

REPORT

IB-09-8-076

about the proof of the degree of protection

Cable gland with split sealing ring

(Translation)

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Hi/Leh



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Editor

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REPORT**IB-09-8-076****about the proof of the degree of protection****1 Type of test**

Test of the protection against the ingress of dust and water according to DIN EN 60529:2000, paragraphs 13 and 14 (test of the degree of protection IP 66)

2 Test item

Cable gland with split sealing ring

of Rabe-System-Technik GmbH
49134 Wallenhorst
GERMANY

| Article No. | Material | Colour | Sealing ring | Thread size | Cable range |
|----------------------------------|-------------------|----------------------------------|----------------------|-------------|-------------|
| 11584525 12584525 13584525 | Polyamide PA 6 | RAL 7035 RAL 7001 RAL 9005 | Neoprene 70 Shore | M25 x 1.5 | 3 - 8 mm |

3 Customer

Rabe-System-Technik GmbH
Otto-Lilienthal-Straße 19
49134 Wallenhorst
GERMANY

4 Test documents

- Quotation AN-07-9-341 of 07 September 2007
- Order with letter of 24 September 2008
- Order confirmation with letter Hi/Hüb 6180/09 of 06 October 2009
- DIN EN 60529:2000
- Test sample article No. 11584525 (Test sample-No. EX-el 318/09)

The test items were delivered to IBExU on 29 September 2009.

5 Execution of the tests and results

The tests were carried out from 19 until 26 October 2009.

For the execution of the tests the cable gland was equipped with a test mandrel with the lowest cable diameter of 3 mm and without mounted an additional sealing ring in the threaded hole of an empty box. To get the tightness of the cap nut the cable gland was tightened with a nominal torque of 8 Nm.

5.1 Test of the dust tightness IP 6X according to EN 60529, paragraphs 13.4 and 13.6

In accordance with the specifications of EN 60529, paragraphs 13.4 and 13.6 this configuration was tested for the compliance with the degree of protection IP 6X (dust-tight) in an appropriate dust chamber. The test parameters were:

| | |
|----------------------------------|---------------------|
| Produced underpressure: | ≤ 2 kPa |
| Enclosure volume: | 0.4 dm ³ |
| Sucked air quantity: | 0.7 l |
| Test duration: | 8 h |
| Result of the visual inspection: | no ingress of dust |

Test result: **IP 6X fulfilled**

5.2 Test of the protection against powerful water jets IP X6 according to EN 60529, paragraph 14.2.6

The test enclosure with the cable gland was tested for the compliance with the degree of protection IP X6 (protection against powerful water jets) in accordance with the specifications of EN 60529, paragraph 14.2.6. The test parameters were:

| | |
|----------------------------------|---------------------------------------|
| Test apparatus: | water jet hose nozzle 12.5 mm |
| Water flow rate: | 100 l/min ± 5 % |
| Temperature difference: | pressure compensation |
| Distance nozzle-cable gland: | 2.5 - 3 m |
| Test duration: | 3 min |
| Result of the visual inspection: | ingress of some water drops, harmless |

Test result: **IP X6 fulfilled**

6 Summary

The Cable gland with split sealing ring (article No. 11584525, 12584525 respectively 13584525) mentioned in 2 fulfils the requirements for the protection against dust and powerful water jets, **degree of protection IP 66** according to EN 60529.