1N00 G314K056S1N00 1/8 0 | 11 | 10 | 11 | 10 | 11 | 10 | 10,1 | 11,6 | G | 01 | G314K051S1N00 | G314K057S1N00 3,2 0,22 3,7 0,17 2,8 0 | 20 | 17 | 20 | 17 | 20 | 17 |10,1|11,6| G\* | 01 |E314K052S1N00|E314K069S1N00 1,2 0,04 0,7 0,05 0,8 12 11 12 11 12 11 10,1 11,6 G\* 01 E314K053S1N00 E314K122S1N00 FL FR FT F8 F1 F9 2,4 0,13 2,2 0,17 2,8 0

3.2 0.22 3.7 0.17 2.8 0 11 10 11 10 11 8 10.111.6 G\* 01 E314K054S1N00 E314K070S1N00





### Searching products





# Searching products

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olenoid and Pressure Operated Valves	Refine by pre	duct type or filter and i	refine below
General service, pressure operated, miniature, process, dust	General service	Dust collectors	Miniature valves
ollector, proportional valves & more!			a ÉÉÁ
oplications spanning numerous industries. Our portfolio ranges from two-position n/off valves to flow control systems that impact thousands of users. ASCO's plenoid power management technology sets a new industry standard for reliability and	₹1 <sup>20</sup>	0	ž 🎒 🕈
ower consumption, accepting both AC and DC voltages while improving performance. nese 2-way, 3-way and 4-way solenoid valves can handle most fluid control	Process valve automation	Fuel, gas and oil valves	Proportional valves
oplications in all commercial and industrial environments. These include ATEX and ECEx certified valves for use in hazardous areas.			<b>N</b>
le also offer a complete line of general service, isolation, pinch, proportional valves, nd manifold assemblies for use in medical equipment, analytical instrumentation, and	•		44
dustrial applications. ASCO Miniature Valve Products are assembled and 100% ctory tested in an ISO Class 8 equivalent clean room. The extensive line of solenoid	Nuclear	Pressure operated	Integrated Solutions
alves from ASCO also includes nuclear products, composite valves, spool valves, and edundant control systems. Plus our world class engineering teams can work with you o create high-quality custom assemblies for any application.		£ \$	



# Select what you need



# Searching products



Use the filters to narrow your search

/alve Actuation Solenoid Solenoid	Description	<mark>≵</mark> ↓ <mark>X</mark> ↓ Media	A ↓ Z ↓ Pipe Size	<b>A</b> ↓ <b>A</b> ↓ Function	A ↓ Z ↓ Series
Solenoid Dever	Solenoid Valve - 3/2 -	Air, Inert Gas;Light Oil;Water	1/8;1/4	3/2 Normally Closed;3/2 Normally Open;3/2 Universal	314
Function	Series 314				
Body Material	P				
ledia	Solenoid Valve - 2/2 -	Aggressive Liquids/Gases;Air, Inert Gas;Ammonia;Cryogenic;Fuel Oil;Hot	3/8	2/2 Normally Closed	263-s
Pipe or Port Size	Series 263	Water;Light Oil;Oxygen;Steam;Vacuum;Water			
Port Type					
/oltage	Solenoid	Air, Inert Gas	1/4	5/3 - Closed Center;3/2	551
Frequency	Valve - 3/2,			Normally Closed;5/3 - W1 - Pressure Held;5/3 - W3 -	
ilow CV	5/2, 5/3 - Series 551			Pressure Release;3/2 - 5/2 Normally	
				Closed;5/3;3/2;5/2	
Flow LM	Solenoid Valve - 2	Hot Water;Steam	1/2;3/8;3/4;1;1 1/2;1 1/4	2 way - 2/2 Normally Closed	222
Iow M3H	Way: 2/2 -				
Nax Operating Pressure	ASCO				
Operationg Environment _	Series 222				
Standards and Regulations	Solenoid	Air, Inert Gas;Light Oil;Water	1/2;3/8;3/4;1;1 1/2;1 1/4;2	2/2 Normally Closed;2/2 Normally Open	238
Application	Valve - 2/2 - ASCO		-		
	Series 238				
ear Refiners —	Solenoid	Air, Inert Gas	1/4	5/2:5/3	521



### Web tools



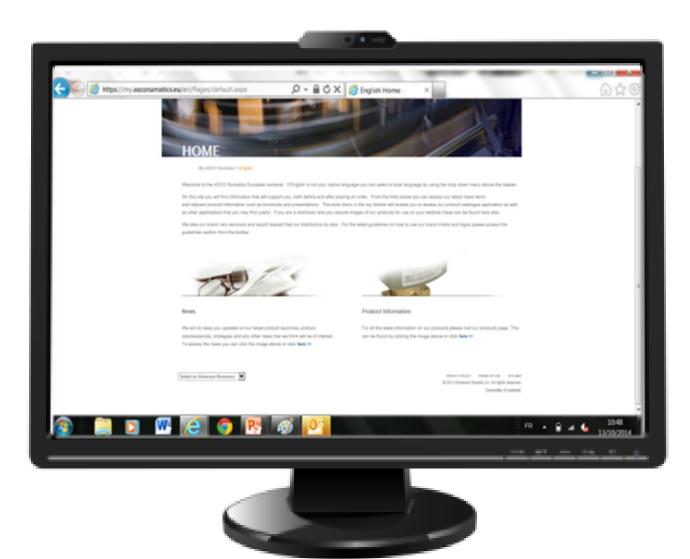
### **Digital communication**

- Website
  - Find information fast
  - The "Product catalogue"
- My ASCO

- How do you access it?
- Communication products
- DPM
- Order tracking
- The catalogues



## Extranet My ASCO





# My ASCO

### Objective

- Facilitate your day-to-day work
- It will save you time
- It will accompany you in the promotion of your product

### Communication products

- News and launching of new products
- Means of promotion: brochures, Powerpoint presentations, standards...
- Photos of products for download

### Applications

- Product Catalog for selecting "Express shipping" products
- Order Tracking to follow your orders
- DPM to configure our products and find their listing price



### How to reach it?

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ASCO HOME PRODUCTS & SOLUTIONS	INDUSTRY EXPERTISE TOOLS N	IEWS ABOUT		
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New ASCO Numatics Series 580 CHARM Node You can navigate to these sites by

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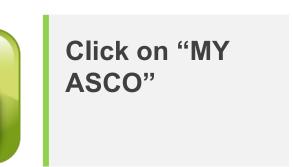
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06.30.2016 Actuation Control Within An Offshore Environment

islands and manifolds, cylinders,

filters, regulators, lubricators and

accessories.





### How to reach it?

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### Click on "Employees Login"



### My ASCO - Home Page

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### FASE CEEARDEDIAGNOSTICS

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Bienvenue sur l'espace extranet d'ASCO Europe.

Vous trouverez dans det espace des informations qui yous seront utiles avant et après avoir passé vos commandes. Vous pourrez prendre connaissance des demières actualités et des informations concernant nos produits telles que des présentations, les brochures disponibles, etc.

Dans la barre d'outil du haut, vous pourrez aussi accéder à des applications talle que nos catalogues en ligne. Si vous êtes un de nos distributeurs, vous y trouvenz également des photos de nos produits.

Nous accordons beaucoup d'importance à l'image de notre marque et nous attendons de nos distributeurs qu'ils en fassent de même. A cet effet, le guide d'utilisation de notre marque et de nos logos se trouve dans la barre d'outils.

### Bienvenue Denis DOUCET Demières actualités ASCO ASCO sur Twitter Documents les plus récents ASCO augmente les capachés des At #analytica2016 this week? Visit ASCO Hall A1 Stand 217 to find more mai fots de distribution pneumatique information on our valve customised 18 avec la nouvelle série de adutions https://t.co/ORh0jpJ9OL distributeurs 502 III mail 10111 10000 10100 Sulvie @ASCO\_EU Toutes les actualités ASCO Tous les autres documents Nouveaux produits 0 Spare parts kits -----1 Voir le Product Catalog







I want a solenoid 3/2 U 10 bar for air

ASV

Connection: G1/4, seals: FPM, 230V 50hz



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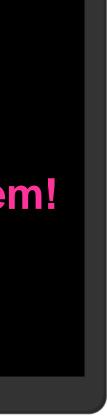




product FIRST!

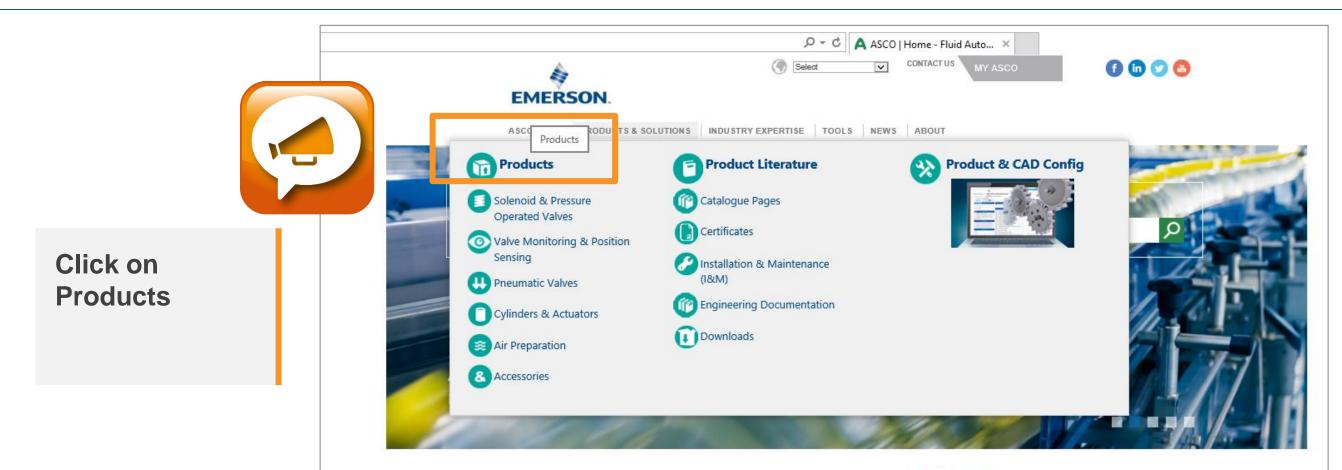
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**AS** 





### How to reach it?



ASCO - where flow control meets pneumatics to create fluid automation solutions that maximise efficiencies, optimise applications, and enable customers to fulfil their true potential.

Our extensive product lines include a broad range of solenoid valves, angle body piston valves, valve islands and manifolds, cylinders, filters, regulators, lubricators and accessories.





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A fast and reliable delivery of components is essential for minimising downtime and delivering projects on schedule. ASCO Express guarantees short term deliveries for an extensive range of our most popular products, including cylinders, solenoid valves, pneumatic valve islands, and air preparation products. Learn more>>



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Product Development time



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### equipment, Cabinet & Panel Solutions

Wherever manufacturing or processing happens, more and more customers are encountering challenges that demand the comprehensive fluid automation solutions that only ASCO can deliver. By combining innovative technologies and cross-application expertise, ASCO's people create fluid control and pneumatic products and services that help customers maximise efficiencies, optimise applications, and transform ideas into measurable outcomes.

ASCO's fluid automation product lines include a wide variety of solenoid valves, angle body piston valves, pneumatic valves and manifolds, cylinders, air preparation equipment and a complete range of accessories. We develop engineered solutions that set the standards for a broad range of markets and applications — continually identifying opportunities for customers to realise their true potential.

Clear all

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Use the filters to refine your search



Refine By

Function

Media

Valve Actuation

Body Material

Pipe/Port Size

Port Type

Voltage

Frequency

Flow Range (Cv)

Max Op. Press. Air Range (Bar)

**Operating Environment** 

Solenoid Valve Type

Industry

- 11 - 1- 112

Standard and Regulations

135 results



S

olenoid Valve	- 2/2 - Preciflow	Proportional - Ser
Media:	Pipe/Port Size:	Function:
Air, Inert Gas	1/8	2/2 Normally Closed
Oxygen	M5	
	Pad Mount	



Solenoid Valve	- 2/2 - Series 21	0
Media:	Pipe/Port Size:	Function:
Air, Inert Gas	1	2/2
Light Oil	1/2	2/2 Normally Closed
Water	2 1/2	2/2 Normally Open
Aggressive	3/4	
Liquids/Gases	3/8	
Ammonia	1 1/2	
Cryogenic	~	



Solenoid Valve - 2/2-3/2 - Series 302 Media: Pipe/Port Size: Fun

Air, Inert Gas

Pad Mount

Function: 3/2 Normally Closed 3/2 Normally Open

27 .00	Solenoid Valve	e - 3/2 - Series 32	27
	Media:	Pipe/Port Size:	Function:
10	Air, Inert Gas	1/2	3/2 Normally Closed
-	Light Oil	1/4	3/2 Universal
	Water	3/8	3/2 Normally Open

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### ries 202

Body Material: Brass - Nickel Plated PVDF Stainless Steel

Body Material:

Brass Stainless Steel Availability:



Body Material: Engineered Plastics Availability:



Body Material: Brass Light Alloy Stainless Steel Availability:





### Products & Solutions

Fluid Control, Motion Control & Pneumatic Systems.

Solenoid & Pressure Operated Valves, Pneumatic Valves, Proportional Valves, Cylinders & Actuators, Air Preparation equipment, Cabinet & Panel Solutions

Wherever manufacturing or processing happens, more and more customers are encountering challenges that demand the comprehensive fluid automation solutions that only ASCO can deliver. By combining innovative technologies and cross-application expertise, ASCO's people create fluid control and pneumatic products and services that help customers maximise efficiencies, optimise applications, and transform ideas into measurable outcomes.

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Clear all

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Refine By

Valve Actuation Solenoid - Direct Acting

Function

3/2 Universal

Body Material

1 results

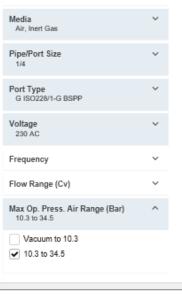






Brass

Body Material: Aluminum Stainless Stee



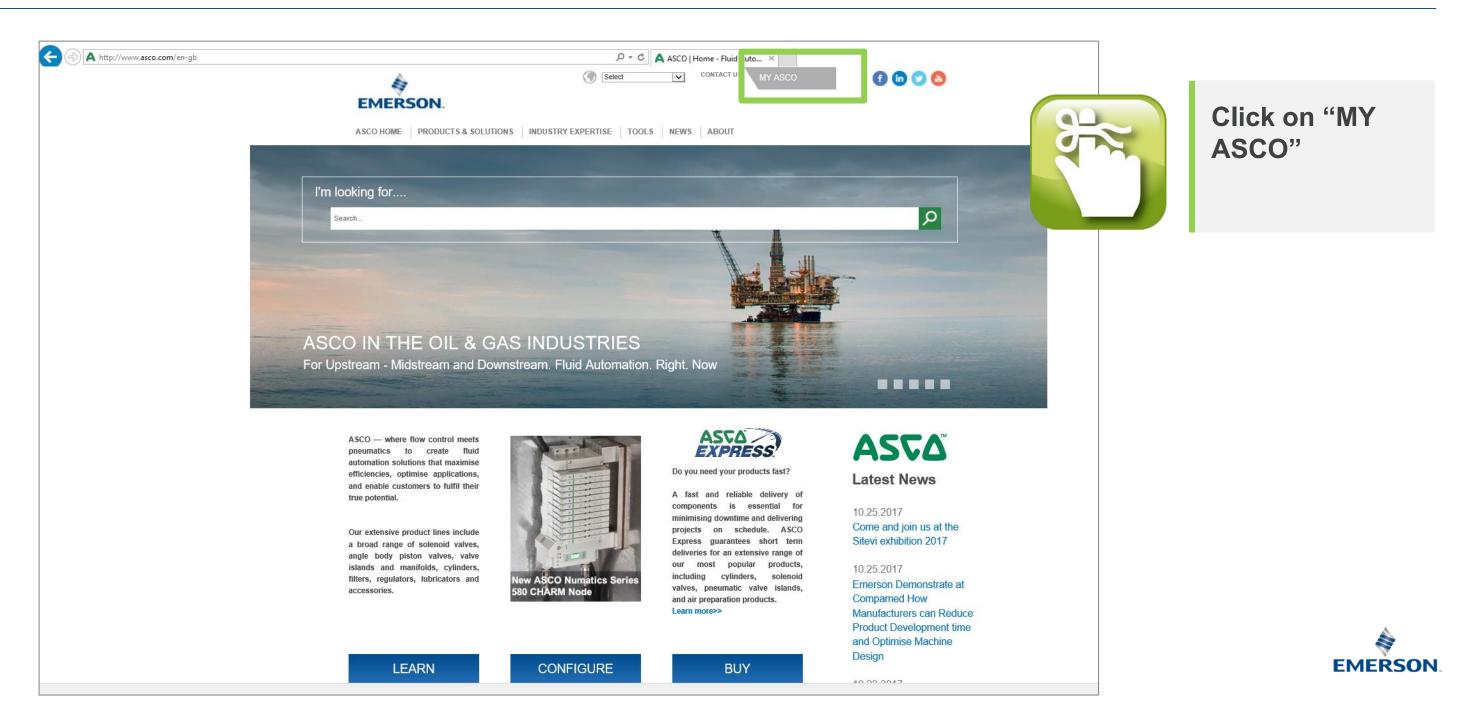




Customer Ratings and Rev	views	Don't see what you need below? Create your own valve		QUESTIO	NS? CONTACT	US
Refine By	Clear all	100 results				Sort by Rele
Valve Actuation Solenoid - Direct Acting	~		SCG327A645 230/50-60			
Function	~		Voltage: 230 AC Media: Air, Inert Gas	Function: 3/2 Universal	Body Material: Brass	5DAY
3/2 Universal	Ť		Valve Actuation: Solenoid - Direct Acting Pipe/Port Size: 1/4	5/2 Oniversal	DI dSS	Get Quo
Body Material	~		Min Op. Press. Air (Bar): 0 Max Op. Press. Air (Bar): 10			Distributor
Media	~	Add to compare				
Air, Inert Gas			NFXG327A646 230/50-60 18460			
Pipe/Port Size	~	C.L.	Voltage: 230 AC Media: Air, Inert Gas	Function: 3/2 Universal	Body Material: Stainless Steel	5DAY
1/4			Valve Actuation: Solenoid - Direct Acting Pipe/Port Size: 1/4	5/2 Oniversal	Stamess Steel	Get Quo
Port Type G ISO228/1-G BSPP	~		Min Op. Press. Air (Bar): 0 Max Op. Press. Air (Bar): 10			Distributor
		Add to compare				
Voltage 230 AC	~		NFG327A646 230/50-60			
Frequency	~		Voltage: 230 AC Media: Air, Inert Gas	Function:	Body Material:	5DAY
50			Valve Actuation: Solenoid - Direct Acting Pipe/Port Size: 1/4	3/2 Universal	Stainless Steel	Get Quo
Flow Range (Cv)	~		Min Op. Press. Air (Bar): 0 Max Op. Press. Air (Bar): 10			Distributor

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about the company with customers, prospects, or people in your community, explain how we do it Right and we do it Now.



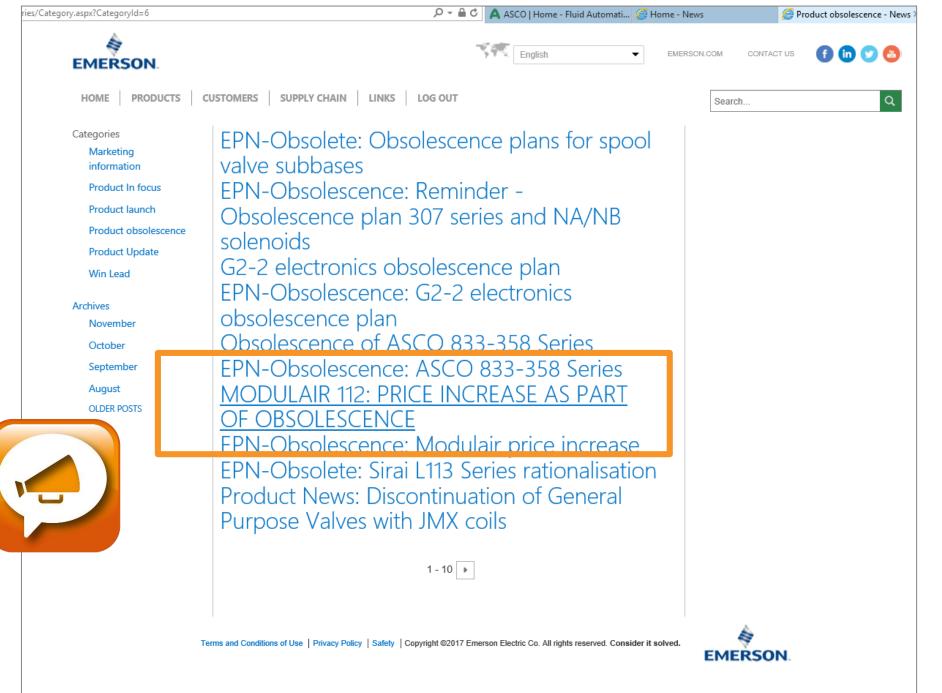




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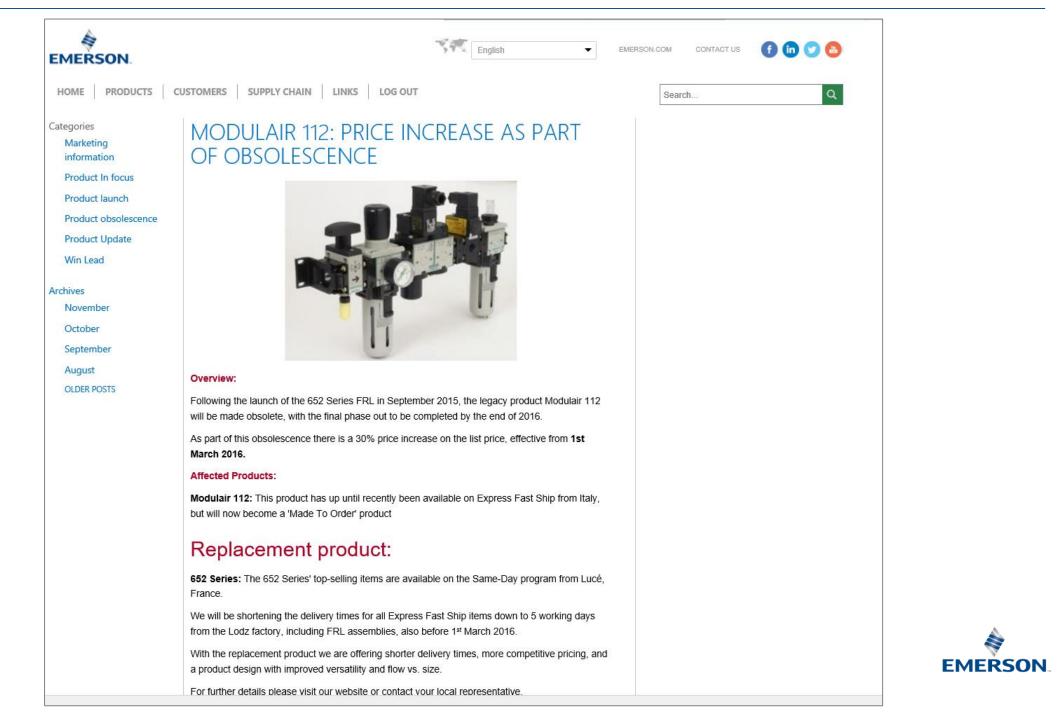


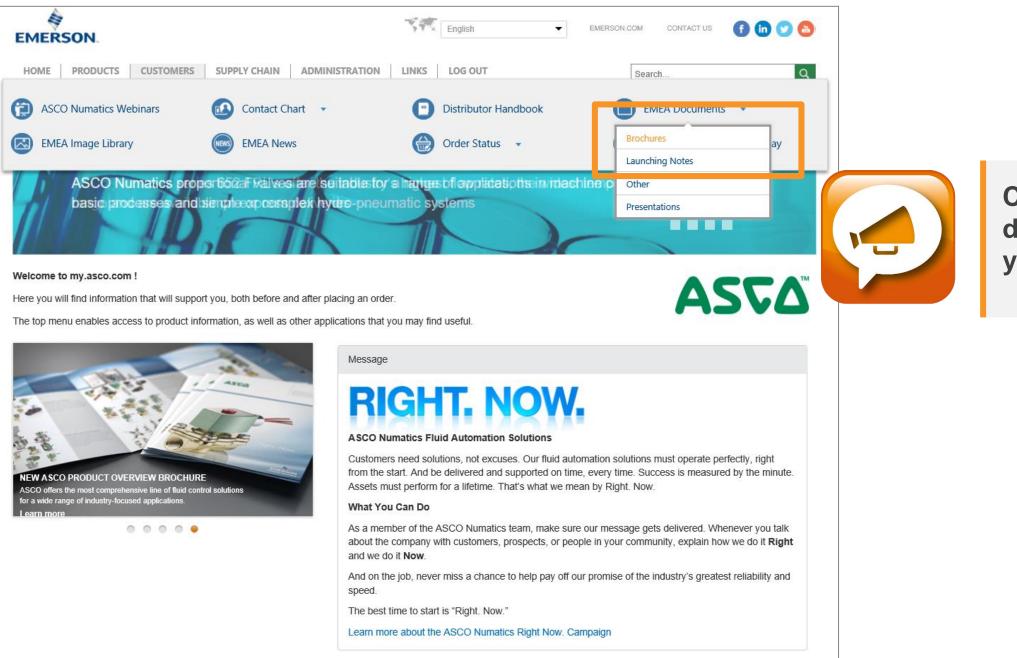
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### Click on the document type you want



Type 290 in the search bar to locate all documents that are stored in connection with this series

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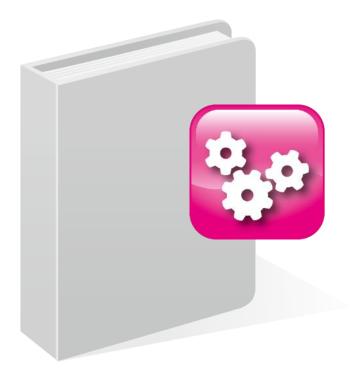
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/	Thumbnail	Name	Document Language	Product series	Directives and standards	Segment
Bro	chure type :	Product (10)				
		Brochure_M12_Connectors	EN	290; 342; 453; 494; 608; 609		Industrial, General & Specia
		Brochure_M12_Connectors	EN	290; 342; 453; 494; 608; 609		Industrial, General & Specia
		Brochure_290_motorised_valves_en	EN	290		
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	290-390	Brochure_290-390_Pressure_operated_valves_en	EN	290; 390		Commercial; Industrial, Ger Speciality; Process
	200.390	Brochure_290-390_Pressure_operated_valves_en	EN	290; 390		Commercial; Industrial, Gen Speciality; Process
	290 · 390	Brochure_290-390_Proportional valves_en	EN	290; 390		Car; Industrial, General & S Commercial; Process
	200.300	Brochure_290-390_Proportional valves_en	EN	290; 390		Car; Industrial, General & S Commercial; Process
	Bake Line	Elver 290 for food contact - regulation EC 1935-	FN	290		Process

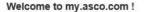
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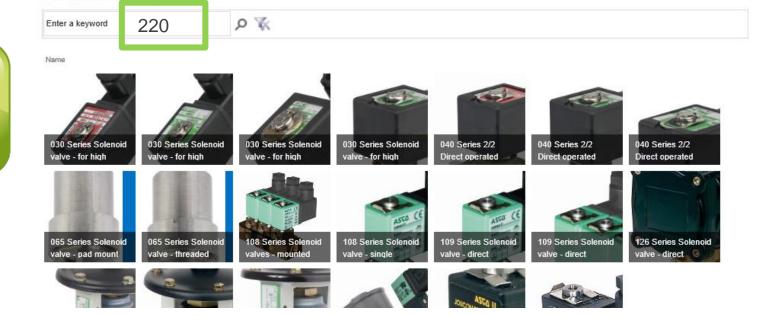


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### My ASCO > English > Images

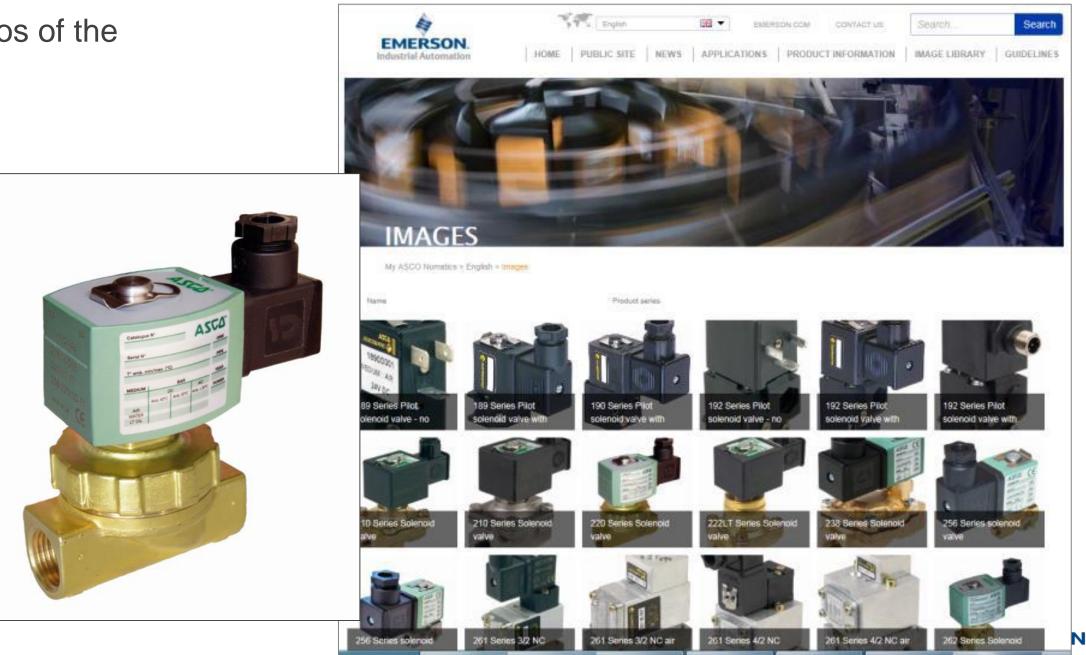
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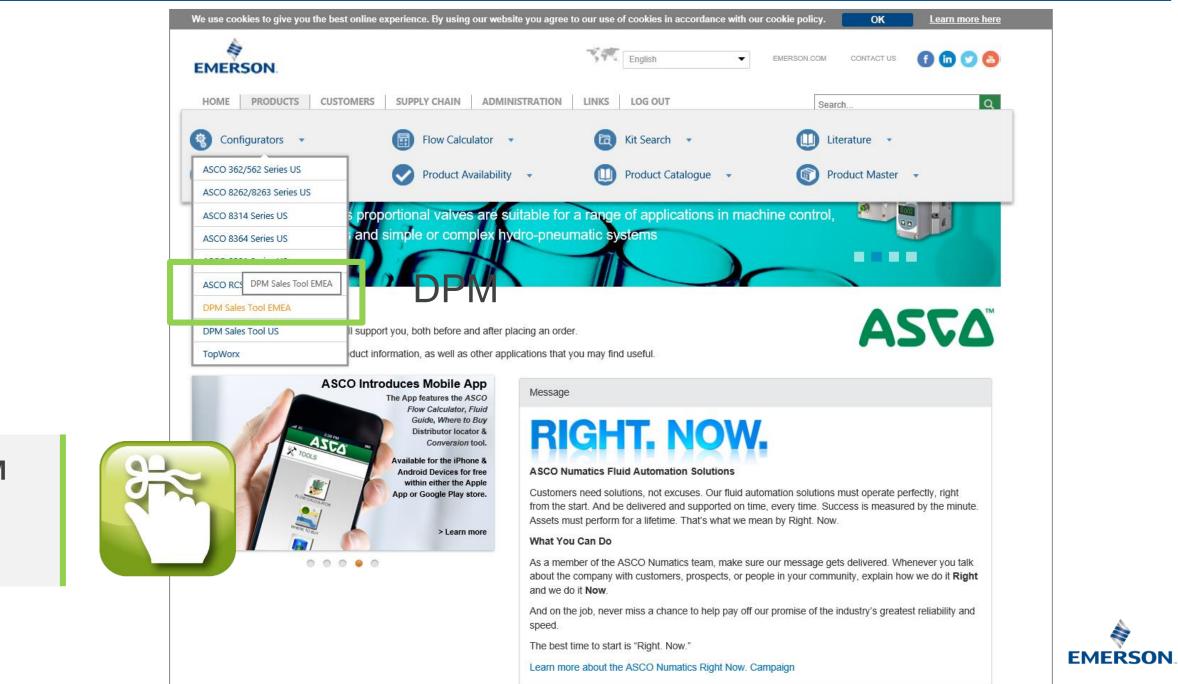
I am looking for a valve with the code E290A001





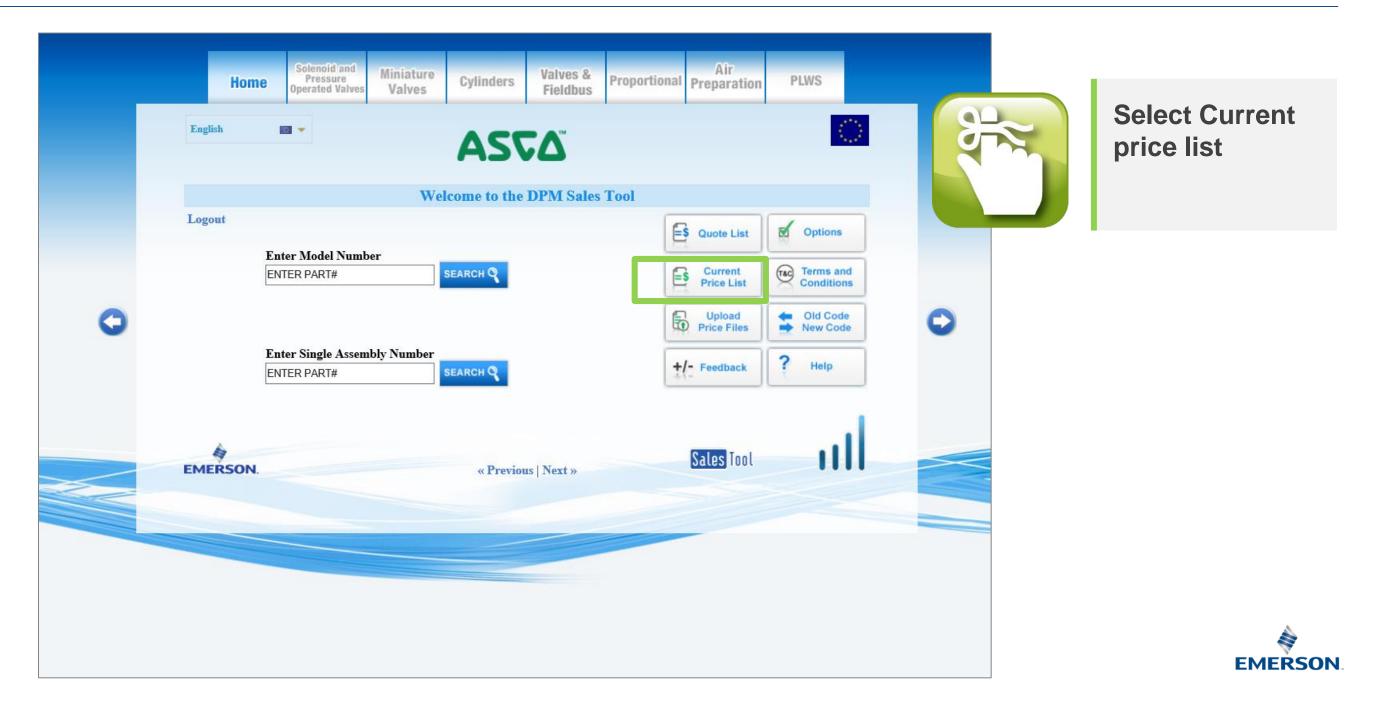


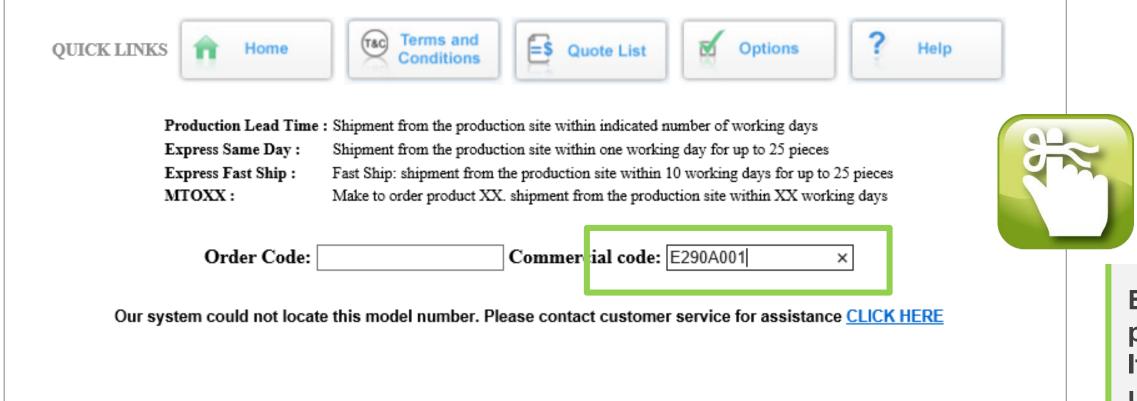
## DPM



Select « DPM Sales tool »

### DPM

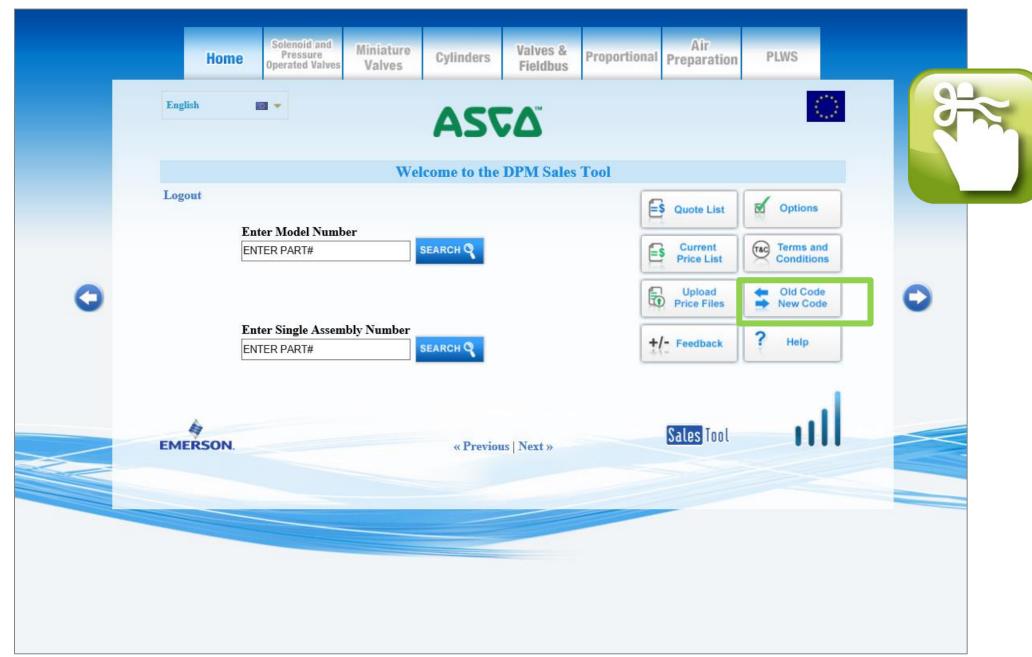




Enter your product code. If the code is unknown to the system, return to the home page.



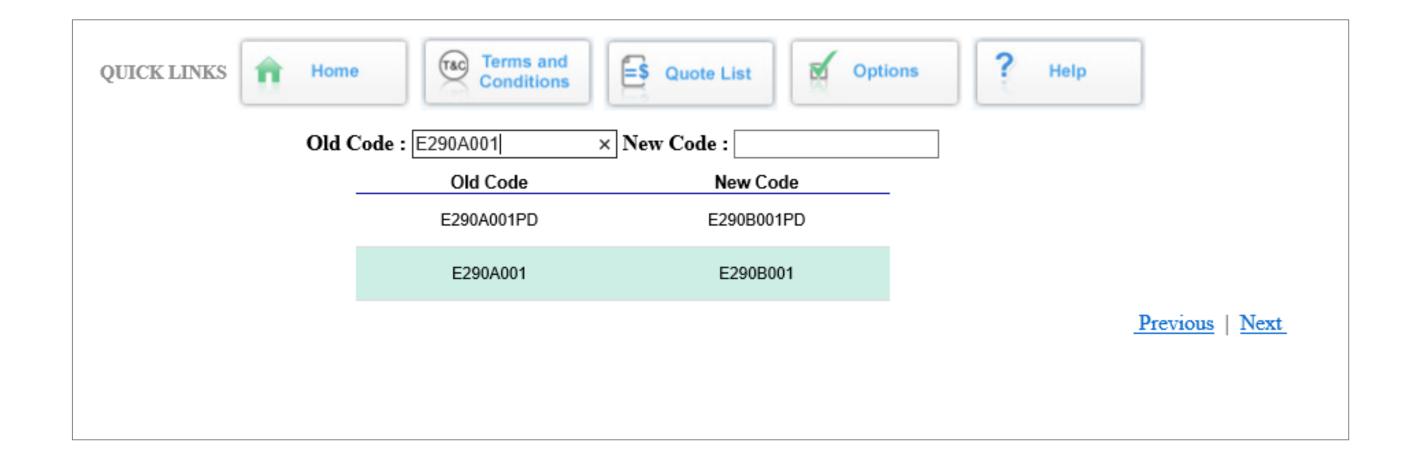
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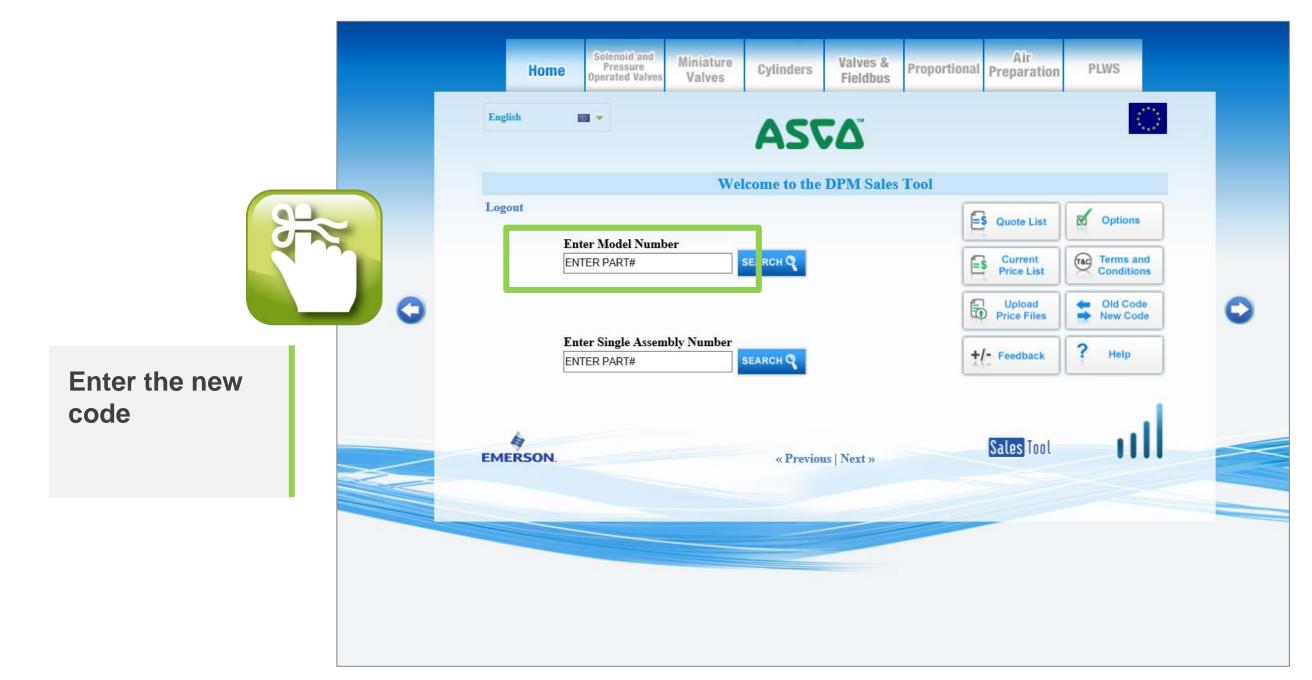
#### Select "old code , new code"





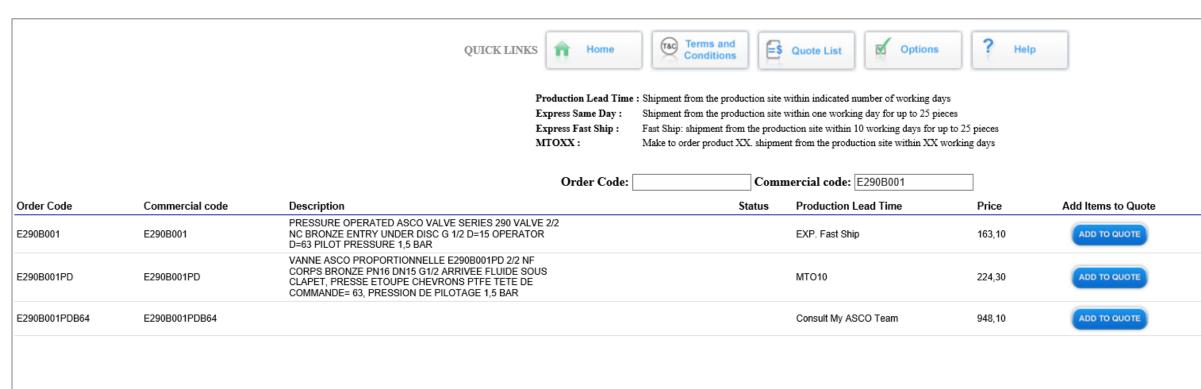


## DPM





#### DPM



Show Quote (0)	Product Line	Price Code
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	FC	C03
	FC	C03
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## Using the ASCO print catalogue

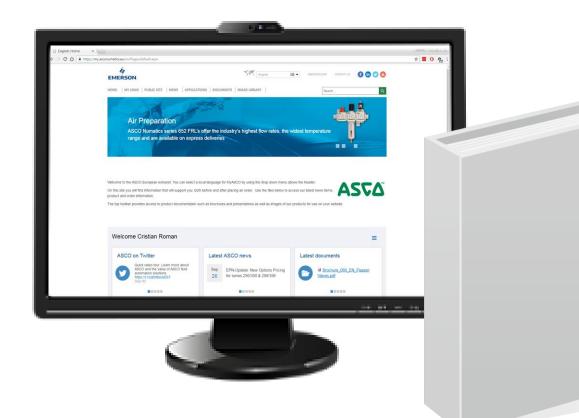




# Understanding catalogue numbers

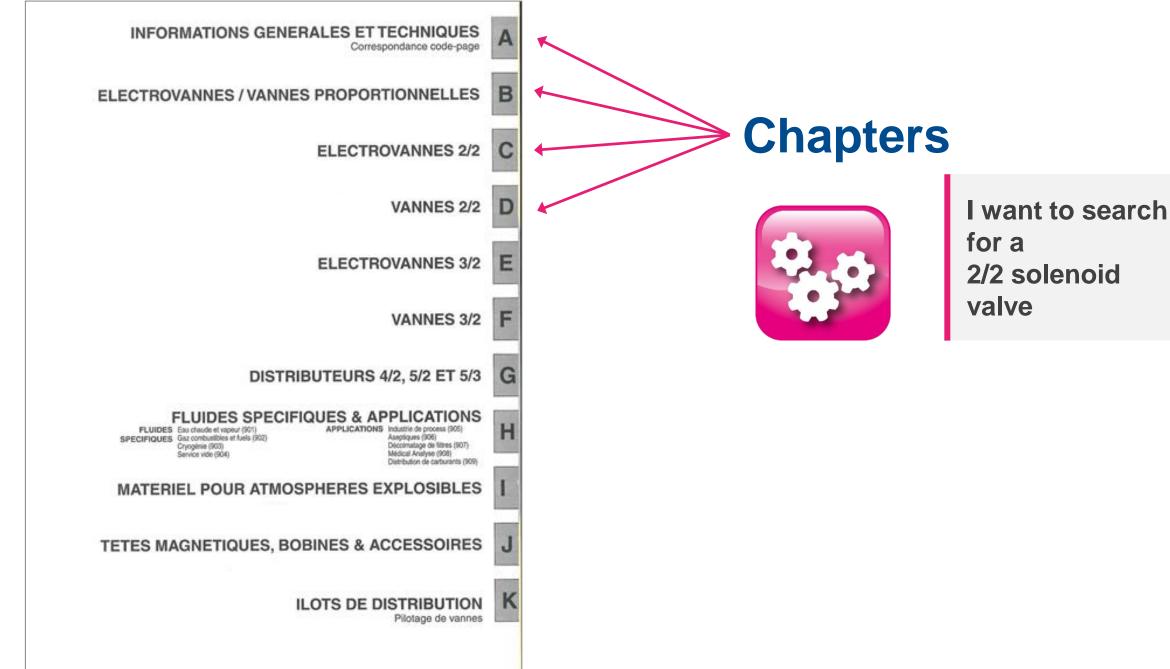


The structure of the digital and paper catalogues is identical





# Understanding catalogue numbers





#### Using the ASCO physical catalogue

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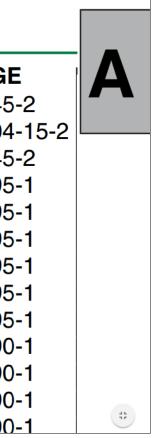


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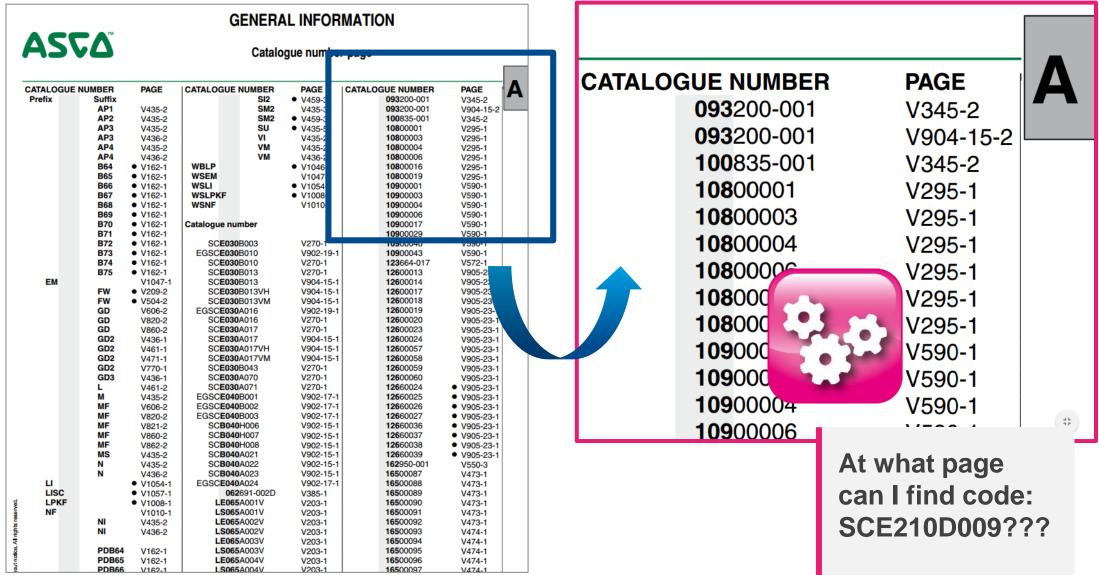
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	B64	<ul> <li>V162-1</li> </ul>	WBLP		<ul> <li>V1046</li> </ul>	1	10800016	V295-1				<b>100</b> 835-001	V345
	B65 B66	<ul> <li>V162-1</li> <li>V162-1</li> </ul>	WSEM WSLI		V1047 • V1054		10800019 10900001	V295-1 V590-1				1000001	
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	B73 B74	<ul> <li>V162-1</li> <li>V162-1</li> </ul>	EGSCE030 SCE030		V902-19- V270-1		10900043 123664-017	V590-1 V572-1					
	B75	<ul> <li>V162-1</li> </ul>	SCE03	B013	V270-1	1	12600013	V905-2				<b>108</b> 00006	V295
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	FW GD	<ul> <li>V504-2</li> <li>V606-2</li> </ul>	SCE030 EGSCE030	B013VM	V904-15- V902-19-		12600018 12600019	V905-23 V905-23-				<b>108</b> 00016	V295
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LISC LPKF		<ul> <li>V1057-1</li> <li>V1008-1</li> </ul>		2691-002D 5A001V	V385-1 V203-1		16500089 16500090	V473-1 V473-1					
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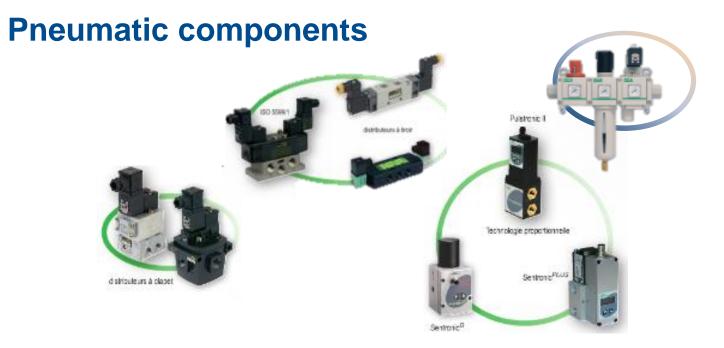




## Sumary of the ASCO products

#### **Control of fluids**







# EMERSON

