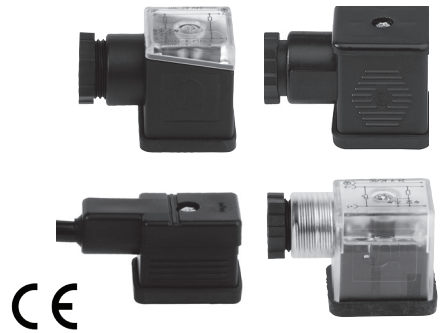


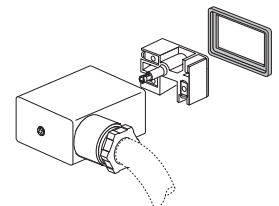
- Spade connector to fit standardized three-pin molded coils:
  - Size 22 connector with 11mm (0.43in) between contacts: EN 175301-803, industry standard form B, for coil types CM5, CM22, C22A, EMX and BMX
  - Size 30 connector with 18mm (0.71in) between contacts: ISO 4400/EN 175301-803 form A, for coil types CM6, CMXX, CM12, CM25, C25A, CM30, CM40, ANX, AMX, JMX, FNX and FMX
- The connectors are available in two versions: standard rotatable version with or without integrated visual LED indicator and electrical protection, or version with non-rotatable 3-core molded-in cable, 2m (78.7in) long
- The standard connector with 18mm contacts is provided with a removable lid allowing access to the wiring for easy checking of power supply without unplugging the connector and without interrupting operation of the solenoid valve



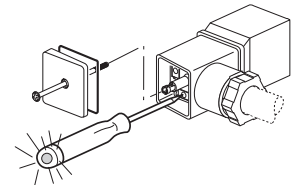
Connector Specification		Max. Operating Temperature
11mm between contacts (0.43in)	18mm between contacts (0.71in)	
EN 175301-803 industry standard form B	ISO 4400/EN 175301-803, form A	-40 °C to 80 °C (-40 °F to 176 °F), -40 °C to 125 °C (-40 °F to 257 °F) with silicone seal [version with molded-in cable -5 °C to 70 °C (23 °F to 158 °F)]

Construction	
Standard version	PA (polyamide), glass-fiber reinforced
Enclosure with LED and protection	PA
Enclosure with PVC cable	PA (polyamide), glass-fiber reinforced
Seals	NBR [option for 18mm contacts: VMQ (silicone)]

Electrical Characteristics		
	11mm between contacts (0.43in)	18mm between contacts (0.71in)
Number of contacts	2 + common ground	2 + common ground
Contact resistance	≤ 4m Ω	≤ 4m Ω
Connector	Spade plug	Spade plug
Electrical safety	IEC 335	IEC 335
Electrical enclosure protection	IP65 (EN 60529)	IP65 (EN 60529)
Number of wires (with cable)	3	3

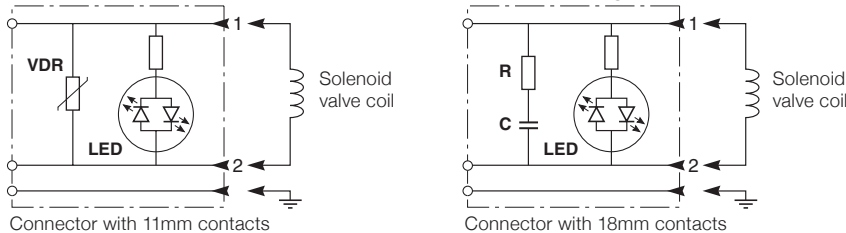


Rotatable Connector



Standard Rotatable Connector with Power Supply Control

**LED Indicator and Electrical Protection Diagrams**



**VDR** Varistor absorbing the self-inductance of the coil  
**RC** RC circuit absorbing the self-inductance of the coil  
**LED** Green light-emitting diode, bidirectional, signalling the presence of voltage across the coil terminals

Specifications									
Description	Cable Length m (inches)	Cable O.D.		Wire Cross-Section mm <sup>2</sup>	Max. Voltage V	Type	Catalog Number		
		11mm	18mm						
		mm (inches)					11mm	18mm	
							NBR	NBR	VMQ*
<b>Rotatable Connector</b>									
Standard, Without LED Indicator	-	6 to 8 (0.24 to 0.31)	6 to 10 (0.24 to 0.40)	1.5	250	01-02	290414-001	290411-001	88122625
With Integrated LED Indicator and Electrical Protection	-	6 to 8 (0.24 to 0.31)	8 to 10 (0.31 to 0.40)	1.5	12	01-02	-	88122611	-
					24		290415-024	290412-024	-
					48		-	290412-048	-
					115		290415-120	290412-120	-
					230		290415-240	290412-240	-
<b>Non-rotatable Connector with Cable</b>									
Without LED Indicator	2 (78.7)	-		1.5	250	03-04	88122413	88122612	-

\* For use within class H temperature limits

## Dimensions: mm (inches)

### Dimensional Drawings

#### Type 01

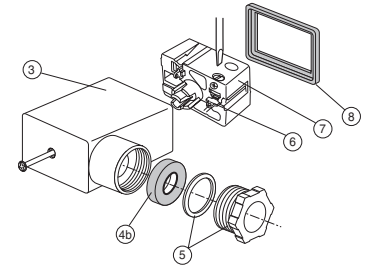
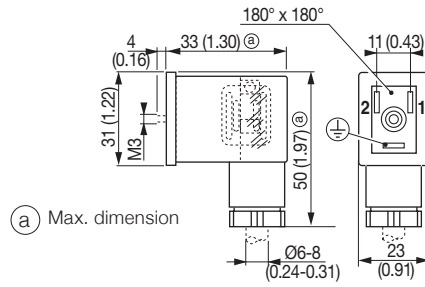
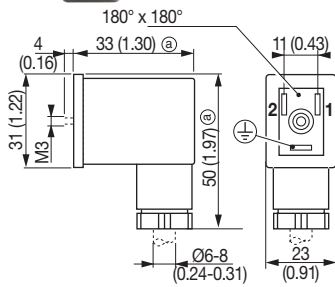
11mm (0.43in) Lead Wires  
EN 175301-803, industry standard form B  
IP65



290414-001

290415-024/120/240

290414-001/024/120/240



#### Type 02

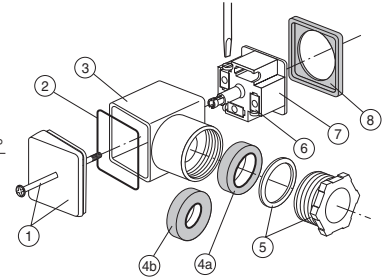
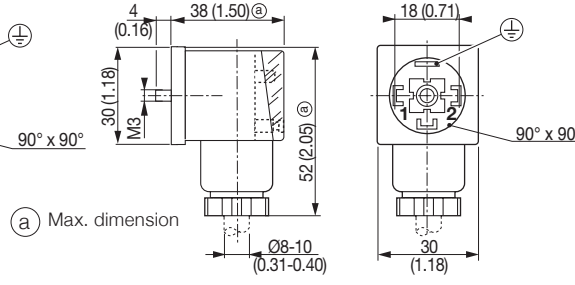
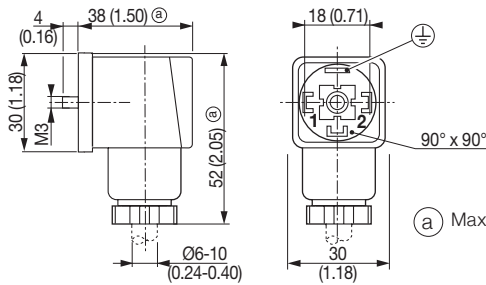
18mm (0.71in) Lead Wires  
ISO 4400/EN 175301-803, form A  
IP65



290411-001  
88122625

290412-024/048/120/240

290411-001  
88122625



#### Type 03

11mm (0.43in) Lead Wires  
EN 175301-803,  
industry standard form B  
IP65 (non-rotatable terminal holder)



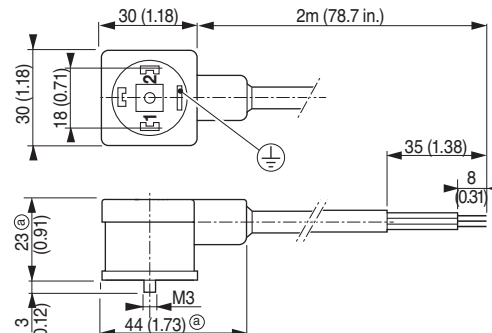
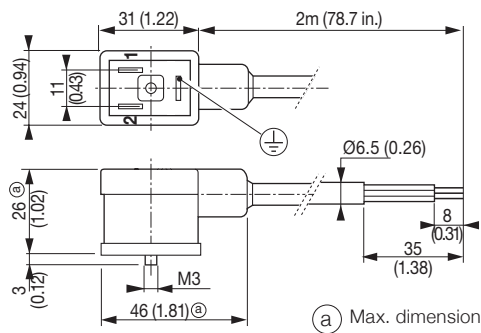
88122413

#### Type 04

18mm (0.71in) Lead Wires  
ISO 4400/EN 175301-803, form A  
IP65 (non-rotatable terminal holder)



88122612



- ① Fastening screw/cover
- ② Cover seal
- ③ Enclosure
- ④ 88122602/625:  
2 seals for cable dia. 8 to 10mm (4a)  
or cable dia. 6 to 8mm (4b)  
88122611/603/604/605/608:  
1 seal for cable dia. 8 to 10mm (4a)  
88122404/405/406/407/410:  
1 seal for cable dia. 6 to 8mm (4b)
- ⑤ Stuffing box washer and nut
- ⑥ Cable connection terminal
- ⑦ Terminal holder
- ⑧ Connector seal

### Installation

- The connectors can be mounted in any position without affecting operation

Sizes 03 and 04	
brown wire	terminal 1 (+)
blue wire	terminal 2 (-)
green/yellow wire	ground

Type	L m (inches)	Weight <sup>1</sup> (kg)	
		without LED indicator	with LED indicator
01	-	0.025	0.025
02	-	0.030	0.032
03	2 (78.7)	0.150	-
04	2 (78.7)	0.155	-

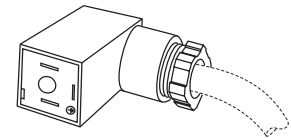
<sup>1</sup> Including seals and screws

- Spade connector to fit standardized three-pin molded coils:
  - EN 175301-803, industry standard form C (9.4mm), for coil type CM15 (202 Series), DMX and 302, 630, 519, 520, 521 and 578 Series (MEGA)
  - EN 175301-803, form C (8mm), for 302, 630 and 202 Series
- The connectors are available in three versions: standard rotatable version, or version with non-rotatable 3-core molded-in cable, 2m (78.7in) or 5m (196.9in) long, with or without integrated visual LED indicator and electrical protection

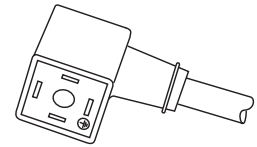


Connector Specification		Max. Operating Temperature
9.4mm between contacts (0.37in)	8mm between contacts (0.31in)	
EN 175301-803 industry standard form C	EN 175301-803, form C	-25 °C to 60 °C (-13 °F to 140 °F), [version with molded-in cable]

Construction	
Standard version	PA, glass-fiber reinforced
Enclosure with LED and protection	PA or PP
Enclosure with PVC cable	PP, glass-fiber reinforced
Seals	NBR



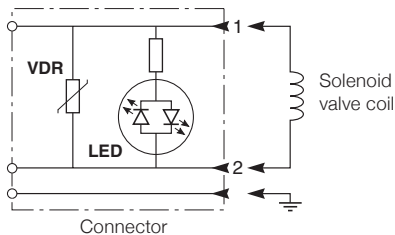
Rotatable Connector  
9.4mm or 8mm



Non-rotatable Connector  
with Cable

Electrical Characteristics		
	9.4mm between contacts (0.37in)	8mm between contacts (0.31in)
Number of contacts	2 + common ground	2 + common ground
Contact resistance	≤ 4m Ω	≤ 4m Ω
Connector	Spade plug	Spade plug
Electrical safety	IEC 335	IEC 335
Electrical enclosure protection	IP65 (EN 60529)	IP65 (EN 60529)
Number of wires (with cable)	3	3

**LED Indicator and Electrical Protection Diagram**



**VDR** Varistor absorbing the self-inductance of the coil  
**LED** Green light-emitting diode, bidirectional, signalling the presence of voltage across the coil terminals

Specifications							
Description	Cable Length	Cable O.D.	Wire Cross-Section	Max. Voltage	Type	Catalog Number	
	m (inches)	mm (inches)	mm <sup>2</sup>	V		9.4mm	8mm
<b>Rotatable Connector</b>							
Standard, Without LED Indicator	-	4 to 6 (0.16 to 0.24)	0.6	250 V	01 - 02	290417-001	88130211
<b>Non-rotatable Connector with Cable</b>							
Without LED Indicator	2 (78.7)	-	0.6	250 V	03	272852-004	*
With Integrated LED Indicator and Electrical Protection	2 (78.7)	-	0.6	24 V	04	-	-
	5 (196.9)	-				88143593	-

\* Contact us

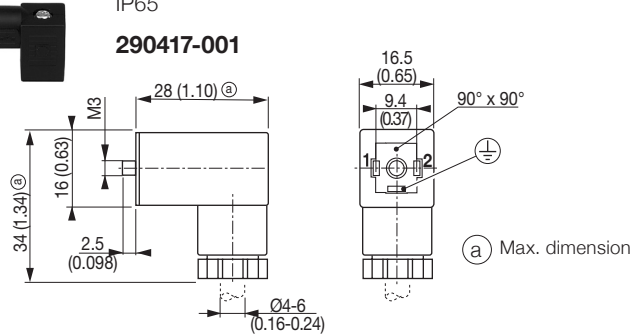
## Dimensions: mm (inches)

### Dimensional Drawings

#### Type 01

9.4mm (0.37in) between contacts  
EN 175301-803, industry standard form C  
IP65

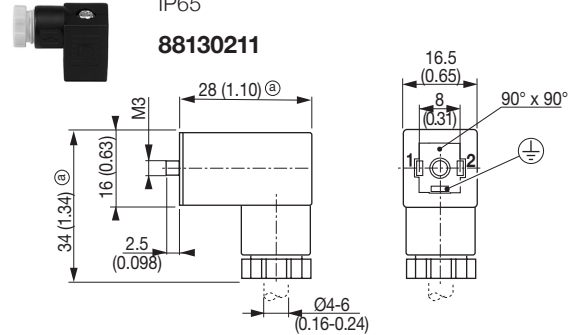
**290417-001**



#### Type 02

8mm (0.31in) between contacts  
EN 175301-803, form C  
IP65

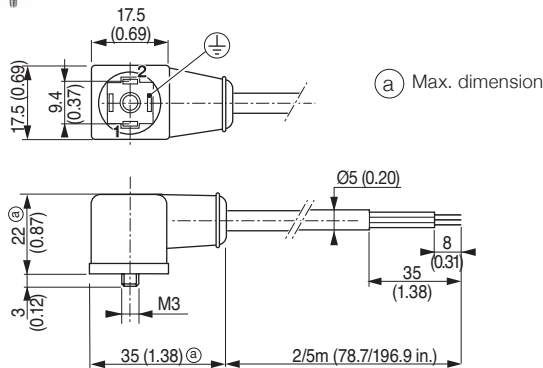
**88130211**



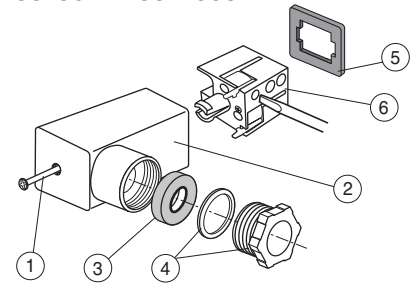
#### Type 03

Lead wires, without LED indicator  
EN 175301-803, industry standard form C (9.4mm)  
IP65 (non-rotatable terminal holder)

**272852-004**



#### 88130211-88143581



- ① Fastening screw/cover
- ② Enclosure
- ③ Seal for cable diameter 4 to 6mm
- ④ Stuffing box washer and nut
- ⑤ Connector seal
- ⑥ Terminal holder
- ⑦ Cable connection terminal

Sizes 03 and 04	
brown wire	terminal 1 (+)
blue wire	terminal 2 (-)
green/yellow wire	ground

Type	L	Weight <sup>1</sup> kg	
	m (inches)	without LED indicator	with LED indicator
01-02	-	0.015	-
03	2 (78.7)	0.100	-

<sup>1</sup> Including seals and screws

### Options

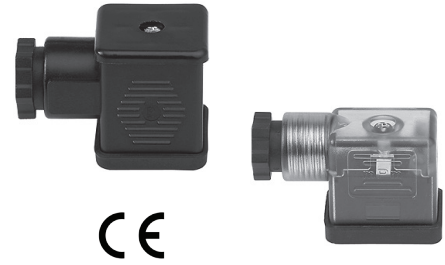
- Connectors with cable 5m (196.9in) long available on request

### Installation

- The connectors can be mounted in any position without affecting operation

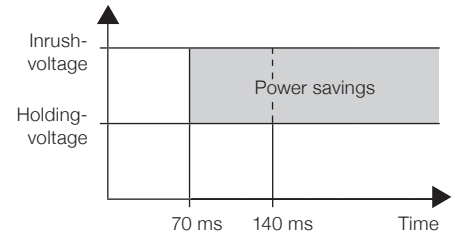
Once a DC-type solenoid valve is activated, only the holding current, which corresponds to 50% of the inrush voltage, is necessary to keep the valve in position. The power-save connector switches to holding voltage after approx. 70 ms (size 30) or 140 ms (size 22). The holding power is thereby reduced to a quarter of the inrush power. During power reduction, the valve's coil is piloted via PWM voltage pulses.

- The main advantages of a connector with voltage reduction are:
  - Power savings (lower current consumption)
  - Low heat development in the solenoid valve



Construction	
Enclosure	PA

Electrical Characteristics		
	Size 22	Size 30
Input Voltage	12/24 VDC $\pm$ 10%	10 to 30 VDC
Output Voltage	12 VDC $\pm$ 10%	6 to 30 VDC
Power Rating	Max. 12 W	Max. 30 W
Connector	Spade plug	Spade plug
Electrical Safety	Industry standard, form B	ISO 4400/EN 175301-803, form A
Number of Contacts	2 + 1 common ground	2 + 1 common ground
Electrical Enclosure Protection	IP65	IP65
Cable Diameter	6 to 8mm (0.24in to 0.31in)	6 to 8mm (0.24in to 0.31in)
LED Green	Solenoid valve actuation	Solenoid valve actuation
LED Red	-	Overcurrent or overvoltage
Voltage Reduction	After 140ms	After 70ms
PWM Frequency	7 KHz	50 KHz

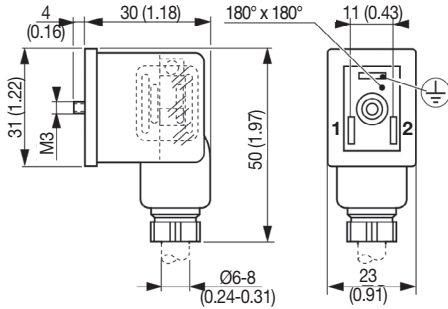


Specifications			
Description	Size	Input Voltage	Catalog Number
Power-save connector with voltage reduction	22	24 VDC $\pm$ 10%	88100934
		12 VDC $\pm$ 10%	88100944
	30	10 to 30 VDC	88100945

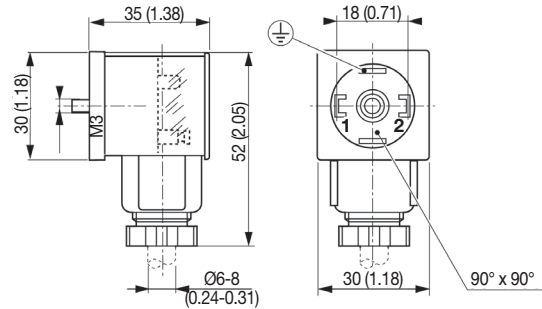
## Dimensions: mm (inches)

### Dimensional Drawings

**Size 22** 11mm (0.43in) between contacts

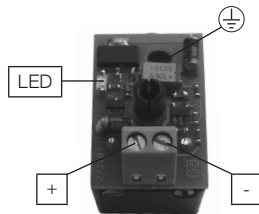


**Size 33** 18mm (0.71in) between contacts



### Electrical Connection

**Size 22** 11mm (0.43in) between contacts



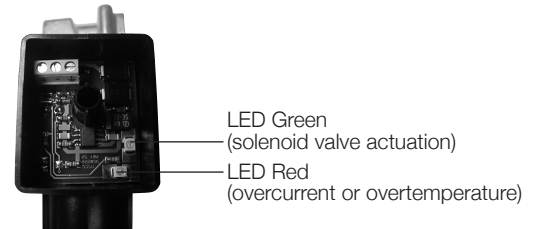
Screw terminals: up to 1mm<sup>2</sup> cable

- + Pilot voltage + (12/24 V)
- Pilot voltage - (GND)
- ⊕ Ground terminal, straight through



- ① Valve voltage +
- ② Valve voltage -
- ③ Ground terminal (PE)

**Size 33** 18mm (0.71in) between contacts



Screw terminals: up to 1mm<sup>2</sup> cable

- + Pilot voltage + (10-30 V)
- Pilot voltage - (GND)
- ⊕ Ground terminal (PE)



- ① Valve voltage +
- ② Valve voltage -
- ③ Ground terminal (PE)