# **Operating Instructions**





# **Ground Clamps Series 70**

for active grounding with the Eltex ground monitoring systems and for passive grounding

BA-en-4017-2503



F01083y





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# Dear Customer,

The active Eltex ground clamps series 70 are designed for making and - in connection with Eltex TUE30 Terra-Control and **TERRA**LIGHT Ground Monitoring Systems - for monitoring ground connections. Special ground monitoring systems operating with two ground clamps are capable of monitoring the correct grounding of conductive BIG-BAG by measuring the electric resistance between two opposing grounding flags.

The passive Eltex Ground Clamps Series 70 are designed for making ground connections for discharging static charges.

The appliances are used in areas where potentially explosive materials and substances are loaded, discharged, refilled or transported. Any developing static charges are safely and effectively eliminated and led to ground. This means that the risk of ignition caused by static discharges is eliminated at source.

Different design variants and sizes of ground clamps are available for active, passive and BIG-BAG grounding and for use in potentially explosive atmospheres.

The clamp holders are designed for wall mounting and may be used in zones with potentially explosive atmospheres.

Please read the operating instructions carefully before starting the instrument. This will help you prevent personal injuries and damage to property.

Please give us a call if you have any suggestions, proposals or ideas for improvements. We greatly appreciate the feedback from the users of our appliances.

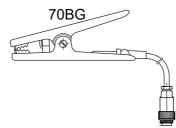


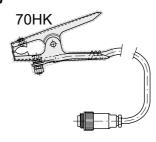
## 1. Overview

# Active ground clamps 70AG Т m



Active ground clamps for Big-Bag





70PG

Passive ground clamps 70SG Ð Harry 70PK

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Fig. 1: Ground clamps series 70

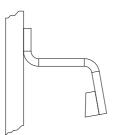
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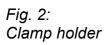
#### Accessory



otin 6 / M6

70

90



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Fig. 3: Clamp holder wall mounting

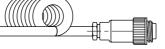
#### Cable helix ground cable

50

ground cable

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Fig. 4: Cables







# **Design Variants**

# Active ground clamps for use with the components of the Terra-Control ground monitoring system

- 70AG: Ground clamp, large with coupling plug and lead length of 300 mm ± 50mm or without plug and lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght) or without plug and helix lead length of 5 or 10 m (specify lenght) cable color: light blue
  70AK: Ground clamp, small
  - 'OAK: Ground clamp, small with coupling plug and lead length of 300 mm ± 50mm or without plug and lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght) or without plug and helix lead length of 5 or 10 m (specify lenght) cable color: light blue

#### Active ground clamps for BIG-BAG:

70BG: Ground clamp, large with coupling plug and lead length of 300 mm ± 50mm or without plug and lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght) or without plug and helix lead length of 5 or 10 m (specify lenght) cable color: light blue
70HK: Ground clamp, small with coupling plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and lead length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length of 300 mm ± 50mm or without plug and length or without plug and length of 300 mm ± 50mm or without plug and length plug and length or without plug and length plug and length plug and length plug and length

without plug and lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght) or

without plug and helix lead length of 5 or 10 m

(specify lenght)

cable color: light blue

(always use two clamps)



# Passive ground clamps for use without ground monitoring systems:

70SG:	Ground clamp, large with current limiting resistor with coupling plug and lead length of 300 mm ± 50mm or without plug and lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght), cable color: orange
70PG:	Ground clamp, large with current limiting resistor connection via cable lug 10.5 mm diameter lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght) or helix lead length (5 m), cable color: orange
700K:	Ground clamp, small straight design with anti-kink protection connection by the user
70OK/020	Ground clamp, small lead length 2 m, highly flexible, cable color: transparent
70PK:	Ground clamp, small with coupling plug and lead length of 300 mm ± 50mm or connection via cable lug 10.5 mm diameter lead length of 3, 6, 9, 12, 15 or 18 m (specify lenght) or helix lead length (5 m), cable color: orange



# 2. Safety

The units have been designed, built and tested using state-of-the-art engineering, and have left the factory in a technically and operationally safe condition. If used improperly, the units may nevertheless be hazardous to personnel and may cause injury or damage. Read the operating instructions carefully and observe the safety instructions.

For warranty conditions, please refer to the General Terms and Conditions (GTC), see www.eltex.de.

#### 2.1 Identification of risks and hazards

Possible risks and hazards resulting from the use of the units are referred to in these operating instructions by the following symbols:



#### Warning!

This symbol appearing in the operating instructions refers to operations which, if carried out improperly, may result in serious personal injuries.

#### Caution!

This symbol appearing in the operating instructions refers to operations which, if carried out improperly, may result in damage to property.

#### Ex Warning!

Only for units with Ex approval.

This symbol denotes the special conditions which must be observed when operating the units in explosion hazard areas as specified in the approvals.

#### 2.2 Technical advance

The manufacturer reserves the right to make changes to the technical specifications without prior notice in order to adapt the units to state-of-the-art engineering. Eltex will provide the latest information on any changes or modifications in the operating instructions on request.

#### 2.3 Proper use

#### Active grounding

The active ground clamps series 70 and the accessories helix ground cable series KG must be used only for static grounding and must be connected to the appropriate Eltex ground monitoring systems.

The application area are for example: refilling and filling stations, agitators or dryers for liquid or powdery substances, and in conveyor and transportation equipment with potentially explosive atmosphere. The purpose of the ground clamps is to leak off or discharge static charges from these plants and equipment to ground.



The Eltex avtive ground clamps generate a transitory electric connection between the plant and equipment in use and the equipotential bonding (PA). They are fitted with internal suppresser circuits and provide maximum safety. Together with the TUE30 Terra-Control and **TERRA**LIGHT ground monitoring systems, this configuration provides the ultimate grounding effect for static charges.

#### Passive grounding

The passive Eltex ground clamps series 70 and the accessories helix ground cable series KG must be used only for "static grounding" in refilling and filling stations, agitators or dryers for liquid or powdery substances, and in conveyor and transportation equipment with potentially explosive atmosphere.

The passive Eltex ground clamps generate a transitory electric connection between the plant and equipment in use and the equipotential bonding (PA). The purpose of the ground clamps is to leak off or discharge static charges from these plants and equipment to ground. The passive ground clamps must not be connected to analyzing devices.

The 70OK and the 70PK ground clamps generate a low-resistance connection to the PA. The 70SG and 70PG ground clamps (with an internal resistance of >200 kOhm) can also be connected to systems linked to the protective circuit. With this protective suppressor circuit, no explosive sparking can occur between the PA and the equipment connected to the protective circuit system in the event of potential differences of <120 V.

The accessory cable rewinder serves as extension between the passive ground clamp 70SG with internal suppressor circuit and the equipotential bonding (PA).

The manufacturers will not assume any liability and warranty if the units are used improperly or used outside the intended purpose.

Modifications or changes made to the devices are not permitted.

Use only original Eltex spare parts and equipment.



#### 2.4 Work and operational safety

#### Warning!



Carefully observe the following notes and the complete <u>chapter 2 "Safety", page 9</u>!

- The local standards, rules and regulations relating to the installation and operation of electrical appliances in potentially explosive atmospheres must be observed.
- Electrical systems in potentially explosive atmospheres must always be in perfect technical condition. Defects must be rectified immediately (see <u>chapter 4 "Operation", page 17</u>).
- Any work involving the units must be carried out by qualified electricians (see <u>chapter 3 "Installation and assembly", page 13</u>, <u>chapter 5</u> <u>"Maintenance", page 18</u>).
- The unit may only be used by qualified personnel trained for explosion hazard areas.
- A "Connect/Disconnect Approval" by the plant operator must be obtained before carrying out any installation, assembly, service, repair or maintenance work in potentially explosive atmospheres. Make sure that there is no potentially explosive atmosphere existing in the working area. Ensure adequate ventilation and/or screening (see <u>chapter 3</u> <u>"Installation and assembly", page 13</u>, <u>chapter 5 "Maintenance", page 18</u>).
- Before starting the plant in use, connect the clamps to the equipment and make sure that <u>no potentially explosive atmosphere</u> <u>exists in the working area.</u>

The clamp connection of the ground clamp must make good and secure contact throughout the whole time the plant is in operation (see <u>chapter 3.1 "Electrical connection of the ground clamps", page 13</u>).

- The maximum cable length in the intrinsically safe circuit must not exceed the maximum rated capacitance and inductance (see the operating instructions of the ground monitoring unit). The ground monitoring unit must always be connected to the equipotential bonding (see chapter 3.1 "Electrical connection of the ground clamps", page 13).
- The ground clamps must not be clamped under tensile in order to avoid an uncontrolled retraction of the cable with ground clamps. For this purpose, the cable rewinders are equipped with a stop mechanism. After use, the cable must be rolled up in a controlled manner in order to avoid an uncontrolled retraction (see <u>chapter 3.1 "Electrical connection of the</u> <u>ground clamps", page 13</u>).
- An equipotential bonding connection (PA) must be established along the entire intrinsically safe measuring circuit (see <u>chapter 3.1.1 "Active</u> <u>ground clamps", page 13</u>).



- The connection cable for equipotential bonding of the clamps types 70OK must be at least 4 mm<sup>2</sup> (see <u>chapter 3.1.2 "Passive ground</u> <u>clamps", page 14</u>).
- Electrical systems used in explosion hazard areas must at all times be in a technically faultless condition. Any defects must be repaired or remedied immediately (see <u>chapter 4 "Operation", page 17</u>).
- Please note the type plate indicating the connection data (supply voltage) of the units (see <u>chapter 4 "Operation", page 17</u>).
- Cables and clamps must not be damaged. Damaged cables and clamps must be replaced with new parts (see <u>chapter 5 "Maintenance"</u>, <u>page 18</u>).
- To make sure that the proper ground connection exists with the equipotential bonding and that no malfunctions occur in active clamps, the ground clamp must be cleaned when dirty (see <u>chapter 5.1 "Ground</u> <u>clamps", page 18</u>).
- Appliances designed for use in potentially explosive atmospheres must not be modified. The technical specifications for ambient conditions and operation must be maintained and observed (see <u>chapter 6 "Technical</u> <u>specifications", page 19</u>).



# 2.5 Special conditions according to the Certificate of conformity Special conditions for safe use

#### Active Eltex ground clamps:

The equipment is only to be connected to the measurement circuit of the following ground monitoring systems:

Terracompact II Type TCO030 S/B, Terrabox TCB030/.., TERRALIGHT Type TERRA-L/.. or other ground monitoring systems with the following output date:

Voltage:	Uo	≤ 40 V DC
Current:	l <sub>o</sub>	≤ 250 mA
Power:	Po	≤ 650 mW

#### Passive Eltex ground clamps:

- The use of the ground clamps is strictly limited to leading potentially hazardous static charges to ground.
- Before connecting the ground clamps, make sure that no potentially explosive atmosphere exists in the working area.
- The use of the clamps in areas requiring Category 1 is not permitted for Explosion Class IIC.



# 3. Installation and assembly



When installing the systems in potentially explosive zones, every possible precaution must be taken to ensure that no explosive atmosphere exists!

#### 3.1 Electrical connection of the ground clamps

- When installing the systems in potentially explosive zones, every possible precaution must be taken to ensure that no explosive atmosphere exists!
- Before starting the plant in use, connect the clamps to the equipment and make sure that <u>no potentially explosive atmosphere</u> <u>exists in the working area</u>

The clamp connection of the ground clamp must make good and secure contact throughout the whole time the plant is in operation.

• The ground clamps must not be installed under load, to avoid uncontrolled snapping back of the cable together with the ground clamp. For this, the cable rewinders are equipped with a stop mechanism. After use, the cable should be rolled up in a controlled manner to avoid uncontrolled snapping back.

#### 3.1.1 Active ground clamps

The active Eltex ground clamps are connected to the cable of the rewinder or to the cable of the ground monitoring system in use via a coupling plug (IP67).

All active grounding components have a light blue cable. For the terminal assignment of the ground monitoring unit, please refer to the appropriate operating instructions.



**Warning!** The maximum cable length in the intrinsically safe circuit must not exceed the maximum rated capacitance and inductance (see the operating instructions of the ground monitoring unit). The ground monitoring unit must always be connected to the equipotential bonding!



An equipotential bonding connection (PA) must be established along the entire intrinsically safe measuring circuit.



#### 3.1.2 Passive ground clamps



- The use of the ground clamps is strictly limited to leading potentially hazardous static charges to ground.
- Before connecting the ground clamps, make sure that no potentially explosive atmosphere exists in the working area.
- The use of the clamps in areas requiring Category 1 is not permitted for Explosion Class IIC.

The passive Eltex ground clamp 70SG is equipped either with a coupling plug for connection to the cable rewinder, or with a wire end ferrule for connecting the clamp directly to the equipotential bonding, the cable is to be connected and strain reliefed by the user.

The clamp type 70PG is connected to the equipotential bonding with a cable lug, the cable is to be connected and strain reliefed by the user.

Type 70OK is supplied without connecting cable; the cable is to be connected to the clamp by the user.



The connection cable for equipotential bonding of the clamps types 70OK must be at least 4 mm<sup>2</sup>.

Type 70OK/020 is provided with a 2 m connection cable.

Depending on the version, Type 70PK can be connected to the cable of the rewinder via a coupling plug (IP67) or, in the case of the version with a cable lug to the equipotential bonding.

Type 70PK is connected to the cable of the rewinder via a coupling plug (IP67).

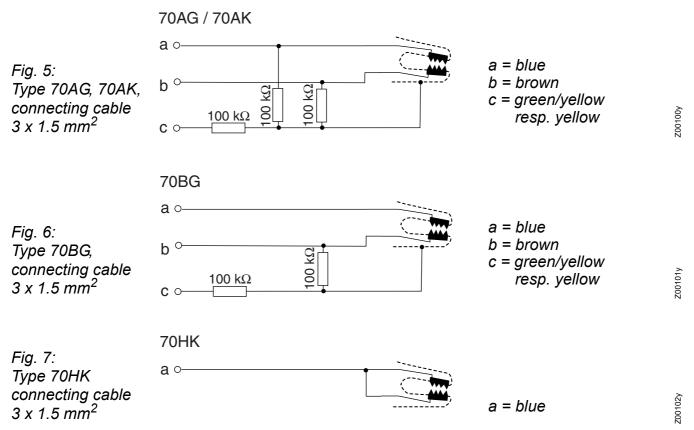
All passive grounding components have an orange cable, Type 70OK/020 has a transparent cable.



#### 3.2 Wiring diagram of the ground clamps

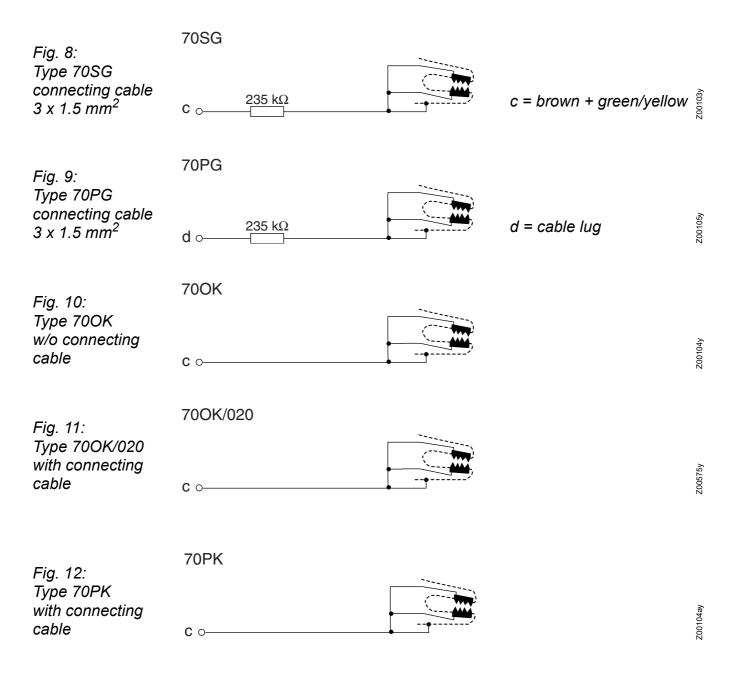
For the types 70AG, 70AK, 70BG, 70SG and 70PG the resistance circuitry is encapsulated in the clamp.

#### Active ground clamps



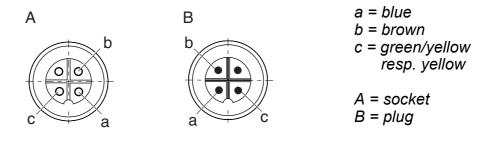


Passive ground clamps





#### 3.3 Pin assignment of the coupling plug



#### 3.4 Cable specifications

- three-core 3 x 1.5 mm<sup>2</sup>
- wire color blue, brown, green/yellow resp. yellow, light blue-sheathed for active grounding, orange-sheathed for passive grounding
- oil and gasoline resistant

### 4. Operation



Fig. 13:

plug

Pin assignment

of the coupling

Electrical systems used in explosion hazard areas must at all times be in a technically faultless condition. Any defects must be repaired or remedied immediately.



#### Caution!

Observe the connection ratings (supply voltage) of the units.

#### 4.1 Start-up

#### Active ground clamps

If all connections (supply voltage, ground clamp, etc.) have been made correctly, the system is operational and the supply voltage may be activated.

The units are operational now.

#### Passive ground clamps:

Once the clamps are properly connected to the equipotential bonding, they can be used for grounding.



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## 5. Maintenance



When maintaining or servicing the systems in potentially explosive zones, every possible precaution must be taken to ensure that no explosive atmosphere exists!



#### Warning!

Maintenance and repair work must be carried out only by qualified personnel trained in working in potentially explosive areas.

Cables and clamps must not be damaged. Damaged cables and clamps must be replaced with new parts.



#### 5.1 Ground clamps

To make sure that the proper ground connection exists with the equipotential bonding and that no malfunctions occur in active clamps, the ground clamp must be cleaned when dirty.

Store the ground clamp such that it cannot be damaged. Replace damaged cables and clamps with new parts. Whenever possible, the ground clamp should either be hung up freely or be clamped to a nonconductive object.

#### 5.2 Checking the resistance to earth for passive clamps

Measurement of the earthing resistance between clamp jaw and ground (PAL):

ground clamp 70SG or 70PG:

earthing resistance: 235 kOhm ±5 % clamping force: 140 N ±20 %

ground clamp 70OK or 70PK:

earthing resistance: <1 Ohm clamping force: 100 N ±20 %



# 6. Technical specifications

#### 6.1 Active Ground clamps

Types 70AG, 70BG
------------------

	Types TOAG, TOBG		
	Clamp material	Stainless steel	
as shown on	Operating ambient temperature	-40+70 °C (-40+158 °F)	
appliance marking:	Ground cable	oil and gasoline resistant control lead, 3 x 1.5 mm <sup>2</sup> color: light blue temperature range -40+90 °C (-40+194 °F) connected 4-pin plug IP67	
	Dimensions	see Fig. 14	
$\overline{c}$	Weight	approx. 0.6 kg	
	Approval / Identifi- cation marking	ATEX: DMT 00 ATEX E 068 X	
		Ex ia IIIC T135°C Da, Ex ia IIC T6 Ga	

	Types 70AK, 70HK	
	Clamp material	70AK: Stainless steel
		70HK: galvanized sheet steel, plastic covered
	Operating ambient temperature	-40+70 °C (-40+158 °F)
as shown on appliance marking:	Ground cable	oil and gasoline resistant control lead, 3 x 1.5 mm <sup>2</sup> color: light blue temperature range -40+90 °C (-40+194 °F) connected 4-pin plug IP67
	Dimensions	see Fig. 17, Fig. 18
$\overline{c}$	Weight	70AK: approx. 0.3 kg; 70HK: approx. 0.25 kg
$\langle x \rangle$	Approval / Identifi- cation marking	
		⟨Ex⟩ II 1D Ex ia IIIC T135°C Da, II 1G Ex ia IIC T6 Ga IECEx: BVS 16.0016X
ノノ		Ex ia IIIC T135°C Da, Ex ia IIC T6 Ga



#### 6.2 Passive Ground clamps

Types 70SG, 70PG		
Clamp material	Stainless steel	
Operating		
ambient temperature	-40+70 °C (-40+158 °F)	
Ground cable	oil and gasoline resistant control lead, H07BQ-F	
	conductor cross section 3 x 1.5 mm <sup>2</sup> , color:orange	
	temperature range -40+90 °C (-40+194 °F)	
	with fixed wire end ferrule for 70SG	
	with fixed cable lug for 70PG	
	see Fig. 15, Fig. 16	
Dimensions	approx. 0.6 kg	
Weight	35 mm	
Clamping width	140 N ±20 %	
Clamping force		
Earth leakage	235 kOhm ±5 %	
resistance	120 V	
Max discharge voltage	oil and gasoline	
Chemical resistance	EPS 19 ATEX 1 184X	
Approval	(Ex)II 1G IIB T6 Ga, II 2G IIIC T6 Gb,	
Identification marking	II 1D IIIC T80°C Da	

Туре 70ОК	
Clamp material	Stainless steel
Operating	
ambient temperature	-40+70 °C (-40+158 °F)
Ground cable	without cable
	min. conductor cross section 4 mm <sup>2</sup> ; max. 10 mm <sup>2</sup>
Tightening torque	terminal screw for the cable lug: 9 Nm
Dimensions	see Fig. 19
Weight	approx. 0.22 kg
Clamping width	35 mm
Clamping force	100 N ±20 %
Earth leakage	
resistance	<1 Ohm
Chemical resistance	oil and gasoline
Approval	EPS 19 ATEX 1 184X
Identification marking	II 1G IIB T6 Ga, II 2G IIIC T6 Gb, II 1D IIIC T80°C Da



(Ex) (E)

(£x) (E)

Тур 70РК		
Clamp material	Stainless steel	
Operating		
ambient temperature	-40+70 °C (-40+158 °F)	
Ground cable	oil and gasoline resistant control lead, 3 x 1.5 mm <sup>2</sup> , color: orange temperature range -40 +90 °C (-40+194 °F), with connected 4-pin plug IP67 or with fixed cable lug	
Dimensions	see Fig. 21	
Weight	approx. 0.29 kg	
Clamping width	35 mm	
Clamping forth	100 N ±20 %	
Earth leakage		
resistance	< 1 Ohm	
Approval	EPS 19 ATEX 1 184X	
Identification marking	⟨E⟩ II 1G IIB T6 Ga, II 2G IIIC T6 Gb, II 1D IIIC T80°C Da	





# 7. Dimensions

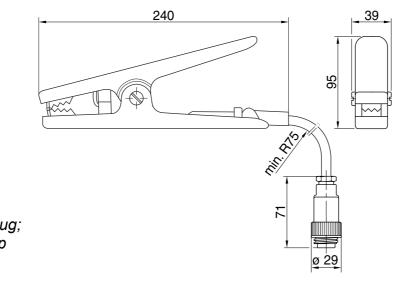


Fig. 14: Types 70AG, 70BG, 70SG with coupling plug; maximum clamp opening 35 mm

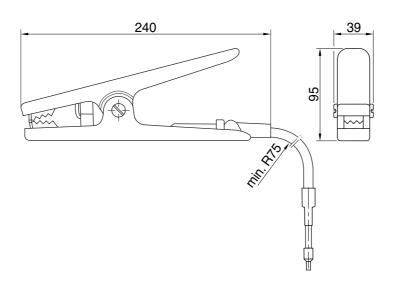
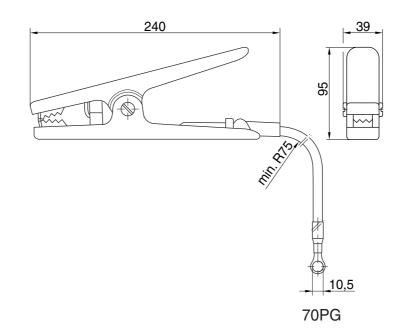
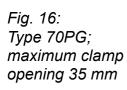


Fig. 15: Type 70SG with wire end ferrule; maximum clamp opening 35 mm Z00111y







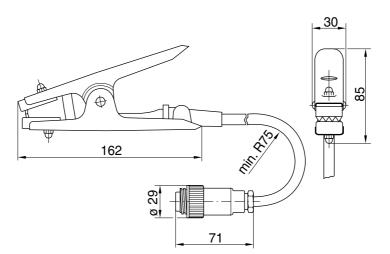
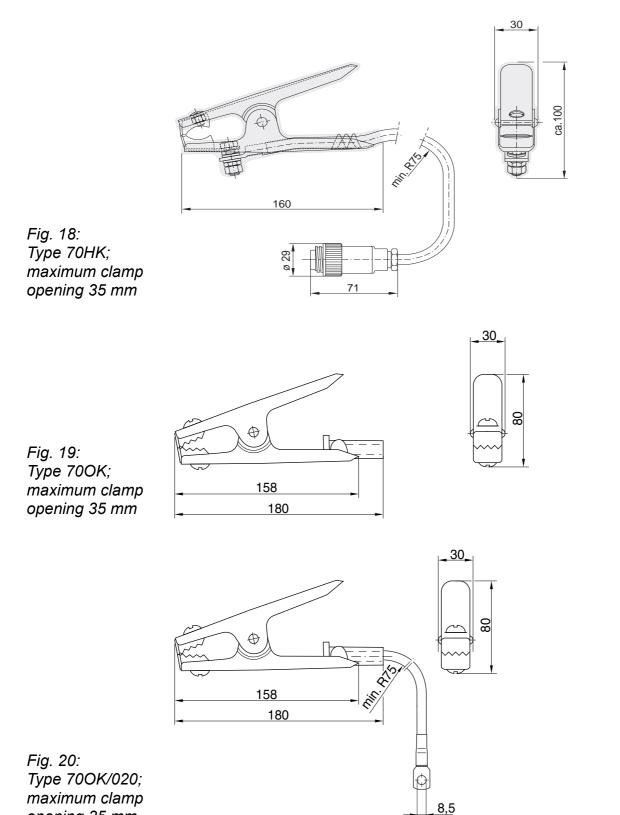


Fig. 17: Type 70AK; maximum clamp opening 35 mm



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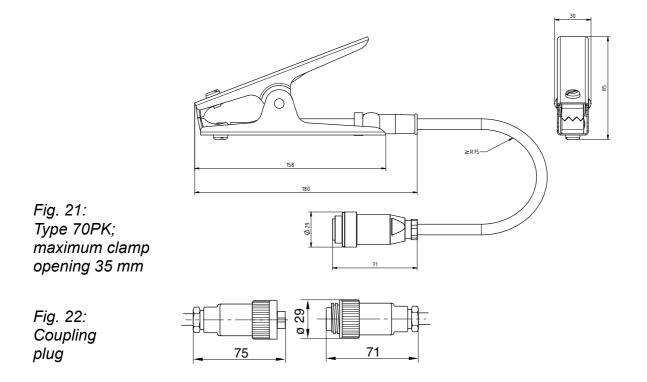


Z00205y

Z00576y



opening 35 mm



Z-114761y

Z00116y



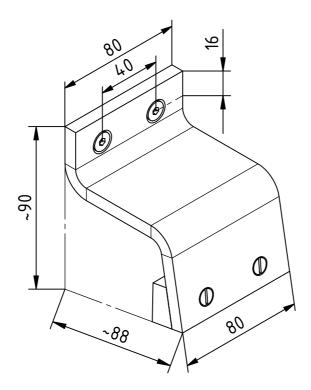


Fig. 23: Clamp holder article-no. 113112

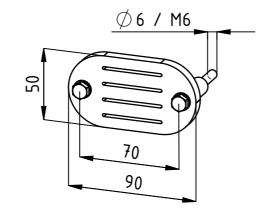


Fig. 24: Clamp holder article-no. 116740 wall mounting



Z-113113\_2y

# 8. Spare parts and accessories

Article	Article No.
Active grounding	
Active ground clamp, large, with coupling plug IP67 and 300 mm $\pm$ 50mm lead length or without plug and lead length as specified (3, 6, 9, 12, 15 or 18 m) or without plug and helix lead length as specified ( 5 or 10 m)	70AG
Active ground clamp, large, for BIG-BAG grounding with coupling plug IP67 and 300 mm $\pm$ 50mm lead length or without plug and lead length as specified (3, 6, 9, 12, 15 or 18 m) or without plug and helix lead length as specified (5 or 10 m)	70BG
Active ground clamp, small, with coupling plug IP67 and 300 mm $\pm$ 50mm lead length or without plug and lead length as specified (3, 6, 9, 12, 15 or 18 m) or without plug and helix lead length as specified (5 or 10 m)	70AK
Active ground clamp, small, for BIG-BAG grounding with coupling plug IP67 and 300 mm $\pm$ 50mm lead length or without plug and lead length as specified (3, 6, 9, 12, 15 or 18 m) or wiithout plug and helix lead length as specified (5 or 10 m)	70HK
Active helix ground cable, 3-pin with wire end sleeve and coupling socket IP67 for connecting ground clamps, extensible 1 to 5 m, cable color: light blue	KG/ BSAB050
Active helix ground cable, 3-pin with wire end sleeve and coupling socket IP67 for connecting ground clamps, extensible 2 to 10 m, cable color: light blue	KG/ BSAB100
Active helix ground cable, 3-pin with coupling socket and coupling plug IP67 for connecting ground clamps, extensible 1 to 5 m, cable color: light blue	KG/ BSBS050
Active helix ground cable, 3-pin with coupling socket and coupling plug IP67 for connecting ground clamps, extensible 2 to 10 m, cable color: light blue	KG/ BSBS100
Active ground cable, 3-pin with wire end sleeve and coupling socket IP67 for connecting ground clamps, 1 to 95 m in steps of 5 meters,, cable color: light blue	KG/ BNAB
Active ground cable, 3-pin with coupling socket and coupling plug IP67 for connecting ground clamps, 1 to 95 m in steps of 5 meters,, cable color: light blue	KG/ BNBS



Article	Article No.
Passive grounding	
Passive ground clamp, large with coupling plug IP67 and 300 mm ± 50mm lead length or with- out plug and lead length as specified (3, 6, 9, 12, 15 or 18_m)	70SG
Passive ground clamp, large, with cable lug connection, cable length as specified (3, 6, 9, 12, 15 or 18 m) or helix lead length 5 m	70PG
Passive ground clamp, small, without connecting cable	70OK
Passive ground clamp, small, with 2 m connecting cable	70OK/020
Passive ground clamp, small with coupling plug IP67 and 300 mm ± 50mm lead length or con- nection via cable lug 10.5 mm diameter and lead length as specified (3, 6, 9, 12, 15, or 18_m) or helix lead length 5 m	70PK
Passive helix ground cable, 3-pin with wire end sleeve and coupling socket IP67 for connecting ground clamps, extensible 1 to 5 m , cable color: orange	KG/ GSAB050
Passive helix ground cable, 3-pin with coupling socket and coupling plug IP67 for connecting ground clamps, extensible 1 to 5 m, cable color: orange	KG/ GSBS050
Passive ground cable, 3-pin with wire end sleeve and coupling socket IP67 for connecting ground clamps, 1 to 95 m in steps of 5 meters (specify cable length), cable color: orange	KG/ GNAB
Passive ground cable, 3-pin with coupling socket and coupling plug IP67 for connecting ground clamps, 1 to 95 m in steps of 5 meters (specify cable length), cable color: orange	KG/ GNBS
Accessories	
Clamp holder	113112
Clamp holder, wall mounting	116740
3-pin ground cable for active grounding (specify length)	LEI00009
3-pin ground cable for passive grounding (specify length)	LEI00297
Coupling socket, 4-pin, IP67	ELM00714
Coupling plug, 4-pin, IP67	ELM00713



Article	Article No.
Ring tongue for 70PG	ELM00099
Ring tongue for 70PK	110460
Transparent wire for 70OK (specify length)	LEI00281
Cable socket for 70OK	101067
Operating Instructions (specify language)	BA-xx-4017

Please specify the article number when ordering.

# 9. Decommissioning / Disposal

The ground clamps series 70 can be disposed of using the general waste disposal methods (electronic waste).





# **EU-Declaration of Conformity**

CE-4017-en-2411 active

CE

Eltex-Elektrostatik-Gesellschaft mbH Blauenstraße 67 - 69 D-79576 Weil am Rhein

declares in its sole responsibility that the product

#### Ground clamp type 70AG, 70HK, 70AK, 70BG, 70CG, 70CK

Identification:II 1D Ex ia IIIC T135°C Da resp. II 1G Ex ia IIC T6 GaCertification-no.:DMT 00 ATEX E 068 XNotified body:DEKRA Testing and Certification GmbH, Dinnendahlstraße 9, 44809 Bochum<br/>NB No. 0158

complies with the following directives and standards.

Relevant EU-Directive:	
2014/34/EU	Directive: Equipment or Protective System intended for use in potentially explosive Atmospheres
Harmonized standards applied:	
EN IEC 60079-0:2018	Explosive atmospheres – Equipment – General requirements
EN 60079-11:2012	Explosive atmospheres – Equipment protection by intrinsic safety "i"
Relevant EU-Directives:	
2011/65/EU	RoHS Directive
(EU) 2015/863	RoHS Delegated Directive

in the version effective at the time of delivery.

Eltex-Elektrostatik-Gesellschaft mbH keep the following documents for inspection:

- proper operating instructions
- plans
- other technical documentation

Weil am Rhein, 05.11.2024 Place/Date

Lukas Hahne, Managing Director



# **EU-Declaration of Conformity**

CE-4017-en-2411\_passive

Polovant ELL Directive

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Eltex-Elektrostatik-Gesellschaft mbH Blauenstraße 67 - 69 D-79576 Weil am Rhein

declares in its sole responsibility that the product

#### Ground clamp type 70OK, 70PK, 70PG, 70SG

Identification:II 1G IIB T6 Ga resp. II 2G IIC T6 Gb resp. II 1D IIIC T80°C DaCertification-no.:EPS 19 ATEX 1 184XNotified body:Bureau Veritas Consumer Products Services Germany GmbH,<br/>Thurn-und Taxis-Str. 18, 90411 Nürnberg, NB No. 2004

complies with the following directives and standards.

2014/34/EU	Directive: Equipment or Protective System intended for use in potentially explosive Atmospheres
Harmonized standards applied:	
EN IEC 60079-0:2018	Explosive atmospheres – Equipment – General requirements
EN ISO 80079-36:2016	Explosive Atmospheres –Non-electrical equipment for explosive atmospheres – Basic method and requirements
Relevant EU-Directives:	
2011/65/EU	RoHS Directive
(EU) 2015/863	RoHS Delegated Directive

in the version effective at the time of delivery.

Eltex-Elektrostatik-Gesellschaft mbH keep the following documents for inspection:

- proper operating instructions
- plans
- other technical documentation

Lukas Hahne/Managing Director

Weil am Rhein, 05.11.2024 Place/Date

# Eltex offices and agencies

The addresses of all Eltex agencies can be found on our website at www.eltex.de



