

# ASCO™ Solenoid Valves

## Pilot Operated, Floating Diaphragm/Piston, 3/8 to 2

- Two way shut-off valves for automatic control of air, inert gas, water, oil and other gases/liquids compatible with the seal materials used
- Valves require a minimum  $\Delta P$  of 0,35 bar
- All products are covered by Pressure Equipment Directive 2014/68/EU and are suitable for group 1 and 2 fluids
- 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

15 - 60 ms (3/8 to 3/4); 40 - 120 ms (1 to 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 / 316L Stainless steel

Shading coil Copper / Silver

Core tube Stainless steel

Core and plugnut Stainless steel

Springs Stainless steel

Seat Brass / 316L Stainless steel

Seal, diaphragm &amp; disc NBR

Piston Brass / st. steel

Piston disc NBR

Disc holder (NO function) PA

### Electrical characteristics

Coil insulation class F

Connector Spade plug (cable Ø 6-10 mm)

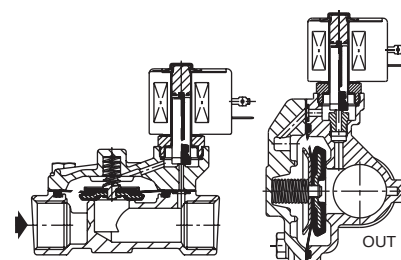
Connector specification ISO 4400 / EN 175301-803, form A

Electrical safety IEC 335

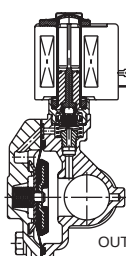
Electrical enclosure protection Moulded IP65 (EN 60529)

Standard voltages DC (=) : 24V - 48V

(Other voltages and 60 Hz on request) AC (-) : 24V - 48V - 115V - 230V/50 Hz



NC function



NO function

| 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         | -          | -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                  |
|               | 30            | 16   | 8,1       | -          | -25 to +55                                   | 238213-059       | -          | 04                  |
|               | -             | -    | -         | 8,5/ 11,6  | -25 to +55                                   | -                | 238913-006 | 05                  |

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

### Specifications

| pipe size                   | orifice size | flow coefficient Kv         | operating pressure differential (bar) |           |           |         |    |   |    |   | power coil (W) |      | Catalog number            |                           | options                  |     |      |    |
|-----------------------------|--------------|-----------------------------|---------------------------------------|-----------|-----------|---------|----|---|----|---|----------------|------|---------------------------|---------------------------|--------------------------|-----|------|----|
|                             |              |                             | min.                                  | max. (PS) |           |         |    |   |    |   |                |      | brass                     | stainless steel           | maintained man. operator | FPM | EPDM | CR |
|                             |              |                             |                                       | air (*)   | water (*) | oil (*) |    |   |    |   |                |      |                           |                           |                          |     |      |    |
| Rp                          | (mm)         | (m <sup>3</sup> /h) (l/min) |                                       | ~         | =         | ~       | =  | ~ | =  | ~ | =              |      |                           |                           |                          |     |      |    |
| <b>NC - Normally closed</b> |              |                             |                                       |           |           |         |    |   |    |   |                |      |                           |                           |                          |     |      |    |
| 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  | 5 | 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  |
|                             |              | 28                          | 213                                   | 0,35      | 9         | 9       | 9  | 9 | 9  | 9 | 6              | 11,2 | SCE210D008                | -                         | MO                       | V   | E    | J  |
| 1 1/4                       | 32           | 19,3                        | 322                                   | 0,35      | 9         | 9       | 9  | 9 | 9  | 9 | 8,1            | 11,6 | -                         | SCE210G125                | MO                       | V   | E    | J  |
|                             |              | 19,3                        | 322                                   |           |           |         |    |   |    |   | 6              | 11,2 | SCE210D022                | -                         | MO                       | V   | E    | J  |
| 1 1/2                       | 32           | 19,3                        | 322                                   | 0,35      | 9         | 9       | 9  | 9 | 9  | 9 | 8,1            | 11,6 | -                         | SCE210G127                | MO                       | V   | E    | J  |
|                             |              |                             |                                       |           |           |         |    |   |    |   | 6              | 11,2 | SCE210-100 <sup>(2)</sup> | -                         | MO                       | V   | E    | J  |
| 2                           | 44           | 37                          | 617                                   | 0,35      | 9         | 3       | 9  | 3 | 6  | 3 | 8,1            | 11,6 | -                         | SCE210G129 <sup>(2)</sup> | MO                       | V   | E    | J  |
|                             |              |                             |                                       |           |           |         |    |   |    |   | 6              | 11,2 | -                         | -                         | -                        | -   | -    | -  |

<sup>(2)</sup> Floating piston construction.

Series  
**210****ASCO™ Solenoid Valves****Specifications**

| pipe size          | orifice size | flow coefficient Kv |         | operating pressure differential (bar) |           |    |           |    |         |    |      | power coil (W) |                           | Catalog number            |                 |   |   | options                  |     |      |    |
|--------------------|--------------|---------------------|---------|---------------------------------------|-----------|----|-----------|----|---------|----|------|----------------|---------------------------|---------------------------|-----------------|---|---|--------------------------|-----|------|----|
|                    |              |                     |         | min.                                  | max. (PS) |    |           |    |         |    |      |                |                           |                           |                 |   |   | maintained man. operator | FPM | EPDM | CR |
|                    |              |                     |         |                                       | air (*)   |    | water (*) |    | oil (*) |    |      |                |                           | brass                     | stainless steel |   |   |                          |     |      |    |
|                    |              |                     |         |                                       | ~         | =  | ~         | =  | ~       | =  | ~    |                |                           |                           |                 | = |   |                          |     |      |    |
| Rp                 | (mm)         | (m³/h)              | (l/min) |                                       |           |    |           |    |         |    |      |                |                           |                           |                 |   |   |                          |     |      |    |
| 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                        |     |      |    |
|                    | 32           | 19,3                | 322     |                                       |           |    |           |    |         |    | 15,4 | 16,8           | -                         | SCE210A131                | MO              | V | E | J                        |     |      |    |
| 1 1/2              | 32           | 19,3                | 322     | 0,35                                  | 9         | 9  | 9         | 9  | 9       | 9  | 15,4 | 16,8           | SCE210D032                | SCE210A132                | -               | V | E | J                        |     |      |    |
| 2                  | 44           | 37                  | 617     | 0,35                                  | 9         | 9  | 9         | 9  | 9       | 9  | 15,4 | 16,8           | SCE210-103 <sup>(1)</sup> | SCE210A133 <sup>(1)</sup> | -               | V | E | J                        |     |      |    |

<sup>(1)</sup> Floating piston construction.**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 <sup>(2)</sup>
- 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, contact us
- Mounting brackets (3/8 to 3/4 solenoid valves)
- Other pipe connections are available on request
- Connector with visual indication and peak voltage suppression or with cable length of 2 m

<sup>(2)</sup> Please consult the quick selection guide on potentially explosive atmospheres on Emerson.com/asco**Installation**

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

**Spare parts kit & Accessories**

| Catalog number  | spare parts kit no. |         | mounting bracket |
|-----------------|---------------------|---------|------------------|
|                 | ~                   | =       |                  |
| SCE210G125/G127 | C325338             | C325365 | -                |
| SCE210G129/A131 | C325366             | C325367 | -                |
| SCE210A132      | C325368             | C325368 | -                |
| SCE210A133      | C325369             | C325369 | -                |
| SCE210D001/D002 | C302273             | C302373 | 038713-000       |
| SCE210D009      | C302277             | C302376 | 038713-000       |
| SCE210C006/C007 | C302274             | -       | 038713-000       |
| SCE210D003      | C302279             | C302378 | 038914           |
| SCE210D004/D008 | C302280             | C302379 | -                |
| SCE210D022      | C302284             | C302383 | -                |
| SCE210C013      | C302336             | C302451 | 038914           |
| SCE210D014/D018 | C302338             | C302452 | -                |
| SCE210D032      | C302341             | C302453 | -                |
| SCE210-100      | C304355             | C304359 | -                |
| SCE210-103      | C304361             | C304361 | -                |

- 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 <sup>(3)</sup> |   |
| C302373                | V |
| C302451                | E |

basic number — suffix

<sup>(3)</sup> Standard prefixes/suffixes are also applicable to kits.

# ASCO™ Solenoid Valves

Series  
**210**

## Dimensions (mm), Weight (kg)



### TYPE 01-02

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

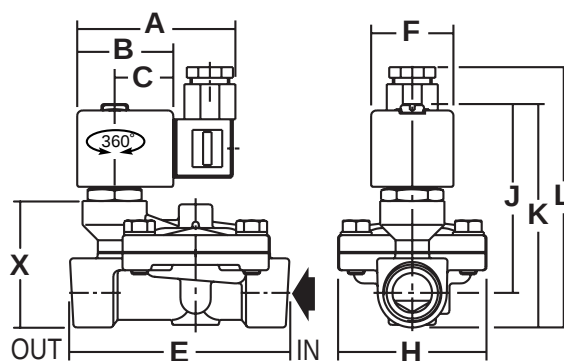
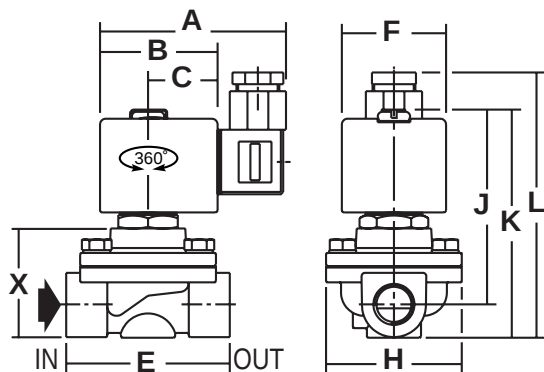
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Type 02 (DC): SCE210D001/D002/D009

(AC): SCE210C006/C007

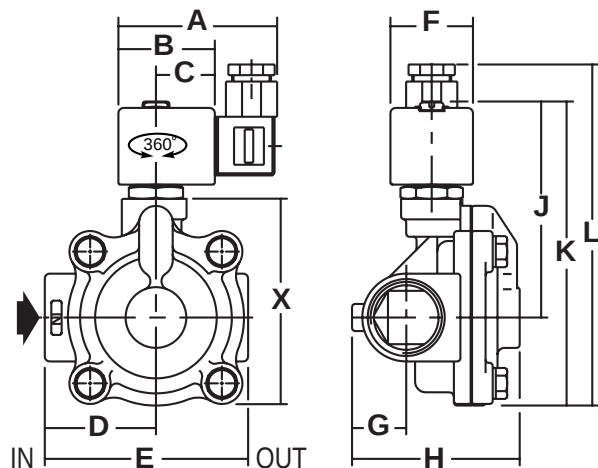
Type 01 (AC): SCE210D003

Type 02 (DC): SCE210D003



Type 01 (AC): SCE210D004/D008

Type 02 (DC): SCE210D004/D008



| mounting brackets | for valves                                                         |
|-------------------|--------------------------------------------------------------------|
|                   | SCE210D001<br>SCE210D002<br>SCE210D009<br>SCE210C006<br>SCE210C007 |
|                   | SCE210D003                                                         |

| type | prefix option | Catalog number  | A  | B  | C  | D  | E   | F  | G  | H  | J   | K   | L   | M | X   | weight <sup>(1)</sup> |
|------|---------------|-----------------|----|----|----|----|-----|----|----|----|-----|-----|-----|---|-----|-----------------------|
| 01   | SC            | SCE210D001/D002 | 75 | 45 | 27 | -  | 70  | 39 | -  | 58 | 72  | 86  | 103 | - | 46  | 0,8                   |
|      |               | SCE210D009      | 75 | 45 | 27 | -  | 71  | 39 | -  | 58 | 76  | 92  | 109 | - | 47  | 0,8                   |
|      |               | SCE210D003      | 75 | 45 | 27 | -  | 100 | 39 | -  | 70 | 90  | 105 | 122 | - | 60  | 1,3                   |
|      |               | SCE210D004      | 75 | 45 | 27 | 52 | 95  | 39 | 25 | 75 | 101 | 143 | 160 | - | 98  | 1,8                   |
|      |               | SCE210D008      | 75 | 45 | 27 | 58 | 115 | 39 | 33 | 99 | 105 | 155 | 172 | - | 109 | 2,0                   |
| 02   | SC            | SCE210D001/D002 | 80 | 50 | 30 | -  | 70  | 45 | -  | 58 | 85  | 97  | 111 | - | 46  | 0,9                   |
|      |               | SCE210D009      | 80 | 50 | 30 | -  | 71  | 45 | -  | 58 | 89  | 106 | 123 | - | 57  | 0,9                   |
|      |               | SCE210D003      | 80 | 50 | 30 | -  | 100 | 45 | -  | 70 | 94  | 109 | 126 | - | 60  | 1,4                   |
|      |               | SCE210C006/C007 | 80 | 50 | 30 | -  | 70  | 45 | -  | 58 | 85  | 99  | 116 | - | 50  | 0,9                   |
|      |               | SCE210D004      | 80 | 50 | 30 | 52 | 95  | 45 | 25 | 75 | 105 | 147 | 164 | - | 98  | 2,0                   |
|      |               | SCE210D008      | 80 | 50 | 30 | 58 | 115 | 45 | 33 | 99 | 110 | 159 | 175 | - | 98  | 2,0                   |

<sup>(1)</sup> Incl. coil(s) and connector(s).

Series  
**210**

**ASCO™ Solenoid Valves**

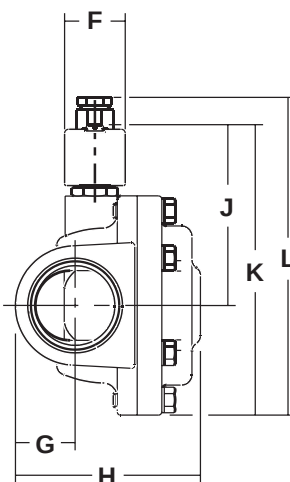
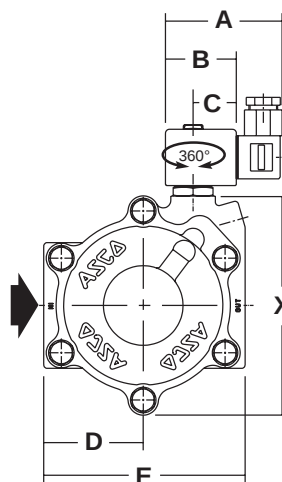
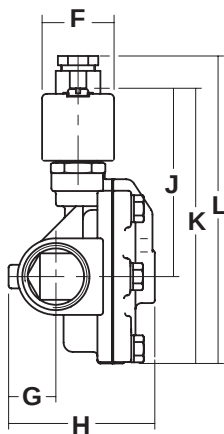
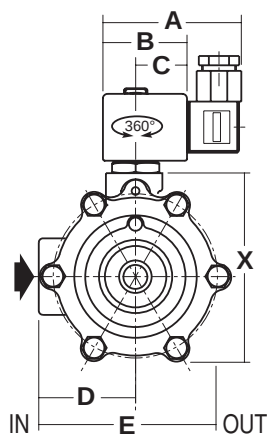
**Dimensions (mm), Weight (kg)**



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

Type 01 (AC): SCE210D022  
Type 02 (DC): SCE210D022

Type 01, AC: SCE210-100  
Type 02, DC: SCE210-100



| type | prefix option | Catalog number | A  | B  | C  | D  | E   | F  | G  | H   | J   | K   | L   | M  | X   | weight <sup>(1)</sup> |
|------|---------------|----------------|----|----|----|----|-----|----|----|-----|-----|-----|-----|----|-----|-----------------------|
| 01   | SC            | SCE210D022     | 75 | 45 | 27 | 58 | 115 | 39 | 33 | 99  | 105 | 155 | 172 | -  | 109 | 2,5                   |
|      |               | SCE210-100     | 75 | 45 | 27 | 64 | 129 | 39 | 39 | 117 | 116 | 186 | 203 | 32 | 140 | 5,5                   |
| 02   | SC            | SCE210D022     | 80 | 50 | 30 | 58 | 115 | 45 | 33 | 99  | 110 | 159 | 175 | -  | 109 | 2,6                   |
|      |               | SCE210-100     | 80 | 50 | 30 | 64 | 129 | 45 | 39 | 117 | 120 | 190 | 206 | 32 | 140 | 5,5                   |

<sup>(1)</sup> Incl. coil(s) and connector(s).

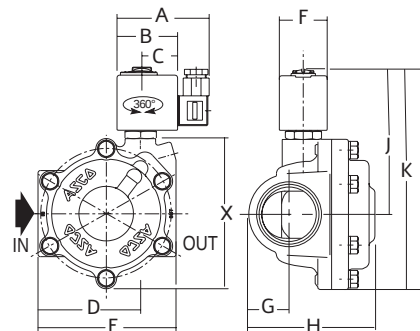
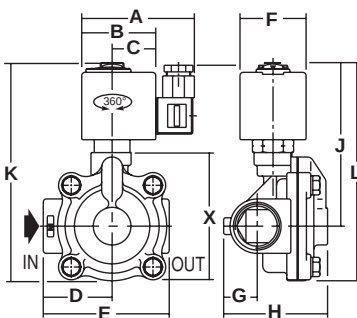
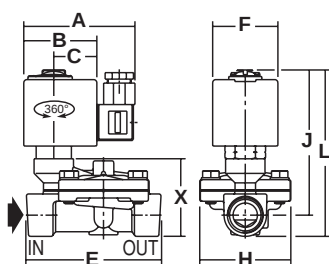


**TYPE 03**  
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / ISO 4400  
IP65

SCE210C013

SCE210A131/A132/D014/D018/D032

SCE210-103 / SCE210A133



| type | prefix option | Catalog number  | A  | B  | C  | D  | E   | F  | G  | H   | J   | K   | L   | M  | X   | weight <sup>(2)</sup> |
|------|---------------|-----------------|----|----|----|----|-----|----|----|-----|-----|-----|-----|----|-----|-----------------------|
| 03   | SC            | SCE210C013      | 91 | 56 | 33 | -  | 96  | 50 | -  | 70  | 112 | -   | 120 | -  | 81  | 1,6                   |
|      |               | SCE210D014      | 91 | 56 | 33 | 52 | 95  | 50 | 25 | 75  | 125 | -   | 165 | -  | 97  | 2,1                   |
|      |               | SCE210D018      | 91 | 56 | 33 | 52 | 95  | 50 | 30 | 85  | 125 | -   | 165 | -  | 108 | 2,0                   |
|      |               | SCE210D032      | 91 | 56 | 33 | 56 | 111 | 50 | 33 | 95  | 128 | -   | 178 | -  | 121 | 2,5                   |
|      |               | SCE210A131/A132 | 91 | 56 | 33 | 58 | 115 | 50 | 33 | 99  | 128 | 177 | 174 | -  | 109 | 2,7                   |
|      |               | SCE210-103      | 91 | 56 | 33 | 64 | 129 | 50 | 39 | 117 | 120 | 208 | 205 | 32 | 140 | 4,6                   |
|      |               | SCE210A133      | 91 | 56 | 33 | 64 | 129 | 50 | 39 | 117 | 138 | 208 | 205 | 32 | 140 | 4,3                   |

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

| mounting brackets | for valves        |
|-------------------|-------------------|
|                   | <b>SCE210C013</b> |

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# ASCO™ Solenoid Valves

Series  
**210**

## Dimensions (mm), Weight (kg)



### TYPE 04-05

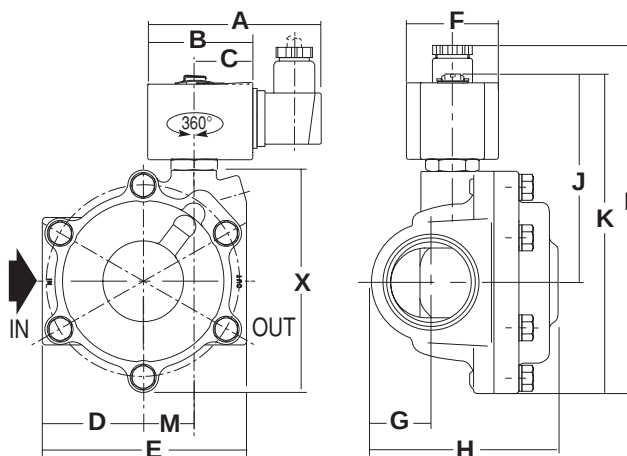
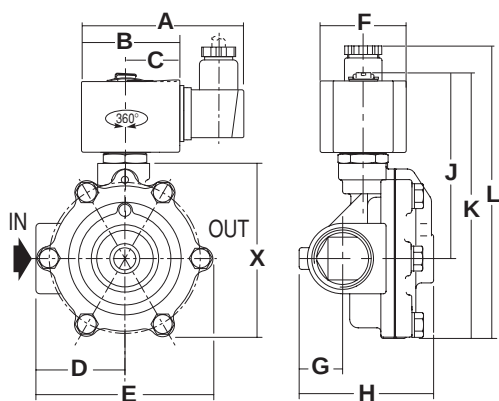
Prefix "SC" Solenoid  
Epoxy moulded  
IEC 335 / ISO 4400  
IP65

Type 04 (AC): SCE210G125/127

Type 05 (DC): SCE210G125/127

Type 04 (AC): SCE210G129

Type 05 (DC): SCE210G129



| type | prefix option | Catalog number    | A  | B  | C  | D  | E   | F  | G  | H   | J   | K   | L   | M  | X   | weight <sup>(1)</sup> |
|------|---------------|-------------------|----|----|----|----|-----|----|----|-----|-----|-----|-----|----|-----|-----------------------|
| 04   | SC            | SCE210G125 / G127 | 80 | 45 | 28 | 58 | 115 | 39 | 33 | 99  | 105 | 155 | 172 | -  | 109 | 2,4                   |
|      |               | SCE210G129        | 80 | 45 | 28 | 64 | 129 | 39 | 39 | 117 | 116 | 186 | 203 | 32 | 140 | 4,0                   |
| 05   | SC            | SCE210G125 / G127 | 85 | 50 | 30 | 58 | 115 | 45 | 33 | 99  | 110 | 159 | 175 | -  | 109 | 2,6                   |
|      |               | SCE210G129        | 85 | 50 | 30 | 64 | 129 | 45 | 39 | 117 | 120 | 190 | 206 | 32 | 140 | 4,2                   |

<sup>(1)</sup> Incl. coil(s) and connector(s)

Series  
**210**

**ASCO™ Solenoid Valves**

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# SCATTERGOOD & JOHNSON LTD

ELECTRICAL ENGINEERING & FLUID CONTROL DISTRIBUTORS

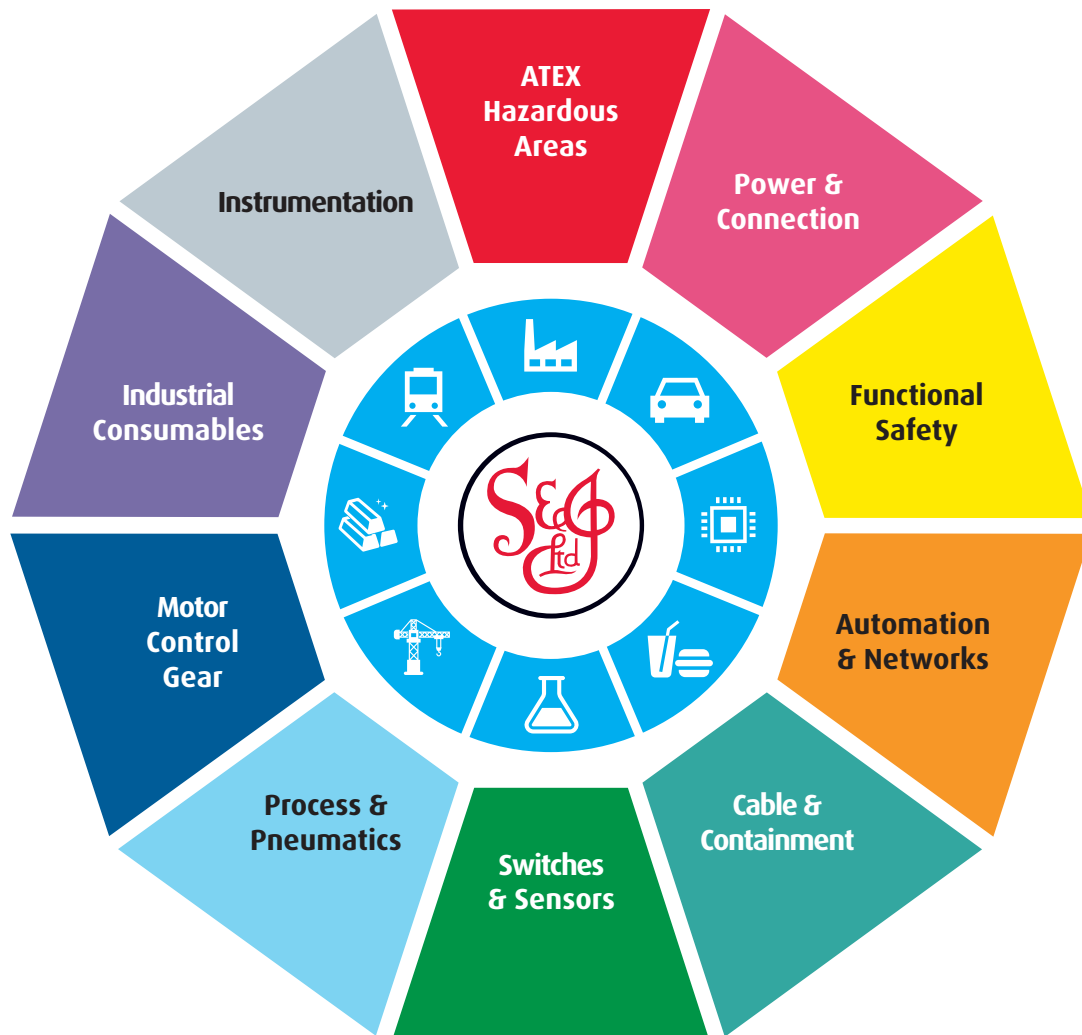
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