2/2-Way Direct Operated Valve

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

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

Applications:
- Shut-off and control (On-Off) of water, air, light oils, steam and inert gases
- Humidifiers, welding systems, industrial washing machines, automatic dispensers, diesel oil burners, sterilizers, compressors.

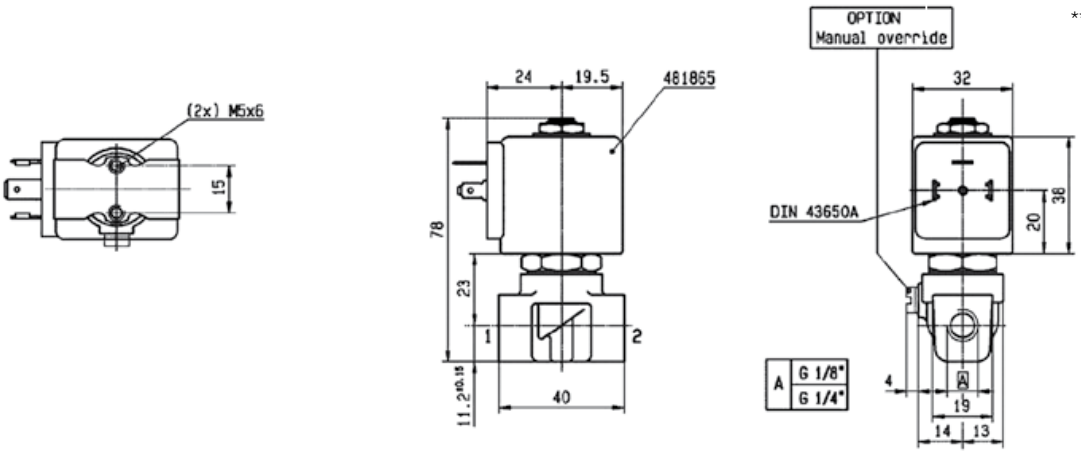
Temperature Range:
- Min: -10°C I Max: see table

Seals Material:
- See table

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

Port size	Orifice	K_v	Admissible differential pressure (bar)			Fluid Temp.	Seal Material	Reference number			Options
G	mm	l/min	Min.	Max. DC	Max. AC		C°	Valve	Housing	Coil	
2/2-Way Direct Operated Valve											Normally CLOSED
1/8"	2.5	3.50	0	10.0	28.0	100°C	Ruby	E121K23	2995	481865	-
1/8"	3.0	4.50	0	7.0	10.0	100°C	FKM	121K1302	2995	481865	-
1/4"	1.2	0.85	0	36.0	80.0	100°C	Ruby	E121K65	2995	481865	-
1/4"	1.5	1.50	0	25.0	60.0	75°C	PCTFE	E121K04	2995	481865	-
1/4"	1.5	1.50	0	25.0	60.0	100°C	Ruby	E121K67	2995	481865	-
1/4"	1.5	1.50	0	20.0	20.0	100°C	FKM	E121K0402	2995	481865	-
1/4"	2.5	3.50	0	10.0	28.0	75°C	PCTFE	E121K07	2995	481865	-
1/4"	2.5	3.50	0	7.0	14.0	100°C	FKM	121K0706	2995	481865	-
1/4"	2.5	3.50	0	10.0	28.0	100°C	Ruby	E121K63	2995	481865	-
1/4"	3.0	4.50	0	7.0	20.0	75°C	PCTFE	E121K03	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	FKM	E121K0302	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	EPDM	121K0323	2995	481865	-
1/4"	3.0	4.50	0	7.0	10.0	100°C	FKM	E121K0352	2995	481865	**
1/4"	3.0	4.50	0	7.0	20.0	100°C	Ruby	E121K64	2995	481865	-
1/4"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K02	2995	481865	-
1/4"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K0250	2995	481865	**
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K01	2995	481865	-
1/4"	5.0	11.00	0	2.0	7.0	100°C	EPDM	121K0103	2995	481865	-
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K0150	2995	481865	**
1/4"	5.0	11.00	0	2.0	7.0	100°C	FKM	121K3106	2995	481865	-
3/8"	4.0	7.50	0	4.0	10.0	100°C	FKM	121K3206	2995	481865	-
3/8"	6.0	12.00	0	1.1	5.0	100°C	FKM	121K3303	2995	481865	-
3/8"	6.0	12.00	0	1.1	5.0	100°C	FKM	121K3306	2995	481865	-
1/2"	8.5	25.00	0	0.5	1.1	100°C	FKM	E121K46	2995	481865	-
1/2"	11.0	36.00	0	0.3	0.7	100°C	FKM	E121K45	2995	481865	-

** Manual override standard



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.

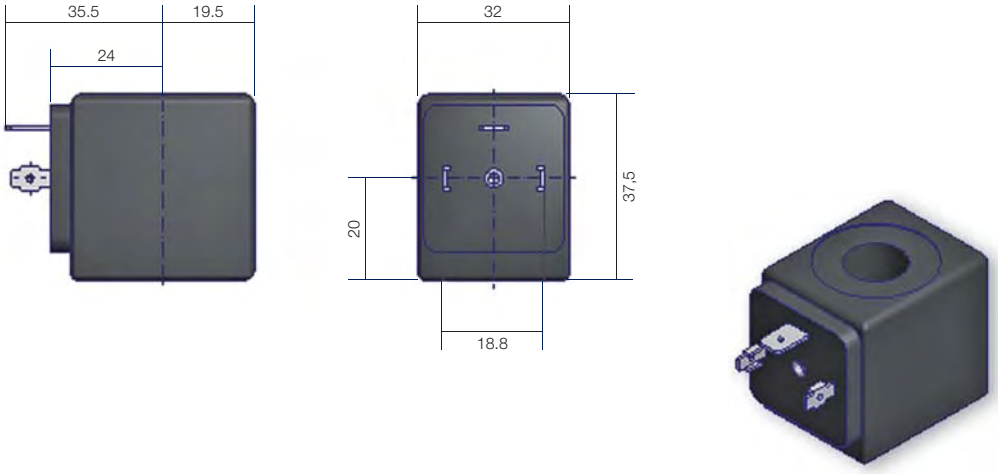
This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

Voltage	Power Consumption	Reference	Approvals	Ambient Temperature	Class of insulation	Dimensional Drawing
24/50	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

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.

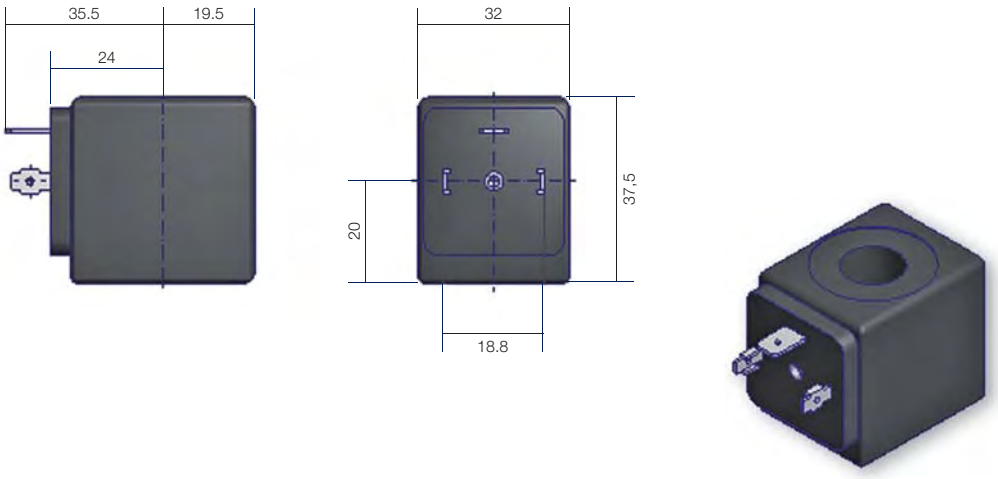
This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

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

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.

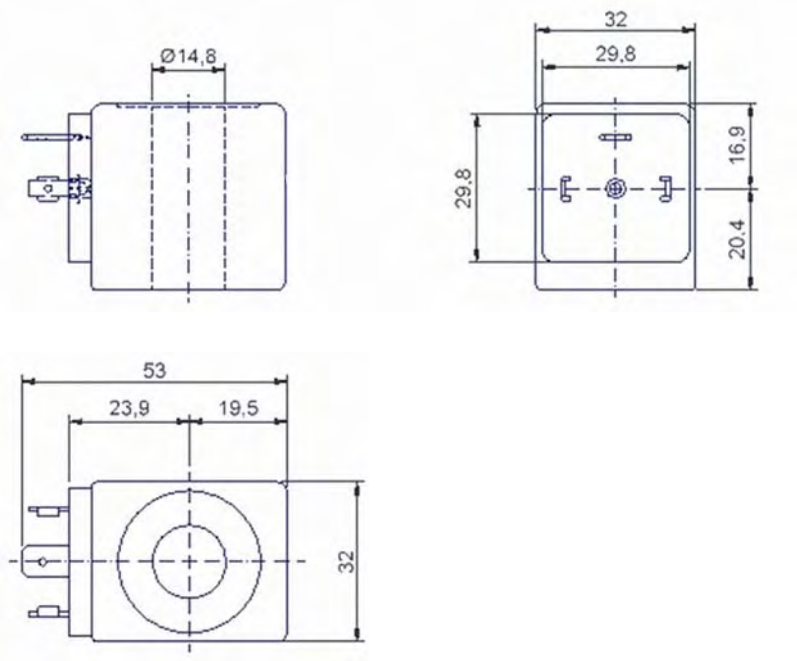
This coil conforms to the IEC/CENELEC safety standards and complies with European low-voltage directive 73/23/EC.

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

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.

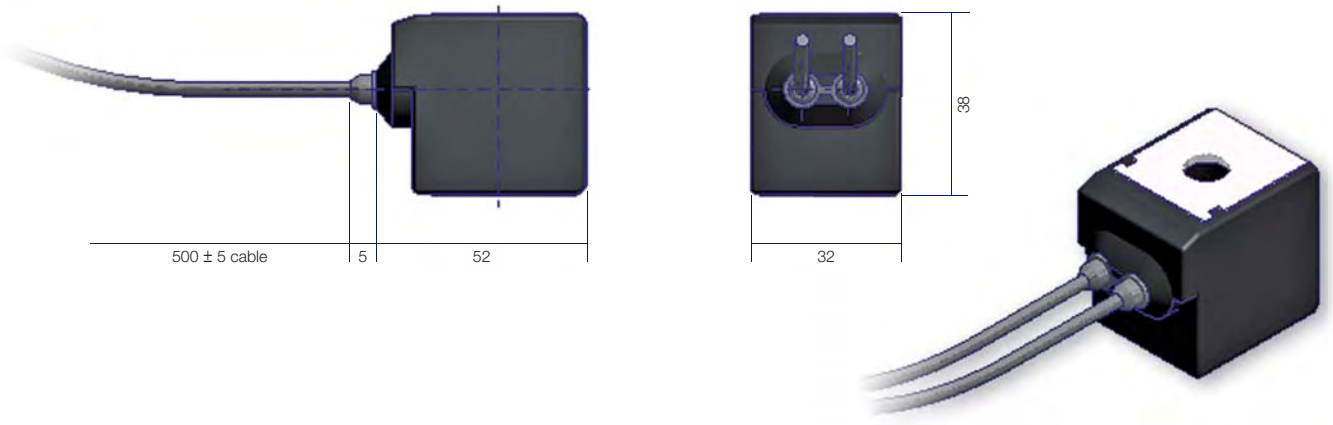
Voltage	Power Consumption	Reference	Approvals	Ambient Temperature	Class of insulation	Dimensional Drawing
24/60	13 W	**496082B2**	UL	-40°C to +50°C	F Class 155°C	9
110/50 120/60	13 W	**496082P3**	UL	-40°C to +50°C	F Class 155°C	9
208-240/60	13 W	**496082U3**	UL	-40°C to +50°C	F Class 155°C	9
220/50 240/60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

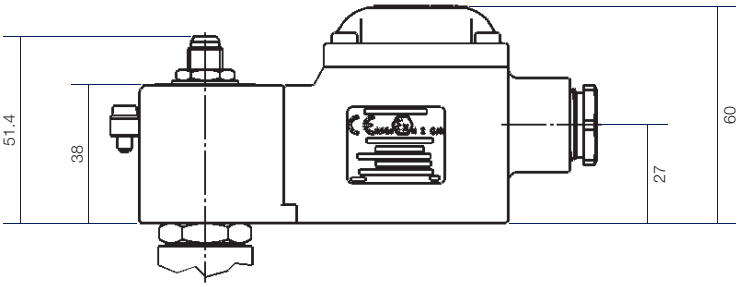
COILS & HOUSING

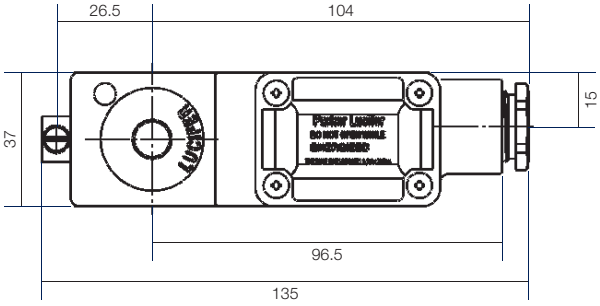
37mm Electrical Parts Availability

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

40mm Electricl 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.

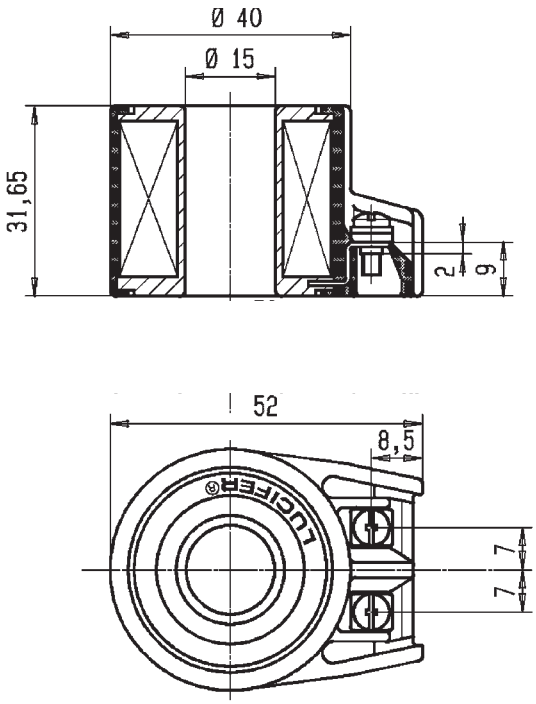
Please consult page 40-42 to identify non-standard metallic housings availability.

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

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.

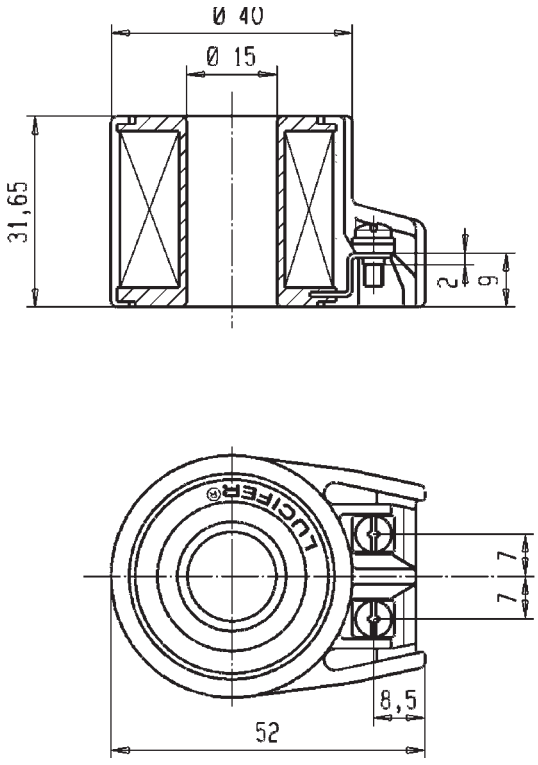
Please consult page 40-42 to identify non-standard metallic housings availability.

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 - rotable 360°.
This housing can be used with 481000 and 481044 series electrical parts.

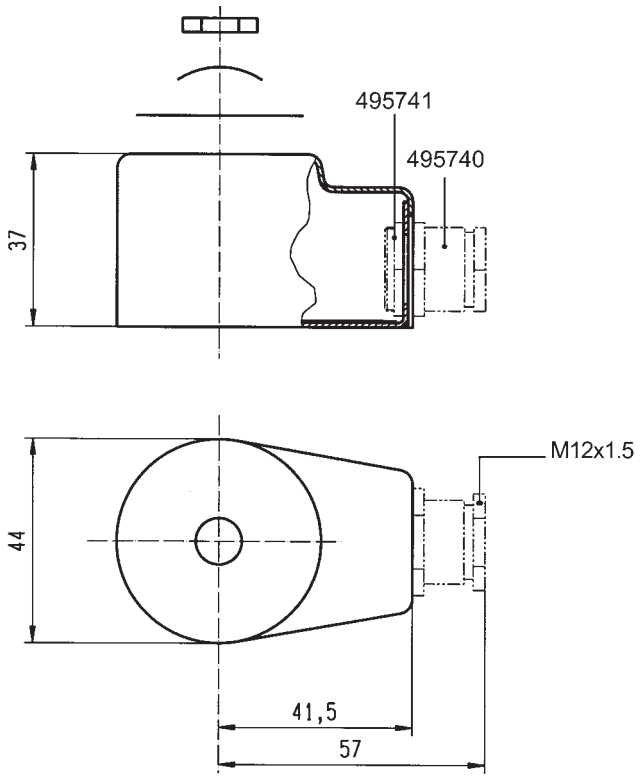
Material: Epoxy-coated steel

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

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.

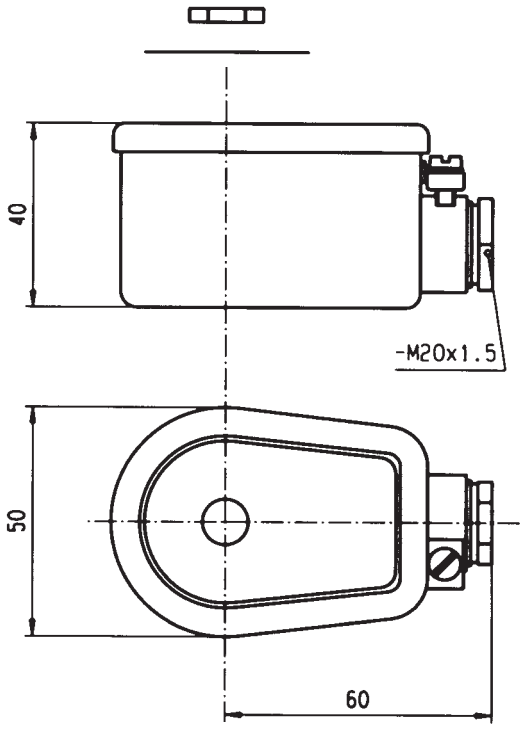
Material: Galvanized passivated steel

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