

PH 3B55 Ex-n

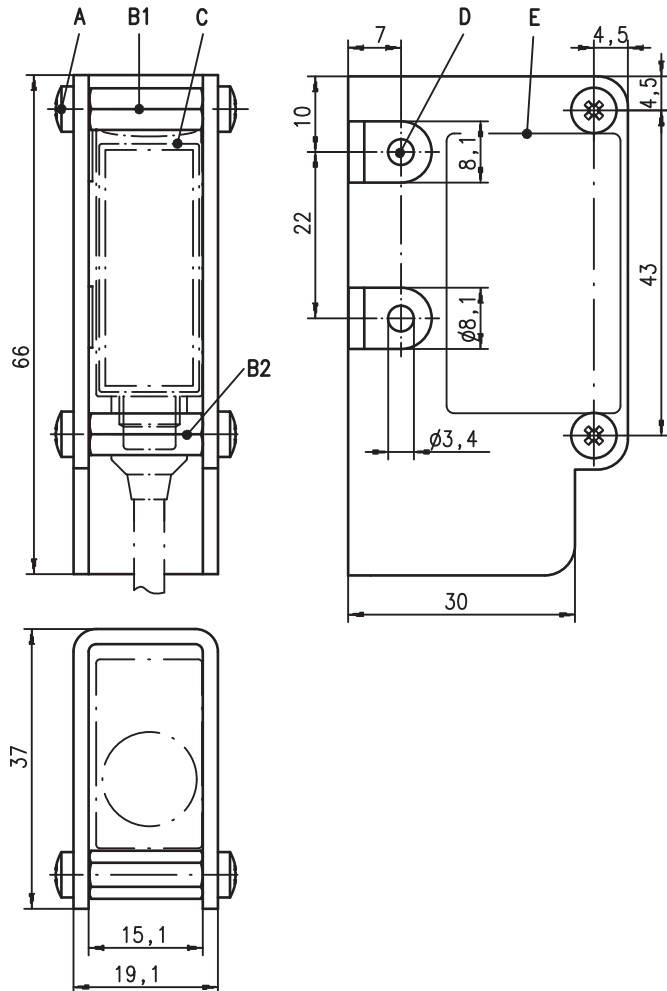
Ex protective housing for Zone 2, Zone 22

Part No. 501 11463



- Ex protective housing for sensors of the 3B, 25B and 55 series from Leuze electronic GmbH + Co. KG
- Use in Zone 2 (gas) and Zone 22 (dust) of device group II, category 3 acc. to the classification defined by CENELEC
- Designation
 Gas (Zone 2): **II 3G Ex nA II**
 Dust (Zone 22): **II 3D Ex tD A22 IP67**

Dimensioned drawing



DANGER

- Securely tighten the fastening screws for the protective housing!

- A** 4x screw M3 x 8
- B1+B2** Distance bolts (for sensors of the 25B series, loosen B2 before mounting)
- C** Sensor of the 3B, 25B or 55 series
- D** Attachment holes for M3 x 20 screws
- E** Name plate

Electrical connection



DANGER

- Observe the notices for installation and commissioning!
- Do not disconnect the sensor connection within the potentially explosive area while under voltage!

Accessories:

(available separately)

- Mechanical connector lock K-V M12-Ex



We reserve the right to make changes • PH_3B_55_Ex_gb.fm

Specifications

Ex-protection data

Name	Protective Housing PH 3B55 Ex-n
Designation - gas (Zone 2)	Ⓔ II 3G Ex nA II
Designation - dust (Zone 22)	Ⓔ II 3D Ex tD A22 IP67

Mechanical data

Housing	stainless steel V2A (DIN 1.4301)
Screws	zinc-plated steel
Weight	approx. 100g

Environmental data

Standards conformity - gas	EN 60079-0:2007, EN 60079-15:2005
Standards conformity - dust	EN 61241-0:2007, EN 61242-1:2004
Permissible temperature application range	in order to be able to adhere to the relevant, valid requirements for the used materials, the temperature range for the use of the devices of the 3B, 25B and 55 series is defined as follows: $\vartheta_{perm.} = -20^{\circ}\text{C} \leq \vartheta_{ambient} \leq +50^{\circ}\text{C}$ applicable for category 3G, Zone 2:T4 applicable for category 3D, Zone 22:T85°C
Temperature class	

Intended application range

The PH 3B55 Ex-n protective housing is used exclusively for installation of devices of the 3B, 25B and 55 series (with the exception of models HRTR...-XL...) from Leuze electronic GmbH + Co. KG. If mounting in the protective housing and under observation of the notices for installation and commissioning, devices of these series may be used in areas in which a potentially explosive atmosphere consisting of a gas/air or dust/air mixture may be expected to occur seldom and only briefly. These are Zone 2 (gas) and Zone 22 (dust) of device group II, category 3 acc. to the classification defined by CENELEC. In Zone 22, the devices may be used with conductive and non-conductive dust.

Notices on installation and commissioning

Under observation of the mounting instructions, optical sensors of the 3B, 25B and 55 series from Leuze electronic GmbH + Co. KG can be installed in the PH 3B55 Ex-n protective housing. If installed according to specifications and under observation of the following safety notices, the requirements stipulated by the standards can be fulfilled:

- Devices of the 3B, 25B and 55 series must not be operated in potentially explosive areas without the PH 3B55 Ex-n protective housing. Devices with type designation HRTR ...-XL... and HRTR ...-L... must not be used in combination with the PH 3B55 Ex-n protective housing.
- The specification-conformant installation is the responsibility of the system owner.
- Devices with a connector that is located outside of the protective housing but within the potentially explosive atmosphere must be equipped with an additional safeguard or mechanical lock (e.g. item K-V M12-Ex, part number 501 09217) that prevents unintentional disconnection of the connection.
- The warning sign "Do not disconnect under voltage" that is supplied with the device must be attached to the sensor or its mounting bracket so that it is clearly visible.
- Connection cables and connectors must be protected against excessive or unintentional tensile or compression loading.
- The fastening screws for the protective housing must be securely tightened.

Order guide

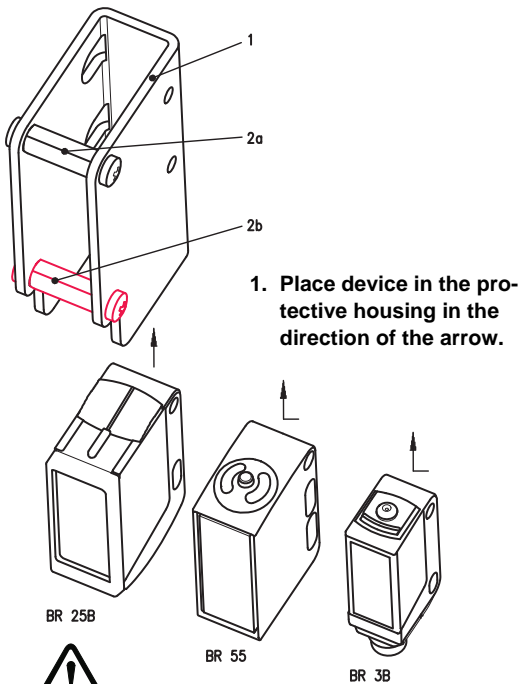
	Designation	Part No.
Protective housing incl. fastening screws and identification plates	PH 3B55 Ex-n	501 09615
Mechanical connector lock	K-V M12-Ex	501 09217

Description

The devices of the 3B, 25B and 55 series are delivered standard as non-Ex-devices. With the exception of models HRTR ...-XL... and HRTR ...-L..., devices of this series may, however, be used in Zone 2 and Zone 22 if installed in the PH 3B55 Ex-n protective housing, part no. 501 09615, in accordance with specifications.

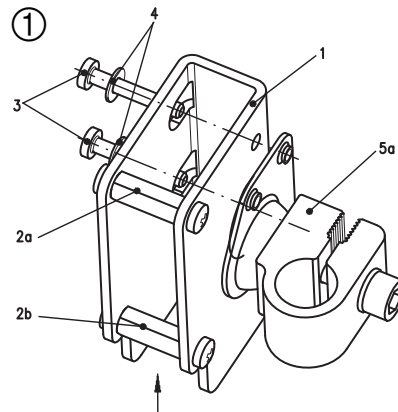
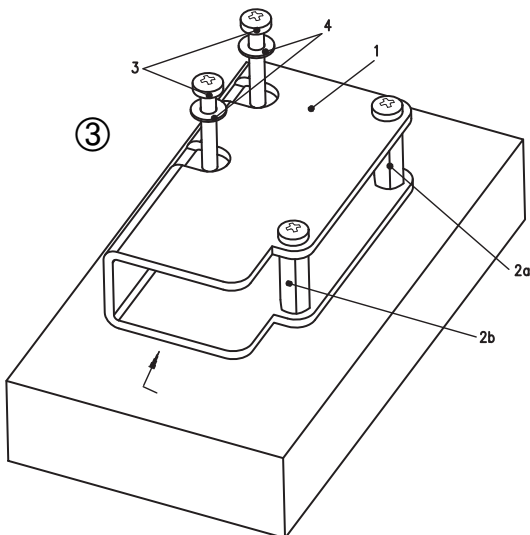
According to the information in the ATEX Guidelines, 2nd Edition from July 2005 and expanded in August 2008, § 3.9, the PH 3B55 Ex-n protective housing is a component that is necessary for ensuring the safe operation of devices, here the 3B, 25B and 55 series from Leuze electronic GmbH + Co. KG, under the special requirements for explosion protection.

Mounting instructions

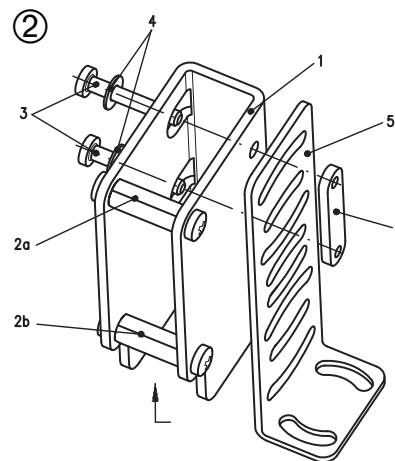


Attention!

With the 25B series, the distance bolts (item 2b) must be removed before inserting the sensor and then remounted afterwards!



2. Fit fastening screws (item 3) with washers (item 4) according to diagrams ①, ②, ③ depending on the installation situation, push through the device and securely tighten.



- 1 Protective housing
- 2a, 2b Distance bolts (mounted)
- 3 Screw M3
- 4 Washer
- 5a, 5b Mounting devices (e.g. UMS 25, BT 25, ...)
- 6 Plate BT 3

With the exception of models HRTR ...-XL... and HRTR ...-L..., all devices of the 3B, 25B and 55 series with the following connection variants can be installed in the PH 3B55 Ex-n protective housing:

- M8 or M12 circular connector in combination with straight cable sockets (axial connector). Because the connection is located within the protective housing, no additional K-V M12-Ex mechanical connector lock is necessary.
- 200mm cable with M8 or M12 circular connector in combination with straight or angular cable sockets (axial or radial connector). Because the connection is located outside of the protective housing in this case, it must be protected against disconnection while under voltage through the use of the K-V M12-Ex mechanical connector lock.
- Cable 2000mm.

the **sensor** people

EG-Konformitätserklärung
-EC Declaration of Conformity
-Déclaration CE de conformité
-Declaración de conformidad CE

Name des Herstellers:
-Name of the manufacturer:
-Le constructeur:
-Nombre del fabricante:

Leuze electronic GmbH+Co. KG

Anschrift:
-Address:
-domicilé:
-Dirección:

In der Braike 1 D-73277 Owen/ Teck

Erklärt unter alleiniger Verantwortung, dass das Produkt mit der Bezeichnung:
-declares under sole responsibility that the products with the designation:
-assumant sa pleine et entière responsabilité déclare que les produits avec la Référence:
-declara bajo su propia responsabilidad, que los productos con el Número de pedido:

PH 3B55 Ex-n**50109615**

Kennzeichnung Gas:
-Marking for gas:
-Certification gaz:
-Certificación gas:

 **II 3G Ex nA II**

Kennzeichnung Staub:
-Marking for dust:
-Certification poussière:
-Certificación polvo:

 **II 3D Ex tD A22 IP67**

Folgenden Richtlinien und Normen für die Gerätegruppe II, Gerätekategorie 3 entsprechen und bei bestimmungsgemäßer Verwendung und Beachtung der Betriebsanleitung die grundlegenden Sicherheits- und Gesundheitsanforderungen erfüllen.
-conform to the following directives and standards for equipment group II, equipment category 3. They fulfill the basic health and safety requirements if used as intended and in accordance with the operating manual.
-sont conformes aux directives et normes ci-dessous pour les appareils du groupe II, catégorie 3 et que sous réserve d'utilisation conforme et du respect des consignes du manuel d'utilisation ceux-ci répondent aux exigences fondamentales pour la sécurité et la santé.
-corresponden a las directivas y normas para grupo de aparatos II categoría de aparatos 3 y que cumplen los requerimientos de seguridad y de salud al ser empleados debidamente teniendo en cuenta las instrucciones de uso.

Richtlinie 94/9/EG
-Directive 94/9/EC
-Directive 94/9/CE
-Directiva 94/9/CE

EN 60079-15:2005
EN 61241-1:2004

Owen, den 5.März 2009


Dr.Harald Grübel (Geschäftsführer/ General Manager/ Directeur / Gerente)

Leuze electronic GmbH + Co. KG
In der Braike 1
D-73277 Owen
Telefon +49 (0) 7021 573-0
Telefax +49 (0) 7021 573-199
info@leuze.de
www.leuze.com

Leuze electronic GmbH + Co. KG, Sitz Owen. Registergericht Stuttgart, HRA 230712
Persönlich haftenden Gesellschafterin Leuze electronic Geschäftsführungs-GmbH,
Sitz Owen. Registergericht Stuttgart, HRB 230550
Geschäftsführer Dr. Harald Grübel (Vorsitzender), Karsten Just
USt.Id.Nr. DE145812521 | Zollnummer 2554232
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Only our current Terms and Conditions of Sale and Delivery shall apply.