

## 3-Way Solenoid Valve - Direct Acting

General application valves for dry or lubricated air, neutral gases and liquids



- Description:**
- 3-Way Solenoid Valve - Direct Acting - Normally Closed.
  - Coil IP65 for 2 P + E plug according to DIN 43650 type A
  - Power Consumption 8W (AC), 9W (DC).

- Applications:**
- This series is used in applications which require actuation and automatic discharge of moving systems.
  - Typical applications can be found in: sterilizers, Cylinder actuation, air compressors, Diesel oil burners, pilot valves, water treatment installations.

- Temperature Range:**
- Min: -10°C | Max: see table

- Seals Material:**
- FKM, PCTFE

- Advantages:**
- Versatile product for many 2/2 NC v alve requiring applications, robust design.

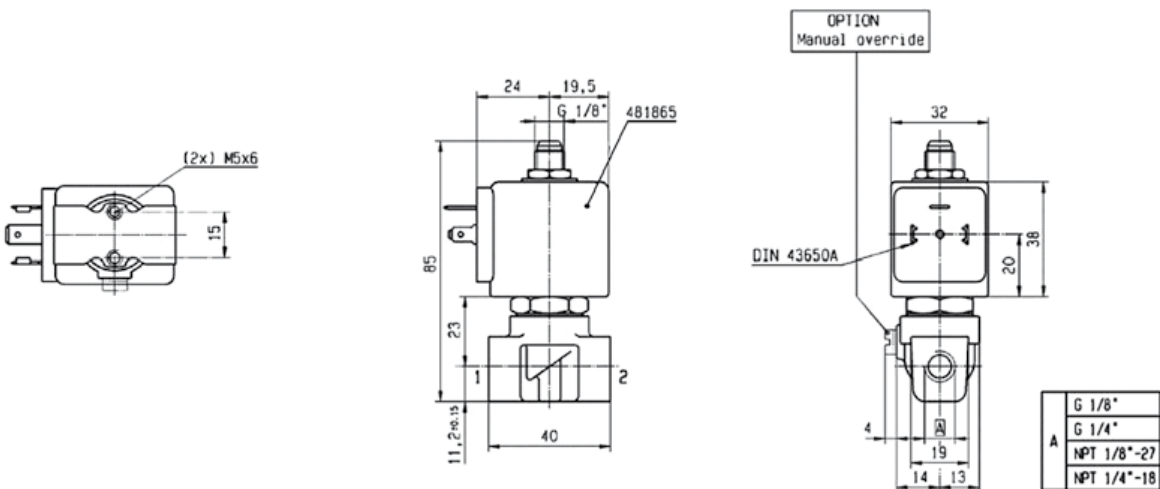
| Port size | Orifice | K <sub>v</sub> | Admissible differential pressure (bar) |      | Fluid Temp. C° | Seal Material | Reference number |         |      | Options |
|-----------|---------|----------------|--|------|----------------|---------------|------------------|---------|------|---------|
|           |         |                | Min.                                   | Max. |                |               | Valve            | Housing | Coil |         |

### 3-Way Solenoid Valve - Direct Acting - Normally Closed

Normally CLOSED

|      |     |            |   |    |       |       |           |      |        |    |
|------|-----|------------|---|----|-------|-------|-----------|------|--------|----|
| 1/8" | 1.5 | 1.5        | 0 | 15 | 100°C | FKM   | E131K14   | 2995 | 481865 | -  |
| 1/8" | 2.0 | 2.5 (3.5)* | 0 | 10 | 100°C | FKM   | 131K16    | 2995 | 481865 | -  |
| 1/8" | 2.0 | 2.5 (3.5)* | 0 | 10 | 100°C | FKM   | 131K1650  | 2995 | 481865 | ** |
| 1/8" | 2.5 | 3.5        | 0 | 7  | 100°C | FKM   | E131K13   | 2995 | 481865 | -  |
| 1/4" | 0.8 | 0.3        | 0 | 40 | 75°C  | PCTFE | 131K05    | 2995 | 481865 | -  |
| 1/4" | 1.5 | 1.5        | 0 | 15 | 100°C | FKM   | E131K04   | 2995 | 481865 | -  |
| 1/4" | 1.5 | 1.5        | 0 | 15 | 100°C | FKM   | E131K0450 | 2995 | 481865 | ** |
| 1/4" | 2.0 | 2.5 (3.5)* | 0 | 10 | 100°C | FKM   | E131K06   | 2995 | 481865 | -  |
| 1/4" | 2.0 | 2.5 (3.5)* | 0 | 10 | 100°C | FKM   | E131K0650 | 2995 | 481865 | ** |
| 1/4" | 2.5 | 3.5        | 0 | 7  | 100°C | FKM   | E131K03   | 2995 | 481865 | -  |
| 1/4" | 2.5 | 3.5        | 0 | 7  | 100°C | FKM   | E131K0350 | 2995 | 481865 | ** |

\* Kv for Exhaust side  
\*\* Manual override standard



Please consult the "How to Order" part at the end of each coil chapter.

# COILS & HOUSING

## 32 mm Electrical Parts Availability

### 481865 Series - Standard Coil Mono-Frequency, F Class, IP65

Encapsulated in synthetic material, Connector for 2P+E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only. This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

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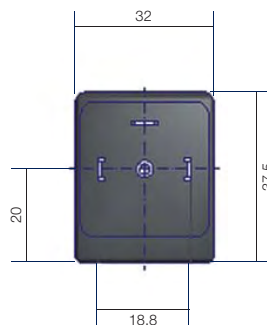
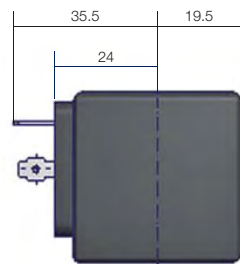
| Voltage    | Power Consumption | Reference | Approvals | Ambient Temperature | Class of insulation | Dimensional Drawing |
|------------|-------------------|-----------|-----------|---------------------|---------------------|---------------------|
| 24/50      | 8 W               | 481865A2  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 48/50      | 8 W               | 481865A4  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 110/50     | 8 W               | 481865A5  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 220-230/50 | 8 W               | 4818653D  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 380/50     | 8 W               | 481865A9  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 24/60      | 8 W               | 481865B2  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 230/60     | 8 W               | 481865J3  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 115/60     | 8 W               | 481865K8  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 12 DC      | 9 W               | 481865C1  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 24 DC      | 9 W               | 481865C2  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 48 DC      | 9 W               | 481865C4  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 110V DC    | 9 W               | 481865C5  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |

#### Voltage

**Tolerances:** -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

**Duty:** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 8

# COILS & HOUSING

## 32 mm Electrical Parts Availability

### 483510 Series - Standard Bi-Frequency Coil, F Class, IP65

Encapsulated in synthetic material, Connector for 2P+E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only.

This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

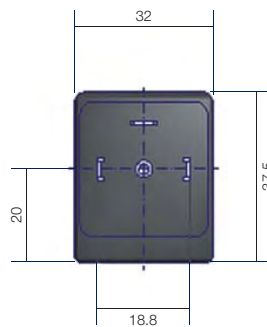
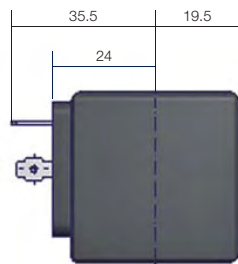
| Voltage           | Power Consumption | Reference | Approvals | Ambient Temperature | Class of insulation | Dimensional Drawing |
|-------------------|-------------------|-----------|-----------|---------------------|---------------------|---------------------|
| 12/50-60          | 9 W               | 4835101W  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 24/50-60          | 9 W               | 483510P0  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 48/50-60          | 9 W               | 483510S4  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 110-115/50 120/60 | 9 W               | 483510S5  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |
| 220-240/50 240/60 | 9 W               | 483510S6  | -         | -40°C to +50°C      | F Class 155°C       | 8                   |

**Voltage**

**Tolerances:** -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

**Duty** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 8

# COILS & HOUSING

## 32 mm Electrical Parts Availability

### 492425 Series - High Temperature/High Power H Class, IP65

Encapsulated in synthetic material, Connector for 2P + E DIN 43650 A Plug, IP65 insulation class to be considered with connector plug only.

This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

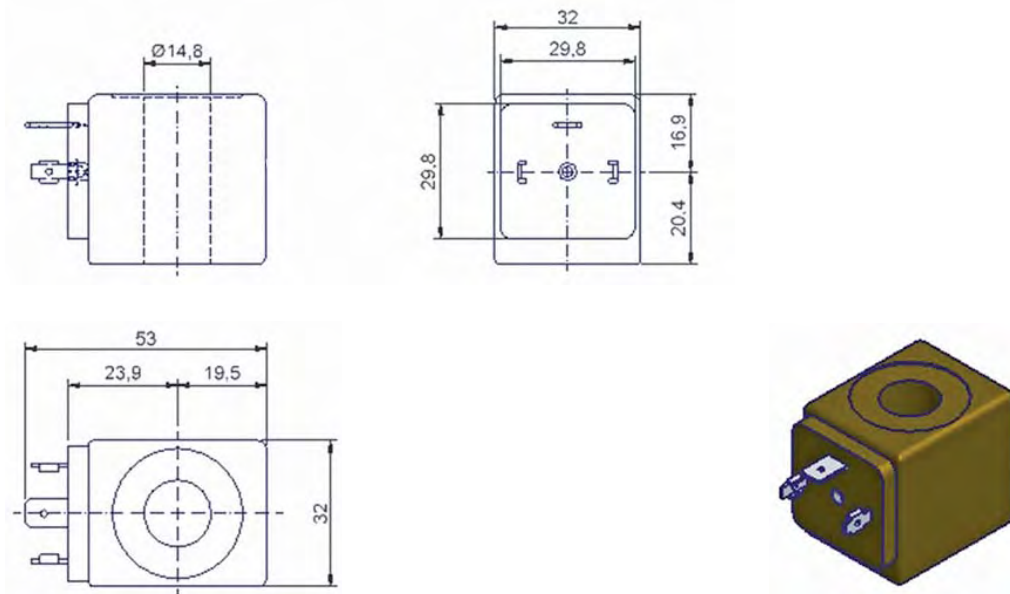
| Voltage | Power Consumption | Reference | Approvals | Ambient Temperature | Class of insulation | Dimensional Drawing |
|---------|-------------------|-----------|-----------|---------------------|---------------------|---------------------|
| 24/50   | 14 W              | 492425A2  | -         | -40°C to +80°C      | H Class 180°C       | 10                  |
| 110/50  | 14 W              | 492425A5  | -         | -40°C to +80°C      | H Class 180°C       | 10                  |
| 230/50  | 14 W              | 492425F4  | -         | -40°C to +80°C      | H Class 180°C       | 10                  |
| 24 DC   | 14 W              | 492425C2  | -         | -40°C to +80°C      | H Class 180°C       | 10                  |

**Voltage**

**Tolerances:** -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

**Duty:** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 10

# COILS & HOUSING

## 496082 Series- IP67 Coil with two 500mm flying leads, F Class

Encapsulated in synthetic material. Protection rate IP67 as per DIN 40050. Connection: 2x500mm cables. This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

Earthing: as no wire for earth connection is supplied, please note that at least one part of valve, pipes, or system in which the valve is mounted must have earth connection.

This coil is UL-approved as a recognized component for the insulation Class F, conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

| Voltage       | Power Consumption | Reference | Approvals | Ambient Temperature | Class of insulation | Dimensional Drawing |
|---------------|-------------------|-----------|-----------|---------------------|---------------------|---------------------|
| 24/60         | 13 W              | 496082B2  | UL        | -40°C to +50°C      | F Class 155°C       | 9                   |
| 110/50 120/60 | 13 W              | 496082P3  | UL        | -40°C to +50°C      | F Class 155°C       | 9                   |
| 208-240/60    | 13 W              | 496082U3  | UL        | -40°C to +50°C      | F Class 155°C       | 9                   |
| 220/50 240/60 | 14 W              | 496082Q3  | UL        | -40°C to +50°C      | F Class 155°C       | 9                   |
| 24 DC         | 16 W              | 496082C2  | UL        | -40°C to +50°C      | F Class 155°C       | 9                   |
| 12 DC         | 16 W              | 496082C1  | UL        | -                   | -                   | 9                   |

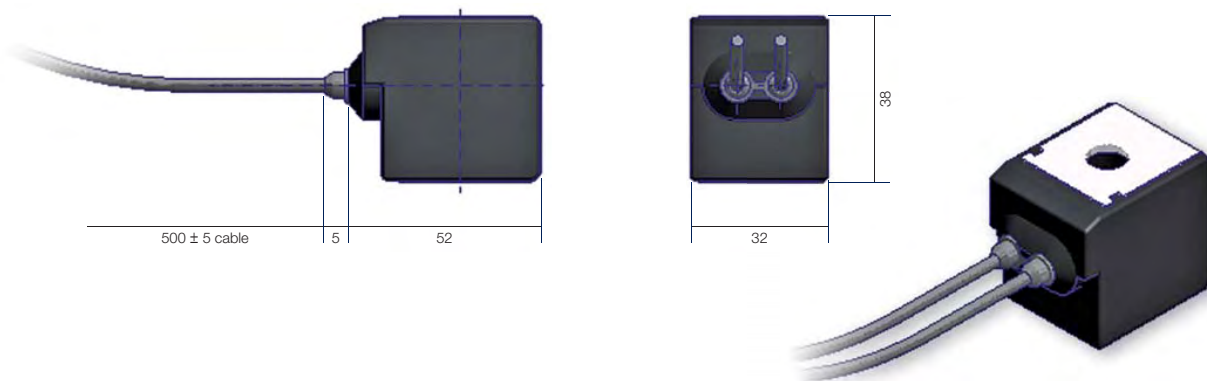
**Specification:** UL recognized coil - UL file E125678

**Voltage**

**Tolerances:** -10% to +10% of the nominal voltage (AC), -5% to +10% of the nominal voltage (DC)

**Duty:** Continuous duty coil (100%ED)

**Weight:** 180 g



All dimensions are in mm

Dimensional Drawing N° 9

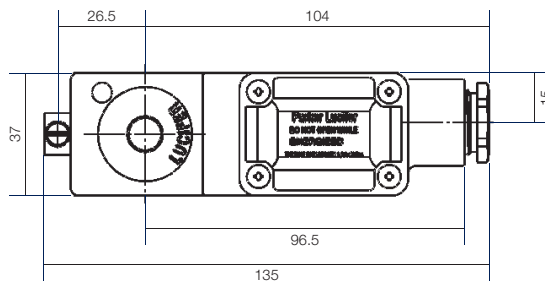
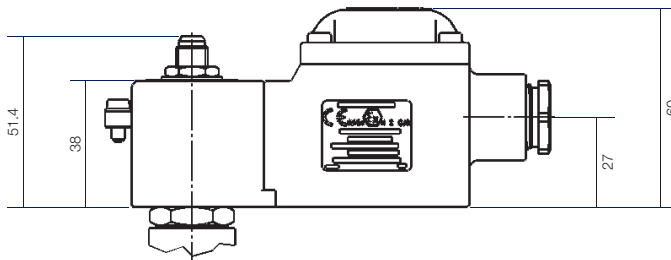
# COILS & HOUSING

## 37mm Electrical Parts Availability

### 495905 Series - Explosion-Proof II 2 G-EEx dm IIC T4

Coil/housing assembly encapsulated in synthetic material (H class). Protection degree: IP67. Cable connection through cable gland M20x1.5 (DIN 46320).

| Voltage | Power Consumption | Reference       | Approvals          | Type of Protection Gas | Dust           | Ambient Temperature | Class of insulation | Dim. Drawing |
|---------|-------------------|-----------------|--------------------|------------------------|----------------|---------------------|---------------------|--------------|
| 24 DC   | 8 W               | <b>495905C2</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 48 DC   | 8 W               | <b>495905C4</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 110 DC  | 8 W               | <b>495905C5</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 24/50   | 8 W               | <b>495905A2</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 48/50   | 8 W               | <b>495905A4</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 240/60  | 8 W               | <b>495905B8</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 115/50  | 8 W               | <b>495905E5</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 230/50  | 8 W               | <b>495905F4</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |
| 115/60  | 8 W               | <b>495905K8</b> | LCIE02 ATEX 6451 X | II 2 G -Eex dm IIC T4  | II 2D - +130°C | -40 to +65 °C       | -                   | 13           |



All dimensions are in mm

Dimensional Drawing N° 13

# COILS & HOUSING

## 40mm Electrical Parts Availability

### 481000 Series - Standard F Class Coil with screw terminals

The coil winding is completely encapsulated in synthetic material. Electrical connection with screw terminals for wire up to 1.5 mm.

This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC. This coil must be used with a metallic housing.

Please consult page 40-42 to identify non-standard metallic housings availability.

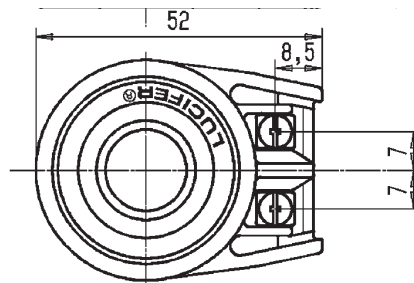
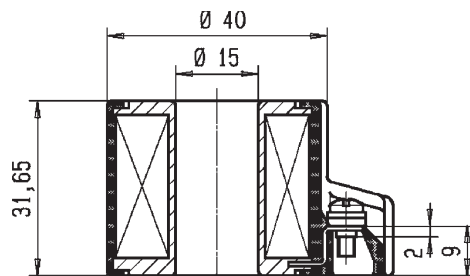
| Voltage        | Power Consumption | Reference | Approvals | Ambient Temperature | Class of insulation | Dimensional Drawing |
|----------------|-------------------|-----------|-----------|---------------------|---------------------|---------------------|
| 110-115/50     | 8 W               | 4810000A  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 220/50, 230/50 | 8 W               | 4810003D  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 240/60; 220/60 | 8 W               | 4810004K  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 380/50; 440/60 | 8 W               | 4810005P  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 110-115/60     | 8 W               | 4810006J  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 24/50          | 8 W               | 481000A2  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 48/50          | 8 W               | 481000A4  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 24/60          | 8 W               | 481000B2  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 12 DC          | 8 W               | 481000C1  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 24 DC          | 8 W               | 481000C2  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 48 DC          | 8 W               | 481000C4  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 110 DC         | 8 W               | 481000C5  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |
| 42/50; 48/60   | 8 W               | 481000S7  | -         | -40°C to +50°C      | F Class 155°C       | 11                  |

**Voltage**

**Tolerances:** -10% to +10% of the nominal voltage

**Duty:** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 11

# COILS & HOUSING

## 40 mm Electrical Parts Availability

### 481044 Series - High Power Coil with screw terminals

The coil winding is completely encapsulated in synthetic material. Electrical connection with screw terminals for wire up to 1.5 mm.

This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

This coil must be used with a metallic housing.

Please consult page 40-42 to identify non-standard metallic housings availability.

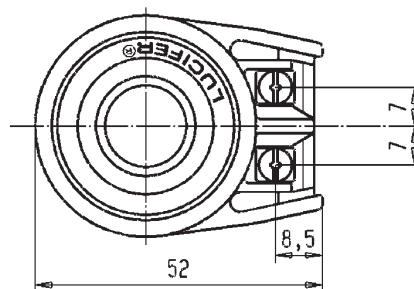
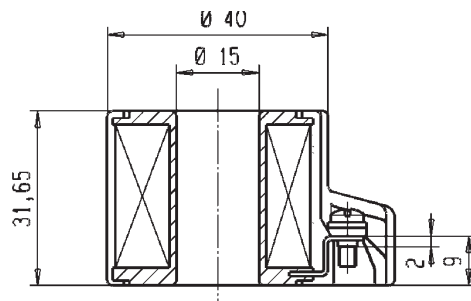
| Voltage        | Power Consumption | Reference | Approvals | Ambient Temperature | Class of insulation | Dimensional Drawing |
|----------------|-------------------|-----------|-----------|---------------------|---------------------|---------------------|
| 115/60; 100/50 | 14 W              | 4810440P  | -         | -40°C to +50°C      | H Class 155°C       | 12                  |
| 24/50          | 14 W              | 481044A2  | -         | -40°C to +50°C      | H Class 155°C       | 12                  |
| 110/50         | 14 W              | 481044A5  | -         | -40°C to +50°C      | H Class 155°C       | 12                  |
| 220/50         | 14 W              | 481044A7  | -         | -40°C to +50°C      | H Class 155°C       | 12                  |
| 230/50         | 14 W              | 481044F4  | -         | -40°C to +50°C      | H Class 155°C       | 12                  |
| 230/60; 200/50 | 14 W              | 481044S2  | -         | -40°C to +50°C      | H Class 155°C       | 12                  |

**Voltage**

**Tolerances:** -10% to +10% of the nominal voltage)

**Duty:** Continuous duty coil (100%ED)

**Weight:** 130 g (without plug)



All dimensions are in mm

Dimensional Drawing N° 12



## COILS & HOUSING

### For 481000 and 481044 Series Electrical Parts with screw terminals

#### 4270 Series Standard Housing

This metal housing offers the ideal protection against shocks and corrosion - rotatable 360°. This housing can be used with 481000 and 481044 series electrical parts.

**Material:** Epoxy-coated steel

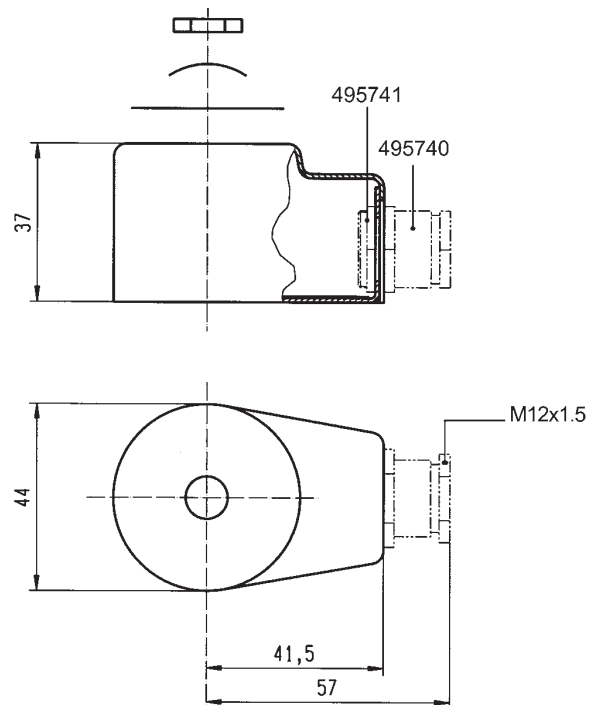
**Degree of Protection:** IP according to IEC/EN60529  
IP10 with armoured conduit  
IP44 with cable gland

**Electrical**

**Connection:** Can be made with armoured conduit or cable gland M12x1.5, Part N° 495740 and N°495741 to be ordered separately.  
Grounding connection by screw M3 on the inside of the housing base plate.

**Dimensions:** See dimensional "Drawing N°14"

**Weight:** 120 g



All dimensions are in mm

Dimensional Drawing N° 14

## COILS & HOUSING

### 4538 Series Waterproof and Dustproof Housing

This enclosure is dust and waterproof. It corresponds to the degree of "international protection" IP67 according to IEC/EN60529. Corrosion resistant, the metal housing offers good protection for the coil against shocks. This housing must be equipped with **481000 Series** electrical parts.

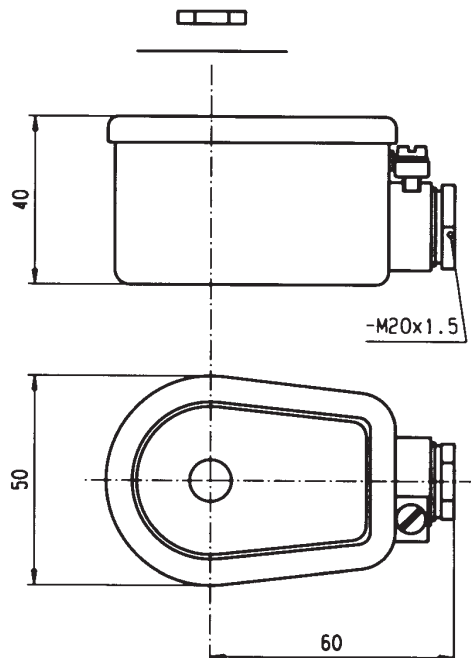
**Material:** Galvanized passivated steel

**Degree of Protection:** IP67 according to IEC/EN 60529

**Electrical Connection:** Cable connection by cable gland according to DIN46320. Cable with outer diameter 6.5-13.5mm (M20x1.5) can be simply sealed using a rubber gland resilient sealing rings. The enclosure is internally and externally fitted with grounding and earthing screw terminals.

**Dimensions:** See dimensional "Drawing N°15"

**Weight:** 180 g



All dimensions are in mm

Dimensional Drawing N° 15