



Declaración UE de Conformidad EU-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 sobrepresión en silos**Silo pressure detector**Tipo **KP-A.F1.B1**Type **KP-A.F1.B1**

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 2014/34/EU (Directiva ATEX)**Directive 2014/34/EU** (Directive ATEX)

y

and

EN IEC 60079-0:2018, EN 60079-31:2014**EN IEC 60079-0:2018, EN 60079-31:2014**

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 80 °C Da/Db**-25 °C ≤ Ta ≤ +80 °C / -20 °C ≤ Ta ≤ +70 °C**

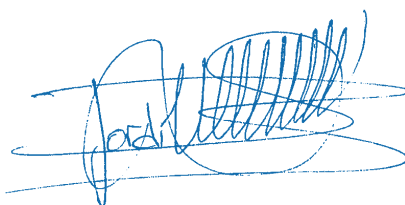
Certificado de examen UE de tipo número

IBExU06ATEX1154

EU-type-examination Certificate Number

Mollet del Vallés, el 27 de Octubre del 2021

Mollet del Vallés, October 27th 2021



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.

Hasta que no se reciba el elemento en cuestión y se haya podido verificar por nuestros técnicos, no se debe entender aceptado el equipo como en garantía. En caso de encontrarse un deterioro o avería imputable a causas ajenas a nuestra empresa, se confirmará un presupuesto de reparación si fuese económicamente factible.

En ningún caso debe o puede llegar a entenderse que realizando la compra de otro equipo, éste puede llegar a ser excluyente de pagarse en caso de encontrarse un posible defecto de fabricación o imputable a una causa ajena a 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.

Until the device is received and it has been verified by our technicians, the equipment should not be accepted as under warranty. In the event of a deterioration or breakdown attributable to causes beyond our company, an offer of reparation will be confirmed if it is economically feasible.

In no case should or can it be understood that by purchasing other equipment, it can be excluded from being paid in the event of a possible manufacturing defect or attributable to a cause beyond 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.

► By use in explosive hazardous areas read and follow the

special conditions and instructions for safe application

of the attached

explosive protection information

B1 / B2



first and take notice of the operating instructions.

Operating instructions

1. Description

1.1 Intended use

The pressure detector controls as limit switch the over pressure in silos and vessels.

1.2 Function

If the pressure reaches the switching point **SP**, the pressure detector will give a signal.

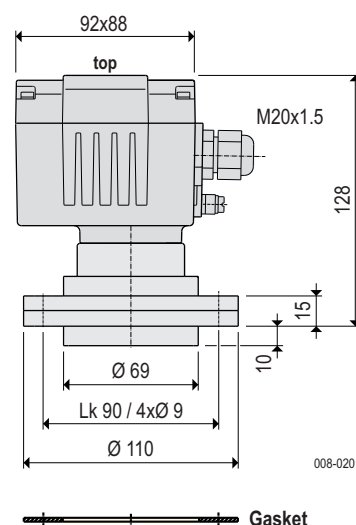
1.3 Technical data

Manufacturer	Talleres Filsa
Address	Bernat Metge, 33 08100 Mollet del Vallès (Barcelona-Spain)
Name	
Type	KP-A . F1 . B .
Bulk good temperature	T_s -25 °C ... +80 °C
Ambient temperature	T_a -20 °C ... +70 °C
Signal contact	change-over contact, potential free
max. switching voltage	see type plate
max. switching capacity	see type plate
Switching point	SP 40 mbar = 0.04 bar = 400 mm WS
Over pressure safety	up to 0.5 bar
Cable connection	Screw M4
Cable entry	Cable gland M20x1.5
Type of protection	IP IP66 acc. to DIN EN 60529
Weight	1.2 kg
Maintenance	none
Mounting position	vertical, $\pm 5^\circ$ inclination

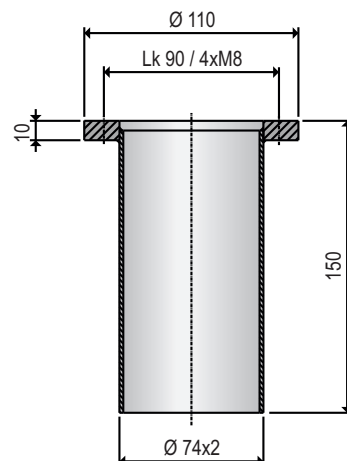
1.4 Material

Housing	Aluminium or stainless steel 316
Flange	Aluminium or stainless steel 316 Ti
Membrane	Stainless steel 304
Flange socket	Steel

1.5 Dimensions



1.6 Accessory (Option) Flange socket



2. Installation

2.1 Preparation

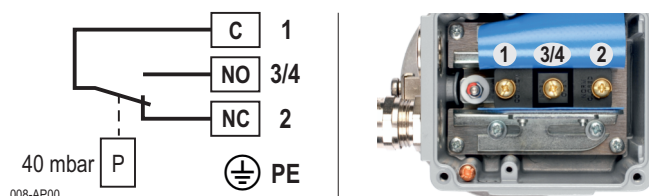
- Check the membrane of visual transport damage.
- Read and follow the safety instructions and the operating instructions, before handling with the device !

2.2 Mounting in the vessel

- Weld the flange socket (as a option) vertical (Flange is horizontal) in the silo top.
- Position the pressure detector (Flange is horizontal) with the gasket at the provided flange or flange socket and fix it with 4 washers and screws M8.

2.3 Electrical connection

Circuit diagram

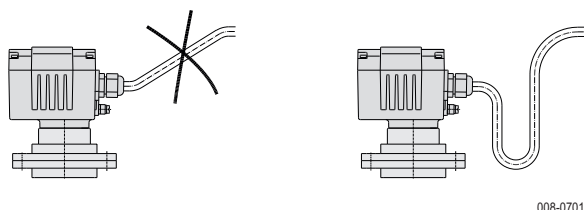


2.4 Cable gland

- After electrical connection, tighten the cable gland.
- Screw the cap nut, until the cable entry is closed tightly.

2.5 Cable run

Run the connection cable in a way that no traction can occur at the pressure detector.



2.6 Switching point

- The switching point is adjusted at 40 mbar.
- A modification may be carried out by the manufacturer only.

3. Utilization

3.1 Commissioning

- Put the pressure detector into operation only, if the installation in the silo or vessel and the electrical connection have been done correctly.

3.2 Normal operation

- Use the pressure detector in its intended application only.
- Comply with the specifications on the data plate.
- Damaged devices have to put out of operation immediately.
- The pressure detector must not be modified. If there is any modification, the warranty of the manufacturer will be, cancelled.

3.3 Inexpert handling

- Ignoring of the safety instructions and the operating instructions.
- Not intended use.
- Modification at the device or of the switching point adjusting.
- Violation against applicable law and standards.

4. Maintenance and servicing

4.1 Maintenance

- In case of intended use, the silo pressure detector needs no maintenance.

4.2 Servicing

- The servicing of the pressure detector may be carried out by the manufacturer only.

5. Storage

- Store the pressure detector dry and dust-free.
- Protect the membrane from damage.

6. Disposal

- The pressure detector can be recycled.
- The disposal applies to the valid environmental guidelines according to the location of the carrier and the local manufacturing conditions.

Silo pressure detector

with aluminium housing

KP-A

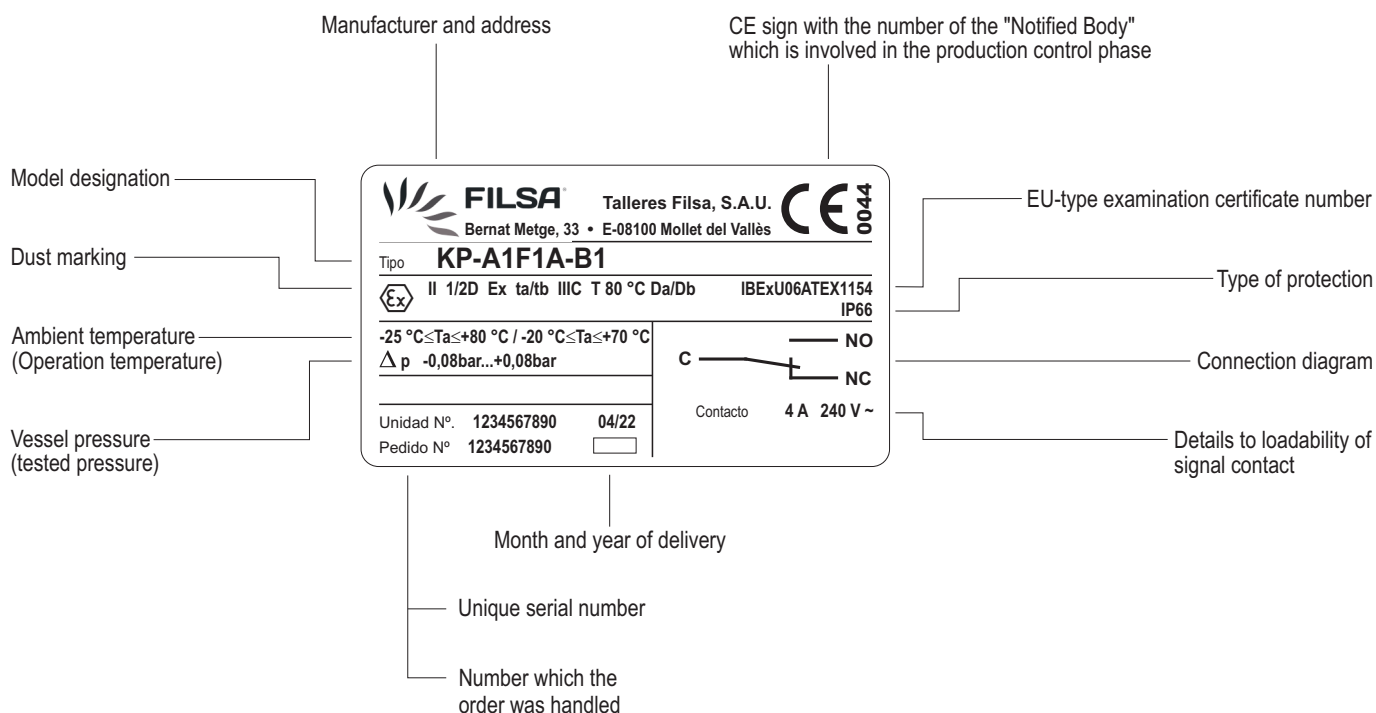
Dust



Explosion protection information

and supplement to the operating instructions

Type plate details



Marking in accordance with ATEX and DIN EN IEC 60079-0

Silo pressure detector for use on the boundary from zone 20 to zone 21.

 **II 1/2 D Ex ta/tb IIIC T80°C Da/Db**

Equivalent to **valid ATEX-Product-Directive**

Equipment group **II** = everything except mining

Equipment category Category **1** for zone 20, 21 and 22
Category **2** for zone 21 and 22

/ = Silo pressure detectors, which are installed on the boundary between different zones

D = Dust - Type of explosive atmosphere

the **Ex** - symbol according to DIN EN IEC 60079-0

t = Protection by enclosure

a = Device with „very high“ protection standard for zone 20, 21 and 22

b = Device with „high“ protection standard for zone 21 and 22

IIIC for flammable conductive dust, flammable non-conductive dust and flammable fibres and flyings

T..°C maximum surface temperature

Equipment Protection Level (EPL)

D = Dust - Type of explosive atmosphere

a = Device with “very high level of protection” for use in potentially explosive atmospheres where in normal operation, foreseeable or infrequent faults/malfunctions no ignition hazard is given.

b = Device with “high level of protection” for use in potentially explosive atmospheres where in normal operation or foreseeable faults/malfunctions no ignition hazard is given.

Silo pressure detector for use in zone 20.

 **II 1D Ex ta IIIC T₂₀₀ 80 °C Da**

Equipment category Category **1** for zone 20, 21 and 22

Order code B1
Marking: II 1D / 2D


Equipment category appropriation by zones

Silo pressure detector for use on the boundary from zone 20 to zone 21.

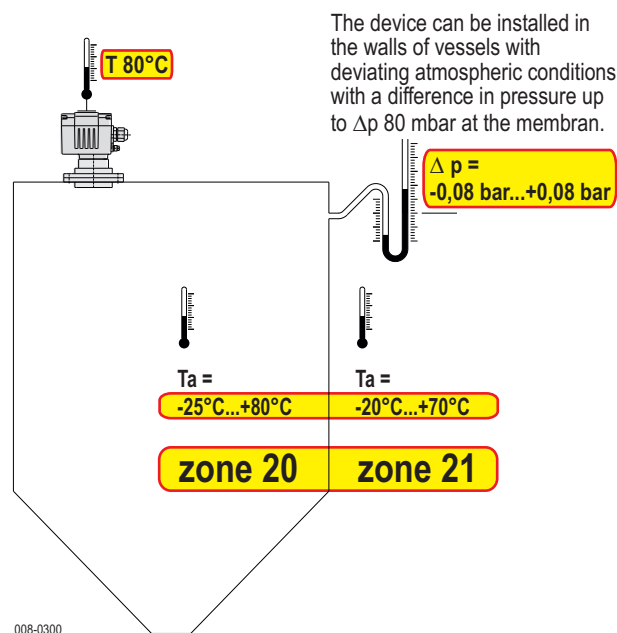
Ambient temperatures Ta

The ambient temperature Ta defines the maximum operating temperature of the detectors. 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.

 FILSA®		Talleres Filsa, S.A.U.		0044
Bernat Metge, 33 • E-08100 Mollet del Vallès				
Tipo KP-A1F1A B1				
Ex	II 1/2D	Ex ta/tb	IIIC T 80 °C	IBExU06ATEX1154
				IP66
-25 °C ≤ Ta ≤ +80 °C / -20 °C ≤ Ta ≤ +70 °C				
Δ p -0,08 bar...+0,08 bar				
Unidad N°.	1234567890	04/22		
Pedido N°	1234567890			
		Contacto	4 A 240 V ~	
		oben top arriba haut		


Order code B2
Marking: II 1D


Equipment category appropriation by zones

Silo pressure detector for use in zone 20.

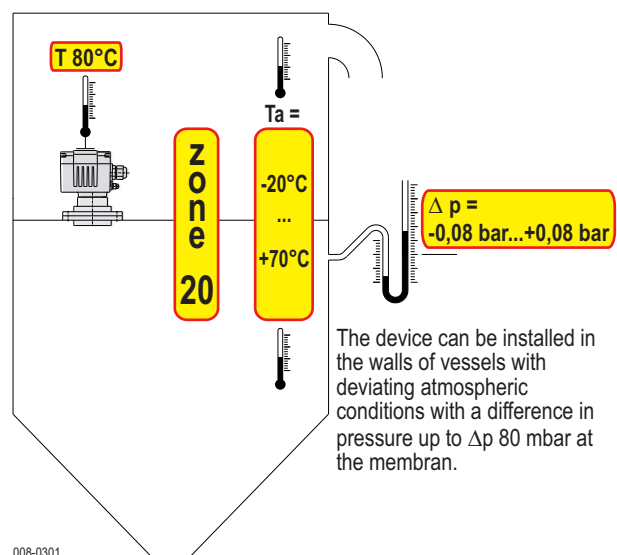
Ambient temperatures Ta

The ambient temperature Ta defines the maximum operating temperature of the detectors. 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.

 FILSA®		Talleres Filsa, S.A.U.		0044
Bernat Metge, 33 • E-08100 Mollet del Vallès				
Tipo KP-A1F1A B2				
Ex	II 1D	Ex ta	IIIC T200 80 °C	IBExU06ATEX1154
				IP66
-20 °C ≤ Ta ≤ +70 °C				
Δ p -0,08 bar...+0,08 bar				
Unidad N°.	1234567890	04/22		
Pedido N°	1234567890			
		Contacto	4 A 240 V ~	
		oben top arriba haut		





Special conditions and instructions for safe application

1. The installation, maintenance, initial operation, removal and repair have to be controlled resp. checked by an “authorized person” for explosion protection.
2. For the electrical connection you have to take notice of the local and statutory requirements and/or the VDE 0100.
3. Take notice of the specifications on the data plate.
4. A fuse (with max. 4A) has to be connected in series to the voltage supply.
5. Protect the signal contact from voltage peaks when inductive loads are connected.
6. 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.
7. Using the device in ambient temperatures $> +60\text{ }^{\circ}\text{C}$, the applied connection cables have to be made for temperatures of min. $+80\text{ }^{\circ}\text{C}$.
8. The cable gland and the plug screw were screwed and protected at the factory. Please check if they have loosened during on the mounting or at the transport. When it is loosened, it has to be fitted again.
9. 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. 5.0 Nm.
ATTENTION! If it will be fastened too strong, the IP-protection can be affected.
10. The earth connection of the device has to be installed in such a way that mechanical damage will be excluded.
11. The device may put into operation with intact cap-sealing and when it is closed, only.
12. Switch off the power supply, before opening the device. (touchdangerous voltage)
13. Using the Silo pressure detector in the silo wall under deviating atmospheric conditions the maximum differential pressure has not to exceed 80 mbar and the working temperature has not to exceed $+80\text{ }^{\circ}\text{C}$ at the membran.
14. In case of existing combustible dusts with a minimum ignition energy less than 3 mJ or with a minimum ignition temperature under $+300\text{ }^{\circ}\text{C}$ (BAM assessment), the parts in contact with the dust must be made of stainless steel.
15. Take notice of the requirements of DIN EN 60079-14, DIN 60079-17 and DIN EN 1127-1, especially regarding the dust deposits and temperatures and follow the pertinent rules and regulations.
16. **ATTENTION safety device!**
Don't modify anything at the device or at the switching point adjusting!