

# USER MANUAL FOR EXPLOSION PROTECTED JUNCTION BOX type RK 01/...

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## **MANUFACTURER**

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#### **PURPOSE**

Explosion proof junction box RK 01 / ..., is used for cable connection up to 6mm<sup>2</sup>:

- in areas endangered by flammable and explosive mixtures of gases and air, fumes of flammable liquids and air, or various combinations between the two, in danger zones 1,2 in accordance with standards EN 60079-10,
- in areas endangered by explosive and flammable mixtures of dust and air in danger zones 21, 22 in accordance with standards EN 61241-10.

## TYPE OF PROTECTION

The explosion protection ensure utilizing types of protection:

"General requirements" in accordance with EN 60079-0:2006, "Increased safety" EN 60079-7:2007, "Intrinsic safety" EN 60079-11:2007. The product is in accordance with standard EN 61241-0:2006, EN 61241-1:2004 - "General requirements", "Protection by enclosure »tD«".

EC-Type Examination Certificate: CESI 10 ATEX 040.

Apparatus category and marking of explosion-protection:

- II 2G Ex e II T6 Ex ia/ib IIC T6
- II 2D Ex tD A21 IP66 T80°C

Degree of protection (IP Code): IP 66 in accordance with EN 60529+A1, category 1

Resistance to shock: IK 08 in accordance with EN 50102+A1

Insulation class: I (protective earthing) in accordance with EN 61140+A1

# CONSTRUCTION

Plastic enclosure is closed with cover by 4 screws. Sealing between enclosure and cover is achieved with gasket which is placed in cover socket.

Enclosure is made with six holes in which are cable glands or plugs installed by requirement. For distribution of armoured cables is specified version with metal plate installed in cabinet which carry cable glands and is connected with metalic shield of cable gland (RK 01/544-E; RK 01/744-E).

Into the enclosure, depending on its version, are installed connection terminals, or terminal blocks according to model code.

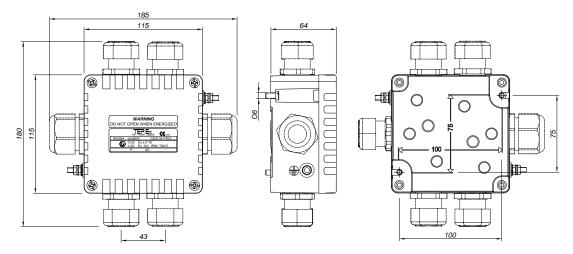
#### TECHNICAL DATA

Apparatus category:	II 2G   II 2D		
Marking of explosion protection:	Ex e II T6 Ex ia/ib IIC T6 Ex tD A21 IP66 T80°C		
Environment temperature:	$ \begin{array}{l} -20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C} - \text{T6} \\ -20^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C} - \text{T6} \\ -40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C} - \text{T6}, \text{ with specially designed cable glands} \\ -40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C} - \text{T6}, \text{ for Ex i, with specially designed cable glands} \\ \end{array} $		
Degree of protection:	IP 66 in accordance with EN 60529+A1, category 1		
Resistance to shock:	IK 08 in accordance with 50102+A1		
Insulation class :	I (protective earthing) in accordance with EN 61140+A1		
Rated voltage:	690 V 630 V (type RK 01/514-C and RK 01/516-C; installed terminals from manufacturer Connectwell Industries Pvt. Ltd. India)		
Maximum voltage for Ex i:	60V		
Rated cross-section:	4 mm <sup>2</sup> solid, stranded, flexible / type RK01/514-C, RK 01/514-M, RK01/514 Exi, RK01/544, RK01/744 6 mm <sup>2</sup> solid, stranded, flexible / type RK01/516-C, RK 01/516-M		

Cable entries, cable glands and screw plugs	Cable entries in accordance with EN 60423 Cabe glands in accordance with EN 50262 6 x M25 for cable Ø6-15mm (Ø13-19mm available on request) 6 x M32 for cable Ø12-21mm (Ø17-25mm available on request) 4 x M25 for cable Ø6-15mm (Ø13-19mm available on request) 4 x M32 for cable Ø12-21mm (Ø17-25mm available on request)	
Cover fixing:	4 x captive screw M5 (Z4) – 4.8 A2 tightening torque 1,0Nm	
Tightening torque:	2,5Nm mantle terminal 0,6Nm terminal block 4mm <sup>2</sup> 1,2Nm terminal block 6mm <sup>2</sup>	
External earthing terminal: (on type RK01/546-E)	2x6 mm <sup>2</sup> max.	
Weight:	0,55 kg	

ТҮРЕ	VERSION	CABLE GLANDS AND PLUGS / CABLE ENTRIES	NUMBER OF TERMINALS AND TERMINAL CROSS SECTION	MAX. POSSIBLE CONNECTION BY TERMINAL solid, stranded, flexible
RK 01/514-C RK 01/514-M		$4 \times M25$ cable glands for cables $\emptyset_v$ 6-15 mm $2 \times M25$ plug	5 - 1 x 4mm <sup>2</sup>	m <sup>2</sup> 1x0,54mm <sup>2</sup> 2x0,52,5mm <sup>2</sup>
RK 01/514 Ex i			2x(	
RK 01/516-C RK 01/516-M			5 - 1 x 6mm <sup>2</sup>	1x1,56mm <sup>2</sup> 2x1,54mm <sup>2</sup>
RK 01/544		6 x M25 cable glands for cables Ø <sub>ν</sub> 6-15mm	5 - 4 x 4mm <sup>2</sup>	4x4mm <sup>2</sup> 6x2,5mm <sup>2</sup> 1x4mm <sup>2</sup> + 2x2,5mm <sup>2</sup> + +3x1,5mm <sup>2</sup> 1x4mm <sup>2</sup> + 5x1,5mm <sup>2</sup> 2x4mm <sup>2</sup> + 3x2,5mm <sup>2</sup>
RK 01/744			7 - 4 x 4mm <sup>2</sup>	
RK 01/544-E		2 x φ32,5mm 4 x φ25,5mm	5 - 4 x 4mm <sup>2</sup>	4x4mm <sup>2</sup> 6x2,5mm <sup>2</sup> 1x4mm <sup>2</sup> + 2x2,5mm <sup>2</sup> + +3x1,5mm <sup>2</sup> 1x4mm <sup>2</sup> + 5x1,5mm <sup>2</sup> 2x4mm <sup>2</sup> + 3x2,5mm <sup>2</sup>
RK 01/744-E			7 - 4 x 4mm <sup>2</sup>	

# DIMENSION [mm]



## MAINTANCE, REPAIR AND OVERHAUL

Control and maintenance is performed in accordance with EN 60079-17:2007, the national rules and user policy. Repair and restoration of the lamp is done by the manufacturer or a person legally authorized by the manufacturer, with original parts from the products documentation, and in accordance to the EN 60079-19:2007. standard. If any unproper usage, unauthorised reconstruction, repair or restoration of the product is done by a third person, the manufacturer is free of all responsibility from the product, and the declaration of conformity which is given by the manufacturer becomes insignificant.

# **MARKING**

Explosion protected junction box, types RK01/.., are labeled with:

marking (tampon printing) TEP Ex HR - 10090 Zagreb **(6**<sub>0722</sub> **(6**<sub>0722</sub> CESI 10 ATEX 040 CESI 10 ATEX 040 WARNING WARNING DO NOT OPEN WHEN ENERGIZED DO NOT OPEN WHEN ENERGIZED TEP E) HR - 10090 Zag TEP EX HR - 10090 Zagreb **(€** 0722 **(€**0722 RK 01/544-E 5x4mm² RK 01/744-E 690V 22A/18A 690V 22A/18A 7x4mm² CESI 10 ATEX 040 CESI 10 ATEX 040 WARNING WARNING DO NOT OPEN WHEN ENERGIZED DO NOT OPEN WHEN ENERGIZED TEP EX HR - 10090 Zagre HR - 10090 Zagreb **(€** 0722 RK 01/514-M 690V 20A/16A 5x4mm²
| 12G Ex e || T6 -20°CcTac+40°C/+50°C |
| 12D Ex 1D A21 T80°C || 1P66
| CESI 10 ATEX 040 RK 01/514-C 630V 20A/16A 5x4mm² | I 2G Ex e | T6 -20°C<Ta--20°C<Ta<+40°C/+50°C CESI 10 ATEX 040 WARNING WARNING DO NOT OPEN WHEN ENERGIZED DO NOT OPEN WHEN ENERGIZED TEP EX HR - 10090 Zagreb HR - 10090 Zagreb **(€**0722 RK 01/516-M 690V 30A/25A 5x6mm² | 11 2G Ex e II T6 -20°C<Ta<+40°C/+50°C | 11 2D Ex ID A21 T80°C CESI 10 ATEX 040 CESI 10 ATEX 040 WARNING WARNING DO NOT OPEN WHEN ENERGIZED DO NOT OPEN WHEN ENERGIZED

> TEP EX HR - 10090 Zagreb

CESI 10 ATEX 040

4 Exi Umax=60V 5x
II 2G Ex ia/ib IIC T6 IP66
-20°C<Ta<+40°C/+50°C

WARNING DO NOT OPEN WHEN ENERGIZED

# STORAGE AND TRANSPORT

Transport and storage is only allowed in the original packaging, on the way pointed out on the carton box.

**C€** 0722