Solenoid coil type AC - DC

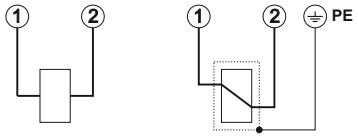
Voltage range	alternating AC **(coils AC)**	**24V, 230V**	direct DC **(coils DC)**	**24V**
Application	for solenoid valves type: **ZE, ZEA, ZEA BIO, ZED, ZEF, ZEG, ZEP**			

CE

FEATURES:

- they constitute a driving element, controlling the operation of solenoid valves:
  Under the influence of the current flowing through the coil, a magnetic field is induced, which generates the force pulling the core (valve head) inside the magnetic sleeve.
- regular construction (can not be used in a explosive hazardous areas)
- designed for continuous operation
- constructionally adapted to DC voltage supply
- all coils have an electronic rectifier-suppression system installed in the connector, system is an integral part of the coil (see **TABLE 1 and Electrical Termination)**
  It performs the function of:
  - rectifier-suppression system for alternating voltage coils (**AC coils**)
  - suppression system for direct voltage coils (**DC coils**)
- meets essential requirments of Directive UE:
  2014/35/UE (LVD)

Schematic symbol

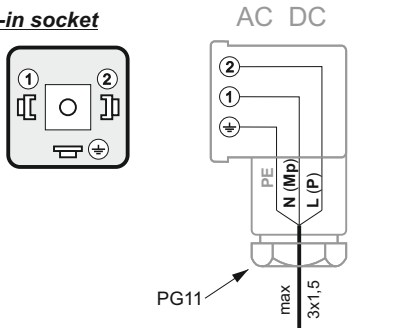


APPLICATION:

- for electromagnetic control of valves of the type:
  ZE, ZEA, ZEA BIO, ZED, ZEF, ZEG, ZEP
- cooperate with magnetic sleeves, which dimensions are given in TABLE 1

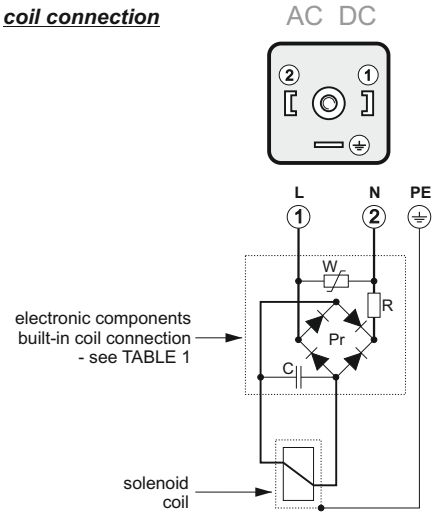
ELECTRICAL TERMINATION

plug-in socket



Conductor wires polarization- **indifferent** (apart from PE); **recommended** - as on figure

coil connection



TECHNICAL DATA - coil

control voltage alternating AC(50Hz)	230V 24V
direct DC	24V
voltage tolerance	-15%; +10%
power consumtion	see TABLE 1
ambient temperature	-10°C ÷ 60°C
operation type	S1 continuous (ED 100%)
electrical connection (acc. DIN 43650A)	tri-contact terminal block
safety class	I (earthing)
degree of protection (acc. PN-EN 60529)	IP54
insulation class	F
insulation resistance	min. 10 MΩ
housing	metal, the interior is flooded with epidian resin
coil type (other technical data)	see TABLE 1

ACCESSORIES - options available upon request

- designs for other control voltage values
- plug with voltage presence visual indicator

ORDERING

Necessary information while ordering solenoid coil AC-DC:

- coil type
- possible option of accessories

example:

*Coil **AC 230/50***

ie, solenoid coil
AC 230V control voltage
size 50
basic design

TABLE 1

Coil Type	Supply Voltage	Power Consum.	Coil winding resistance T_c=20°C	electronic components built-in coil connection cewki	Notes	Weight [kg]	Electromagnet sleeve dimension* diameter [mm]	lenght [mm]
AC 230/25	230V AC	19 VA	2150,0 Ω	W + R + Pr + C		1,14	∅27,5	60,5
AC 230/25B	230V AC	23 VA	2040,0 Ω	W + R + Pr + C		1,71	∅27,5	60,5
AC 230/32	230V AC	25 VA	1939,0 Ω	W + R + Pr + C		2,11	∅33	80,0
AC 230/50	230V AC	45 VA	950,0 Ω	W + R + Pr + C		2,93	∅40	91,0
AC 230/65	230V AC	55 VA	717,0 Ω	W + R + Pr + C		3,23	∅40	91,0
AC 230/80	230V AC	80 VA	509,0 Ω	W + R + Pr + C		8,45	∅52	122,0
AC 230/100	230V AC	85 VA	503,0 Ω	W + R + Pr + C		12,50	∅52	122,0
AC-DC 24/25	24V AC DC	19 VA	23,2 Ω	R + Pr + C		1,16	∅27,5	60,5
AC-DC 24/25B	24V AC DC	23 VA	22,1 Ω	R + Pr + C		1,75	∅27,5	60,5
AC-DC 24/32	24V AC DC	25 VA	17,7 Ω	R + Pr + C		2,15	∅33	80,0
AC-DC 24/50	24V AC DC	55 VA	9,5 Ω	R + Pr + C	***Pr*** equipped in add. radiator	3,35	∅40	91,0
AC-DC 24/80	24V AC DC	80 VA	4,7 Ω	R + Pr + C	radiator for ***Pr*** is metal connection housing (16)	9,10	∅52	122,0
AC-DC 24/100	24V AC DC	85 VA	4,5 Ω	R + Pr + C		13,20	∅52	122,0

* - electromagnet sleeve is not a part of the coil

OVERALL DIMENSIONS (mm)

Type	A	Dz	Dw	P	Notes
...../25	60	69	27,5	95	Fig. 1.
...../25B	60	84	27,5	102	
...../32	78	84	33.2	102	
...../50	89	98	40,2	110	
...../65	89	98	40,2	110	
...../80*	120	130	52,2	132	Fig. 2.
...../100*	120	154	52,2	144	

* - coil types **..../80** i **..../100** equipped in additional metal housing of electrical connection - see ***Fig. 2.*** pos.15,16

Fig. 1.

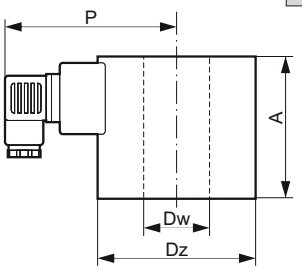
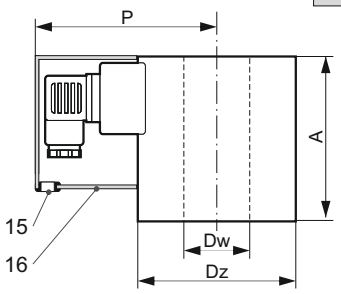
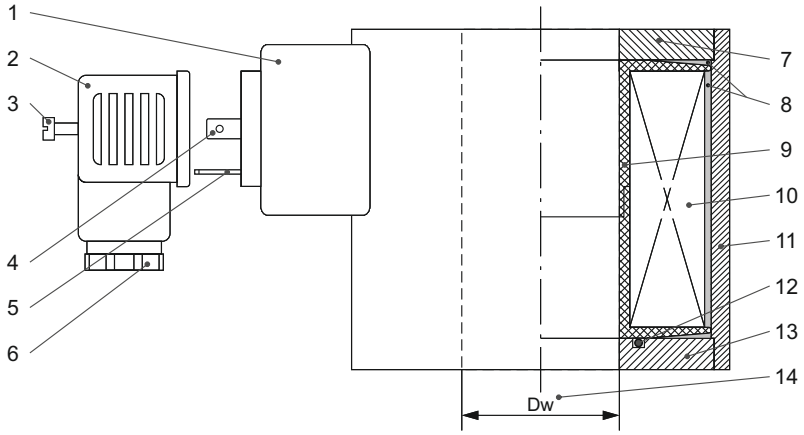


Fig. 2.



CONSTRUCTION

1. power supply socket
2. plug-in socket
3. fastening screw
4. contact plug type U
5. protecting contact plug, flat
6. impedance coil Pg11
7. upper bonnet
8. filling compound - epidian resin
9. coil reel
10. coil (winding from Cu)
11. coil metal housing
12. sealing ring (o-ring)
13. lower bonnet
14. orifice for electromagnet sleeve
15. supply cable bush
16. metal housing of electrical connection



INSTALLATION - basic assembly requirments:

- mounting position - any
  It is recommended the vertical position of the coil and the electromagnet sleeve cooperating with. The final installation position is specified in the valve **Service Manual**, with which the coil cooperates.
- protecting the valve against heavy dust and flushing
- ensuring the correct operating temperature
- the protective conductor contact in the plug-in socket must be connected to the electrical system in accordance with the locally applied antielectrocution protection system
- the plug-in socket(12) can be fixed in **4 positions** (each 90°) towards the socket
  - refer only to coils .../25 to ..../65
- polarization of wire in conductor is indifferent (apart from PE wire).
  recommended - see ***Electrical termination***
- it is recommended to use a round power conductor with an outer diameter of 7.5 ÷ 11.9 mm. The condition of the specified outer diameter of the duct is critical due to its correct sealing in the cable gland of the socket. This seal determines the degree of protection IP54 for the connector.
- the maximum conductor wire size that can be inserted into the plug-in socket of the connection is 3 x 1.5 mm^2
- if it is necessary to use a conductor with a larger wire size, use a tight, intermediate junction box with the degree of protection IP54 or higher

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Solenoid coil type UMO

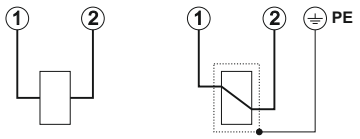
Voltage range	alternating AC	**12V, 24V, 110V, 230V**	direct DC	**12V, 24V**
Application	for solenoid valves type: **ZEC, ZEPW, ZEW**			

CE

FEATURES:

- they constitute a driving element, controlling the operation of solenoid valves: Under the influence of the current flowing through the coil, a magnetic field is induced, which generates the force pulling the core (valve head) inside the magnetic sleeve.
- regular construction (can not be used in a explosive hazardous areas)
- designed for continuous operation
- constructionally adapted to DC voltage supply
- coil for alternating voltage(AC) have an electronic rectifier-suppression system installed in the body - system is an integral part of the coil (see **TABLE 1 and Electrical Termination)**
- meets essential requirments of Directive UE:
  2014/35/UE (LVD)

Schematic symbol

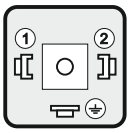


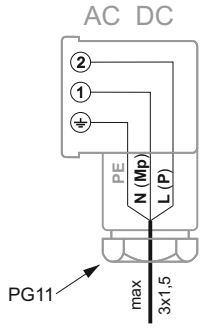
APPLICATION:

- for electromagnetic control of valves of the type:
  ZEC
  ZEPW
  ZEW
- cooperate with magnetic sleeves, which dimensions are given in TABLE 1

ELECTRICAL TERMINATION

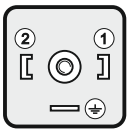
plug-in socket

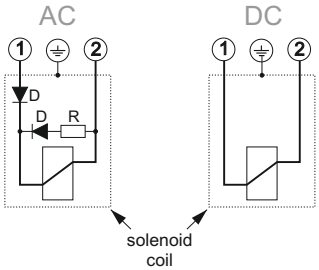




Conductor wires polarization- **indifferent** (apart from PE); **recommended** - as on figure

coil connection





TECHNICAL DATA - coil

control voltage alternating	AC(50Hz)	230V	110V	24V	12V
direct	DC	24V	12V		
voltage tolerance	-15%; +10%				
power consumtion.....	see TABLE 1				
ambient temperature	-25°C ÷ 60°C				
operation type	S1 continuous (ED 100%)				
electrical connection (acc. DIN 43650A).....	tri-contact terminal block				
safety class	I (earthing)				
degree of protection (acc. PN-EN 60529)	IP54				
insulation class	H				
insulation resistance	min. 10 MΩ				
housing	electro-insulating plastic SILAMID				
weight	0,38÷0,48 kg (see TABLE 1)				
coil type (other technical data).....	see TABLE 1				

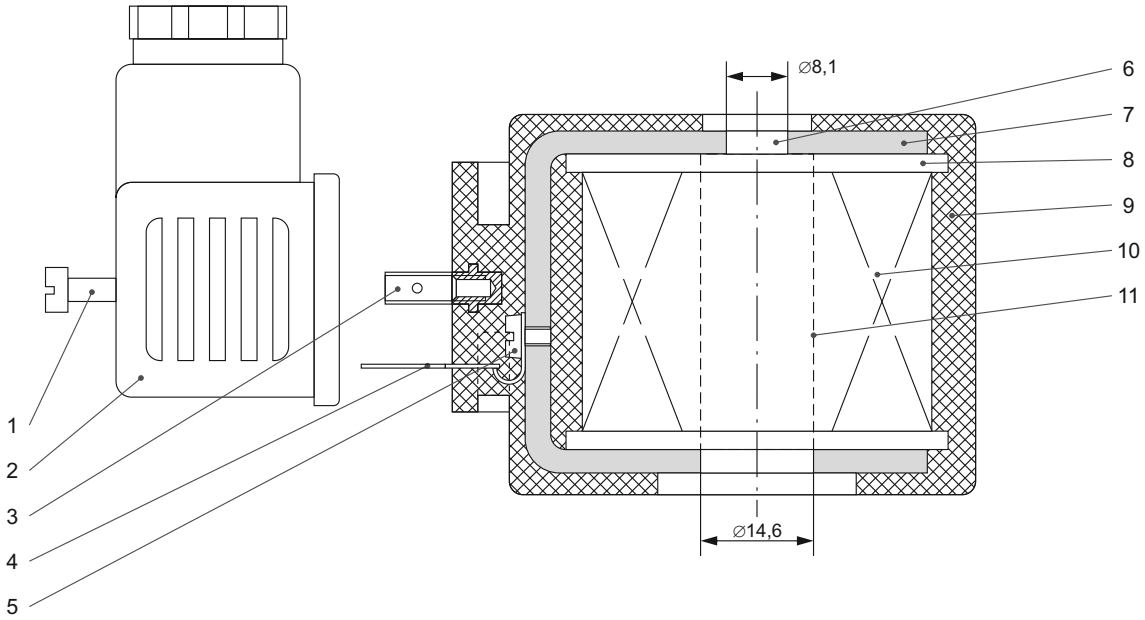
ACCESSORIES - options available upon request

- plug with voltage presence visual indicator

TABLE 1

Coil Type	Supply Voltage	Power Consum.	Coil winding resistance T_c=20°C	Coil Code	Weight [kg]	Electronic componenets installed in coil body	Electromagnet sleeve dimension*	
							diameter [mm]	lenght [mm]
UMO 26-00	230V AC	26 VA	975,0 Ω	U00	0,42	2D + R	∅14	40
UMO 26-1	24V AC	26 VA	6,2 Ω	UU1	0,40	2D (4A)	∅14	40
UMO 26-2	24V DC	26 W	20,0 Ω	2	0,48	-	∅14	40
UMO 26-3	12V DC	26 W	8,2 Ω	3	0,46	-	∅14	40
UMO 26-4	12V AC	26 VA	1,7 Ω	U4	0,38	2D	∅14	40
UMO 26-5	110V AC	26 VA	163,5 Ω	U5	0,42	2D + R	∅14	40

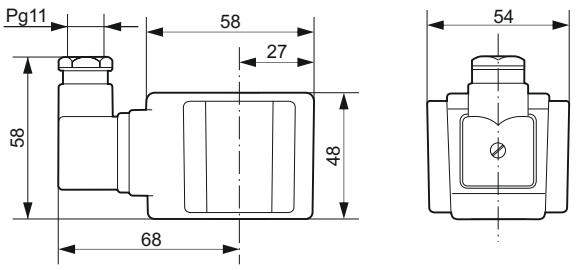
* - electromagnet sleeve is not a part of the coil



CONSTRUCTION

1. fastening screw
2. plug-in socket
3. contact plug type U
4. protecting contact plug, flat
5. screw connecting protecting contact with keeper
6. upper orifice for coil fastening
7. metal keeper
8. coil reel
9. coil housing - electro-insulating plastic SILAMID (injection)
10. coil (winding from Cu winded on reel)
11. orifice for electromagnet sleeve

OVERALL DIMENSIONS [mm]



INSTALLATION - basic assembly requirments:

- mounting position - any
  It is recommended the vertical position of the coil and the electromagnet sleeve cooperating with. The final installation position is specified in the valve **Service Manual**, with which the coil cooperates.
- protecting the valve against heavy dust and flushing
- ensuring the correct operating temperature
- the protective conductor contact in the plug-in socket must be connected to the electrical system in accordance with the locally applied antielectrocution protection system
- the plug-in socket(12) can be fixed in **4 positions** (each 90^{o}) towards the socket
- polarization of wire in conductor is indiffererent (apart from PE wire).
- recommended - see ***Electrical termination***
- it is recommended to use a round power conductor with an outer diameter of 7.5 ÷ 11.9 mm.
  The condition of the specified outer diameter of the duct is critical due to its correct sealing in the cable gland of the socket. This seal determines the degree of protection IP54 for the connector.
- the maximum conductor wire size that can be inserted into the plug-in socket of the connection is 3 x 1.5 mm^2
- if it is necessary to use a conductor with a larger wire size, use a tight, intermediate junction box with the degree of protection IP54 or higher

ORDERING

Necessary information while ordering solenoid coil UMO:

- coil type
- possible option of accessories

example:

Coil ***UMO 26-00***

ie. coil UMO
control voltage AC 230V
basic design