



Operation and instruction manual  
Ex db - Signaaltoren

Aluminium



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## Purpose of these instructions

Working in hazardous areas, the safety of personnel and plant depends on complying with all relevant safety regulations. Assembly and maintenance staff working on installations therefore have a particular responsibility. They require precise knowledge of the applicable standards and regulations. These instructions give a brief summary of the most important safety measures. It supplements the corresponding regulations which the staff must study.



## SAFETY INSTRUCTIONS

Use the explosion-proof box only for its intended purpose. Explosion-proof boxes are not suitable for Zone 0 hazardous areas!

Incorrect or impermissible use or non-compliance with these instructions invalidates our warranty provision.

No changes to the device impairing its explosion protection are permitted.

Use the explosion-proof box only if it is clean and undamaged.

Any damage can invalidate the Ex-protection.

Observe the following during installation and operation:

- National safety regulations
- National accident prevention regulations;
- National installation regulations(e.g. IEC 60079-14);
- Generally recognized technical regulations;
- Safety guidelines in these operating instructions;
- Characteristic values given on Ex labels

## Applicable scope

Transport and storage in original packaging only. National safety and installations regulations and the generally accepted rules of engineering practice must be observed when mounting and operating this equipment.

## Technical data

Ex mark:  $\text{Ex}$  II 2G Ex db IIC T6 Gb  
 $\text{Ex}$  II 2D Ex tb IIIC 85°C Db

Can be used in zone 1,2, 21 en 22  
Ambient temperature:  $-20^{\circ}\text{C} \leq T_a \leq 40^{\circ}\text{C}$   
Degree of protection: IP66  
Max. voltage prim. 230 VAC/ 24 VDC

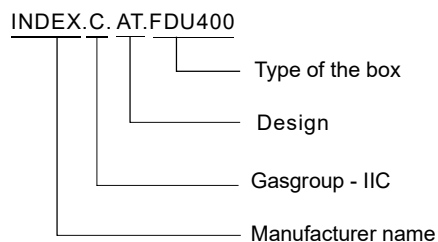
Certificate ISSEp11ATEX019

## Conformity to standards

The explosion-proof box is designed and manufactured according to standard of ISO 9001. The explosion-proof box is in conformity with ATEX directive and the standards:

IEC60079 - 0,	En60079 - 0
IEC60079 - 1,	EN60079 - 1
IEC60079 - 31	EN60079 - 31

## Model and implication of INDEX.Ex d boxes



## Remarks

1. Please note when selecting the components that the internal cabinet temperature is not outside the range of the operating temperature of the individual components.
2. For instructions of cable glands, pushbuttons etc. see the instruction manual of these product.



## Safety and Maintenance Instruction

This Safety Instruction is meant for skilled electricians and instructed personnel in accordance with national legislation, including the relevant standards and, where applicable, in accordance with IEC 60079 on electrical apparatus for explosive atmosphere. Read carefully this instruction before installation or maintenance.

1. Enclosures must be installed and maintained in accordance with all standards regarding electrical installations in hazardous areas classified for explosive gas and/or dust atmospheres.
2. Avoid any dust accumulation.
3. The boxes must not be operated in zone 0 and or zonw 20 hazardous areas.
4. Ambient temperature, maximum voltage and maximum current must not exceed mentioned values on the tagplate .
5. Changes of the design and modifications to the equipment are not permitted.
6. The boxes shall be operated as intended and only in undamaged and perfect condition.
7. If box or part of box is damaged, the power has to be disconnected immediately. Contact Index Elektro BV for further instructions. It is not allowed to repair the box without the written permission of Index Elektro BV.
8. Repairs may only be carried out by qualified electrician from INDEX ELEKTRO BV.
9. All operations of installation, replacement or control must not be performed when electrical circuit is alive.
10. All technical data indicated on the tag plate of the box have to be observed. Also all other information on tag plate or extra text plate have to be respected.
11. Accessories used for cable entries must meet EN 60079-0, EN 60079-1 and EN60079-31 standards. Their minimum protection must be IP 65. In case of conical thread clean and lubricate the parts before mounting. In case of cylindrical thread clean the parts and use glue with suitable temperature rating against loosening. When gaskets are used to maintain rain tightness, be sure the same are mounted in their adequate locations.
12. All unused holes for cable entries etc., have to be closed with appropriate plugs, which are ATEX certified.
13. Handle carefully all joints parts so to avoid damaging coupling surface.
14. After each opening (at least once a year for inspection) the plain joints and bolts of Ex d box has to be cleaned and spread with grease to guarantee explosion safety and mentioned IP protection .
15. The thread of the cover has to be clean and greased before mounting. Do not use excessive force or tools to mount the cover, the mounting has to be easy and smoothly, only by hand force. Be sure that the cover is mounted completely to the surface of the Ex d box.
16. The enclosures must be connected to earth with an external earth conductor with adequate cross section (at least 4 mm<sup>2</sup>).
19. Only fixed shifted cables may be imported. An appropriate strain relief for the cable has to be guaranteed. If used in areas with flammable dust, only ATEX/IECEx tested cable and wiring lead-ins with a minimum ingress protection of IP6X may be used.



Label

<b>iNDEX</b>				CE 2776	
Harregatplein 15 - 3214 VP Zuidland - The Netherlands T +31(0)181 452120 - www.indexelektro.nl - Sales@indexelektro.nl					
Type	INDEX.C.AT.FDU400	Year	20xx		
Ref.no.	xxxxxx-xxxxxx	T.Amb.	-20 °C to +40 °C		
Volt	230 V AC/DC Max.	Protect	IP 66		
Amp	6 A Max.	Diss.power	20	Watt	
II2G Ex db IIC T6 Gb			II2D Ex tb IIIC T85°C ISSEp 11ATEX019		
Do not open when energised After de-energisation wait 15 min. before opening Renew silicone grease every time cover is opened					

