CONTENTS

SUMMARY DESCRIPTION OF THE MODIFICATIONS FOLLOWING A REVISION

Rev. 0	UPDATE TO THE NEW DIRECTIVE ATEX 2014/34/UE

Document Enclosed To Certif. CESI 03 ATEX 101X. Forbidden modifications without approval of notified entity.

Rev. 0	20/04/16	Document prepared by:	Document approved by:
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1.0 Purpose and field of applications

This document: is applicable to the ISEO 1 group II, category 2 G
with degree of protection Ex d IIC T6 Gb and category 2D with degree of protection Ex tb IIIC T85°C Db IP65.
Ambient temperature=-20/+55°C. Has the purpose of supplying the user with information about correct use relative to safety. To ensure correct use of the ISEO1, it is the user's responsability to comply with what is specified in this document.
Changes made to the extension only concern the updating of the regulation without involving any technical changes on clamp ISEO.

2.0 Reference documents

EN 60079-0
EN 60079-1
EN 60079-31
EN 60529

3.0 Definitions and acronyms

QAO = quality assurance officer
AP = authorised person.
GM = General Management

4.0 Management of this document

The QAO prepares this document on the basis of the information collected from the people involved in the manufacturing process of the ISEO type clamp. He/she distributes and files it following the approval of the GM. The AP checks the document, also authorising its distribution.

5.0 General features

The ISEO type earthing clamps are designed and constructed according to standards doc. of par. 2.0, group II category 2GD for use in the presence of gases and dust. Made of molten aluminium, with carbonitrited steel contact points, these pliers firmly connect to any hold (2 to 20mm and 3 to 20mm with Iseo1 Iseo2 pliers, respectively).

6.0 Electrical features

- Insulation voltage 3 kV
- Rated current: 10 A
- Ambient temperature:20°C ÷ + 55°C
- Cable Section: 4,0÷6,0 mm2

7.0 Marking

CE0722 **II 2 GD Ex d IIC T6 Gb - Ex tb IIIC T85°C Db IP65 - T.amb.-20°C +55°C**
CESI 03 ATEX 101X

0722 = number of the body notified for ATEX surveillance (CESI)
II = group II (surfaces)
2 = category 2
G = explosive atmosphere with the presence of gases, vapours or mists
D = explosive atmosphere containing dust
Ex d IIC T6 = protection method, gas group, temperature class (gas)
Gb = EPL (equipment for use in an explosive atmosphere due to the presence of gas with a hight level of protection.
Ex tb IIIC T85°C = protection method, install.zone, max surface temp.for dust
Db = EPL (equipment for use in an explosive atmosphere due to the presence of dust fuel with a high level of protection.

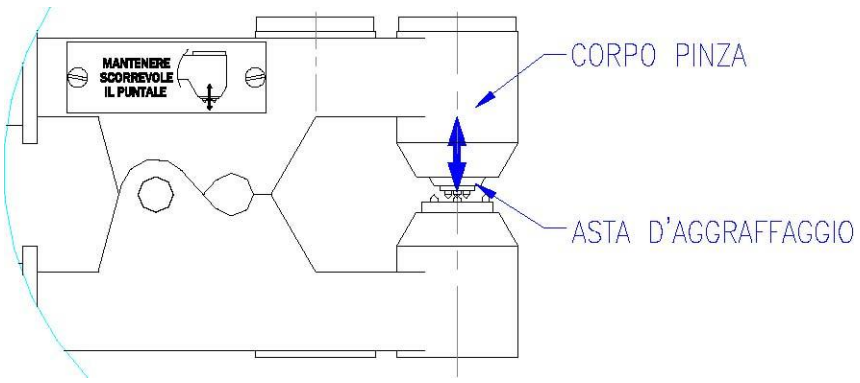
IP65 = protection level
-20°C ÷ + 55°C = ambient temperature

Hazardous zone		**Category as for** Directive 2014/34/UE	EPL (Equipment Protection Level)	**Clamp ISEO**
Gases, vapours or mists	Zone 0	1G	Ga	-
Gases, vapours or mists	Zone 1	2G or 1G	Gb or Ga	SUITABLE
Gases, vapours or mists	Zone 2	3G, 2G or 1G	Gc, Gb or Ga	SUITABLE
Dusts	Zona 20	1D	Da	-
Dusts	Zona 21	2D or 1D	Db or Da	SUITABLE
Dusts	Zona 22	3D, 2D or 1D	Dc, Db or Da	SUITABLE

8.0 Safety instructions for installation in a hazard zone

ISEO type earthing clamps must be installed and maintained in compliance with the plant engineering and maintenance norms for environments classified against the risk of explosion (other than mines) classified as zone 1 & zone 2 (gas), or zone 21 & zone 22 (dust) for example: EN 60079-14, EN 60079-17 or other national norms/standards.

Check (daily) the running of the clamping rod, keeping the coupling clean and lubricated with silicone spray. This operation is needed to ensure that possible disruptive discharges take place in the specially insulated chamber and not in the outside environment.



DO NOT USE THE CLAMP WITH THE CLAMPING ROD LOCKED

CONTACT THE SUPPLIER.

For correct operation of the earthing Clamp, we recommend a periodic (monthly) check of the clamping pins subject to wear: they must guarantee perfect contact with the body outside the connected environment.

Check the condition of the conduction cable, both at the earth terminal and near the clamp itself; check its electrical continuity (at least once a month).

When the pliers are used in a potentially explosive atmosphere, in the presence of combustible dusts, the user shall clean them thoroughly in order to prevent the formation of layers of dust.

ICMI SRL declines all and any responsibility should the clamp be overhauled/dismantled by another party and/or is not connected according to standards.

8.1 ISEO 1 clamp connection without cable

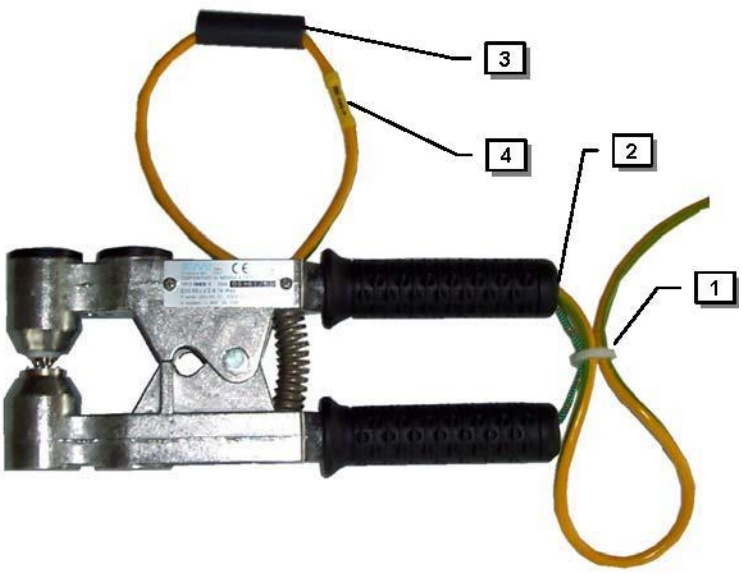
The ISEO 1 pliers are manufactured in such a way as to be connected to the customer's earth cable. This cable shall have the following characteristics:
- minimum wire section: Ø4mm^2
- isolation voltage: 3Kv
- rated current: 10A

The pliers have an anti-tear system that protects the junction of the customer's cable to the pliers' cable.
The customer shall follow these instructions carefully for a proper performance of the earthing pliers.
Use only material supplied by ICMI as equipment to the clamp ISEO.
Connect cable only on safe area and verify
Monthly condition of the anti-tean system.

Insertion and connection of the cable:

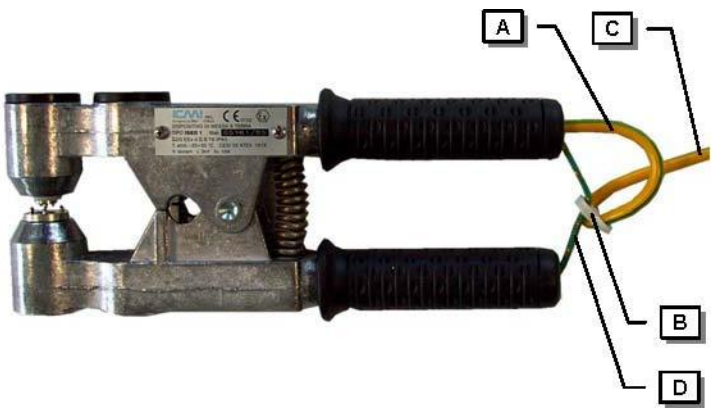
-Insert the cable in the two holes of the "anti-tear eye" (pos. 1 in fig.)
-Insert the cable in the handle of the pliers' body (pos. 2 in fig.)
-Insert the cable in the thermoshrinking sheath provided together with the pliers (pos. 3 in fig.)
-Strip the end of the cable and connect it to the cable of the pliers, through the crimp of the yellow terminal provided together with the pliers (pos. 4 in fig.)

-Position and thermoshrink the sheath which surrounds the cable, so that the junction terminal is protected properly.



Positioning the cable and the anti-tear system:

-Fit the cable into the handle (from the junction side). N.B.: the junction shall remain inside the handle of the pliers
-Prepare the cable so that: -The section protruding from the handle and up to the "anti-tear eye" is slightly bent (pos. A in fig.) -the section between the holes ("antitear eye") is tight (pos. B in fig.)



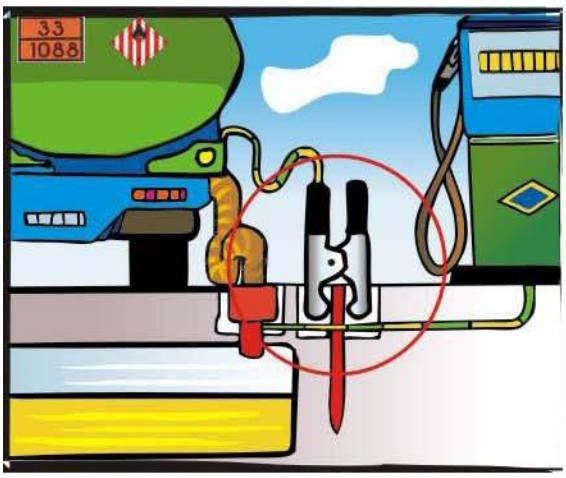
CHECK the connection continuity with a tester.
CHECK the proper operation of the anti-tear system, so that when the free section of the cable (pos. C in fig.) is pulled, the rope is tensioned (pos. D in fig.) instead of the section A (see Fig.) of the cable.

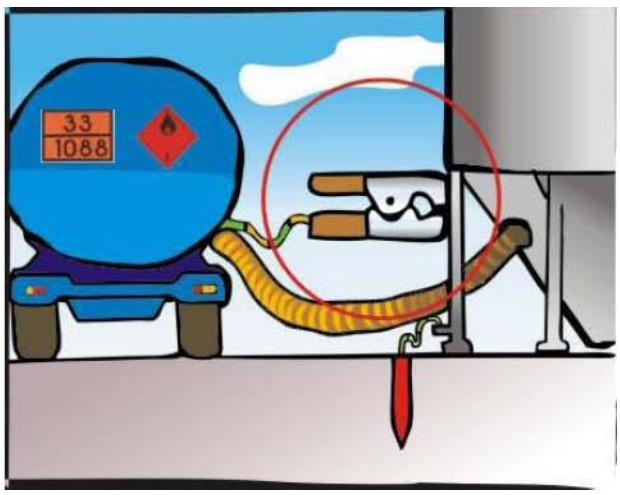
8.2 Installing the cable winder

The winder, supplied as an accessory of the Iseo earthing pliers, shall be installed in a safe area.

9.0 Diagram of a typical installation

Tank filling Silo unloading





Blending- Homogenization Bag filling