



Junction box JB-0X-Exia

1. Technical description

Junction box type JB-0X-Exia is intended for connection and distribution of electric instalations in intrinsically safe circuits. It is designed in intrinsic safe protection **Ex i** and meets the relevant standards EN 60079-0:2012, EN 60079-11:2012 and EN50303:2001. It is intended for use in applications in underground parts of mines as well as those parts of surface installations of such mines endangered by firedamp and/or combustible dust (category M1).

The junction box housing is made from stainless steel and it is available in two different sizes. It can be equipped with diferent types of cable glands and connection terminals.

2. Technical data

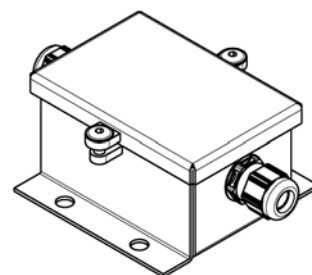
- **Junction box type:**JB-01-Exia
JB-02-Exia
- **Explosion protection:**I M1 Ex ia I Ma
- **Ambient temperature range:**..... -20C° ...+50C°
- **Ingress protection:**.....IP65
- **Junction box housing:** 2,0mm stainless steel
- **Cover seal:**..... NBR70 3,0mm
- **External dimensions:**..... 120 x 80 x 66mm (JB-01-Exia)
(Without cable glands) 120 x 120 x 66mm (JB-02-Exia)
- **Weight:**.....1,2kg (JB-01-Exia)
(Empty housing) 1,5kg (JB-02-Exia)
- **Certificate:**FTZÚ 13 ATEX 0180
- **Cable entry:**(Configuration on page 2 - 3)
- **Connection terminals:**(Configuration on page 2 - 3)



Junction box JB-0X-Exia

- Cable entry for **JB-01-Exia**

Cable gland thread	Cable gland type	Cable diameter (mm)
M16x1,5	AGRO Progress	5,0 – 8,0
M20x1,5	AGRO Progress	8,0 – 14,5
M25x1,5	AGRO Progress	12,5 – 19,0
M16x1,5	AGRO ProgressEMC	6,0 – 10,5
M20x1,5	AGRO ProgressEMC	8,0 – 15,0
M25x1,5	AGRO ProgressEMC	12,5 – 20,5
M16x1,5	Gothe 74543	6,0 – 11,0
M20x1,5	Gothe 74543	7,0 – 16,0
M25x1,5	Gothe 74543	9,0 – 17,0



- Connection terminals for **JB-01-Exia**

Connection terminal (Type)	U _{MAX} [V]	I _{MAX} [A]	Max. number	Connection capacity (mm ²)			
				○	●	○○	●●
MSB 2,5	60	12	7	0,08 – 4,0	0,08 – 2,5	/	/
MSB 2,5-PE	60	12	1	0,08 – 4,0	0,08 – 2,5	/	/
MBK 3/E-Z	60	12	7	0,2 – 4,0	0,2 – 2,5	0,2 – 1,5	0,2 – 1,5
MBK 3/E-Z-PE	60	12	1	0,2 – 4,0	0,2 – 2,5	0,2 – 1,5	0,2 – 1,5

- Connection terminal accessories

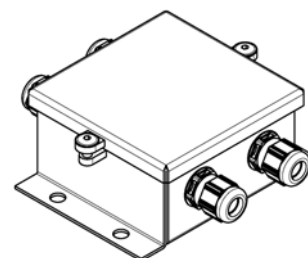
Connection terminal (Type)	End cover	Snap-on end bracket	Terminal marking
MSB 2,5	D-MZB 1,5	CLIPFIX 15	UC-TMF5
MBK 3/E-Z	D-MBK/E	CLIPFIX 15	ZB5



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- Cable entry for **JB-02-Exia**

Cable gland thread	Cable gland type	Cable diameter (mm)
M16x1,5	AGRO Progress	5,0 – 8,0
M20x1,5	AGRO Progress	8,0 – 14,5
M25x1,5	AGRO Progress	12,5 – 19,0
M16x1,5	AGRO ProgressEMC	6,0 – 10,5
M20x1,5	AGRO ProgressEMC	8,0 – 15,0
M25x1,5	AGRO ProgressEMC	12,5 – 20,5
M16x1,5	Gothe 74543	6,0 – 11,0
M20x1,5	Gothe 74543	7,0 – 16,0
M25x1,5	Gothe 74543	9,0 – 17,0



- Connection terminals for **JB-02-Exia**

Connection terminal (Type)	U _{MAX} [V]	I _{MAX} [A]	Max. number	Connection capacity (mm ²)			
				○	●	○○	●●
MSB 2,5	60	12	14	0,08 – 4,0	0,08 – 2,5	/	/
MSB 2,5-PE	60	12	2	0,08 – 4,0	0,08 – 2,5	/	/
MBK 3/E-Z	60	12	14	0,2 – 4,0	0,2 – 2,5	0,2 – 1,5	0,2 – 1,5
MBK 3/E-Z-PE	60	12	2	0,2 – 4,0	0,2 – 2,5	0,2 – 1,5	0,2 – 1,5

- Connection terminal accessories

Connection terminal (Type)	End cover	Snap-on end bracket	Terminal marking
MSB 2,5	D-MZB 1,5	CLIPFIX 15	UC-TMF5
MBK 3/E-Z	D-MBK/E	CLIPFIX 15	ZB5



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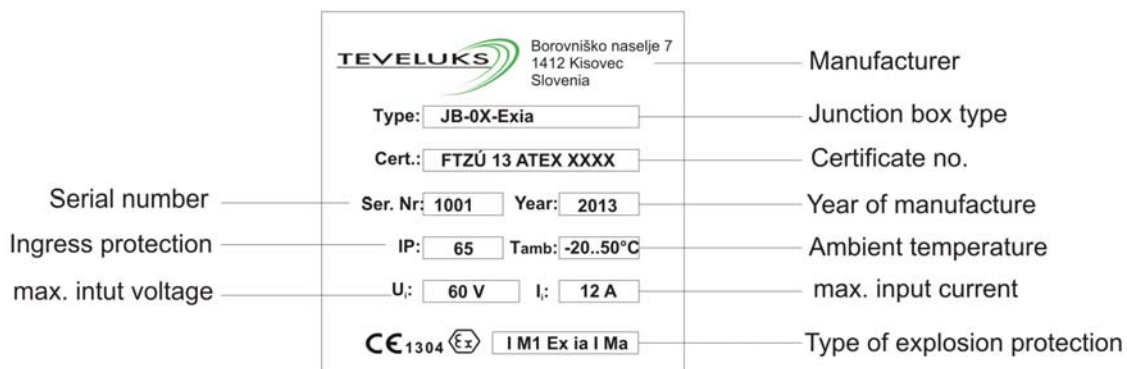
3. Important notice

- Read this instruction carefully before installation or maintain operation of this product.
- This product should be stored in the original packing material, in a dry location and within the operational temperature range.
- Modifications of the junction box JB-0X-Exia or change of design are not permitted.
- The manufacturer is under no circumstances responsible for personal injuries, death or any other damage caused by modifications of the junction boxes, unsuitable handling or poor maintenance.
- For replacement and repairs only original spare parts from TEVELUKS d.o.o. may be used. (Cable glands, connection terminals, rubber seals and screws.)
- Repairs effecting the explosion protection of junction boxes may only be carried out by manufacturer TEVELUKS d.o.o. or authorized and qualified workshop.
- Installation, connection and operation of junction box JB-0X-Exia should be performed according to IEC/EN 60079-11 and IEC/EN 60079-14.
- The operator of the electrical equipment in hazardous area has to operate, supervise and maintain the equipment in good condition.
- Installation, operation and maintenance work should be done only by trained technical personnel.

4. Installation and connection

- **Read this instruction carefully before installation or maintain operation of this product.**
- **Installation, operation and maintenance work should be done only by trained technical personnel.**

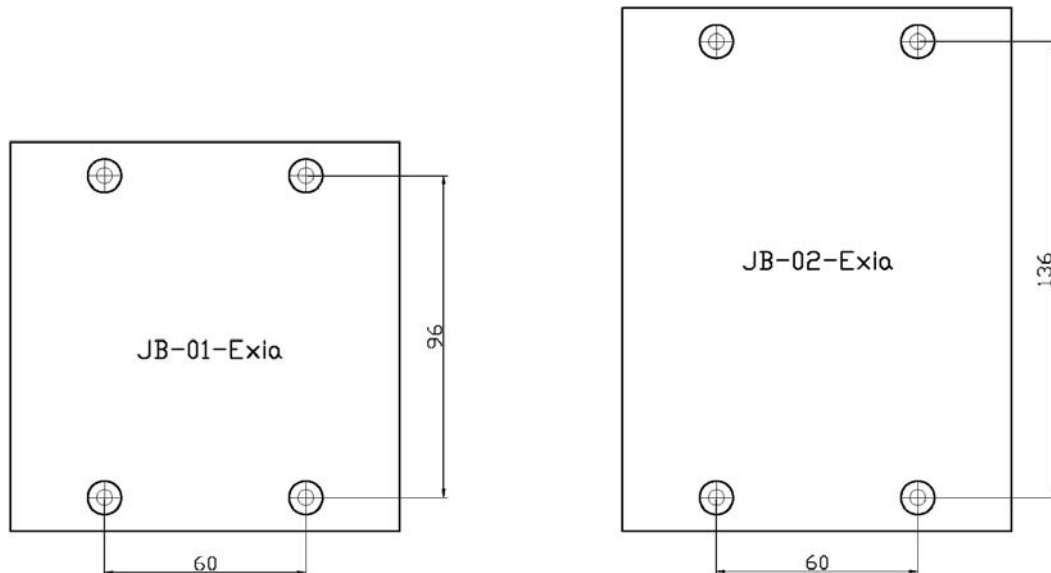
Before installing junction box JB-0X-Exia, it is necessary to check the accordance of marking plate parameters with application requirements. It is also important to check all technical data and eventual warnings in certificate **FTZÚ 13 ATEX 0180**. Additional technical information is provided in TEVELUKS's mining equipment catalogue or at TEVELUKS's web page.





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Junction box JB-0X-Exia housing should be mounted with 4 M8 screws.



WARNING!

Installation, connection and operation of junction box JB-0X-Exia should be performed according to IEC/EN 60079-14.

5. Equipment maintenance

- **Read this instruction carefully before installation or maintain operation of this product.**
- **Installation, operation and maintenance work should be done only by trained technical personnel.**

Junction box JB-0X-Exia maintenance should take place at regular intervals. The frequency of reviews is not exactly defined and should be depends on application environmental conditions. The time between two periodical examinations should not be longer than 12 months.

Junction box JB-0X-Exia maintenance should be performed according to IEC/EN 60079-17.

6. Manufacturer

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