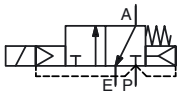
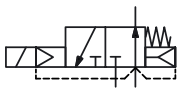
SOLENOID VALVES

pilot operated, high flow
floating diaphragms
3/8 to 1

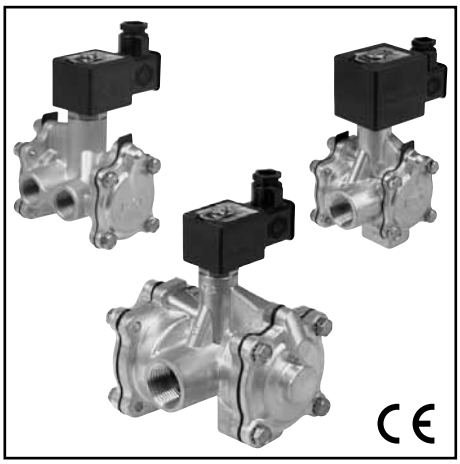
NC



NO



3/2
Series
316



FEATURES

- *Brass bodied high flow valves with two floating diaphragms for larger single actuators*
- *The solenoid valves vent to 0 bar*
- *Direct lift pilot operators have a resilient soft seating to control the floating diaphragms and to ensure absolute tight shut-off*
- *The solenoid valves satisfy all relevant EC Directives*

GENERAL

Differential pressure See «SPECIFICATIONS» [1 bar =100 kPa]
Maximum viscosity 65 cSt (mm²/s)
Response time 40 - 120 ms

fluids (∗)	temperature range (TS)	seal materials (∗)
air, inert gas, water	- 20°C to + 80°C	NBR (nitrile)

MATERIALS IN CONTACT WITH FLUID

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

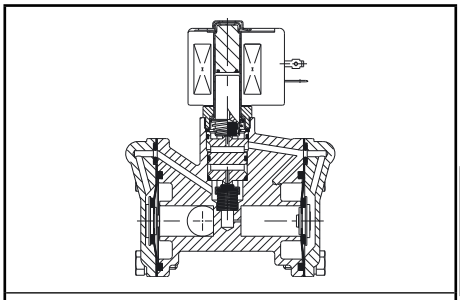
Body Brass
Core tube Stainless steel
Core and plugnut Stainless steel
Core spring Stainless steel
Seat Brass
Seat insert POM
Seals & discs NBR
Diaphragms NBR
Disc holder POM
Shading coil Copper

ELECTRICAL CHARACTERISTICS

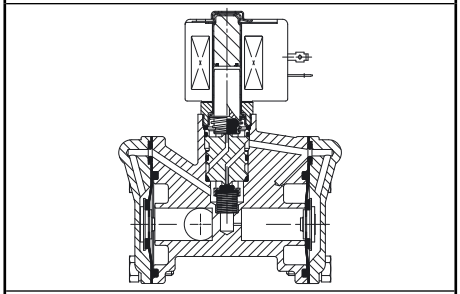
Coil insulation class F
Connector Spade plug (cable Ø 6-10 mm)
Connector specification ISO 4400 / EN 175301-803, form A
Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=) : 24V - 48V
(Other voltages and 60 Hz on request) AC (~) : 24V - 48V - 115V - 230V / 50 Hz

prefix option	power ratings inrush ~ (VA)	holding ~ (VA)	holding ~ (W)	hot/cold = (W)	operator ambient temperature range (TS) (C°)	replacement coil ~ 230 V/50 Hz	replacement coil = 24 V DC	type (1)
SC	34	15,6	6	7 / 9,7	-20 to + 75	400325-117	400325-142	01
	78	35	16,7	-	-20 to + 50	400425-217	-	02
	-	-	-	12/16,8	-20 to + 75	-	400625-142	03

(1) Refer to the dimensional drawings on the following page.



NC function



NO function

E

SPECIFICATIONS

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar) min.	max. (PS) air (∗) ~	air (∗) =	water (∗) ~	water (∗) =			power coil (W) ~	power coil (W) =	catalogue number ~/=	options maintained man. operator	FPM	EPDM	CR	PTFE
NPT	(mm)	(m³/h)	(l/min)															
NC - Normally closed																		
3/8	16	2	33,3	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316A054**	**MO**	**V**	**E**	**-**	**-**
					17	17	17	17	-	-	16,7	16,8	**SCB316D014**	**MO**	**V**	**E**	**-**	**-**
1/2	16	2,8	46,6	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316A064**	**MO**	**V**	**E**	**J**	**-**
					17	17	17	17	-	-	16,7	16,8	**SCB316D024**	**MO**	**V**	**E**	**-**	**-**
3/4	18	4,2	70	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316B074**	**MO**	**V**	**E**	**-**	**-**
					17	17	17	17	-	-	16,7	16,8	**SCB316E044**	**MO**	**V**	**E**	**J**	**-**
1	25	11,3	188,3	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316E034**	**MO**	**V**	**E**	**-**	**-**
NO - Normally open																		
3/8	16	2	33,3	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316A056**	**MO**	**V**	**E**	**-**	**-**
					17	17	17	17	-	-	16,7	16,8	**SCB316D016**	**MO**	**V**	**E**	**-**	**-**
1/2	16	2,8	46,6	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316A066**	**MO**	**V**	**E**	**-**	**-**
					17	17	17	17	-	-	16,7	16,8	**SCB316D026**	**MO**	**V**	**E**	**-**	**-**
3/4	18	4,2	70	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316B076**	**MO**	**V**	**E**	**-**	**-**
					17	17	17	17	-	-	16,7	16,8	**SCB316E046**	**MO**	**V**	**E**	**-**	**-**
1	25	11,3	188,3	0,7	8,5	8,5	8,5	8,5	-	-	6	9,7	**SCB316E036**	**MO**	**V**	**E**	**-**	**-**

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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 94/9/EC (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
- 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.
	~	=	
SCB316A054/A064/B074	**C314491**	**C314540**	**038713-000**
SCB316D014/D024/E044	**C314495**	**C314550**	**038713-000**
SCB316E034	**C302661**	**C302681**	**-**
SCB316E036	**C302671**	**C302691**	**-**
SCB316A056/A066/B076	**C314492**	**C314494**	**038713-000**
SCB316D016/D026/E046	**C314496**	**C314551**	**038713-000**

(1) Standard prefixes/suffixes are also applicable to kits.
- Not available

ORDERING EXAMPLES:

SC	B	316 **A** 064		230V / 50 Hz
SC	B	316 **A** 064	**MO**	115V / 50 Hz
SC	B	316 **D** 016	**V**	24V / DC
SC	B	316 **E** 046		230V / 50 Hz

prefix — pipe thread — basic number — voltage — suffix

ORDERING EXAMPLES KITS:

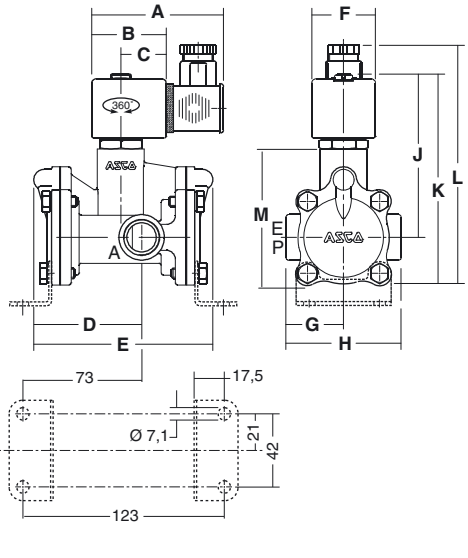
C314491(1)
C314540 **V**
C314492 **E**

basic number — suffix

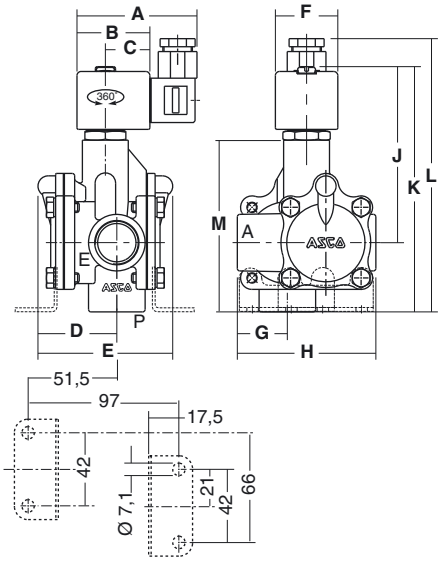
DIMENSIONS (mm), WEIGHT (kg)

TYPE 01-02-03
Prefix “SC” Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

TYPE 01: B316A054/A064/A056/A066
TYPE 02/03: B316D014/D024/D016/D026

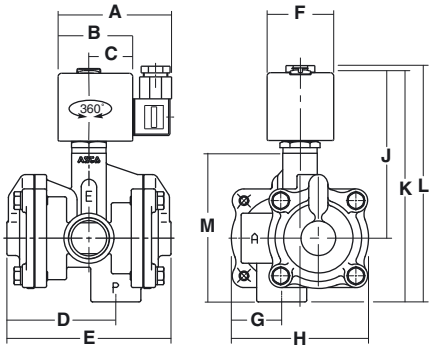


TYPE 01: B316B074/B076
TYPE 02/03: B316E044/E046



TYPE 01
Prefix “SC” Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

SCB316E034/E036



type	prefix option	catalogue number	A	B	C	D	E	F	G	H	J	K	L	M	weight (2)
01	SC	SCB316A054/A056/B064/B066	75	45	27	69.5	110	39	35	70	100	130	140	85	1,6
		SCB316B074/B076	75	45	27	48	84	39	31	86	110	152	169	107	4,4
		SCB316E034/E036	75	45	27	90	136	39	41	113	116	168	185	123	3,4
02	SC	SCB316D014/D016/D024/D026 (~)	80	50	30	69.5	110	45	35	70	104	134	144	85	2,7
		SCB316E044/E046 (~)	80	50	30	48	84	45	31	86	114	156	173	107	4,4
03	SC	SCB316D014/D016/D024/D026 (=)	86	56	33	69.5	110	50	35	70	111	141	151	84	2;6
		SCB316E044/E046 (=)	86	56	33	48	84	50	31	86	121	163	163	106	4,4

(2) Incl. coil(s) and connector(s).

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