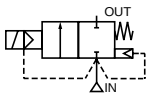
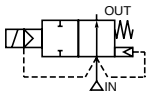
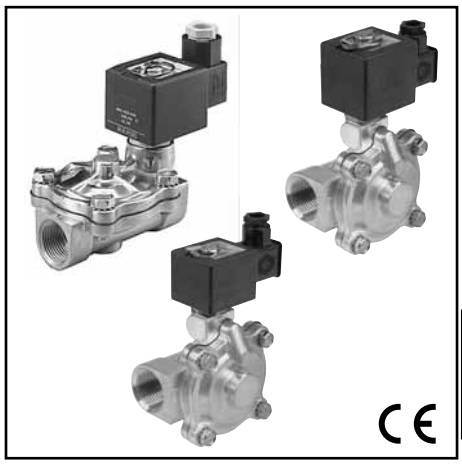
# SOLENOID VALVES

pilot operated
floating diaphragm
3/8 to 2

NC 


NO 


**2/2**
Series
**210**



C

## FEATURES

- *Two way shut-off valves for automatic control air, inert gas, water, oil and other gases/liquids compatible with the seal materials used*
- *Valves require a minimum ΔP of 0,35 bar*
- *All NO products are covered by the Pressure Equipment Directive 97/23/EC and are suitable for group 1 and 2 fluids*
- *ASCO/JOUCOMATIC solenoid valves satisfy all relevant EC directives*

## GENERAL

**Differential pressure** See "SPECIFICATIONS" [1 bar =100 kPa]
**Maximum viscosity** 65 cSt ($mm^2/s$)
**Response time** 15 - 60 ms (3/8 to 3/4); 40 - 120 ms (1 to 1 1/2)

| fluids (∗) | temperature range (TS) | seal materials (∗) |
|---|---|---|
| air, inert gas, water, oil | - 20°C to + 85°C | NBR (nitrile) |

## MATERIALS IN CONTACT WITH FLUID

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

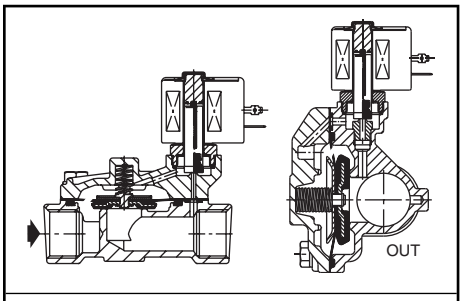
**Body** Brass
**Core tube** Stainless steel
**Core and plugnut** Stainless steel
**Springs** Stainless steel
**Seat** Brass
**Seal, diaphragm & disc** NBR
**Disc holder (NO function)** PA
**Shading coil** Copper

## ELECTRICAL CHARACTERISTICS

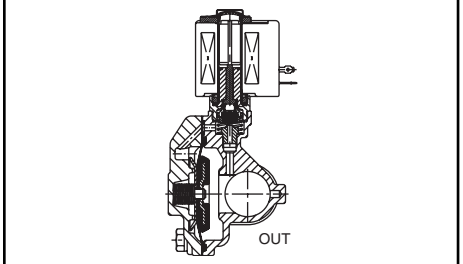
**Coil insulation class** F
**Connector** Spade plug (cable Ø 6-10 mm)
**Connector specification** ISO 4400 / EN 175301-803, form A
**Electrical safety** IEC 335
**Electrical enclosure protection** Moulded IP65 (EN 60529)
**Standard voltages** DC (=) : 24V - 48V
(Other voltages and 60 Hz on request) 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 | - | -20 to + 75 | 400325-117 | - | 01 |
| | - | - | - | 9/ 11,2 | -20 to + 75 | - | 400425-142 | 02 |
| | 78 | 35 | 16,7 | - | -20 to + 50 | 400425-217 | - | 02 |
| | 110 | 33,6 | 15,4 | 12/16,8 | -20 to + 75 | 400525-117 | 400625-142 | 03 |

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




NC function




NO function

## SPECIFICATIONS

| pipe size | orifice size | flow coefficient Kv | | operating pressure differential (bar) min. | max. (PS) air (∗) ~ | air (∗) = | water (∗) ~ | water (∗) = | oil (∗) ~ | oil (∗) = | power coil (W) ~ | power coil (W) = | catalogue number | options: maintained man. operator | FPM | EPDM | CR |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| Rp | (mm) | ($m^3/h$) | (l/min) | | | | | | | | | | | | | | |
| **NC - Normally closed** | | | | | | | | | | | | | | | | | |
| 3/8 | 16 | 2,6 | 43 | 0,35 | 14 | 9 | 10 | 7 | 10 | 7 | 6 | 11,2 | **SCE210D001** | MO | V | E | J |
| | | | | | 20 | - | 20 | - | 20 | - | 16,7 | - | **SCE210C006** | MO | V | E | J |
| 1/2 | 16 | 3,4 | 57 | 0,35 | 14 | 9 | 10 | 7 | 10 | 7 | 6 | 11,2 | **SCE210D002** | MO | V | E | J |
| | | | | | 20 | - | 20 | - | 20 | - | 16,7 | - | **SCE210C007** | MO | V | E | J |
| 3/4 | 19 | 4,3 | 72 | 0,35 | 9 | 7 | 9 | 6 | 9 | 6 | 6 | 11,2 | **SCE210D009** | MO | V | E | J |
| | | 5,6 | 93 | 0,35 | 17 | 9 | 10 | 9 | 10 | 9 | 6 | 11,2 | **SCE210D003** | MO | V | E | J |
| 1 | 25 | 11,1 | 185 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 6 | 11,2 | **SCE210D004** | MO | V | E | J |
| 1 1/4 | 28 | 12,8 | 213 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 6 | 11,2 | **SCE210D008** | MO | V | E | J |
| 1 1/2 | 32 | 19,3 | 322 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 6 | 11,2 | **SCE210D022** | MO | V | E | J |
| **NO - Normally open** | | | | | | | | | | | | | | | | | |
| 3/4 | 19 | 5,7 | 95 | 0,35 | 17 | 17 | 14 | 14 | 14 | 14 | 15,4 | 16,8 | **SCE210C013** | MO | V | E | J |
| 1 | 25 | 11,1 | 185 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 15,4 | 16,8 | **SCE210D014** | MO | V | E | J |
| 1 1/4 | 28 | 12,8 | 213 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 15,4 | 16,8 | **SCE210D018** | MO | V | E | J |
| 1 1/2 | 32 | 19,3 | 322 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 15,4 | 16,8 | **SCE210D032** | - | V | E | J |
| 2 | 44 | 37 | 617 | 0,35 | 9 | 9 | 9 | 9 | 9 | 9 | 15,4 | 16,8 | **SCE210.103** (2) | - | V | E | J |

(2) Floating piston construction.

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## OPTIONS

- Valves can also be supplied with FPM (fluoroelastomer), EPDM (ethylene-propylene) and CR (chloroprene) diaphragms, 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
- For protection against corrosion caused by the environment or the fluid, consult us
- Mounting brackets (3/8 to 3/4 solenoid valves)
- Other pipe connections are available on request
- Plug with visual indication and peak voltage suppression or with cable length of 2m (see Solenoids, Coils & Accessories section)

## INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Stainless steel valves are standard supply with mounting brackets
- Pipe connection identifier is E = Rp (ISO 7/1)
- Installation/maintenance instructions are included with each valve

## SPARE PARTS KIT & ACCESSORIES

| catalogue number | spare parts kit nº. | | mounting bracket |
|---|---|---|---|
| | ~ | = | |
| SCE210D001 | **C302277** | **C302376** | **038713** |
| SCE210D002/D009 | **C302273** | **C302373** | **038713** |
| SCE210C006/C007 | **C302274** | **-** | **038713** |
| SCE210D003 | **C302279** | **C302378** | **038914** |
| SCE210D004/D008 | **C302280** | **C302379** | **-** |
| SCE210D022 | **C302284** | **C302383** | **-** |
| SCE210C013 | **C302336** | **C302451** | **038914** |
| SCE210D014/D018 | **C302338** | **C302452** | **-** |
| SCE210D032 | **C302341** | **C302453** | **-** |
| SCE210.103 | **C304361** | **C304361** | **-** |

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

## ORDERING EXAMPLES:

| | | | | |
|---|---|---|---|---|
| **SC** | E | 210 **D** 001 | | 230V / 50 Hz |
| **SC** | E | 210 **C** 007 | **MO** | 115V / 50 Hz |
| **SC** | E | 210 **D** 022 | **V** | 24V / DC |
| **SC** | E | 210 **.** 103 | | 230V / 50 Hz |

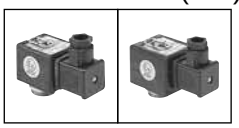
prefix — pipe thread — basic number — voltage — suffix

## ORDERING EXAMPLES KITS:

| | |
|---|---|
| C302277(1) | |
| C302373 | **V** |
| C302451 | **E** |

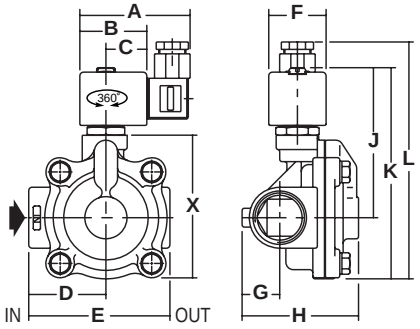
basic number — suffix

## DIMENSIONS (mm), WEIGHT (kg)

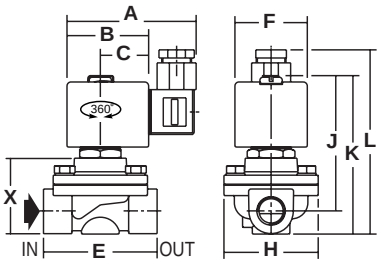


**TYPE 01-02**
Prefix "SC" Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

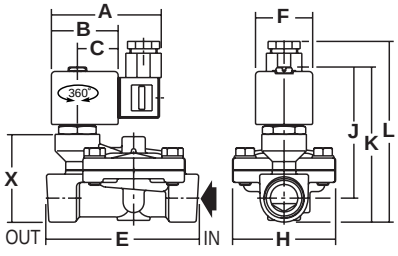
**Type 01 (AC): SCE210D004/D008/D022**
**Type 02 (DC): SCE210D004/D008/D022**




**Type 01 (AC): SCE210D001/D002/D009**
**Type 02 (DC): SCE210D001/D002/D009**
**(AC): SCE210C006/C007**




**Type 01 (AC): SCE210D003**
**Type 02 (DC): SCE210D003**

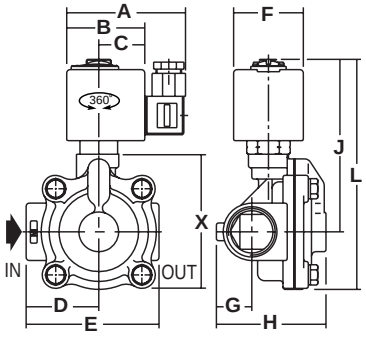



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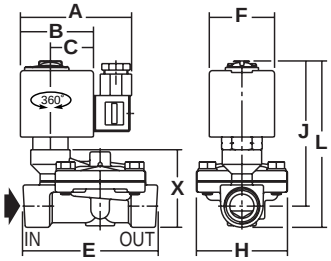


**TYPE 03**
Prefix "SC" Solenoid
Epoxy moulded
IEC 335 / ISO 4400
IP65

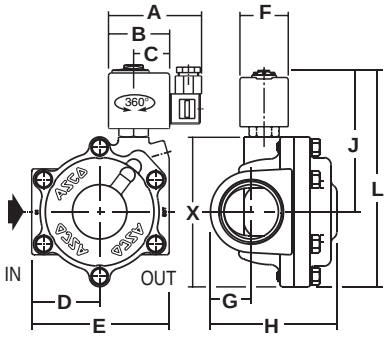
**SCE210D014/D018/D032**




**SCE210C013**

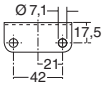
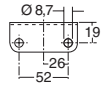



**SCE210.103**




| type | prefix option | catalogue number | A | B | C | D | E | F | G | H | J | K | L | X | weight (2) |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 01 | SC | SC E210D001/D002 | 75 | 45 | 27 | - | 70 | 39 | - | 58 | 72 | 86 | 103 | 46 | 0,8 |
| | | SC E210D009 | 75 | 45 | 27 | - | 71 | 39 | - | 58 | 76 | 92 | 109 | 47 | 0,8 |
| | | SC E210D003 | 75 | 45 | 27 | - | 100 | 39 | - | 70 | 90 | 105 | 122 | 60 | 1,3 |
| | | SC E210D004 | 75 | 45 | 27 | 52 | 95 | 39 | 25 | 75 | 101 | 143 | 160 | 98 | 1,8 |
| | | SC E210D008 | 75 | 45 | 27 | 52 | 95 | 39 | 30 | 85 | 101 | 143 | 160 | 98 | 2,0 |
| | | SC E210D022 | 75 | 45 | 27 | 56 | 111 | 39 | 33 | 100 | 105 | 156 | 173 | 109 | 2,5 |
| 02 | SC | SC E210D001/D002 | 80 | 50 | 30 | - | 70 | 45 | - | 58 | 85 | 97 | 111 | 46 | 0,9 |
| | | SC E210D009 | 80 | 50 | 30 | - | 71 | 45 | - | 58 | 89 | 106 | 123 | 57 | 0,9 |
| | | SC E210D003 | 80 | 50 | 30 | - | 100 | 45 | - | 70 | 94 | 109 | 126 | 60 | 1,4 |
| | | SC E210C006/C007 | 80 | 50 | 30 | - | 70 | 45 | - | 58 | 85 | 99 | 116 | 50 | 0,9 |
| | | SC E210D004 | 80 | 50 | 30 | 52 | 95 | 45 | 25 | 75 | 105 | 147 | 164 | 98 | 2,0 |
| | | SC E210D008 | 80 | 50 | 30 | 52 | 95 | 45 | 30 | 85 | 105 | 147 | 164 | 98 | 2,0 |
| | | SC E210D022 | 80 | 50 | 30 | 56 | 111 | 45 | 33 | 100 | 109 | 160 | 174 | 109 | 2,6 |
| 03 | SC | SC E210C013 | 86 | 56 | 33 | - | 96 | 50 | - | 70 | 112 | - | 120 | 81 | 1,6 |
| | | SC E210D014 | 86 | 56 | 33 | 52 | 95 | 50 | 25 | 75 | 125 | - | 165 | 97 | 2,1 |
| | | SC E210D018 | 86 | 56 | 33 | 52 | 95 | 50 | 30 | 85 | 125 | - | 165 | 108 | 2,0 |
| | | SC E210D032 | 86 | 56 | 33 | 56 | 111 | 50 | 33 | 95 | 128 | - | 178 | 121 | 2,5 |
| | | SC E210.103 | 86 | 56 | 33 | 65 | 129 | 50 | 38 | 119 | 138 | - | 208 | 151 | 4,6 |

(2) including coil and connector.

| Mounting brackets | for valves |
|---|---|
|   | **SCE210D001 SCE210D002 SCE210D009 SCE210C006 SCE210C007** |
|   | **SCE210D003 SCE210C013** |

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