

Vehicle inlet - EV-T2GBIE12-1ACDC-20A125A2,0M2 - 1624131



Vehicle Inlet for charging with alternating current (AC) and direct current (DC), for installation in electric vehicles (EV), CCS type 2, Combined Charging System, IEC 62196-3, 125 A / 850 V (DC), 20 A / 250 V (AC), 12 V Locking actuator, length: 2 m, Front and rear mounting, This product cannot be ordered online. Should you have any questions, please contact our sales team at PHOENIX CONTACT E-Mobility GmbH, emobility@phoenixcontact.com, phone: + 49 5235 3-43890.

Article description

Vehicle Inlet for charging with alternating current (AC) and direct current (DC), compatible with type 2 AC and CCS Vehicle Connectors (EVSE), for installation in electric vehicles for E-Mobility (EV). This product cannot be ordered online. Should you have any questions, please contact our sales team at PHOENIX CONTACT E-Mobility GmbH, emobility@phoenixcontact.com, phone: + 49 5235 3-43890.

Your advantages

- Uniform, space-saving dimensions for the installation space and the screw connection points of all Phoenix Contact Vehicle Inlets
- Silver-plated surface of the power and signal contacts
- Certified in accordance with IATF 16949:2016 and ISO 9001:2015
- Material data available in the IMDS (International Material Data System of the automotive industry)
- Tested in accordance with selected tests of automotive standards LV124, LV214, LV215-2
- Manual emergency release of the locking actuator
- Integrated interlock during charging
- Integrated temperature sensors for monitoring the temperature at the power contacts



Key commercial data

package_quantity	1
GTIN	4055626240558

Technical data

Product definition

Product type	Vehicle Inlet for charging with alternating current (AC) and direct current (DC), for installation in electric vehicles (EV)
Standards/regulations	IEC 62196-3
Charging standard	CCS type 2
	Combined Charging System
Charging mode	Mode 2, 3, 4
Note	This product cannot be ordered online. Should you have any questions, please contact our sales team at PHOENIX CONTACT E-Mobility GmbH, emobility@phoenixcontact.com , phone: + 49 5235 3-43890.
	A protective cap is supplied as standard for the DC contacts.
Note on the connection method	Crimp connection, cannot be disconnected

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Technical data

Dimensions

Height	130.4 mm
Width	111 mm
Depth	107.4 mm
Bore dimensions	94.8 mm x 82.4 mm, 94.8 mm x 111.0 mm
Conductor length	2 m (AC cables)
	2 m (DC cables)
	2 m (Locking actuator cables)
	2 m (PE cable)
	1.8 m (Temperature sensors cables)
	2 m (Communications cables)
Cable structure	2 x 35 mm ² + 1 x 25 mm ² + 2 x 2.5 mm ² + 3 x 2 x 0.5 mm ²

Ambient conditions

Ambient temperature (operation)	-30 °C ... 50 °C
Ambient temperature (storage/transport)	-40 °C ... 80 °C
Max. altitude	5000 m (above sea level)
Degree of protection	IP55 (plugged in)
	IP55 (with protective cap)

Electrical properties

Maximum charging power	125 kW
Type of charging current	DC, AC 1-phase
Number of phases	1
Number of power contacts	5 (L1, N, PE, DC+, DC-)
Rated current of power contacts	125 A DC
	20 A AC
Rated voltage for power contacts	250 V AC
	850 V DC
Number of signal contacts	2 (CP, PP)
Rated current for signal contacts	2 A
Rated voltage for signal contacts	30 V AC
Type of signal transmission	Pulse width modulation with modulated Powerline communication according to ISO/IEC 15118 / DIN SPEC 70121
Insulation resistance of neighboring contacts	> 5 MΩ
Resistor coding	4.7 kΩ (between PE and PP)
Temperature measurement	DC contacts: Pt 1000 (DIN EN 60751)
Temperature monitoring	AC contacts: PTC chain (DIN EN 60738-1)

Mechanical properties

Insertion/withdrawal cycles	> 10000
Insertion force	< 100 N
Withdrawal force	< 100 N

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Mounting

Possible mounting positions	Front and rear mounting
Restrictions to mounting position	Only 0 to 90 degree frontal inclination possible, see figure
Mounting position of the locking actuator	Right-side
Mounting hole diameter	6.80 mm (ø)

Design

Design line	Generation 2
Housing color	black
Customer variations	On request

Material

Material	Plastic
Material surface of contacts	Ag

Locking

Locking type	Locking in the inserted state with a locking mechanism
Locking voltage	12 V
Locking detection	available
Mechanical emergency release	available

Locking actuator

Typical power supply at the motor	12 V
Possible power supply range at the motor	9 V ... 16 V
Max. dwell time with reverse current	1000 ms
Recommended adaptation time	600 ms
Pause time after entry or exit path	3 s
Maximum voltage for locking detection	30 V
Service life	> 100000 load cycles
Ambient temperature (operation)	-30 °C ... 50 °C
Length of cable	2 m

Temperature sensors

Type of sensor	Pt 1000
Standards/regulations	DIN EN 60751
Recommended measured current	1 mA (1 V at 0°C)
Tolerance at the sensor with the recommended measured current	±1K
Temperature range	-50 °C ... 130 °C
Temperature coefficient (TCR)	3850 ppm/K
Long-term stability (max. R0-Drift)	0.06 % (After 1000 hours at 130°C)
Shutdown temperature	90 °C equivalent to a Pt 1000 value of 1346.5 Ω

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Temperature monitoring

Type of sensor	PTC chain
Standards/regulations	DIN EN 60738-1
Recommended measured current	< 1 mA
Maximum permitted power dissipation	20 mW
Temperature range	-40 °C ... 125 °C
Resistance range	200 Ω ... 2200 Ω
Switch-off threshold	1500.00 Ω
Diagnostic capability	Short circuit, cable break

Accessories

DC charging cable

EV-T2M4CC-DC125A-5,0M50ESBK00 - 1409060



DC charging cable with vehicle connector, open cable end, CCS type 2, Combined Charging System, IEC 62196-3, 125 A / 1000 V (DC), design line Standard, cable: 5 m, black, straight, mating face: black, handle area: gray

AC charging cable

EV-T2M3PC-1AC20A-5,0M2,5ESBK00 - 1622118



Mobile AC charging cable with vehicle connector and infrastructure plug, with protective cap, Type 2, IEC 62196-2, 20 A / 250 V (AC), design line D-Line, cable: 5 m, black, straight, mating face: gray, handle area: gray

EV-T2G3PC-1AC20A-5,0M2,5ESBK01 - 1627982

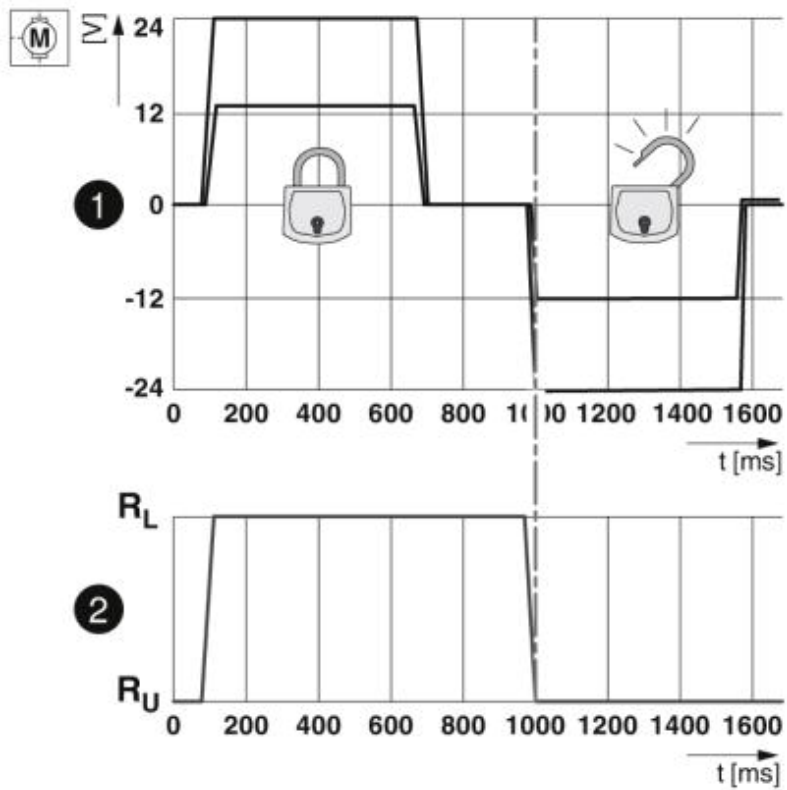


Mobile AC charging cable with vehicle connector and infrastructure plug, with protective cap, Type 2, IEC 62196-2, 20 A / 250 V (AC), design line C-Line, cable: 5 m, black, straight, mating face: black, handle area: gray

Drawings

Vehicle inlet - EV-T2GBIE12-1ACDC-20A125A2,0M2 - 1624131

Diagram

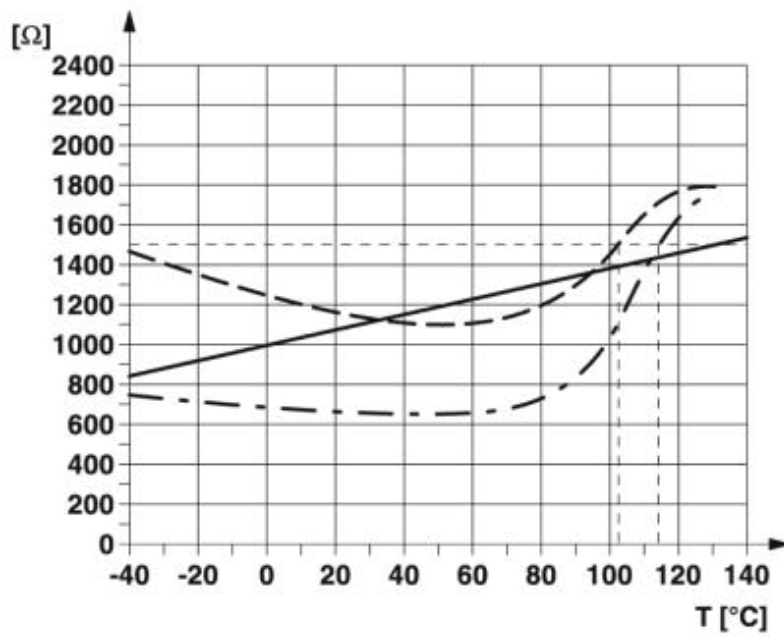


Locking states of the locking actuator

Drawings

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Diagram

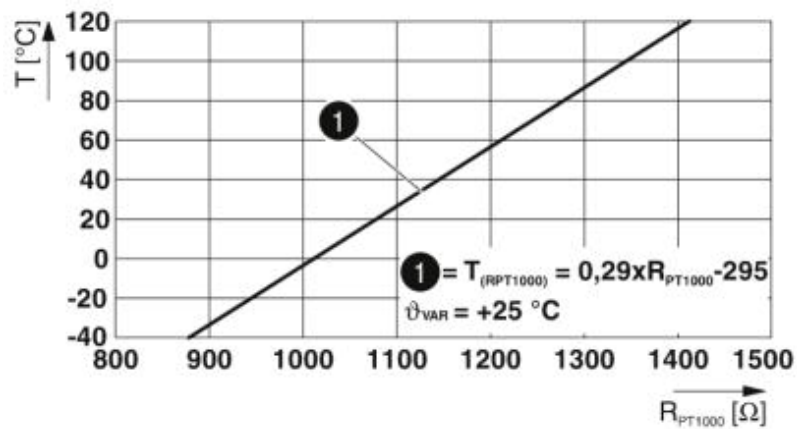


PTC characteristic curve at an ambient temperature of 25°C for temperature monitoring at the AC contacts

Drawings

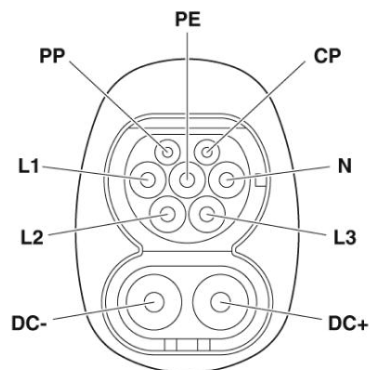
Vehicle inlet - EV-T2GBIE12-1ACDC-20A125A2,0M2 - 1624131

Diagram



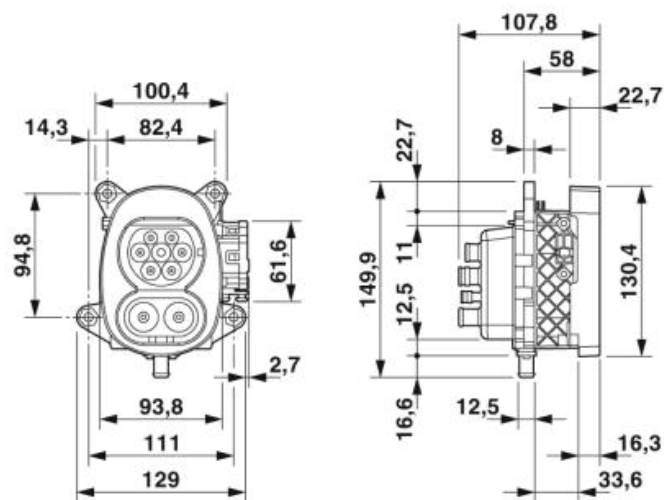
Pt 1000 characteristic curve at an ambient temperature of 25°C for temperature measurement at the DC contacts

Connection diagram



Pin assignment of Vehicle Inlet

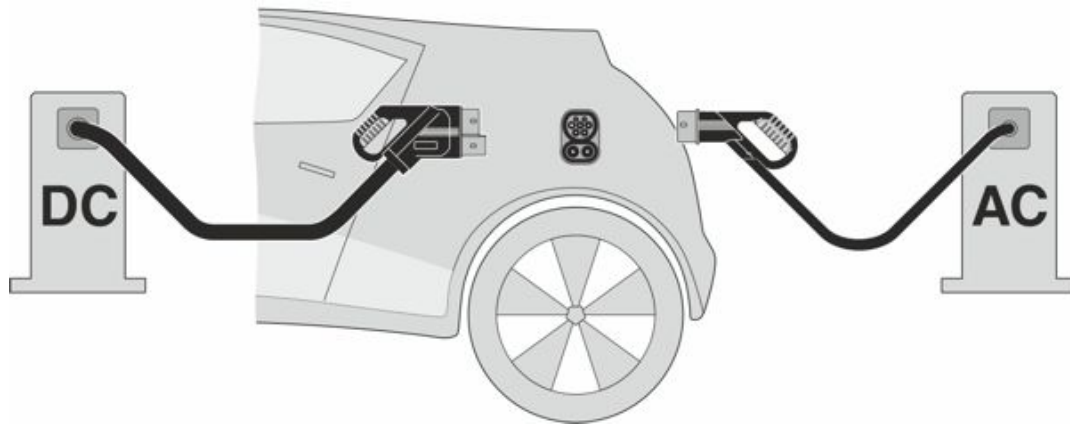
Dimensional drawing



Dimensional drawing

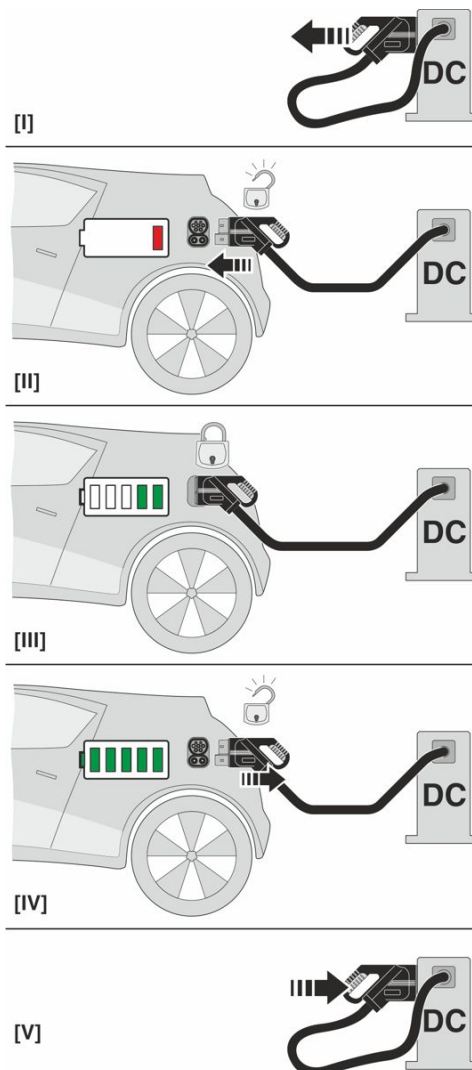
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Schematic diagram



The Combined Charging System (CCS) principle - standard-compliant charging system for electric vehicles, which supports both conventional AC charging and fast DC charging. Both Vehicle Connectors fit into the CCS Vehicle Inlet.

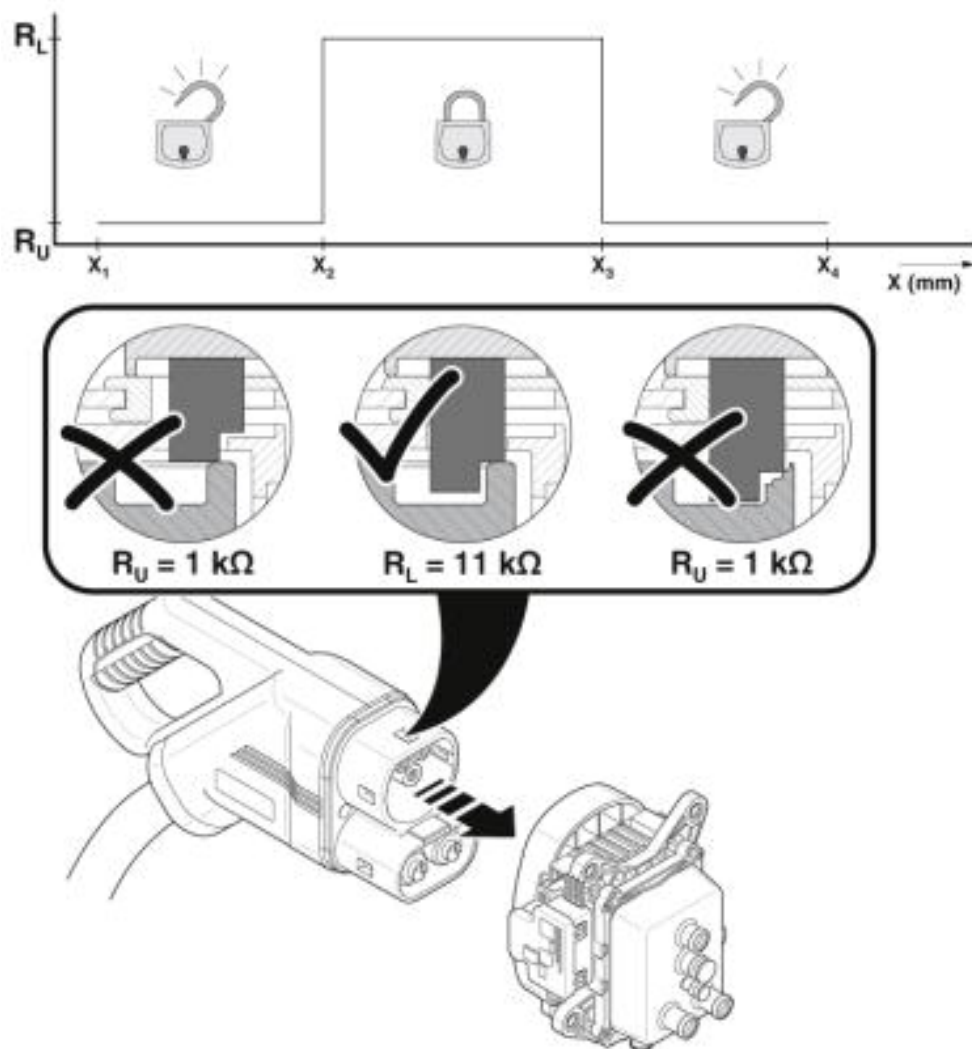
Schematic diagram



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Operating instructions

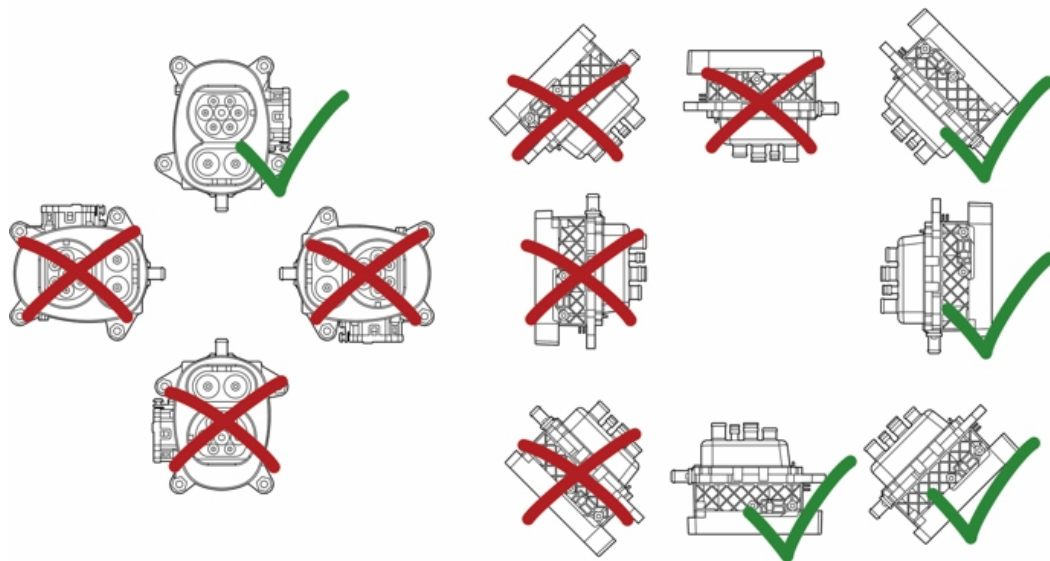
Schematic diagram



Detection for Vehicle Connector

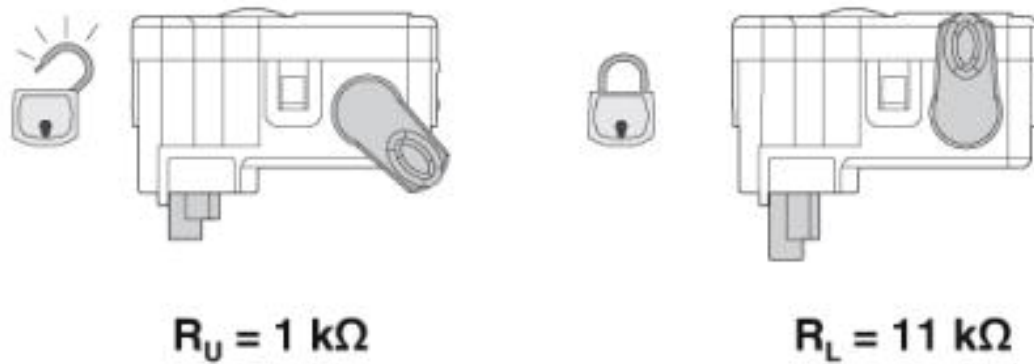
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Schematic diagram



Installation positions

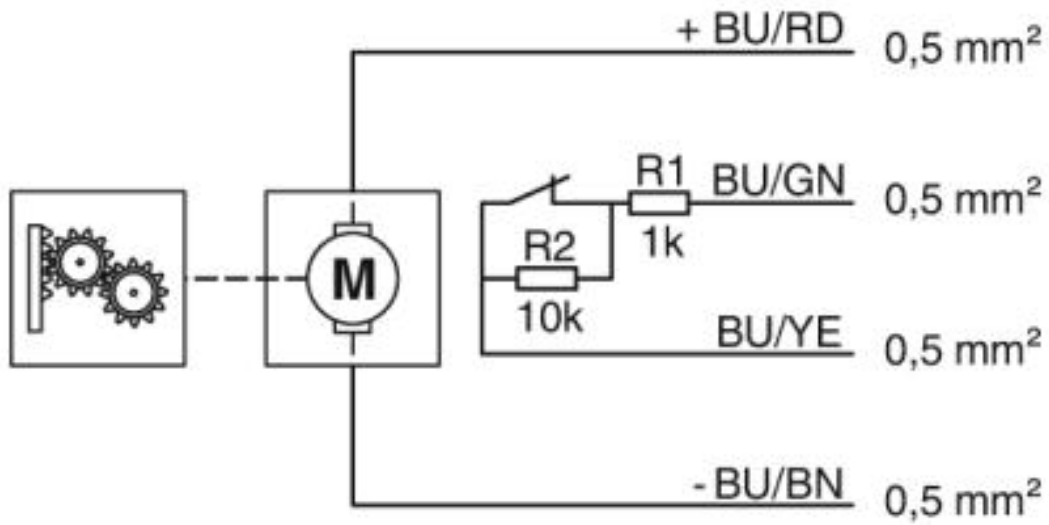
Schematic diagram



Emergency unlocking of the 12 V locking actuator

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Schematic diagram



Block diagram of the locking actuator

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