



**Operating Instructions**  
**For**  
**Rotating Vane Level**  
**Switch**  
**Model NIR-9 / NIR-E9**



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Edition: April 2024

## 2 Note

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Please read these operating instructions before unpacking and putting the unit in operation. Follow the instructions precisely as described herein.

The instruction manuals on our website [WWW.kobold.com](http://WWW.kobold.com) are always for currently manufactured version of our products. Due to technical changes, the instruction manuals available online may not always correspond to the product version you have purchased. If you need an instruction manual that correspond to the purchased product version, you can request it from us free of charge by email ([info.de@kobold.com](mailto:info.de@kobold.com)) in PDF format, specifying the relevant invoice number and serial number. If you wish, the operating instructions can also be sent to you by post in paper form against an applicable postage fee.

The devices are only to be used, maintained and serviced by persons familiar with these operating instructions and in accordance with local regulations applying to Health & Safety and prevention of accidents.

When used in machines, the measuring unit should be used only when the machines fulfil the EC-machine guidelines.

## 3 Instrument Inspection

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Instruments are inspected before shipping and sent out in perfect condition.

### **Scope of delivery:**

The standard delivery includes:

- Rotating level switch
- Operating instructions

## 4 Description

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This level switch instrument for solids NIR-9, has been designed to be used in all applications where the level of solids must be detected in tanks and silos.

Example: Grain, cereal, flour, granulated plastics, cement, sand, feed, perlite, etc.

## 5 Operating Principle

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A synchronous motor with a low revolution drives a rotating vane. When material reaches the rotating vane, its rotation is blocked. The restoring force moves the pivoted motor away from its original position, acting a micro-switch contact closure, which gives out an alarm signal. A second micro-switch turns off the motor.

When the filling level decrease from the rotating vane, a spring draws the motor back into operation position, the micro-switch returns to operating position, and the motor is switched back on.

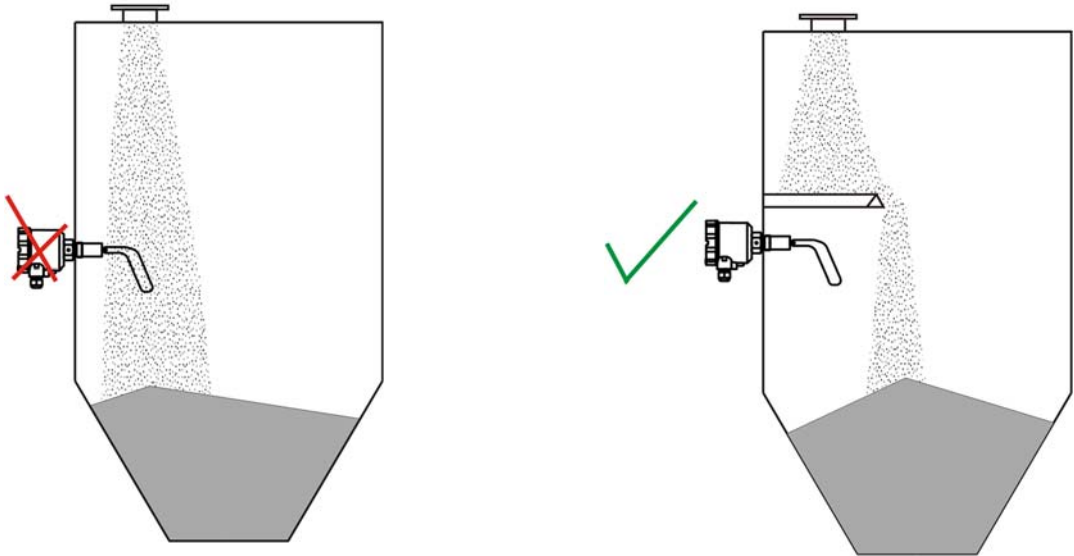
A LED shows that the supply voltage is applied.



# NIR-9

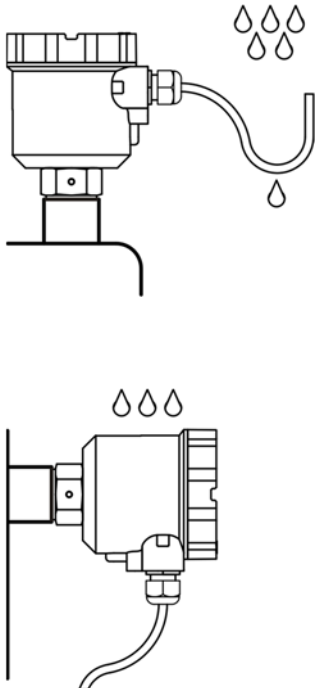
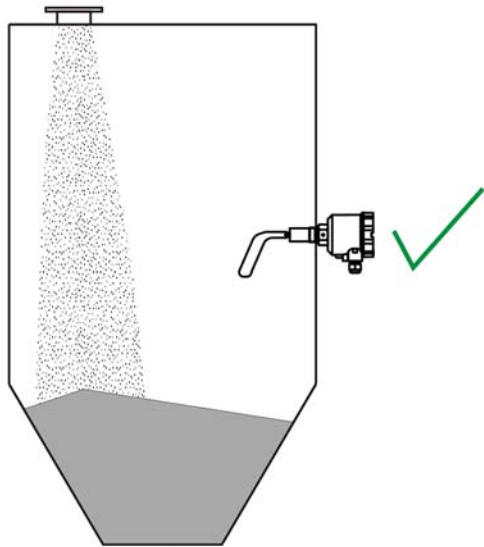
## 6.1 Installation

**Caution:** Never mount the instrument in region of falling material without an angled protection.



In this case NIR is mounted out of falling material.

**Caution:** Avoid water intrusion.



## 7 Electrical connection



**WARNING! Be sure that power supply corresponds with the indicated in the equipment's label.**

The supply voltage is connected to terminals L(+) and N(-).

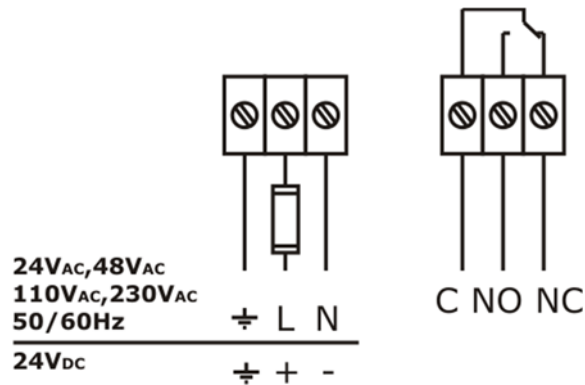
It is very important in case of continuous voltage, to respect the polarity. The device has polarity protection.

Place fuse of 0,25A in serial with the power, and fuse (max. 2 A) to protect the alarm contact.

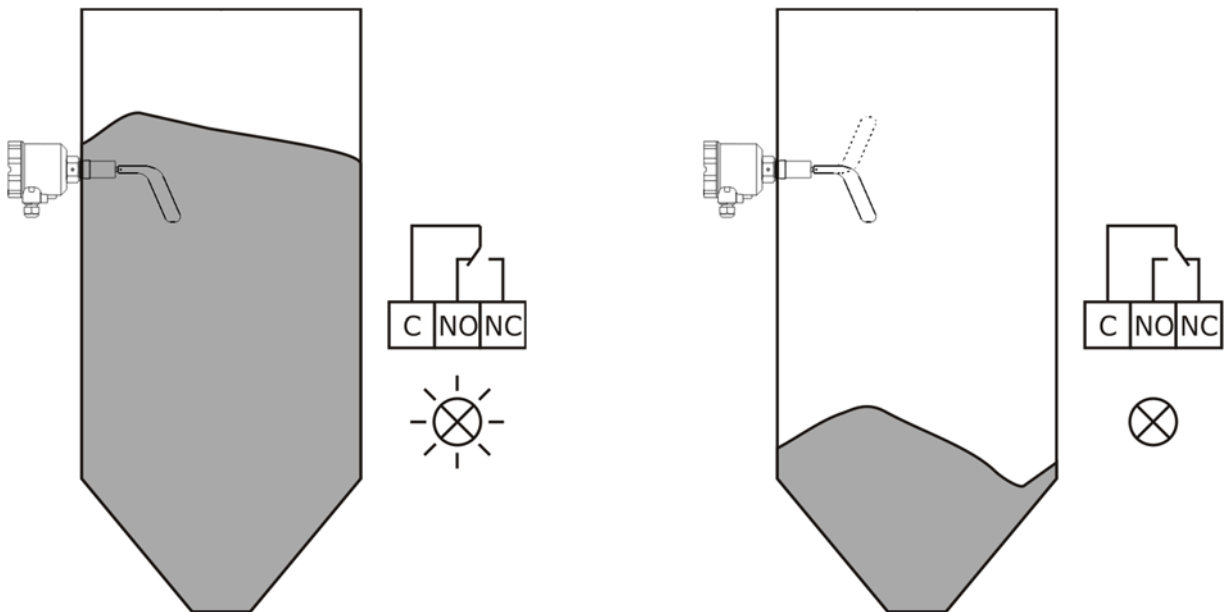
The green LED indicates that the equipment is powered.

Rotary level switch NIR has potential-free changeover contact.

Provide protection for output contact to protect the device against spikes if there are inductive loads connected.



### 7.1 Signal Output

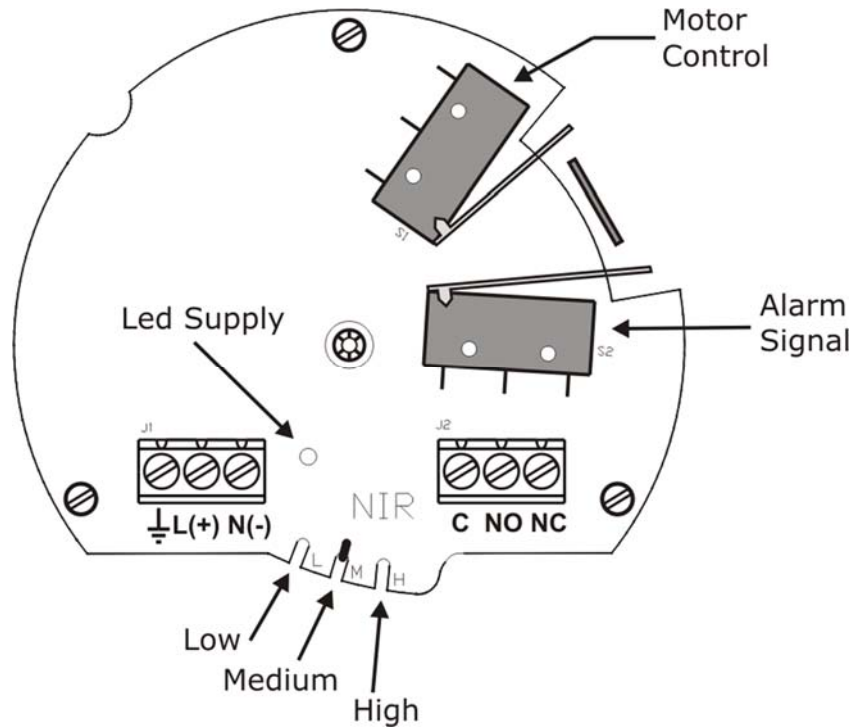


# NIR-9

## 7.2 Sensitivity Adjustment

NIR has 3 positions of sensitivity adjustment: high, medium and low (factory setting is medium).

To adjust the sensitivity, be sure that the material reaches the rotation vane, if the motor is running it is necessary to increase the sensibility until the motor is stopped. With the optional vanes, sensitivity can be also improved.



Bulk densities with different vanes\*:

Vane type	High sensibility	Medium sensibility	Low sensibility
N y R	0,14 gr/cm <sup>3</sup>	0,185 gr/cm <sup>3</sup>	0,214 gr/cm <sup>3</sup>
V	0,038 gr/cm <sup>3</sup>	0,047 gr/cm <sup>3</sup>	0,057 gr/cm <sup>3</sup>
X	0,04 gr/cm <sup>3</sup>	0,05 gr/cm <sup>3</sup>	0,06 gr/cm <sup>3</sup>
A	0,45 gr/cm <sup>3</sup>	0,55 gr/cm <sup>3</sup>	0,65 gr/cm <sup>3</sup>

\*Approx. Data

## 8 Technical Data

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Note: Kobold Mesura makes every attempt to ensure the accuracy of these specifications but reserves the right to change them at any time.

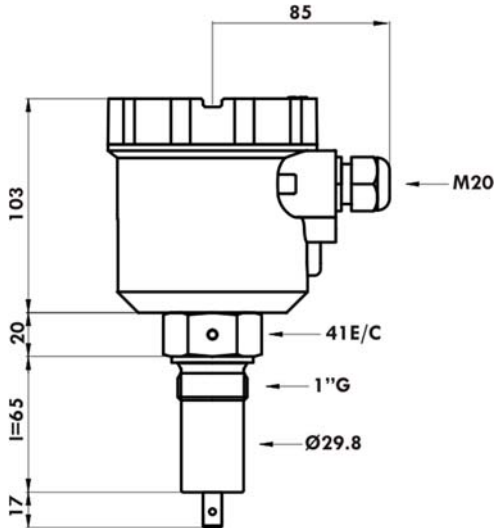
Power supply:	24 Vdc (18...36 Vdc) 24 Vac $\pm$ 10% 50/60Hz 48 Vac $\pm$ 10% 50/60Hz 110 Vac $\pm$ 10% 50/60Hz 230Vac $\pm$ 10% 50/60Hz
Electrical connection:	wire size $\varnothing$ 2,5 mm <sup>2</sup>
Power consumption:	Max. 2VA
Contact:	SPDT max. 250Vac, 2A (125VA max.).
Conduit entry:	2 cable gland M20x1,5, ATEX version 1 cable gland and 1 plug M20x1,5 standard version
Sensibility:	Adjustable in 3 points: Low, Medium, High.
Max. grain size:	50 mm
Min. bulk density:	38 g/l depending on vane type. Others on request
Process connection:	1" G aluminum mod. NIR-94, NIR-E94 1" G st. st. 1.4305 ( AISI 303 ) 1 1/2" G st. st. 1.4305 ( AISI 303 ) 1 1/4" G st. st. 1.4305 ( AISI 303 ) Flange $\varnothing$ 110 mm 1.4305 ( AISI 303 ) Flange $\varnothing$ 200 mm 1.4305 ( AISI 303 )
Process temperature:	-20...+90°C -20...+200°C ( NIR-92, NIR-E92 )
Ambient temperature:	-20 ... +60°C
Pressure:	- 0.5....+0,5 bar.
Protection type:	IP66
Housing:	Polyester coated aluminum Rotatable 360°. Threaded cover
Extensions and vanes:	st. st. 1.4301 ( AISI 304 ), 1.4305 ( AISI 303 )

# NIR-9

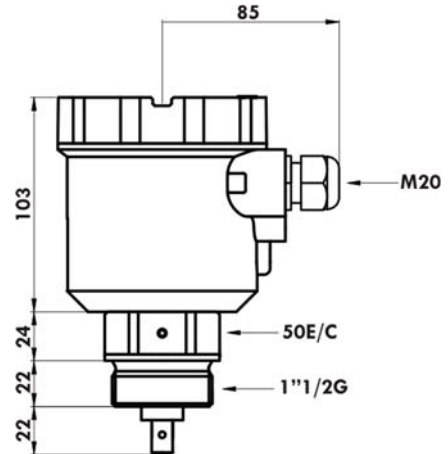
## 9 Dimensions

### 9.1 Side installation

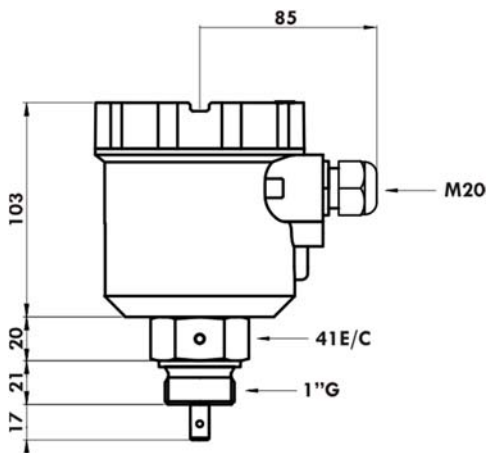
NIR-E910...G6...  
NIR-910...G6...



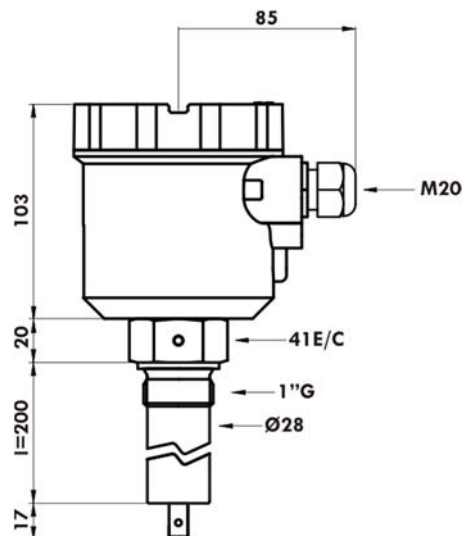
NIR-E930...G8...  
NIR-930...G8...



NIR-E940...G6...  
NIR-940...G6...

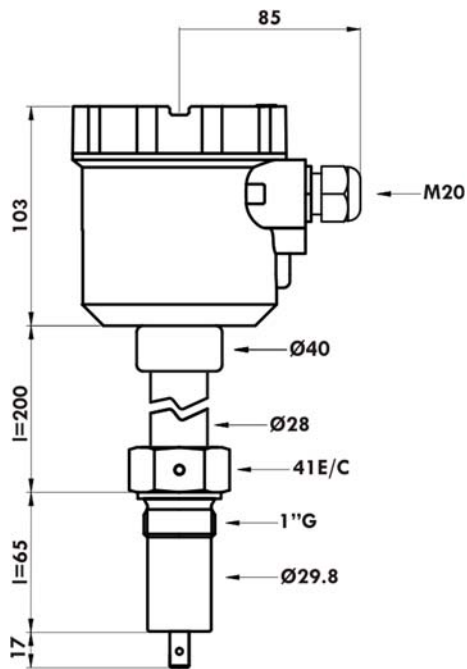


NIR-E9620...G6...  
NIR-962...G6...



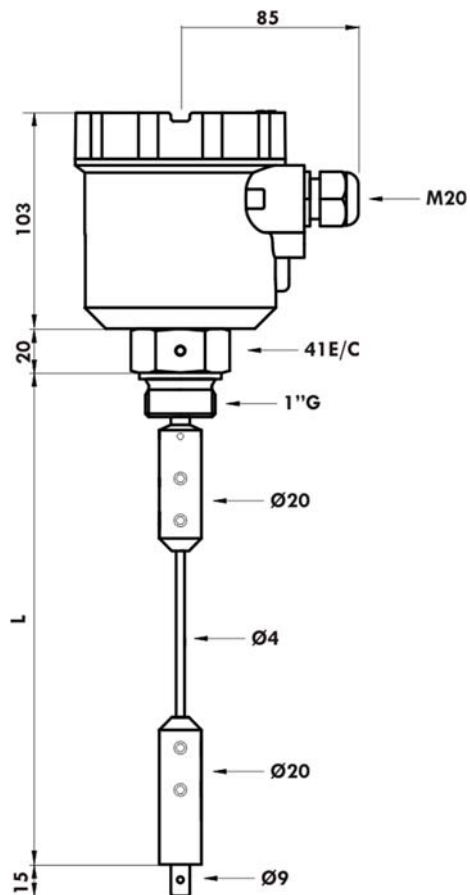
# NIR-9

## 9.2 High temperature design



NIR-E9200...G6...  
NIR-9200...G6...

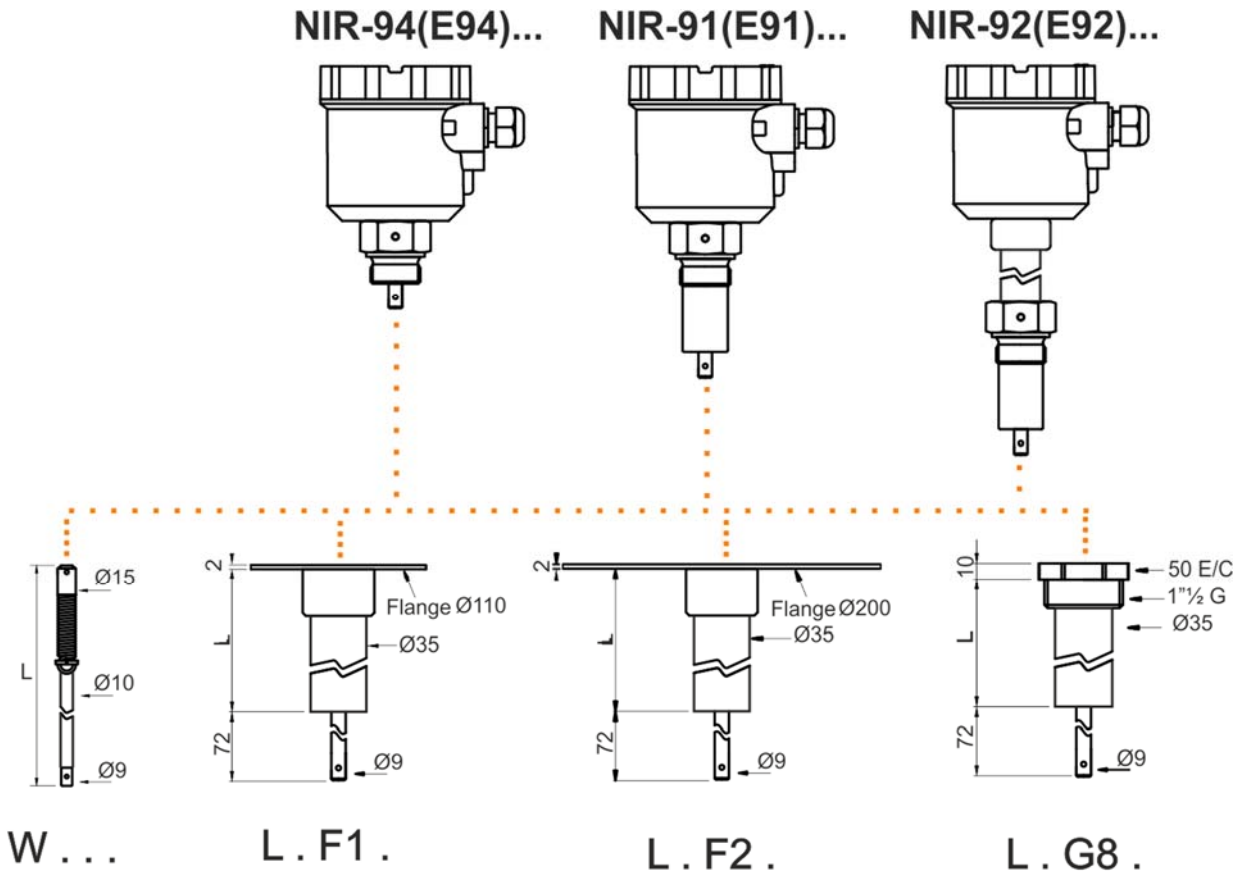
## 9.3 Top installation. Flexible cable extension



NIR-E95L0...G6...  
NIR-95L0...G6...

# NIR-9

## 9.4 Top installation. Rigid extension



Extension type W maximum length 1.500 mm.

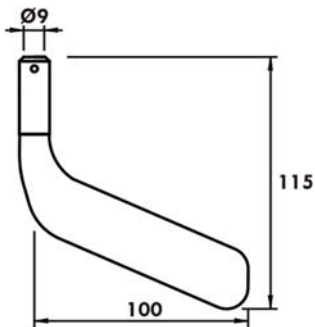
Extension type L maximum length 4000 mm.

Extension type F maximum length 10000 mm.

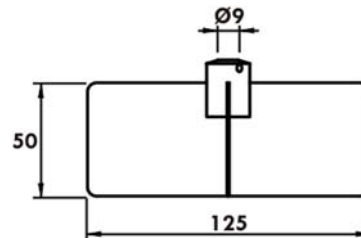
## 10 Accessories/Spare parts

### 10.1 Vanes

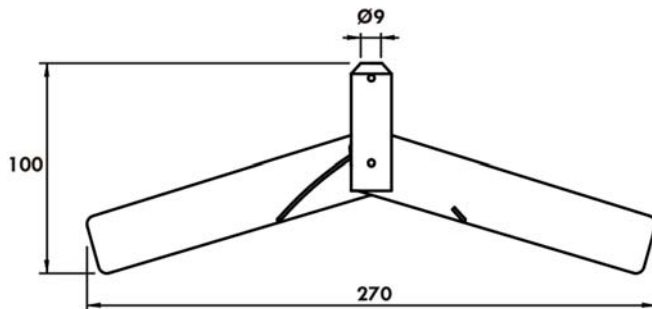
Type N (standard)



Type X

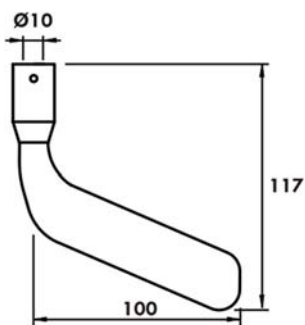


Type V

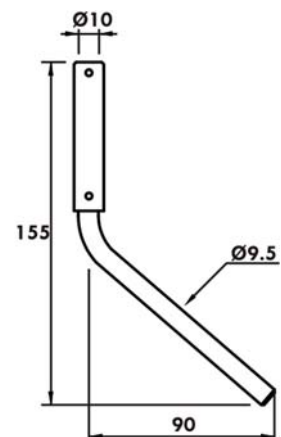


### Special vanes only for models NIR-93 and NIR-E93

Type R



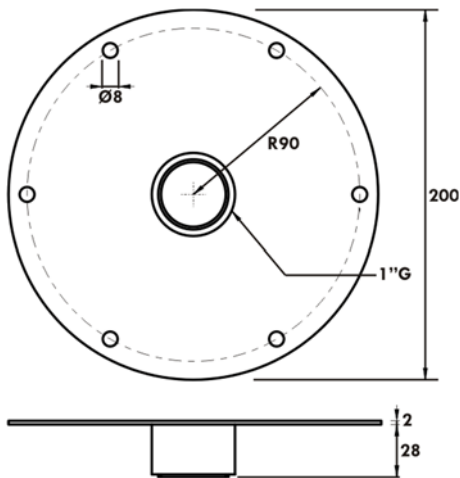
Type A



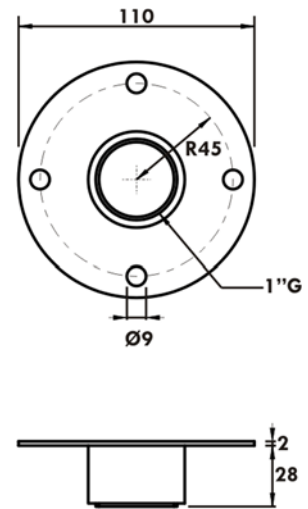
# NIR-9

## 10.2 Mechanical connections:

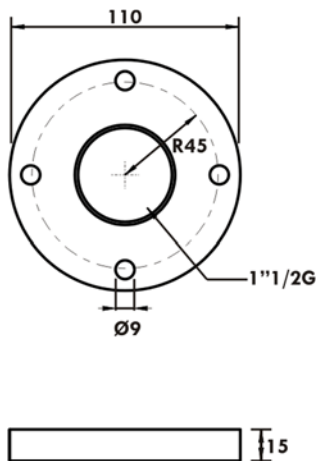
Flange type: F2



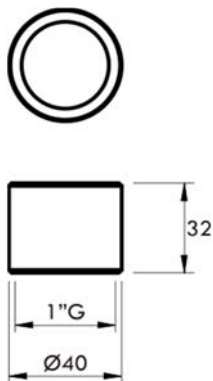
Flange type: F1



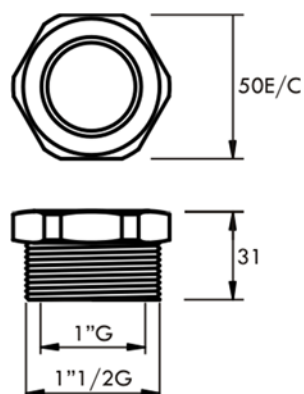
Flange type : F3 (for NIR-93/E93 only)



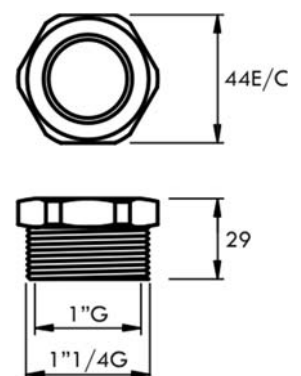
Welding sleeve: S6



Thread adapt. 1 1/2"-1": G8



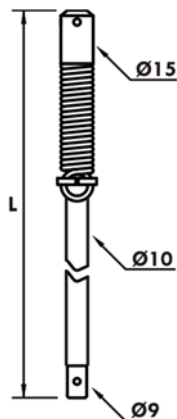
Thread adapt. 1 1/4"-1":G7



## 10.3 Extensions

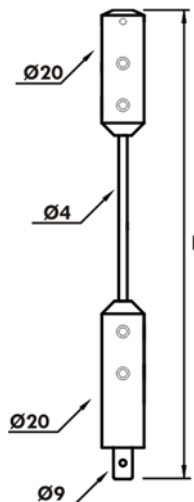
### NMZ-EW10

Extension type W with flexible union without protection pipe.  
Max. Length 1500 mm



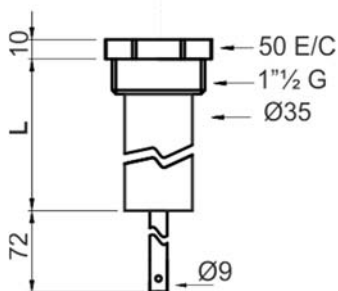
### NMZ-F10

Extension type F1 flexible cable.  
Max. Length 10000 mm



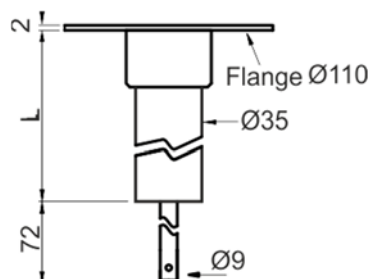
### NMZ-L80

Protection pipe type L8  
Ø35mm thread 1 1/2"GM -1"GF.  
Max. length 4000 mm



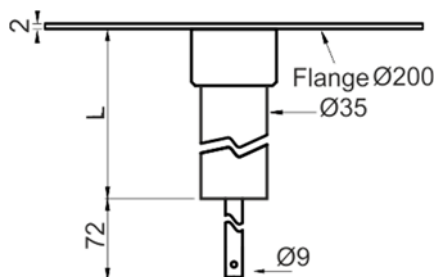
### NMZ-L10

Protection pipe type L1  
Ø35mm flange Ø110mm, 1"GF.  
Max. length. 4000 mm



### NMZ-L2

Protection pipe type L2  
Ø35mm flange Ø200mm, 1"GF.  
Max. length 4000 mm



## 11 Order Details.

Model	Extension	Vane	Mechanical connection <sup>4)</sup>	Supply	Option
<b>NIR-91</b> <b>NIR-E91 (ATEX)</b> Neck pipe l: 65 mm  <b>NIR-92</b> <b>NIR-E92 (ATEX)</b> T. max. 200°C  <b>NIR-94</b> <b>NIR-E94 (ATEX)</b> Aluminum thread	<b>0</b> = without extension  <b>W<sup>1)</sup></b> = extension without protection pipe. (until 1500 mm)  <b>L<sup>2)</sup></b> = extension with protection pipe. (until 4000 mm)  <b>Y</b> = special	<b>0</b> = without  <b>N</b> = standard  <b>V</b> = foldable  <b>X</b> = cruciform  <b>Y</b> = special	<b>G6</b> = G 1"  <b>G7</b> = G 1 ¼"  <b>G8</b> = G 1 ½"  <b>F1</b> = flange 110mm 1" GF  <b>F2</b> = flange 200mm 1" GF  <b>YY</b> = special	<b>0</b> = 230 Vac  <b>4</b> = 110 Vac  <b>2</b> = 24 Vac  <b>5</b> = 48 Vac  <b>3</b> = 24 Vdc  <b>Y</b> = special	<b>0</b> = without  <b>Y</b> = special
<b>NIR-96</b> <b>NIR-E96 (ATEX)</b> Neck pipe l:200 mm	<b>2</b> = 200mm (reinforced version, lateral installation)  <b>Y</b> = special				
<b>NIR-95</b> <b>NIR-E95 (ATEX)</b> Flexible Cable	<b>0</b> = without extension  <b>F<sup>3)</sup></b> = extension flexible cable. (until 10 mts)	<b>V</b> = foldable  <b>X</b> = cruciform			
<b>NIR-93</b> <b>NIR-E93 (ATEX)</b> Reinforced	<b>0</b> = without	<b>0</b> = without  <b>R</b> = reinforced  <b>A</b> = aggregate  <b>Y</b> = special	<b>G8</b> = G 1 ½"  <b>F3</b> = flange 110 mm reinforced 1 ½"GF  <b>YY</b> = special		

1) Only for top installation. Rigid extension without protection pipe max. 1,5 mts. Please specify length " L ".

2) Only for top installation. Rigid extension with protection pipe max. 4 mts. Not available with mechanical connection G6 y G7. Please specify length " L ".

3) Only for top installation. Flexible stainless steel cable extension max. 10 mts, (max. pull force of the cable 4 kN ). Please specify length " L ".

4) Please check mechanical connection in order to ensure a perfect match between mechanical connection and vane size.

## 11.1 Spare parts/Accessories model NMZ

Model	Type	Description	Option
NMZ-	A = process connections	<b>G7</b> = thread adapter st. st. 1.4305. 1 ¼" GM - 1" GF <b>G8</b> = thread adapter st. st. 1.4305. 1 ½" GM - 1"GF <b>F1</b> = flange st. st. 1.4305 Ø110mm 1" GF <b>F2</b> = flange st. st. 1.4305 Ø200mm 1" GF <b>F3</b> = flange st. st. 1.4301 Ø110 mm 1 ½" GF <b>S6</b> = welding sleeve st. st. 1.4404 1" GF <b>YY</b> = special	<b>0</b> = without <b>Y</b> = special
	D = type of vanes	<b>N0</b> = standard st. st. 1.4305 <b>V0</b> = foldable st. st. 1.4305 <b>X0</b> = cruciform st. st. 1.4305 <b>R0</b> = reinforced st. st. 1.4305 <b>A0</b> = aggregate st. st. 1.4305 <b>YY</b> = special	
	E <sup>1)</sup> = extensions	<b>L8</b> = protection pipe st. st. 1.4301, 1 ½"GM <b>L1</b> = protection pipe with F1 flange st.st. 1.4301 <b>L2</b> = protection pipe with F2 flange st. st. 1.4301 <b>W1</b> = with flexible union st. st. 1.4301 and without protection pipe <b>F1</b> = flexible cable Ø4 mm st. st. 1.4305 <b>YY</b> = special	

1) Please specify length " L ".

**Note:** st. st. 1.4404 ( AISI 316 ), 1.4305 ( AISI 303 ), 1.4301 ( AISI 304 )

## 12 Safety Instructions (ATEX)

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### 12.1 Area of validity

These security instructions apply to **NIR-E9** series switch level rotating and their accessories for use in explosion-proof atmospheres conform to **EU certificate LOM 05ATEX2061**.

### 12.2 Guidelines

These security instructions must be applied to the **NIR-E9** series used in dust explosion hazard environments, category 1/2D.

**NIR-E9** level switch has a metal housing that fits a motor with gear and all electronic and electrical control components and has also a rotating vane to detect the product.

The housing must be installed in the zone defined by category 2D.

The vane and shaft could be installed in the zone defined by category 1D.

The mechanical connection element of the **NIR-E9** will be installed in the wall separating zones 2D and 1D.

It is necessary to follow carefully the instructions from the hazardous areas where the **NIR-E9** will be installed as well as the safety instructions included in this manual.

Temperature class and/or surface temperature relates solely to a device operated at ambient temperature. On installation, the actual temperature class for process operation has to be determined.

Inlet bushing and cable glands must conform to the certification for their type in accordance with the directive.

Verify that all data written in the label of the **NIR-E9** matches data required for the installation.

Verify that there is no mechanical stress or deformation due to installation in the tank.

Remove power supply and verify that no explosion risk is present before opening cover of the housing.

Check that cover of housing is correctly mounted before applying power to the instrument.

The installation of instruments in hazardous areas must be exclusively done by trained people.

**IMPORTANT:** Verify that the instrument ground is connected to the system ground.

## 12.3 Protection against E.S.D. ( Electro Static Discharge )

Rotating level with that can become electrically charged, must bear a warning label. Electrical charging must be avoided at all costs. Pay attention to the following:

- Avoid rubbing the device.
- Never clean the device dry.
- Do not install the device near material airflows or near steam outlets.

## 12.4 Chemical resistance

Ensure that the device construction materials have chemical resistance sufficient to prevent mechanical deformations that may affect the device.

## 12.5 Maintenance and repairs

The instrument does not require maintenance or servicing.  
Repairs must be only carried out by Kobold Mesura (manufacturer).

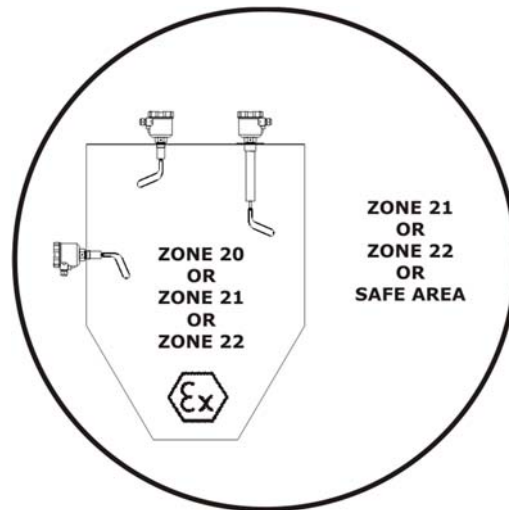
## 12.6 Storage

Measuring instruments should be protected against humidity and dust.  
Storage temperature: -40°C....+85°C.

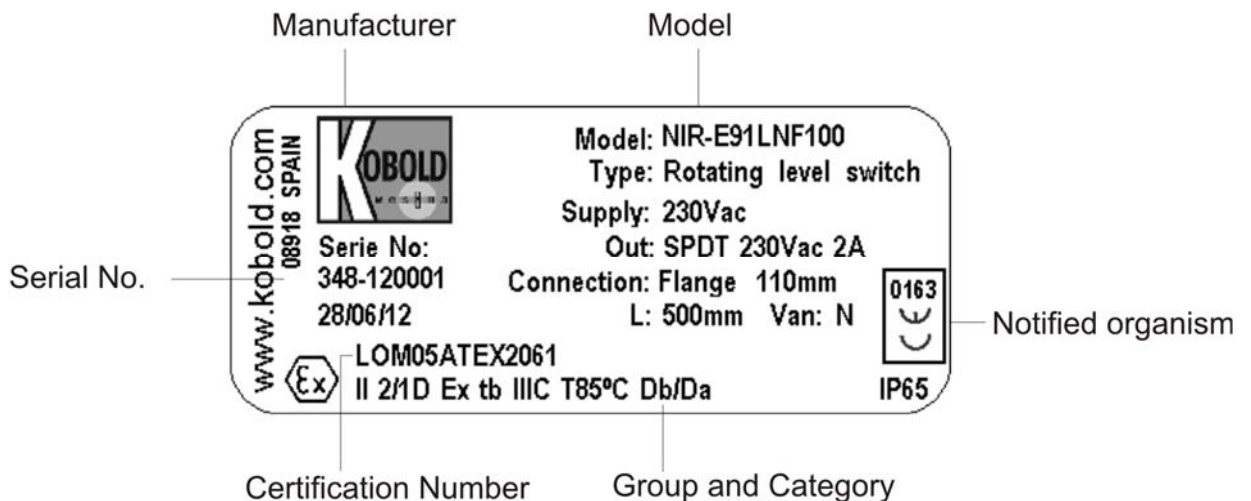
## 13 Installation in hazardous zone

In hazardous zones, NIR-E must be installed with housing in zone 21/22 (category 2) or in safety zone. Mechanical connection must be installed in the wall separating zones of category 2 and 1.

The axis and vane respectively must be installed in zone 20 (category 1). Installation must be done by ATEX expertise people.



## 14 ATEX Label Description



## 15 Disposal

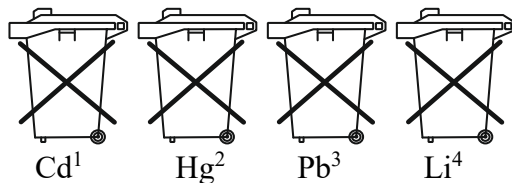
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### Note!

- Avoid environmental damage caused by media-contaminated parts
- Dispose of the device and packaging in an environmentally friendly manner
- Comply with applicable national and international disposal regulations and environmental regulations.

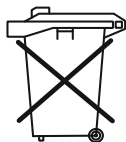
### Batteries

Batteries containing pollutants are marked with a sign consisting of a crossed-out garbage can and the chemical symbol (Cd, Hg, Li or Pb) of the heavy metal that is decisive for the classification as containing pollutants:



1. „Cd" stands for cadmium
2. „Hg" stands for mercury
3. „Pb" stands for lead
4. „Li" stands for lithium

### Electrical and electronic equipment



## 16 Declaration of conformity ( ATEX )

DT0459

### DECLARACIÓN DE CONFORMIDAD EU

EU DECLARATION OF CONFORMITY  
EU-KONFORMITÄTSEKTLÄRUNG  
DÉCLARATION DE CONFORMITÉ  
DICHIARAZIONE DI CONFORMITÀ EU

**KOBOLD MESURA SLU**  
Avda. Conflent 68 nave 15, 08915 Badalona (España)

#### Declara, bajo la propia responsabilidad, que el producto

Declares under our sole responsibility, that the product  
Erklärt in alleiniger Verantwortung, dass das produkt  
Déclare sous sa seule responsabilité, que le produit  
Dichiara sotto la propria responsabilità, che il prodotto

Rotating vane level switch

**NIR-E9**

#### A los cuales se refiere esta declaración, son conformes a las siguiente Directivas Europeas:

To which this declaration relates is in conformity with the following European Directives:

Mit folgenden Richtlinien Konform ist:

À auxquels se réfère cette déclaration, ils sont conformes aux Directives Européennes suivant :

Ai quali si riferisce questa dichiarazione, sono conformi alle direttive europee seguente:

**EMC2014/30/EU LVD2014/35/EU ATEX2014/34/EU RoHS2011/65EU**

#### Normas armonizadas y documentos de la normativa aplicados:

Applied harmonised standards and normative documents:

Angewandte harmonisierte Normen und normative Dokumente:

Normes harmonisées et documents normatifs appliqués :

Norme armonizzate e documenti normativi applicati:

EN61010-1:2011/A1:2020

EN 60079-0:2009 (acc. EN 60079-0 :2018)

EN61000-6-2:2019

EN 60079-31:2009 (acc. EN 60079-31 :2014)

\*No changes are required to enable compliance with the replacement standards.

#### Certificado de examen CE de tipo

EC-type examination certificate

EG-baumusterprübescheinigung

Attestation d'examen CE de type

Certificazione per esame di tipo CE

#### Marcado

Marking

Kennzeichnung

Inscription

Marcatura

LOM05ATEX2061



II 2/1D Ex tb IIIC T85°C Db/Da

Fabricado en: KOBOLD MESURA SLU Avda. Conflent 68 nave 15, 08915 BADALONA (Spain)

Made in:

Hergestellt in:

Fabriqué dans:

Fabbricato in:

Organismo notificado : LOM 0163

Notified organism

Zertifizierungsstelle

Organization annoncée

Organismo informato

Número notificación : LOM 05ATEX9070

Number notification

Zertifikatsnummer

Nombre notification

Notifica di numero

Badalona March 2024

Gerente

## 17 EU Declaration of conformity

---

DT0459

### **DECLARACIÓN DE CONFORMIDAD EU**

*EU DECLARATION OF CONFORMITY  
EU-KONFORMITÄTSERKLÄRUNG  
DÉCLARATION DE CONFORMITÉ  
DICHIARAZIONE DI CONFORMITÀ EU*

**KOBOLD MESURA SLU**  
**Avda. Conflent 68 nave 15, 08915 Badalona (España)**

#### **Declara, bajo la propia responsabilidad, que el producto**

*Declares under our sole responsibility, that the product  
Erklärt in alleiniger Verantwortung, dass das Produkt  
Déclare sous sa seule responsabilité, que le produit  
Dichiara sotto la propria responsabilità, che il prodotto*

Rotating vane level switch

**NIR-9**

#### **A los cuales se refiere esta declaración, son conformes a las siguiente Directivas Europeas:**

*To which this declaration relates is in conformity with the following European Directives:*

*Mit folgenden Richtlinien Konform ist::*

*À auxquels se réfère cette déclaration, ils sont conformes aux Directives Européennes suivant :*

*A ai quali si riferisce questa dichiarazione, sono conformi alle direttive europee seguente:*

**EMC2014/30/EU LVD2014/35/EU RoHS2011/65/EU**

#### **Normas armonizadas y documentos de la normativa aplicados:**

*Applied harmonised standards and normative documents:*

*Angewandte harmonisierte Normen und normative Dokumente:*

*Normes harmonisées et documents normatifs appliqués :*

*Norme armonizzate e documenti normativi applicati:*

EN61010-1:2011/A1:2020

EN61000-6-2:2019

**Fabricado en: KOBOLD MESURA SLU Avda. Conflent 68 nave 15, 08915 BADALONA (Spain)**

*Made in:*

*Hergestellt in:*

*Fabriqué dans:*

*Fabbricato in:*

Badalona March 2024

Gerente



## 18 Declaration of conformity according to Regulation (EC) No 1935/2004

---

**Kobold Mesura S.L.U.** company hereby confirms that the materials and objects that may come into contact with food during normal use comply with the general requirements of the:

*Kobold Mesura S.L.U. bestätigt hiermit für die Materialien und Gegenstände, die bei bestimmungsgemäßem Gebrauch in Kontakt mit Lebensmittel kommen können, die Konformität mit den allgemeinen Anforderungen der:*

**Regulation (EC) No. 1935/2004 of 27 October 2004 and Regulation (EC) No. 2023/2006 of 22 December 2006 on good manufacturing practice for materials and articles intended to come into contact with food. NSF H1 / FDA 21 CFR Lubricants are acceptable with incidental food contact NSF H1.**

*Verordnung (EG) Nr. 1935/2004 vom 27. Oktober 2004 sowie der Verordnung (EG) Nr. 2023/2006 über gute Herstellerpraxis vom 22.12.2006 für Materialien und Gegenstände, die dazu bestimmt sind, mit Lebensmittel in Berührung zu kommen.*

**Name and address of the issuing company:**

*Name und Anschrift der ausstellenden Firma:*

**Date of issue:**

*Ausstelldatum:*

Kobold Mesura S.L.U.

Av. Conflent, 68, Nave 15, 08915 Badalona, Spain

16 April 2024

### This applies to:

*Dies gilt für folgende:*

**Product designation / system designation:**

*Produktbezeichnung / Anlagenbezeichnung:*

**Type/material number:**

*Type/Materialnummer:*

Rotating Vane Level Switch

NIR-91.....Y, NIR-E91.....Y, NIR-94.....Y, NIR-E94.....Y, NIR-95.....Y, NIR-E95.....Y, NIR-96.....Y, NIR-E96.....Y, Y: Acc. Regulation EC 1935/2004

## The following materials and objects come into contact with food:

*Folgende Materialien und Gegenstände kommen in Kontakt mit Lebensmittel:*

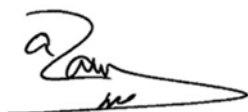
<b>System part/ assembly:</b> <i>Anlagenteil/ Baugruppe:</i>	<b>Materials and ob- jects in contact with food:</b> <i>Materialien und Gegen- stände mit Lebensmittel- kontakt:</i>	<b>Material/designation</b> <i>Werkstoff/Bezeichnung:</i>	<b>Group of materials and objects:</b> <i>Gruppe von Materialien und Gegenstände:</i>	<b>Manufacturer:</b> <i>Hersteller:</i>
Mechanical connec- tion	Thread, axis, axis- vane, thread-flanges	1.4305	Metals	Kobold Mesura S.L.U.
Mechanical connec- tion	Thread model NIR- 94, NIR-E94	Aluminium	Metals	Kobold Mesura S.L.U.
Shaft	Bearings	1.4125, 1.4310	Metals	Eurobearing
Shaft	Vanes and neckpipes, flanges	1.4301	Metals	Kobold Mesura S.L.U.
Shaft	Clamping washer	1.4122	Metals	G.M.G
Shaft	Seal shaft	PTFE G212	Plastic	Freudenberg
Shaft	Lubricant shaft	Mixture of mineral oils, thickener, additives and MicPol®/Interflon Food Grease 2	grease	Interflon

\*The metals in contact with the medium are stainless steel alloys, which have been tried and tested over many years in the pharmaceutical and food industries.

The traceability of the wetted parts and materials according to EC 2023/2006/GMP is guaranteed by our QM system from procurement to production and assembly up to placing on the market.

\*Food Grease 2 lubricant is acceptable with incidental food contact NSF H1

**Badalona, April 2024**



DT0654

## 19 Declaration of Conformity according to Regulation (EC)No.10/2011

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The company Kobold Mesura hereby confirms conformity with the general requirements for materials and articles which may come into contact with food when used as intended.

*Kobold Mesura bestätigt hiermit für die Materialien und Gegenstände, die bei bestimmungsgemäßem Gebrauch in Kontakt mit Lebensmitteln kommen können, die Konformität mit den allgemeinen Anforderungen der*

### Regulation (EC) No. 10/2011 of January 14, 2011 on plastic materials and articles intended to come into contact with food.

*Verordnung (EG) Nr. 10/2011 vom 14. Januar 2011 über Materialien und Gegenstände aus Kunststoff, die dazu bestimmt sind, mit Lebensmitteln in Berührung zu kommen.*

Name and address of the issuing company:

*Name und Anschrift der ausstellenden Firma:*

Kobold Mesura S.L.U.  
Av. Conflent, 68, Nave 15, 08915 Badalona, Spain

Name and address of manufacturer:

*Name und Anschrift des Herstellers:*

Kobold Mesura S.L.U.  
Av. Conflent, 68, Nave 15, 08915 Badalona, Spain

Date of issue:

*Ausstellungsdatum:*

16 April 2024

### Identity of the materials or objects made of plastic.

*Identität der Materialien oder Gegenstände aus Kunststoff*

Product identification

*Produkt-Identifikation:*

Seal Shaft

Material:

*Werkstoff:*

PTFE G212

With this declaration of conformity, the exhibitor undertakes that all materials or objects used comply with Regulations (EC) No. 10/2011 and (EC) No. 1935/2004 in their currently valid constitution!

*Der Aussteller verpflichtet sich mit dieser Konformitätserklärung, dass alle eingesetzten Materialien oder Gegenstände den Verordnungen (EG) Nr. 10/2011 und (EG) Nr. 1935/2004 in ihrer jeweils aktuell gültigen Fassung entsprechen!*

Sufficient information on the substances used or their degradation products for which Annexes I and II to this Regulation contain restrictions and/or specifications.

*Ausreichende Informationen zu den verwendeten Stoffen oder deren Abbauprodukten, für welche die Anhänge I und II der vorliegenden Verordnung Beschränkungen und/oder Spezifikationen enthalten.*

x

The product mentioned above does not contain any substances for which specific migration limit values (SML values) or permissible residual monomer contents (QM values) exist.

Das oben genannte Produkt **enthält keine** Stoffe für die spezifische Migrationsgrenzwerte (SML-Werte) oder zulässige Restmonomer-Gehalte (QM-Werte) existieren.

The product mentioned above contains substances for which specific migration limit values (SML values) or permissible residual monomer contents (QM values) exist.

Das oben genannte Produkt **enthält** Stoffe für die spezifische Migrationsgrenzwerte (SML-Werte) oder zulässige Restmonomer-Gehalte (QM-Werte) existieren.

substance name <i>Substanzname</i>	CAS number <i>CAS Nummer</i>	FCM Substance number <i>FCM Stoff Nr.</i>	Limit value (mg/kg) <i>Grenzwert SML (mg/kg)</i>
---------------------------------------	---------------------------------	--	---

Perfluorpropylperfluorvinylether (PPVE)	1623-05-8	281	0,05
Tetrafluoroethylene	116-14-3	423	0,05

**Sufficient information about the substances whose use in food is subject to restrictions, their specific migration values and, where applicable, purity criteria in accordance with Directives 2008/60/EC, 95/45/EC and 2008/84/EC**

*Ausreichende Informationen über die Stoffe, deren Verwendung in Lebensmittel einer Beschränkung unterliegt, über deren spezifische Migrationswerte sowie gegebenenfalls über Reinheitskriterien gemäß den Richtlinien 2008/60/EG, 95/45/EG und 2008/84/EG.*

Specifications for use of the material or item:

*Spezifikationen zur Verwendung des Materials oder Gegenstand:*

Types of food to come into contact with it:

*Arten von Lebensmittel, die damit in Berührung kommen sollen:*

PTFE G212 is suitable for all types of food under the following test conditions - according to European evaluation criteria.

Duration and temperature of treatment and storage:

*Dauer und Temperatur der Behandlung und Lagerung:*


3% Acetic acid, 4h, Reflux  
Isooctane, 4h, Reflux  
95Vol % Ethanol, 4h, reflux  
Poly(2,6-diphenyl-p-phenyleneoxide), 2h, 200°C

Ratio of area in contact with food to volume

*Verhältnis der mit Lebensmittel in Berührung kommenden Fläche zum Volumen:*

7 dm<sup>2</sup>/l

**Badalona, April 2024**



DT0724

## 20 UK Declaration of Conformity

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DT0661

### **DECLARACIÓN DE CONFORMIDAD UK**

*UK DECLARATION OF CONFORMITY  
UK-KONFORMITÄTSEKLRUNG  
DÉCLARATION DE CONFORMITÉ UK  
DICHIARAZIONE DI CONFORMITÀ UK*

**KOBOLD MESURA SLU**  
**Avda. Conflent, 68 nave 15 08915 Badalona (España)**

We Kobold Mesura S.L.U. declare under our sole responsibility that the product:

**Level switch NIR-..**

To which this declaration relates is in conformity with the standards noted below:

**BS EN 61010-1:2010+A1:2019**

Safety requirements for electrical equipment for measurement, control, and laboratory use. General requirements

**BS EN 61000-6-2:2019**

Electromagnetic compatibility (EMC) -- Part 6-2: Generic standards - Immunity for industrial environments

Also, the following UK guidelines are fulfilled:

**S.I. 2016/1091** Electromagnetic Compatibility Regulations 2016.

**S.I. 2016/1101** Electrical Equipment (Safety) Regulations 2016.

**S.I. 2012/3032** The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012.

Badalona October 2021

Gerente



# 21 ATEX Certificate



LABORATORIO OFICIAL J. M. MADARIAGA



**(1) EC-TYPE EXAMINATION CERTIFICATE**

**(2) Equipment or protective system intended for use in potentially explosive atmospheres**  
 Directive 94/9/EC

**(3) EC-Type Examination Certificate number:** **LOM 05ATEX2061**

**(4) Equipment or Protection System** Rotary switch level controller  
 Type IRN-700-EX

**(5) Applicant:** CONTROL INSTRUMENTS MESURA S.L.

**(6) Address:** Guifré, 665 1º  
 08912 BADALON(A) (BARCELONA)  
 SPAIN

**(7)** This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

**(8)** Laboratorio Oficial J.M. Madariaga (LOM), notified body number 0163 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament of 23 March 1994, certifies that this equipment or protective system has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in confidential report nr. **LOM 04.224 MP**

**(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:**  
 — Standards **EN 50014:1997 + A1:1999 + A2:1999**  
**EN 50281-1-1:1998 + A1:2002**

**(10)** If the sign X is placed after the certificate number, it indicates that the equipment or protective system is subject to special conditions for safe use specified in the schedule to this certificate.

**(11)** This EC-Type Examination Certificate relates only to the design and construction of this specified equipment or protective system in accordance with the Directive 94/9/EC. Further requirements of the Directive applies to the manufacture and supply of this equipment or protective system. These are not covered by this certificate.

**(12)** The marking of the equipment or protective system shall include the following:

II 2/1 D IP65 T85 °C Tc-20/ta 60 °C

Madrid, 13rd May 2005

Carlos Fernández Ramón  
 DIRECTOR OF THE LABORATORY

Angel Vega Remesal  
 Head of ATEX area

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 ENSAYOS E INVESTIGACIONES DE MATERIALES Y EQUIPOS PARA ATMÓSFERAS EXPLOSIVAS Y MINERÍA.  
 (Real Decreto 334/1992 de 3 de Abril - BOE 1992-04-29 -)  
 Alenza, 2 - 28003-MADRID • ☎ (34) 91 4421386/ 91 3367009 • Fax (34) 91 4419933 • ✉ lom@lom.upm.es





## LABORATORIO OFICIAL J. M. MADARIAGA

**(A1) SCHEDULE**

**(A2) EC-Type Examination Certificate: LOM 05ATEX2061**

**(A3) Description of equipment or protective system**  
 Rotary switch level controller to be used in silos that is based on a head box containing electrical circuits and a motor, and a rotary speed sensor. The head box is prewired to install outside tanks or silos having a category 2D, sensor is prewired to be installed inside tanks or silos having a category 1D because it is a simple mechanical device.  
 These devices have a power rated voltage of 24 Vdc, and 24 to 230 Vac.

**(A4) Test report nr. LOM 04.224 MP**

**(A5) Special conditions for safe use**  
 None

**(A6) Individual tests**  
 None

**(A7) Essential Health and Safety Requirements**  
 Explosion safe requirements are covered by application of the standards indicated in page 1/2 of this certificate.

**(A8) Descriptive documents:**

	Rev.	Date
Description nr. DTU106	0	2005-05-04
Part list nr. DT1017 (2 sheets)	01	2005-05-04
Drawings nr. DT0095	0	2005-05-04
PE0185R0	0	2005-05-04
PM0382R0	0	2005-05-04
PM0368R0	0	2005-05-04
PM0370R0 (2 sheets)	0	2005-05-04
PM0380R0	0	2005-05-04



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LABORATORIO OFICIAL J. M. MADARIAGA



(1) EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT

(2) Equipment or protective system intended for use in potentially explosive atmospheres

Directive 94/9/EC

(3) Supplement nr. 1 to EC-Type Examination Certificate number LOM 05ATEX2061

(4) Equipment or Protection System Rotary switch level controller  
Type IRN-700-EX... / NIR-EX...

(5) Applicant KOBOLD MESURA, S.L.U.

(6) Address Guifré, 665  
08918 BADALONA(BARCELONA)  
SPAIN

(7) Report nr. LOM 07.059 NP

(8) Variations included in this certificate

- Change of the manufacturer name, before CONTROL INSTRUMENTS MESURA S.L.

- Alternative reference of type as NIR-EX...

- Update of applied standards to: EN 61241-0:2006 and EN 61241-1:2004

Type codification:

IRN700-EX  
NIR-EX

Material  
2= stainless steel

Neck pipe length  
0 = standard  
2 = D=200 mm, only paddle Y

Axis  
0 = standard  
4 = special up to 500 mm

Paddle  
N = standard  
Y = Y shape  
X = X shape

Process connection  
G6= G 1", G7= G 1" 1/4, G8= G1" 1/2  
F1 = flange 110 mm, F2 = flange 200 mm  
S6 = sleeve 1"

Power supply

Option

This supplement must be an inseparable part together with the base certificate LOM 05ATEX2061  
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( Real Decreto 334/1992 de 3 de Abril - BOE 1992-04-29 - )



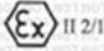
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LABORATORIO OFICIAL J. M. MADARIAGA

(3) Supplement nr. 1 to EC-Type Examination Certificate number LOM 05ATEX2061

(9) Marking variations



Ex tD A21 IP65 T85 °C Ta: -20°C / +60 °C

(10) Descriptive documents

	Rev	Date
- Drawings nr.: DT0095R2	2	2007-07-17
DT0136R2	2	2007-07-17



Madrid, 10th September, 2007

Carlos Fernández Ramón  
DIRECTOR OF THE LABORATORY

Angel Vega Remesal  
Head of ATEX area

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LABORATORIO OFICIAL J. M. MADARIAGA



**(1) EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT**

**(2) Equipment or protective system intended for use in potentially explosive atmospheres**  
Directive 94/9/EC

**(3) Supplement nr. 2 to EC-Type Examination Certificate number** **LOM 05ATEX2061**

**(4) Component** Rotary switch level controller  
Type IRN700-E... / NIR-E...

**(5) Applicant** KOBOLD MESURA, S.L.U.

**(6) Address** Guifré, 665  
08918 BADALONA(BARCELONA)  
ESPAÑA

**(7) Test report nr.:** **LOM 09.190 MP**

**(8) Variations included in this certificate**

- To include two new enclosures made in aluminium and stainless steel
- To include a new variant with steel cable for applications such as maximum level of long lengths
- New internal electronic circuits design
- To include a new electric motor for the movement of vanes

Type codification:

IRN700-E  
NIR-E

<b>Version</b>	81 = Standard	82 = High temperature	83 = Reinforced
<b>Sensor extension</b>	0 = without	2 = 200mm	1 = Special
<b>Axis extension</b>	0 = without	4 = Special	
<b>Vane</b>	N = Standard	V = Y shape	X = X shape
<b>Process connection</b>	G6 = G 1", G7 = G 1 1/2", G8 = G 1 1/2"		
	F1 = flange 110 mm, F2 = flange 200 mm		
<b>Power supply</b>	S6 = welding sleeve		
<b>Option</b>			



This supplement must be an inseparable part together with the base certificate LOM 05ATEX2061

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LABORATORIO OFICIAL J. M. MADARIAGA

(3) Supplement nr. 2 to EC-Type Examination Certificate number LOM 05ATEX2061

(9) Changes in marking
Only those that affect the type designation

(10) Descriptive documents

Table with columns: Description nr., Rev., Date. Rows include DT0381, DT0384R1, PE0216 (3 hojas), PE0217, DT0383R0, PM0654R0, PM0655R0, PM0656R0, PM0657R0, PM0695R0, PM0696R0, PM0697R0.



Carlos Fernández Ramón
DIRECTOR OF THE LABORATORY

Madrid, 2009-07-29

Angel Vega Remesal
Head of ATEX area

KCPCEX 07/02 Rev 0

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LABORATORIO OFICIAL J. M. MADARIAGA



(1) EC-TYPE EXAMINATION CERTIFICATE SUPPLEMENT

(2) Equipment or protective system intended for use in potentially explosive atmospheres Directive 94/9/EC

(3) Supplement nr. 3 to EC-Type Examination Certificate number LOM 05ATEX2061

(4) Equipment or Protection System Rotary switch level controller Type IRN700-E... / NIR-E... / NIR-E9...

(5) Manufacturer KOBOLD MESURA, S.L.U.

(6) Address Guifré, 665 08918 BADALONA(BARCELONA) ESPAÑA

(7) Test report nr. LOM 11.555 LP

(8) Variations included in this certificate

- Update to the standards EN 60079-0:2009 and EN 60079-31:2009
- To include a new variant named NIR-E9 having a new enclosure made in aluminum, mechanical changes and new design in electronic circuit.

Type codification is the same as variant NIR-E

(9) Changes in marking

Ex II 2/1D - Ex tb IIIC T85 °C Db/Da

(10) Descriptive documents

Table with 2 columns: Description nr. and Date. Rows include DT0460R1 (2011-01-13), PE0216 (sheet 1/4) (2011-10-27), and PM0893 (2011-11-10).

Signature of Carlos Fernández Ramón, Director of the Laboratory. Signature of Angel Vega Remesal, Head of ATEX area. Date: Getafe, 2012-06-19.

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# NIR-9

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## **Kobold Mesura S.L.U**

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Internet: [www.kobold.com](http://www.kobold.com)

**Technical data**  
**Subject to change without prior notice**

