



Declaración de Conformidad CE EC-Declaration of Conformity

Nosotros/We

Talleres Filsa, S.A.U.

Bernat Metge, 33
E-08100 Mollet del Vallés
Telf. +34 935 704 601 Fax +34 935 702 471

por la presente declaramos que los aparatos:

declare that the devices:

Controladores de nivel a membrana

Membrane limit switch

Membrane level indicator

Tipo **CD-AII-B5** y **PD-AII-B5**

Type **CD-AII-B5** and **PD-AII-B5**

Tipo **CD-AIS-B5** y **PD-AIS-B5**

Type **CD-AIS-B5** and **PD-AIS-B5**

a los que se refiere esta declaración cumplen con las siguientes normas o documentos normativos:

to which this declaration relates is in accordance with the following standards or other normative documents:

Directiva 94/9/CE (Directiva ATEX)

Directive 94/9/EC (Directive ATEX)

y

and

**EN 60079-0:2009, EN 60079-11:2007,
EN 60079-31:2009**

**EN 60079-0:2009, EN 60079-11:2007,
EN 60079-31:2009**

Se cumplen los Requisitos Esenciales de Seguridad y Salud según las disposiciones de las Directivas Comunitarias y por la observancia de las Normas.

The Essential Health and Safety Requirements are assured by compliance with the directive and observance of the normative documents.

Los aparatos están identificados con los siguientes datos:

The marking of the equipment includes the following:

CE₀₀₄₄ Ex II 1/2D Ex ta/tb IIIC T 83 °C

CE₀₀₄₄ Ex II 2G Ex ib IIC T6

$-25^{\circ}\text{C} \leq T_a \leq +80^{\circ}\text{C}$

Certificado de examen CE de tipo número

IBExU06ATEX1153

EC-type-examination Certificate Number

Mollet del Vallés, el 17 de Enero del 2011

Mollet del Vallés, January 17th 2011

Jordi Matutano Ros
QB

Esta Declaración solamente podrá ser utilizada en tanto no haya sido alterada.

This declaration is only allowed to hand out in unchanged form.



Condiciones de Garantía

Talleres Filsa garantiza sus productos por un período de doce meses, a partir de la fecha de venta. Esta garantía cubre la reparación o sustitución de las piezas, materiales o equipos defectuosos, imputables a defectos de fabricación. El usuario correrá con los gastos de envío de los elementos defectuosos, hasta las instalaciones de Talleres Filsa.

La sustitución de las piezas, materiales o equipos defectuosos, no implicará prórroga de la garantía.

Quedan excluidas de esta garantía las averías o deterioros debidos a la utilización de nuestros productos para fines distintos a los que les son propios, o no hayan sido instalados de acuerdo con las instrucciones de instalación y utilización.

Quedan excluidas de esta garantía las piezas o equipos que hayan sido manipulados por personas no autorizadas por Talleres Filsa.

Quedan excluidas de esta garantía, las averías producidas por causas catastróficas (fuego, inundaciones...), atmosféricas, golpes y caídas.

Talleres Filsa al no efectuar la instalación de los aparatos que suministra, no responde de los daños directos o indirecto, causados por avería o defecto de sus materiales y productos y cualquier otra reclamación que de ellos pueda derivarse, a menos de que la ley lo disponga con carácter obligatorio.

Para validar la garantía, los materiales o productos deberán ir acompañados de la factura de compra.

Warranty Conditions

Talleres Filsa guarantees its products for a period of twelve months as from the date of sale. This guarantee covers the repair or substitution of the defective parts, materials or equipment that are imputable to manufacturing defects. The user will be responsible for the costs of returning the defective elements to the facilities of Talleres Filsa.

The substitution of defective parts, materials or equipment will not constitute an extension of the guarantee.

The breakdowns and deteriorations due to using our products for purpose other than those for which they were manufactured, or products which have not been installed in accordance with the instructions for installation and use are excluded from this guarantee .

The parts and equipment which have been manipulated by persons not authorised by Talleres Filsa are excluded from this guarantee..

The breakdowns caused by catastrophic conditions (fire, floods...), atmospheric conditions, knocks and falls are excluded from this guarantee.

Not having carried out the installation of the devices it supplies, Talleres Filsa accepts no responsibility for direct or indirect damage caused by breakdowns or defects of its materials or products and for any other claim which could be derived from these, unless otherwise obligatorily stipulated by the Law.

In order to validate the guarantee, the materials or products should be accompanied by proof of purchase.



Geräteinformation Appliance information

Der Membran-Füllstandanzeiger überwacht den Füllstand als Grenzwertgeber in Silos und Behälter.

The membrane level indicator observes the level as limit switch in silos, hoppers and containers.

Einsatz

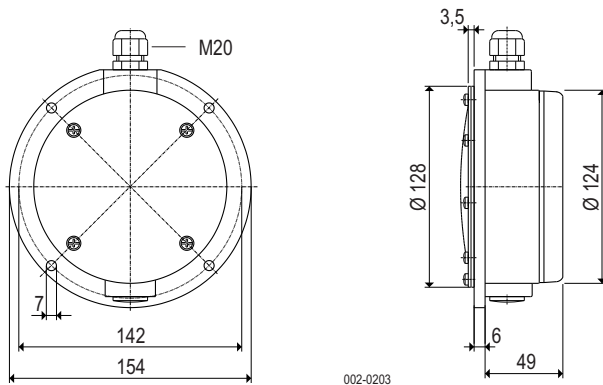
Voll-, Leer- oder Bedarfsmelder für staub- und pulverförmige, granuliert sowie körnige Schüttgüter mit einer max. Körnung bis 30 mm und einem Schüttgewicht von 0,3 bis 2,5 t/m³

Use

Level indicator for dusty, powdery, granulated and grained bulk goods with a maximum grain size of 30 mm and a bulk density from 0.3 up to 2.5 t/m³.

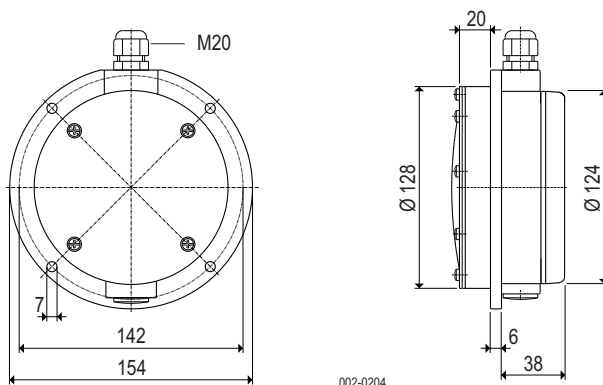
Empfindlichkeit von 60 g bis 200 g einstellbar
Sensitivity adjustable from 60 g up to 200 g

CD



002-0203

PD



002-0204

Funktionsweise

Das Schüttgut drückt mit seinem Gewicht auf die Membrane. Ein Stößel überträgt den Druck von der Membrane auf den Schalter.

Sinkt das Schüttgut, so wird die Membrane entlastet und der Schalter zurückgeschaltet.

Mode of operation

The bulk material presses with its weight against the membrane. A tappet directly transfers the pressure from the membrane to the switch.

When the bulk goods are decreasing, pressure is taken off the membrane and the switch will be interconnected.

Konstruktion

Das Gehäuse trägt die durch einen aufgeschraubten Haltering gehaltene Membrane. Im Gehäuse ist ein Schalter, auf den die Membrane den Druck des Schüttgutes mittels des Stößels überträgt.

Die Empfindlichkeit ist an einer Feder einstellbar.

Construction

The housing carries a membrane which is held in place by a mounting ring. The membrane is transferring the pressure via a tappet onto a switch.

Sensitivity is adjustable by a spring.

Technische Daten / Technical data

Werkstoffe / Materials

Gehäuse / Housing	- A	GFK / glass-fibre reinforced plastic
	- N	Aluminium
Membrane	- N	NBR
	- V	VITON
	- E	1.4301 / stainless steel
Haltering/Mounting ring	- N	Stahl, verzinkt / zinc-plated steel
	- E	1.4301 / stainless steel

Temperaturbereich Temperature range

T_a	GFK / plastics	Aluminium
	-20 °C ... +60 °C	-25 °C ... +80 °C

Signal-Kontakt

potenzialfreier Wechsler
4 A / 250 V ~ (AC)
24 V ... 250 V AC oder
12 V ... 125 V DC

Signal contact

change-over contact,
potentialfree
4 A / 250 V ~ (AC)
24 V ... 250 V AC or
12 V ... 125 V DC

**Capacity of the contact
Switching voltage**

Ansprechverzögerung Response delay

keine
none

Kabeleinführung Cable entry

Verschraubung M20
Gland M20

Schutzart

DIN EN 60529

IP 40
IP 53 wenn Ausgleichfilter nach unten
IP 65 mit Edelstahl-Membrane
IP 66 mit Aluminium-Gehäuse

Type of protection

IP

IP 40
IP 53 if compensating filter is downwards
IP 65 with stainless steel membrane
IP 66 with aluminium housing

Gewicht/Weight

CD	0,48 kg	CD-A	0,95 kg
PD	0,49 kg	PD-A	1,00 kg

Wartung / Maintenance

keine / none

Einbaulage / Installation Installation

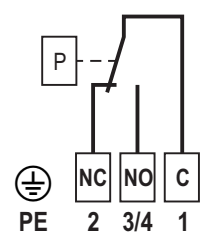
beliebig / any position
any position

ATEX-Optionen ATEX-Options

Staub
Dust
II 1/3D Ex ta/tc IIIB°C T63

Gas+Staub
Gas+Dust
II 1/2D Ex ta/tb IIIC T83°C und / and
II 2G Ex ib IIC T6

Anschlussplan Connection plan



002-AP01

Änderung vorbehalten/Subject to modification

04/12 © by FILSA CDPD-GI-01_DE-EN 01

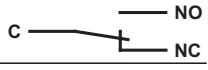
Membrane level indicator Level limit switch for bulk goods

Gas+
Dust



Explosion protection information and supplement to the operating instructions

Type plate details B1

<p>Manufacturer and address</p> <p>talleres filsa, s.a.u. Bernat Metge, 33 - E-08100 Mollet del Vallès - Tel. +34 93 570 46 01</p>		<p>CE sign with the number of the "Notified Body" which is involved in the production control phase</p> <p>CE 0044</p>		<p>Connection diagram</p> 	
<p>Model designation</p> <p>Typ CD-A..-B1</p>		<p>Dust marking</p> <p>II 1/2D Ex ta/tb IIIC T 83 °C</p>		<p>Details to loadability of the signal contact</p> <p>Contact 4 A 240 V~</p>	
<p>Unique serial number</p> <p>S# 1234567890 A.- Nr. 1234567890</p>		<p>Ambient temperature (operation temperature)</p> <p>-25 °C ≤ Ta ≤ +80 °C</p>		<p>Type of protection</p> <p>IP66</p>	
<p>Number which the order was handled</p> <p>03/10</p>		<p>Month and year of delivery</p>		<p>EC-type examination certificate number</p> <p>IBExU06ATEX1068</p>	

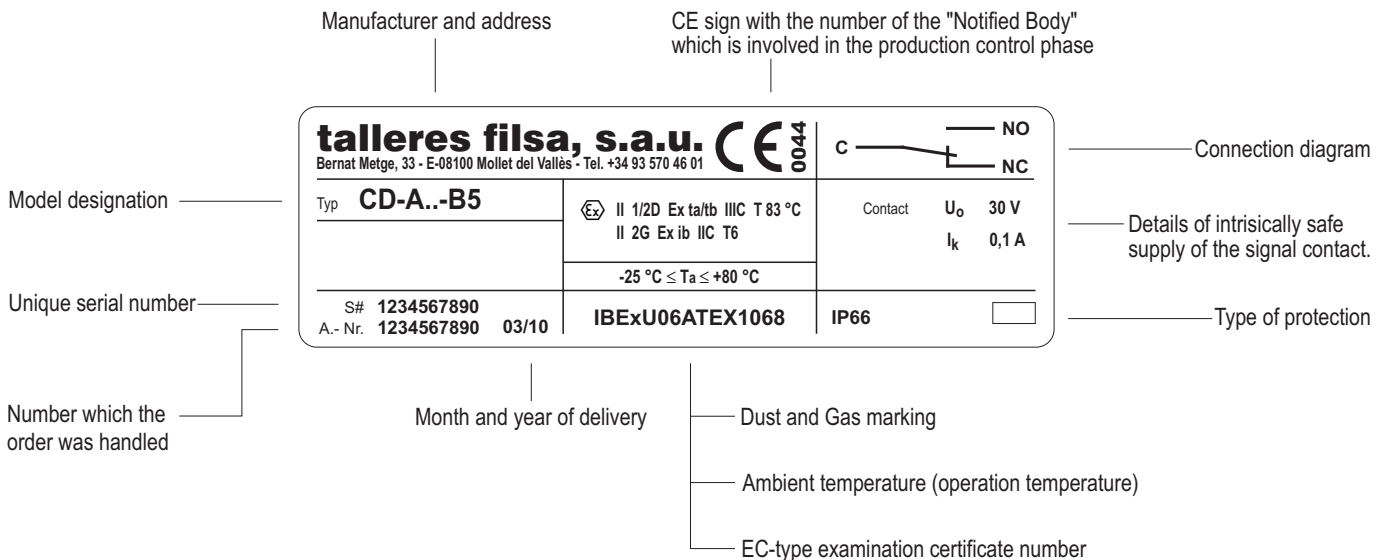
FILSA

Competence in explosion protection

Explosion protection information 10/10 © by FILSA CDPD-EI-05-EN 05

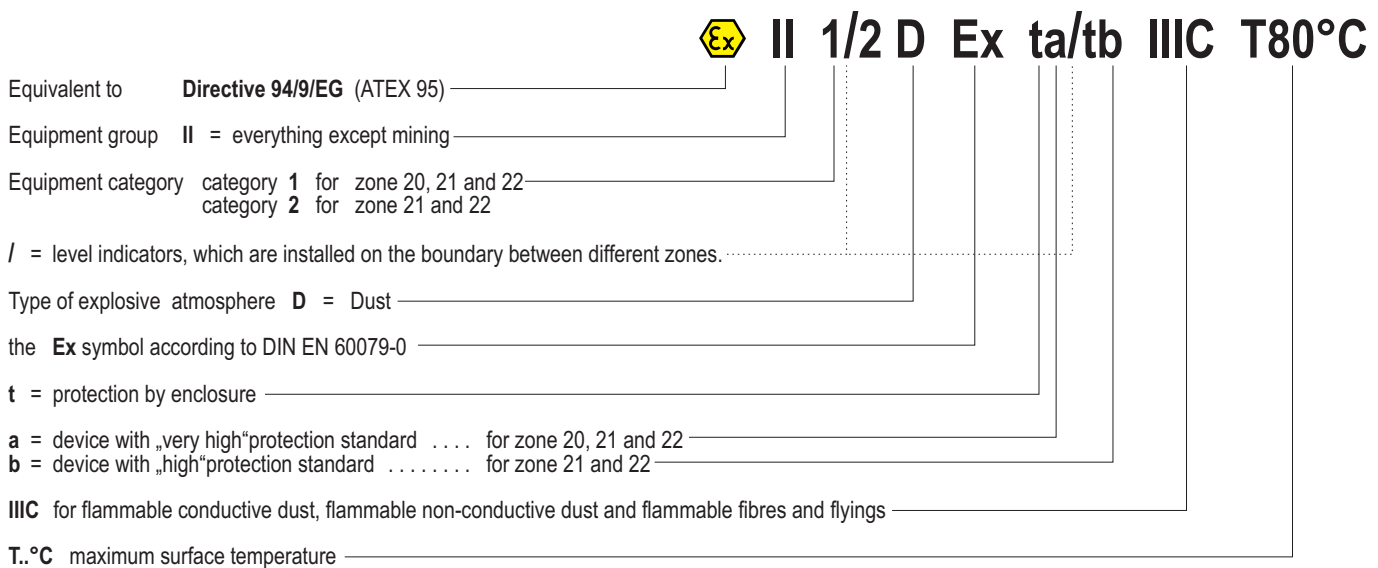
Type plate details B5

Gas+Dust  and hybrid mixtures

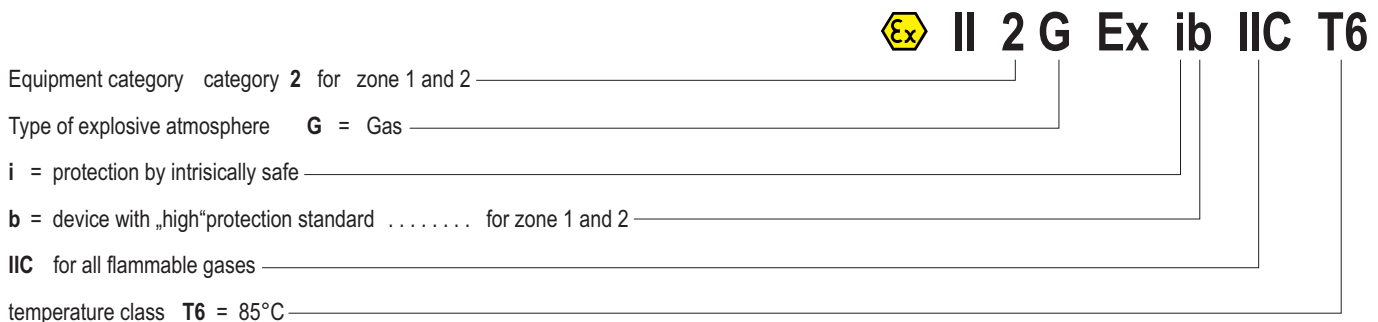


Marking in accordance with ATEX 95 and DIN EN 60079-0:2009

Membrane level indicator for use on the boundary from zone 20 to zone 21



Membrane level indicator for use in zone 1



06 CDPD-EI-06-EN 10/10 © by FILSA Explosion protection information

Order code **B1**

Marking: II 1D / 2D



Equipment category appropriation by zones

Membrane level indicator for use on the boundary from zone 20 to zone 21

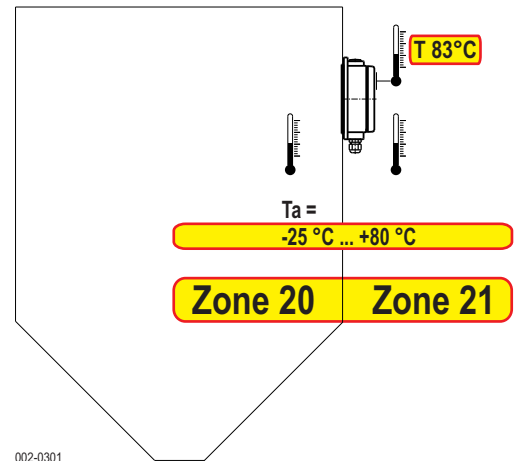
Ambient temperatures T_a

The ambient temperature T_a defines the maximum operating temperature of the indicators. Inside the vessel this is process temperature (the air or the bulk goods temperature) nearby the device.

maximum surface temperature **T**

The maximum surface temperature means the hottest point at the equipment.

talleres filsa, s.a.u.		NO NC
Bernat Metge, 33 - E-08100 Mollet del Vallès - Tel. +34 93 570 46 01	Typ CD-A.. B1	Contact 4 A 240 V-
	Ex II 1/2D Ex ta/tb IIIC T 83 °C	
	-25 °C ≤ Ta ≤ +80 °C	
S# 1234567890 A.- Nr. 1234567890 03/10	IBExU06ATEX1068	IP66



Order code **B5**

Marking: II 1D / 2D

II 2G



Equipment category appropriation by zones

Membran level indicator for use on the boundary from zone 20 to zone 21 and in zone 1

Ambient temperatures T_a

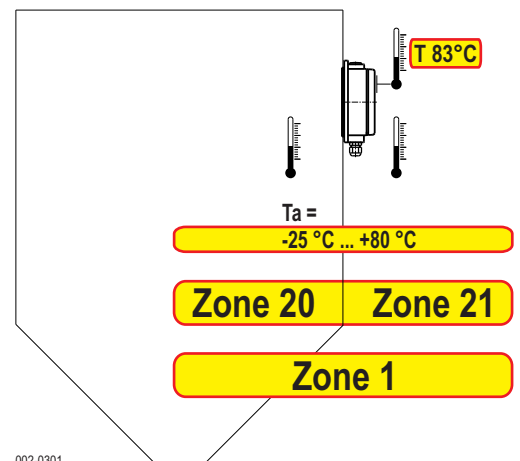
The ambient temperature T_a defines the maximum operating temperature of the indicators. Inside the vessel this is process temperature (the air or the bulk goods temperature) nearby the device.

maximum surface temperature **T**

The maximum surface temperature means the hottest point at the equipment.

The device matches with temperature class **T 6**.

talleres filsa, s.a.u.		NO NC
Bernat Metge, 33 - E-08100 Mollet del Vallès - Tel. +34 93 570 46 01	Typ CD-A.. B5	Contact U_o 30 V I_k 0,1 A
	Ex II 1/2D Ex ta/tb IIIC T 83 °C II 2G Ex ib IIC T 6	
	-25 °C ≤ Ta ≤ +80 °C	
S# 1234567890 A.- Nr. 1234567890 03/10	IBExU06ATEX1068	IP66





Special conditions and instructions for safe application

- 1.1 The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an “authorized person” for explosion protection.
- 1.2 For the electrical connection you have to take notice of the local and statutory requirements and/or the VDE 0100.
- 1.3 Take notice of the specifications on the data plate.
- 1.4 Using the device in ambient temperatures > +60 °C, the applied connection cables have to be made for temperatures of min. +80 °C.
- 1.5 As soon as the device will be brought into the explosion hazardous area it has to be mounted immediately at the precaused place and a cable has to be brought into the cable gland.
- 1.6 The cable gland were screwed and protected at the factory. Please check if the cable gland have loosened during on the mounting or at the transport. When it is loosened, it has to be fitted again.
- 1.7 To secure the type of protection, the screw nut of the cable gland has to be fixed at the installation with a torsional force of min. 5 Nm. **ATTENTION** If it will be fastened too strong, the IP-protection can be affected.
- 1.8 The earth connection of the device has to be installed in such a way that mechanical damage will be excluded.
- 1.9 The device may put into operation with built-in cap-sealing and when it is closed, only.
- 1.10 Switch off the power supply, before opening the device. (touchdangerous voltage)
- 1.11 Depending on the bulk goods characteristics and the wear, the carrier has to define resp. to find out in which intervals the membrane of the level indicator has to be checked for leakage to keep the type of protection (dust-proof). This inspection has to be repeated regularly. If there is a fault, the membrane has to be replaced with a new membrane.
- 1.12 Take notice of the requirements of DIN EN 61241-14 and DIN EN 60079-17 especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.

For the version B1



- 2.1 A fuse (with max. 4A) has to be connected in series to the voltage supply.
- 2.2 Protect the signal contact from voltage peaks when inductive loads are connected.

For the version B5



- 3.1 **ATTENTION!**
For load limitation a certified barrier or a certified isolation amplifier with an intrinsically safe circuit at least for the category “ib” has to be connected in series, witch is certified for gases of explosion group IIC.
- 3.2 Take additional notice of the requirements of EN 1127-1, especially regarding the temperatures and follow the pertinent rules and regulations.
- 3.3 The device with an intrinsically safe electric circuit can be used in dusty explosive hazardous areas.
- 3.4 **Hybrid Mixtures**
The level indicator is approved for the use in hybrid mixtures.