ATEST GAZ

User Manual

Junction Box

ExGRJ 167555

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Atest Gaz A. M. Pachole sp. j.
ul. Spokojna 3, 44-109 Gliwice
Poland

tel.: +48 32 238 87 94
fax: +48 32 234 92 71
e-mail: contact@atestgaz.pl

www.atestgaz.pl

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Manufacturer	Importer
Raychem RPG Pvt. Ltd. **Ceat Mahal Annexe 463,** **Dr Annie Besant Road, Worli** **Mumbai, 400030** **India**	**Atest Gaz A. M. Pachole sp. j.** **Spokojna 3** **44-109 Gliwice** **Poland**

1 Product Description

Junction boxes are fitted with maximum permissible limit of ATEX/IECEx approved terminal blocks. The Glass Reinforced Polyester Junction box has been manufactured as per the requirements of EN/IEC 60079-0, EN/IEC 60079-7 and EN/IEC 60079-31 and satisfies requirements of ATEX Directive 2014/34/EU. The boxes has been developed & manufactured in accordance with EN/IEC 80079-34. Junction Box consists of a Lid and Base screwed together with help of stainless steel captive screws and a sealing system which ensures Ingress Protection rating of IP 66 in accordance with IEC 60529.

2 Technical Details

Material	Glass Reinforced Polyester – Graphite added
Surface	RAL 9011
Lid Screws	SS304 Captive Screws
Sealing/Gasket	Silicone
Max. Rated Voltage	Depends on fitted components (available on marking label)
Ambient Temperature (T_a)	T5: -50°C ≤ +55°C T6: -50°C ≤ +40°C
Mechanical Strength	Impact Energy > 7 Nm
Flammability	Self-extinguishing, UL 94 V0
Surface Resistance	< 10^9 Ohms
Ingress Protection	IP 66 in accordance with IEC 60529
Marking	 II 2G Ex eb IIC T6...T5 Gb II 2D Ex tb IIIC T100°C Db IP66
Certification	SIRA 19 ATEX 3015X & IECEx SIR 19.0020X
Cable glands	3 pcs. M25 x 1.5 Cable diameter range 10 – 17 mm
Maximum current	Information about current limits can be found on the name plate of the device – see Section 6

3 Installation & Safety Precautions

3.1 Electrical Connections

3.1.1 Stranded wires connected to the terminals of the box should be terminated with a suitable clamping sleeve.

3.1.2 The terminals are designed to connect only one wire at the terminal point.

3.2 Initial Operation

3.2.1 Gasket works as a sealing between the lid and base which provides an Ingress Protection rating of IP 66 in accordance with IEC 60529. The gasket must be undamaged before initial operation. If lid has been opened for occasional inspection, it shall be verified that gasket material has not been adhered to the base of junction box.

3.2.2 Lid and base must be screwed together with help of stainless steel captive screws according to the specified tightening torque (1 to 2 Nm).

4 Maintenance/Repair

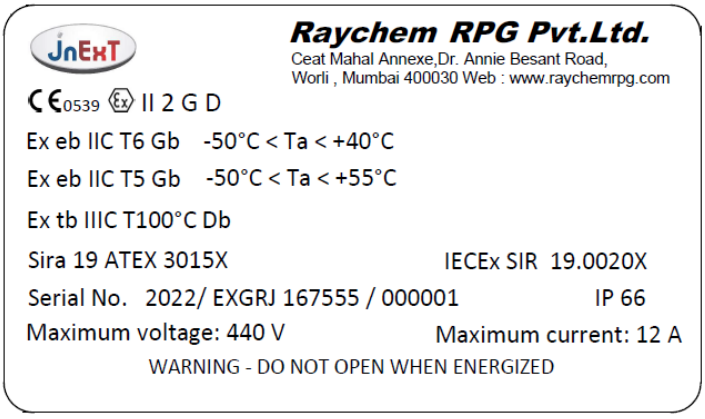
Operator of electrical equipment has to operate, supervise and maintain electrical equipment in good condition. The period of maintenance must be determined so that any non-conformity can be avoided. All assembly/dismantling and maintenance work must only be performed by trained technical personnel and in accordance with applicable code of practice.

- The equipment must not be opened when energised.
- The gasket must be undamaged. If damaged, original part from Raychem RPG must be used.
- All cable glands and locknuts must be tighten and undamaged. If found damage, replace as necessary.
- Check for any signs of ingress in the enclosure and change the seal as required. Original seal from manufacturer must be used.
- Must ensure all connections facilities are tighten accordingly.
- Must check for any signs of damage which can affect the equipment performance.
- All parameters of initial operation must be taken into consideration before putting equipment into service after maintenance.

5 Replacement of cable glands / blanking elements

- Cable glands must be installed in accordance with the instructions of the manufacturer of the glands using the appropriate tool.
- All cable glands shall be suitably certified for protection types ‘eb’ and ‘tb’.
- All unused openings shall be fitted with suitable blanking elements with protection types ‘eb’ and ‘tb’ so that minimum ingress protection of IP 66 is maintained.
- Plugs must be installed using the appropriate tool.

6 Current

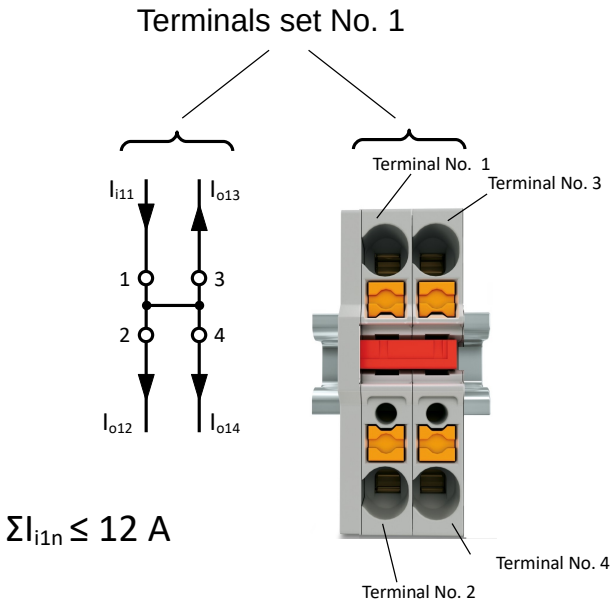


Information about current limits can be found on the name plate of the device.

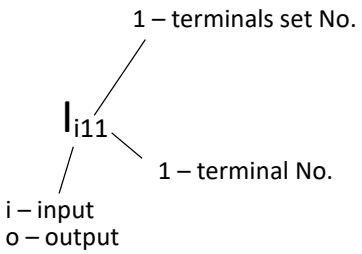
6.1 Maximum current

The following information should be considered when designing the system:

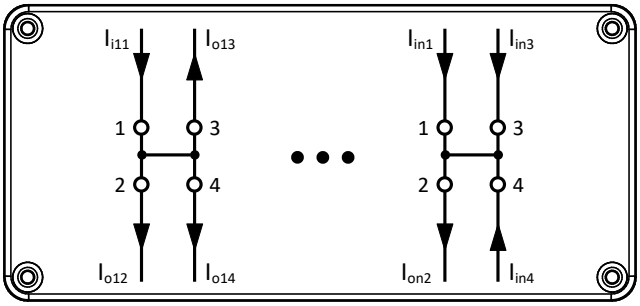
- the sum of the currents entering a single set of terminals must not exceed 12 A,



$\Sigma I_{i1n} \leq 12$ A

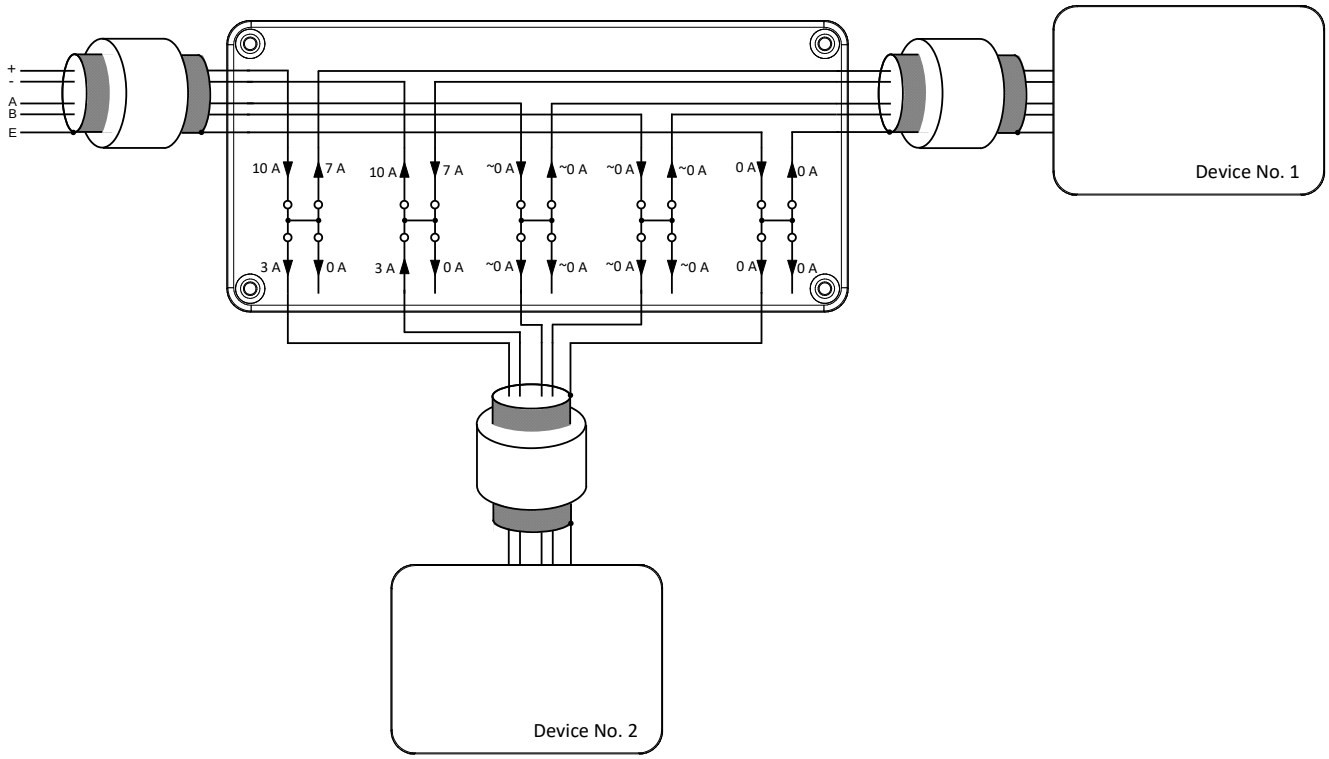


- the sum of the currents entering all sets of terminals must not be greater than 24 A.



$$I_{i1} + I_{i2} + \ldots + I_{in} = \Sigma I_i \leq 24\ A$$

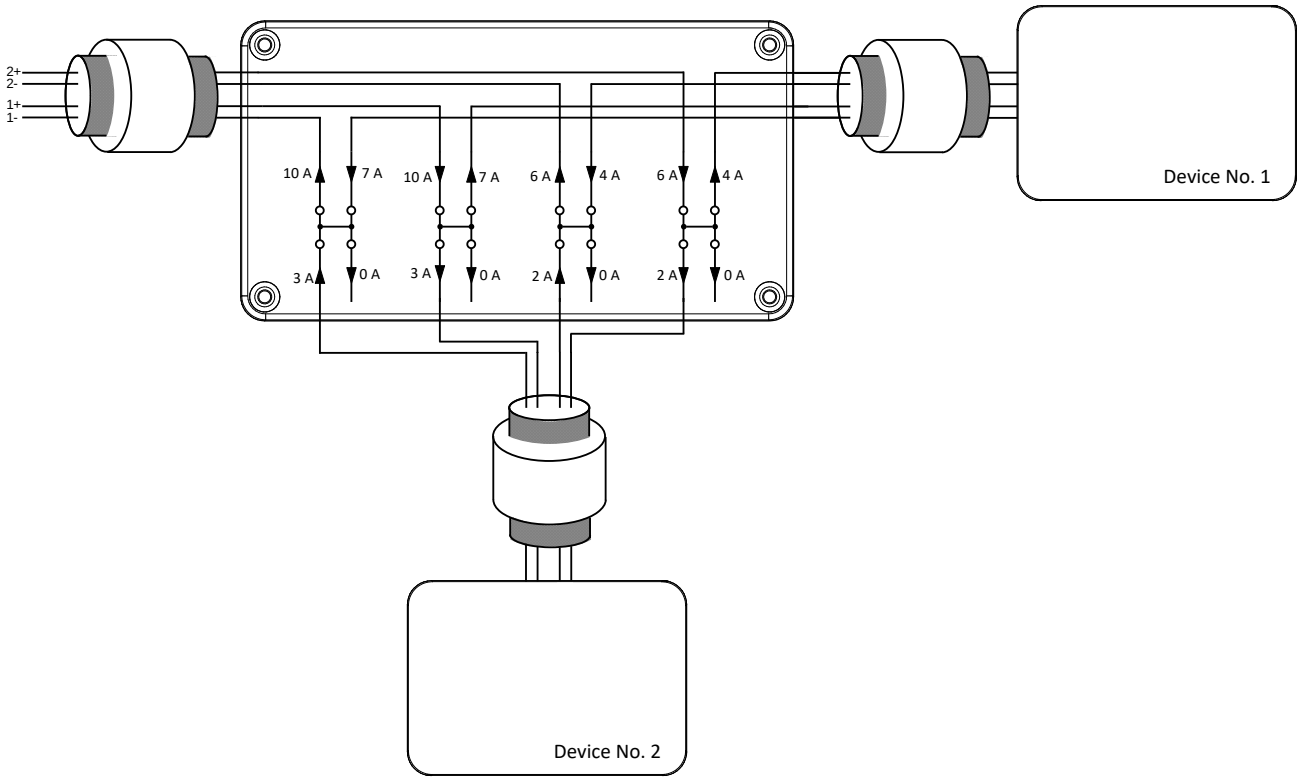
6.2 An example of the correct distribution of currents



I_{i1} = 10 A, I_{i2} = 10 A, I_{i3} ≈ 0 A, I_{i4} ≈ 0 A, I_{i5} = 0 A – condition fulfilled

ΣI_i ≈ 20 A – condition fulfilled

6.3 An example of the incorrect distribution of currents



I_{i1} = 10 A, I_{i2} = 10 A, I_{i3} = 6 A, I_{i4} = 6 A – condition fulfilled

ΣI_i = 32 A – condition unfulfilled

7 Appendices

[1] DEZG133-ENG – EU Declaration of Conformity – ExGRJ 167555

EU Declaration of Conformity

Atest Gaz A. M. Pachole sp. j. declares with full responsibility, that the Raychem RPG PVT. LTD product:

(Product description)	(Trade name)	(Type identifier or Product code)
Junction Box	**ExGRJ**	**167555**

complies with the following Directives and Standards:

- in relation to Directive 2014/34/EU – on the harmonisation of the laws of the Member States relating to equipment and protective systems intended for use in potentially explosive atmospheres:

Marking	Certificate no.	Standards	Notified body
Ex II 2G Ex eb IIC T6...T5 Gb II 2D Ex tb IIIC T100°C Db IP66	SIRA 19 ATEX 3015X	EN 60079-0:2018 EN 60079-7:2015 EN 60079-31:2014	CSA Group Netherlands B.V. Utrechseweg 310, 6812 AR, Arnhem, The Netherlands
CE 539	DEMKO 13 ATEX Q 1327766	EN ISO/IEC 80079-34:2011	539 UL International Demko A/S, Borupvang 5A, 2750 Ballerup, Denmark

- In relation to directive 2011/65/EU – on the restriction of the use of certain hazardous substances in electrical and electronic equipment
  - EN IEC 63000:2018

This declaration of conformity is issued under the sole responsibility of the manufacturer.

This EU Declaration of Conformity becomes not valid in case of product change or rebuild without manufacturer's permission.

Gliwice, 1.02.2023

(Name and Signature)
Managing Director
Aleksander Pachole

Notes

Notes

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fax: +48 32 234 92 71
e-mail: contact@atestgaz.pl

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