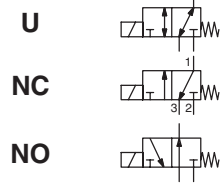




# SOLENOID VALVES

direct operated  
in-line  
1/8-1/4



**3/2**  
Series  
**320**

## FEATURES

- Compact three way solenoid valves with orifice and pipe connection in valve body
- Valves are designed to handle relatively high pressure 3-way applications
- Valves do not require a minimum operating pressure
- The solenoid valves satisfy all relevant EU directives

## GENERAL

**Differential pressure** See «SPECIFICATIONS» [1 bar =100 kPa]  
**Maximum viscosity** 65 cSt (mm<sup>2</sup>/s)  
**Response time** 5 - 25 ms

fluids (*)	temperature range (TS)	seal materials (*)
air, inert gas, water, oil	-20°C to +90°C	NBR (nitrile)
	-20°C to +40°C	UR (cast urethane)

## MATERIALS IN CONTACT WITH FLUID

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

	Brass body	Stainless steel body
<b>Body</b>	Brass	AISI 303 SS
<b>Core tube</b>	Stainless steel	Stainless steel
<b>Core and plugnut</b>	Stainless steel	Stainless steel
<b>Springs</b>	Stainless steel	Stainless steel
<b>Seat</b>	Brass	Stainless steel
<b>Seals</b>	NBR	NBR
<b>Disc</b>	NBR or UR	NBR or UR
<b>Disc holder &amp; core guide</b>	POM	POM
<b>Shading coil</b>	Copper	Silver

## ELECTRICAL CHARACTERISTICS

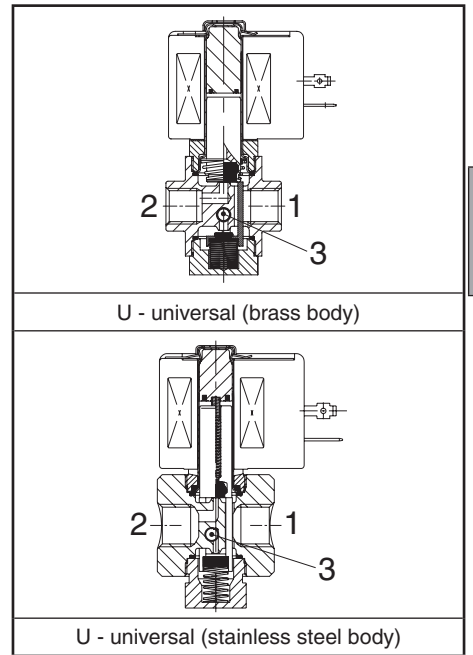
**Coil insulation class** F  
**Connector** Spade plug (cable Ø 6-10 mm)  
**Connector specification** ISO 4400 / EN 175301-803, form A  
**Electrical safety** IEC 335  
**Electrical enclosure protection** Moulded IP65 (EN 60529)  
**Standard voltages** DC (=) : 24V - 48V  
 AC (~) : 24V - 48V - 115V - 230V / 50 Hz

prefix option	power ratings				operator ambient temperature range (TS) (C°)	replacement coil		type <sup>(1)</sup>
	inrush ~	holding ~	hot/cold =			~	=	
	(VA)	(VA)	(W)	(W)		230 V/50 Hz	24 V DC	
SC	34	15,6	6	7 / 9,7	-20 to +75	400325-117	400325-142	01
	30	22,5	9	-	-20 to +50	400325-217	-	01
	55	23	10,5	9/11,2	-20 to +75	400425-117	400425-142	02
	78	35	16,7	-	-20 to +50	400425-217	-	02

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

## SPECIFICATIONS

pipe size	orifice size (mm)	flow coefficient Kv (m <sup>3</sup> /h) (l/min)		min.	operating pressure differential (bar) max. (PS)						power coil (W)		catalogue number		options								
		~	=		air (*)		water (*)		oil (*)		~	=	brass	stainless steel	maintained man. operator	impulse man. operator	FPM	EPDM	CR	PTFE			
					~	=	~	=	~	=											~/=	~/=	
<b>U - Universal, NBR seals and UR discs</b>																							
1/8	1,2	0,05	0,83	0	12	9	12	9	12	9	9	9,7	SCB320B130	-	MS	MO	V	E	-	T			
													-	SCB320A140	MS	MO	-	-	-	T			
1/4	0,8	0,02	0,33	0	27	19	28	21	28	21	16,7	11,2	SCB320A170	-	MS	MO	-	-	-	T			
<b>U - Universal, NBR seals and discs</b>																							
1/4	1,6	0,08	1,3	0	7	4	7	4	7	4	10,5	11,2	SCB320A172	-	MS	MO	V	E	J	T			
					7	4,5	7	4,5	7	4,5	9	9,7	-	SCB320-057	MS	MO	V	E	J	T			
	2,4	0,1	1,7	0	7	4	7	4	7	4	16,7	11,2	SCB320B174	-	MS	MO	V	E	J	T			
					7	4,5	7	4,5	7	4,5	16,7	11,2	-	SCB320A200	MS	MO	V	E	J	T			
	3,2	0,18	3	0	3	3	3	3	3	3	6	9,7	-	SCB320-059	MS	MO	V	E	J	T			
					3,5	1,7	3,5	1,7	3,5	1,7	16,7	11,2	-	SCB320A201	MS	MO	V	E	J	T			
					0,21	3,5	0	3,5	1,7	3,5	1,7	3,5	1,7	16,7	11,2	SCB320B176	-	MS	MO	V	E	J	T
					0,27	4,5	0	2	1,5	2	1,5	2	1,5	9	9,7	-	SCB320-061	MS	MO	V	E	J	T
	4,4	0,3	5	0	1,5	0,8	1,5	0,8	1,5	0,8	10,5	11,2	SCB320A178	-	MS	MO	V	E	J	T			



**E**

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V550-1

**SPECIFICATIONS**

pipe size	orifice size (mm)	flow coefficient Kv (m <sup>3</sup> /h) (l/min)		operating pressure differential (bar)						power coil (W)		catalogue number		options						
				min.	max. (PS)			brass	stainless steel					maintained man. operator	impulse man. operator	FPM	EPDM	CR	PTFE	
					air (*)	water (*)	oil (*)					~/=	~/=							
<b>NC - Normally closed, NBR seals and UR discs</b>																				
1/8	1,2	0,05	0,83	0	20	17	20	17	20	17	9,0	9,7	SCB320B134	SCB320A144	MS	MO	-	-	-	T
1/4	0,8	0,02	0,33	0	50	35	50	35	50	35	16,7	11,2	SCB320A180	-	MS	MO	V	-	-	T
<b>NC - Normally closed, NBR seals and disc</b>																				
1/4	1,6	0,08	1,3	0	15	11	15	11	15	11	16,7	11,2	SCB320A182	-	MS	MO	V	E	J	T
					9	9	9	9	9	9	6,0	9,7	-	SCB320-063	MS	MO	V	E	J	T
	2,4	0,10	1,7	0	8	4,5	8	4,5	8	4,5	9,0	9,7	-	SCB320-093	MS	MO	V	E	J	T
					10	8	10	8	10	8	10,5	11,2	SCB320A184	SCB320A202	MS	MO	V	E	J	T
	3,2	0,18	3,0	0	6	4,5	6	4,5	6	4,5	10,5	11,2	-	SCB320A203	MS	MO	V	E	J	T
					6	4	6	4	6	4	10,5	11,2	SCB320A186	-	MS	MO	V	E	J	T
					3	3	3	3	3	3	6,0	9,7	-	SCB320-065	MS	MO	V	E	J	T
	4,4	0,30	5,0	0	3	1,7	3	1,7	3	1,7	10,5	11,2	SCB320A188	-	MS	MO	V	E	J	T
<b>NO - Normally open, NBR seals and UR disc</b>																				
1/8	1,2	0,05	0,83	0	20	17	20	17	20	17	9,0	9,7	SCB320B138	SCB320A148	MS	MO	-	-	-	T
1/4	0,8	0,02	0,33	0	55	40	55	40	55	40	16,7	11,2	SCB320A190	-	MS	MO	-	-	-	T
<b>NO - Normally open, NBR seals and disc</b>																				
1/4	1,6	0,08	1,3	0	16	11	17	11	17	11	16,7	11,2	SCB320A192	-	MS	MO	V	E	J	T
					9	9	9	9	9	9	6,0	9,7	-	SCB320-067	MS	MO	V	E	J	T
	2,4	0,10	1,7	0	8	4,5	8	4,5	8	4,5	9,0	9,7	-	SCB320-095	MS	MO	V	E	J	T
					10	7	10	7	10	7	10,5	11,2	SCB320A194	SCB320A204	MS	MO	V	E	J	T
	3,2	0,18	3,0	0	5	4	5	4	5	4	10,5	11,2	-	SCB320A205	MS	MO	V	E	J	T
					5	4	5	4	5	4	10,5	11,2	SCB320A196	-	MS	MO	V	E	J	T
					3	3	3	3	3	3	6,0	9,7	-	SCB320-069	MS	MO	V	E	J	T
	4,4	0,30	5,0	0	3	2	3	2	3	2	10,5	11,2	SCB320A198	-	MS	MO	V	E	J	T

**OPTIONS**

- Valves can also be supplied with FPM (fluoroelastomer), EPDM (ethylene-propylene), CR (chloroprene) and PTFE seals and discs. Use the appropriate optional suffix letter for identification
- Waterproof enclosure with embedded screw terminal coil according to protection class IP67, CEE-10
- Explosionproof enclosures for use in zones 1/21-2/22, categories 2-3 to ATEX Directive 2014/34/EU (see "Explosionproof solenoids" section)
- Electrical enclosures according to "NEMA" standards are available
- Compliance with "UL", "CSA" and other local approvals available on request
- Mounting brackets for brass body valves, suffix MB
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2 m (see Solenoids, Coils & Accessories section)

**INSTALLATION**

- The solenoid valves can be mounted in any position without affecting operation
- Brass valves have 2 mounting holes in body
- Stainless steel valves are standard supplied with mounting brackets
- Pipe connection identifier is B = NPT (ANSI 1.20.3)
- Installation/maintenance instructions are included with each valve

**SPARE PARTS KIT & ACCESSORIES**

catalogue number	spare parts kit no.		mounting bracket no.
	~	=	
SCB320B130	C302084	C302190	160800
SCB320A140	C302086	C302206	(2)
SCB320A170	C302112	C302200	160800
SCB320A172	C302114	C302201	160800
SCB320-057	C302102	C302212	(2)
SCB320B174/B176	C302116	C302201	160800
SCB320A200	C302189	C302190	(2)
SCB320-059	C302106	C302212	(2)
SCB320A201	C312189	C312190	(2)
SCB320-061	C302110	C302213	(2)
SCB320A178	C302118	C302202	160800
SCB320B134	C302124	C302217	160800
SCB320A144	C302126	C302235	(2)
SCB320A180	C302140	C302226	160800
SCB320A182	C302141	C302227	160800

**ORDERING EXAMPLES:**

SC	B	320	A	170	230V / 50 Hz
SC	B	320	A	194	MS 115V / 50 Hz
SC	B	320	A	184	V 24V / DC
SC	B	320	A	144	T 230V / 50 Hz

prefix — pipe thread — basic number — voltage — suffix

**ORDERING EXAMPLES KITS:**

C302183 <sup>(1)</sup>	
C302142	V
C302192	E

basic number — suffix

### SPARE PARTS KIT & ACCESSORIES

catalogue number	spare parts kit no.		mounting bracket no.
	~	=	
SCB320-063	C302150	C302240	162950-001 <sup>(2)</sup>
SCB320-093	C302151	C302240	162950-001 <sup>(2)</sup>
SCB320A184	C302142	C302227	160800
SCB320A202/A203	C312191	C312192	162950-001 <sup>(2)</sup>
SCB320A186	C302143	C302228	160800
SCB320-065	C302152	C302241	162950-001 <sup>(2)</sup>
SCB320A188	C302144	C302229	160800
SCB320B138	C302157	C302245	160800
SCB320A148	C302163	C302261	162950-001 <sup>(2)</sup>
SCB320A190	C302182	C302254	160800
SCB320A192	C302183	C302255	160800
SCB320-067	C302176	C302266	162950-001 <sup>(2)</sup>
SCB320-095	C302177	C302266	162950-001 <sup>(2)</sup>
SCB320A194/A196	C302184	C302255	160800
SCB320A204	C312193	C312194	162950-001 <sup>(2)</sup>
SCB320A205	C312193	-	162950-001 <sup>(2)</sup>
SCB320-069	C302178	C302267	162950-001 <sup>(2)</sup>
SCB320A198	C302185	C302256	160800

<sup>(1)</sup> Standard prefixes/suffixes are also applicable to kits.

<sup>(2)</sup> Mounting bracket supplied standard with valve.

- Not available

### DIMENSIONS (mm), WEIGHT (kg)



#### TYPE 01

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

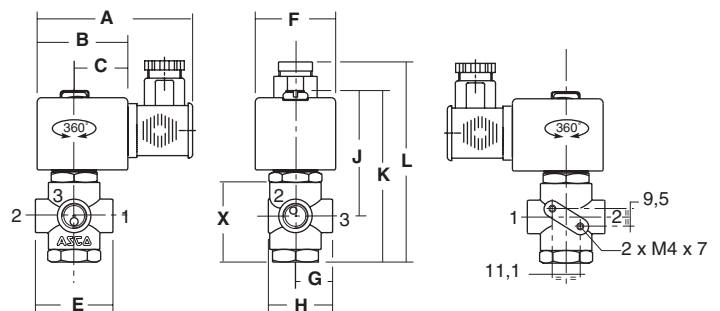
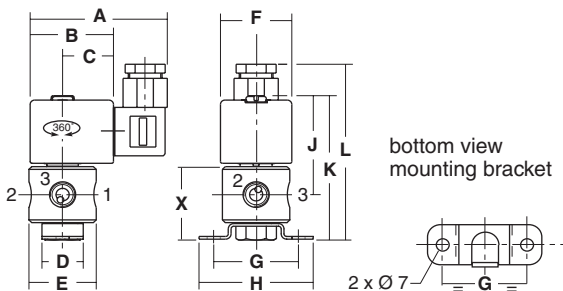
SCB320-057/-059/-061/-063/-093/-065  
/067/-095/-069



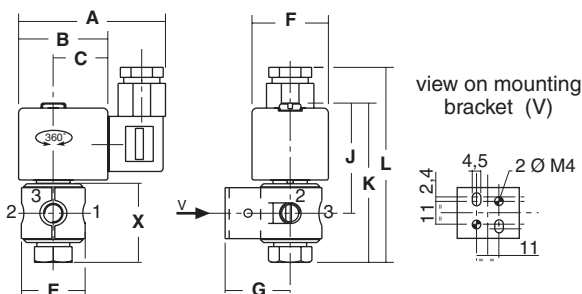
#### TYPE 02

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

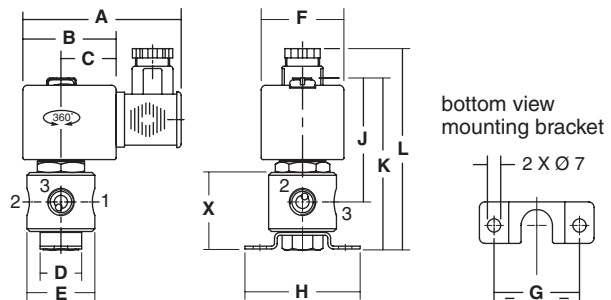
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A188/A190/A192/A194/A196/A198



#### SCB320130/B134/B138/A140/A144/A148



#### SCB320A200/A201/A202/A203/A204/A205



type	prefix option	catalogue number	A	B	C	D	E	F	G	H	J	K	L	X	weight <sup>(2)</sup>
01	SC	SCB320-057/-059/-061/-063/-093/-065/-067/-095/-069	75	45	27	22	36	39	46	62	58	82	96	42	0,54
		SCB320B130/B134/B138/A140/A144/A148	75	45	27	-	39	39	33	-	56	79	95	34	0,40
02	SC	SCB320A170/A172/B174/B176/A178/A180/A182/A184/A186/A188/ A190/A192/A194/A196/A198	80	50	30	-	43	45	21	36	70	96	108	45	0,57
		SCB320A200/A201/A202/A203/A204/A205	80	50	30	22	40	45	46	62	69	94	111	45	0,67

<sup>(2)</sup> Incl. coil(s) and connector(s).

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