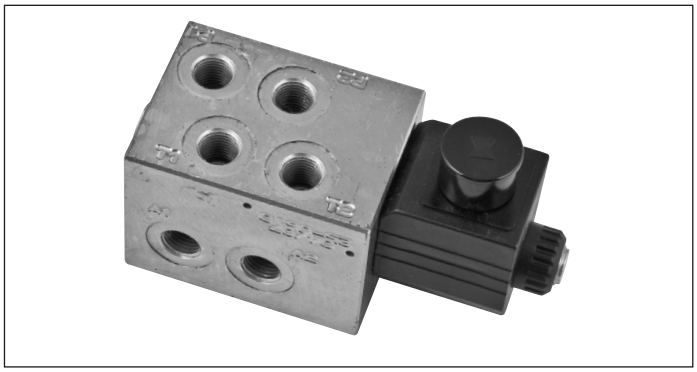
rexroth
A Bosch Company

# 8/2 ways/positions flow diverters L765... (VS570-VS575)

**RE 18302-13**
Edition: 10.2024
Replaces: 02.2016



Size 2
Series 00
Maximum operating pressure 210 bar (3045 psi)
Maximum flow 10 l/min (2.6 gpm)
Ports G 1/4 - SAE 4

**General specifications**

8 way 2 position valve.
Directional spool valve with direct solenoid control.
Normally used to set up the remote control (ISO – SAE) in the earth moving machine.
Control spool operated by solenoid, with easily removable coil fastened by a ring nut.
Wet pin tube for DC coil, with push rod for mechanical override in case of voltage shortage- Unrestricted 360° orientation of DC coil.
Control spool held in normal position by return spring.
Connectors available: DIN 43650 – ISO 4400, AMP Junior, DT04-2P (Deutsch), Free leads.

**Contents**

## Ordering details

| 01 | 02 | | 03 | 04 | 05 | 06 | 07 | 08 | |
|---|---|---|---|---|---|---|---|---|---|
| **L** | **7** | **65** | | **A0** | | **I** | | | **0** |

**Family**

| | | |
|---|---|---|
| 01 | Compact directional valve | **L** |

**Type**

| | | |
|---|---|---|
| 02 | Flow diverters | **7** |

**Ports**

| | | |
|---|---|---|
| 03 | G 1/4 DIN 3852 | **2** |
| | 7/16-20 UNF(SAE4) | **A** |

**Control type**

| | | |
|---|---|---|
| 04 | Solenoid (D36) | **A0** |

**Configuration**

| | | |
|---|---|---|
| 05 | 8 ways / 2 positions | **BY** |
| | 8 ways / 2 positions with detent | **CY** |

**Drain type**

| | | |
|---|---|---|
| 06 | Internal drain | **I** |

| **Voltage supply** | | **31** | **07** | **04** | **03** | **01** | **00** | |
|---|---|---|---|---|---|---|---|---|
| 07 | Without coil | – | – | – | – | – | ● | **00** |
| | 12 V DC | ● | ● | ● | ● | ● | – | **OB** |
| | 13 V DC | – | ● | – | – | ● | – | **AD** |
| | 24 V DC | ● | ● | ● | ● | ● | – | **OC** |
| | 27 V DC | – | ● | – | – | ● | – | **AC** |
| | 48 V DC | – | – | ● | – | ● | – | **OD** |
| | 110 V DC | – | – | – | – | ● | – | **OE** |

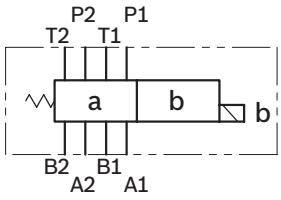
**Electric connections**

| | | |
|---|---|---|
| 08 | Without coils | **00** |
| | With coils, without mating connector DIN EN 175301-803 [1] | **01** |
| | With coils, with bi-directional diode, without mating connector vertical Amp-Junior | **03** |
| | With coils, with bi-directional diode, without mating connector horizontal Amp-Junior | **04** |
| | With coils, with bi-directional diode, without mating connector DT04-2P | **07** |
| | With coils and bipolar sheathed lead 350mm (13,8 in) long | **31** |

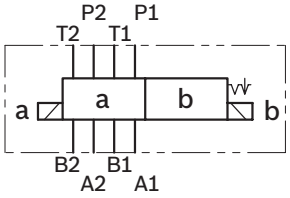
● = Available – = Not available

## Symbols

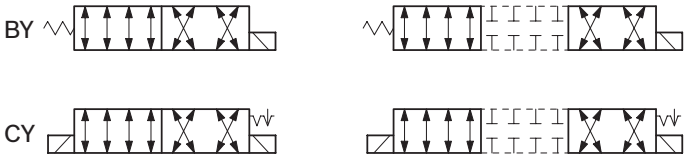
▼ **Configuration BY**




▼ **Configuration CY**

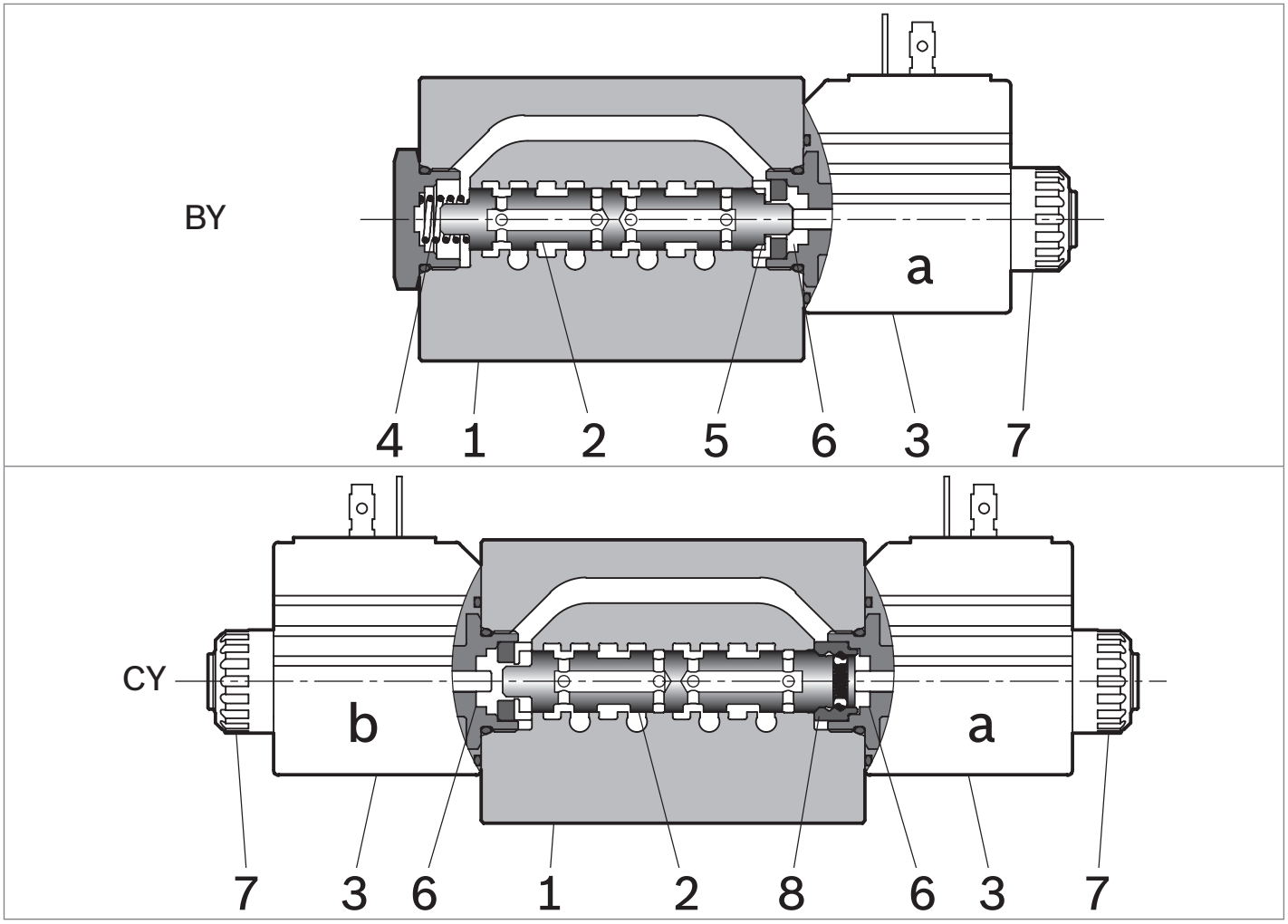



▼ **Spool variants**




1) For connectors ordering code see data sheet RE 18325-90.

## Functional description




A valve basically consists of a housing (**1**), a control spool (**2**), one or two solenoid (**3**), and a return spring (**4**).

**L76510BY..**
If the solenoid is energized, the spool goes from position "**0**" to position "**b**".
With the coil de-energized, the return spring (**3**) pushes back the spool (**2**) and holds it in position "**0**".
The coil (**6**) is fastened to the tube by the ring nut (**7**).

**L76510CY..**
If the solenoid "**a**" is energized, the spool goes from position "**a**" to position "**b**". The position "**b**" is held by the detent (**8**).
The return to position "**a**" is obtained energising the solenoid "**b**".
The coil (**6**) is fastened to the tube by the ring nut (**7**).

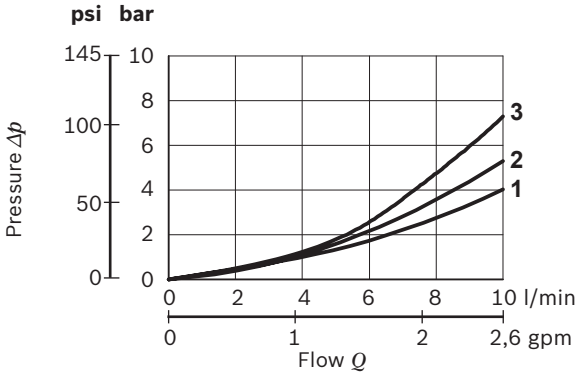
## Technical data

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| **General** | | | | | | | |
| Valve weight CY | kg (lbs) | 1.88 (4.15) | | | | | |
| Valve weight BY | kg (lbs) | 2.18 (4.8) | | | | | |
| Mounting position | | unrestricted | | | | | |
| Ambient Temperature | °C (°F) | –20....+50 (-4....+122) (NBR seals) | | | | | |
| **Hydraulic** | | | | | | | |
| Maximum pressure | bar (psi) | 210 (3045) | | | | | |
| Maximum flow | l/min (gpm) | 10 (2.64) | | | | | |
| Hydraulic fluid<br>General properties: it must have physical lubricating and chemical properties suitable for use in hydraulic systems such as, for example: | | Mineral oil based hydraulic fluids HL (DIN 51524 part 1).<br>Mineral oil based hydraulic fluids HLP (DIN 51524 part 2).<br>For use of environmentally acceptable fluids (vegetable or polyglycol base) please consult us. | | | | | |
| Fluid Temperature | °C (°F) | –20....+80 (-4....+176) (NBR seals) | | | | | |
| Permissible degree of fluid contamination | | ISO 4572: $\beta_x \geq 75$ X = 12...15<br>ISO 4406: class 20/18/15<br>NAS 1638: class 9 | | | | | |
| Viscosity range | $mm^2/s$ | 5....420 | | | | | |
| Internal leakage with 100 bar (1450 psi) | cc/min ($in^3$/min) | min.10 (0.61) max. 20 (1.2) | | | | | |
| **Electrical** | | | | | | | |
| Voltage type | | DC | | | | | |
| Voltage tolerance (nominal voltage) | % | -10 .... +10 | | | | | |
| Duty | | Continuous (100%), with ambient temperature ≤ 50°C (122°F) | | | | | |
| Coil wire temperature not to be exceeded | °C (°F) | 150 (302) | | | | | |
| Insulation class | | H | | | | | |
| Compliance with | | Low Voltage Directive LVD 73/23/EC (2006/95/EC), 2004/108/EC | | | | | |
| Coil weight with connection EN 175301-803 | kg (lbs) | 0.215 (0.44) | | | | | |
| Voltage | V | 12 | 13 | 24 | 27 | 48 | 110 |
| Voltage type | | DC | DC | DC | DC | DC | DC |
| Power consumption | W | 26 | 26 | 26 | 26 | 26 | 26 |
| Current (nominal at 20 °C (68 °F)) | A | 2.15 | 2.00 | 1.10 | 1.00 | 0.54 | 0.27 |
| Resistance (nominal at 20 °C (68 °F)) | Ω | 5.5 | 6.5 | 22 | 28 | 89 | 413 |

**Note**
For applications with different specifications consult us

| Code | Voltage [V] | Connector type | Coil description | Marking | Coil Mat no. |
|---|---|---|---|---|---|
| **OB 01** | 12 DC | EN 175301- 803<br>(Ex. DIN 43650) | C3601 12DC | 12 DC | R933000044 |
| **OB 03** | 12 DC | AMP JUNIOR | C3603 12DC | 12 DC | R933000047 |
| **OB 04** | 12 DC | AMP JUNIOR Horizontal | C3604 12DC | 12 DC | R933002913 |
| **OB 07** | 12 DC | DEUTSCH DT 04-2P | C3607 12DC | 12 DC | R933000048 |
| **OB 31** | 12 DC | Cable 350 mm long | C3631 12DC | 12 DC | R933000045 |
| **AD 01** | 13 DC | EN 175301-803<br>(Ex. DIN 43650) | C3601 13DC | 13 DC | R933000051 |
| **AD 07** | 13 DC | DEUTSCH DT 04-2P | C3607 13DC | 13 DC | R933000049 |
| **OC 01** | 24 DC | EN 175301-803<br>(Ex. DIN 43650) | C3601 24DC | 24 DC | R933000053 |
| **OC 03** | 24 DC | AMP JUNIOR | C3603 24DC | 24 DC | R933000057 |
| **OC 04** | 24 DC | AMP JUNIOR Horizontal | C3604 24DC | 24 DC | R933002914 |
| **OC 07** | 24 DC | DEUTSCH DT 04-2P | C3607 24DC | 24 DC | R933000058 |
| **OC 31** | 24 DC | Cable 350 mm long | C3637 24DC | 24 DC | R933000055 |
| **AC 01** | 27 DC | EN 175301-803<br>(Ex. DIN 43650) | C3601 27DC | 27 DC | R933000056 |
| **AC 07** | 27 DC | DEUTSCH DT 04-2P | C3607 27DC | 27 DC | R933000050 |
| **OD 01** | 48 DC | EN 175301-803<br>(Ex. DIN 43650) | C3601 48DC | 48 DC | R933000059 |
| **OD 04** | 48 DC | AMP JUNIOR Horizontal | C3604 48DC | 48 DC | R933002915 |
| **OE 01** | 110 DC | EN 175301-803<br>(Ex. DIN 43650) | C3601 110DC | 110 DC | R933000061 |

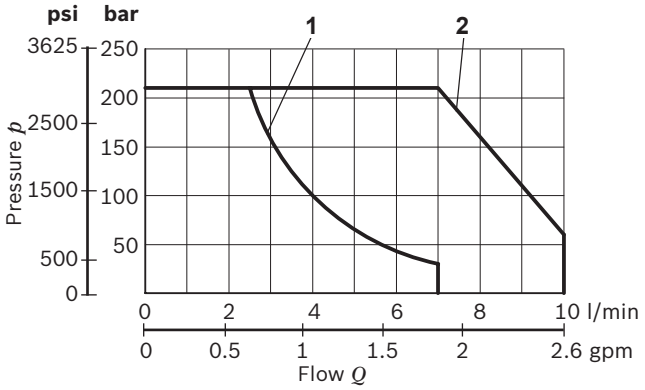
## Characteristic curves




| Scheme | Curve n. | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| | A1>P1 | B1>T1 | A2>P2 | B2>T2 | A1>T1 | B1>P1 | A2>T2 | B2>P2 |
| BY - CY | 2 | 1 | 2 | 1 | 2 | 3 | 2 | 3 |

Measured with hydraulic fluid ISO-VG32 at 45° ±5 °C (113° ±9 °F); ambient temperature 20 °C (68 °F).

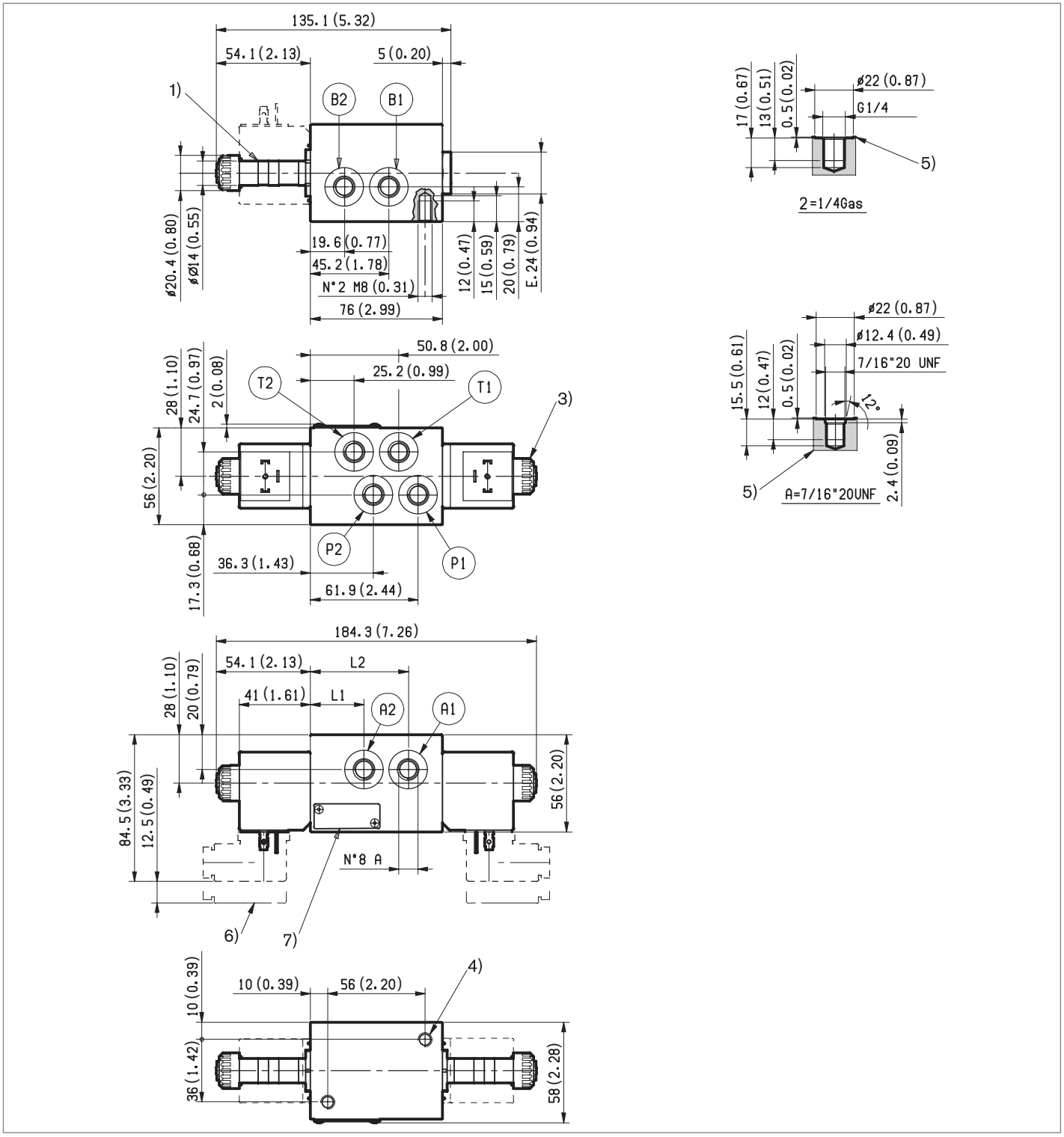
### Performance limits




| Scheme | Curve No. |
|---|---|
| BY | 1 |
| CY | 2 |

The performance curves are measured with flow going across and caming back.

## External dimensions and fittings

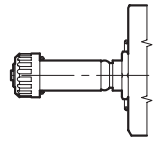



**1** Solenoid tube Ø 14 mm (0,55 inch).
**3** Ring nut for coil locking Ø 20,4 mm (0.8 inch). Torque 3 – 4 Nm (2.2 – 3.0 ft-lb).
**4** Two through holes for installation. Recommended screws M8 with strength class DIN 8.8.
**5** Hydraulic Ports (G1/4- SAE4).
**6** Minimum clearance needed for connector removal.
**7** Identification label.

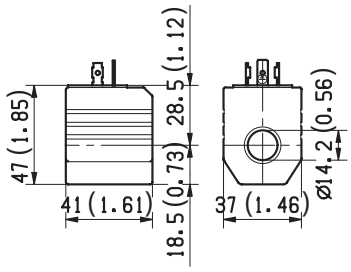
| Measure | VS570 | VS575 |
|---|---|---|
| L1 | 33.8 (1.33) | 30.8 (1.21) |
| L2 | 59.4 (2.33) | 56.4 (2.22) |

## Electric connection

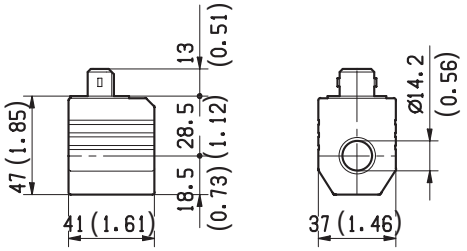
**00**



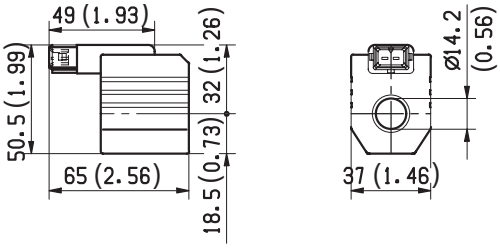
**01**



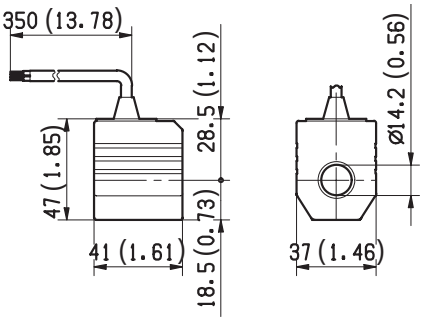

**03** Protection class: IP 65 with female connector properly fitted (see drawing).



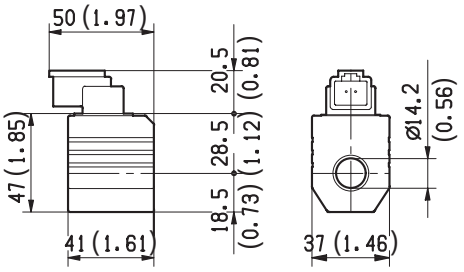

**04** Protection class: IP 65 with female connector properly fitted (see drawing).




**31**




**07** Protection class: IP 69 K with female connector properly fitted (see drawing).

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