

037213

Form No : NTH (WR)/MUM-5



सत्यमेव जयते

भारत सरकार

Government of India

उपभोक्ता मामले, खाद्य एवं सार्वजनिक वितरण मंत्रालय, उपभोक्ता मामले विभाग
Ministry of Consumer Affairs, Food & Public Distribution, Department of Consumer Affairs

राष्ट्रीय परीक्षण शाला (पश्चिमी क्षेत्र)

NATIONAL TEST HOUSE (Western region)

प्लॉट सं. एफ-१०, एम.आई.डी.सी., मरोल, अंधेरी (पूर्व), मुंबई - 400 093

Plot No. F-10, M.I.D.C., Marol Andheri (E), Mumbai - 400 093

परीक्षण प्रमाण पत्र



Number of Copies issued Single

TEST CERTIFICATE

INTERIM/FINAL REPORT

परीक्षण प्रमाण पत्र सं.

जारी होने की तिथि

कोड नं

पृष्ठ

पृष्ठों की संख्या

Test Certificate No

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NTH(WR)/EL(A)/2019/00483A

21/11/2019

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जिसे जारी करना है

SIGMA INDUSTRIES

Issued To

पता

SPECIAL SHED No. 416/1, GIDC-1 SHANKER TEKRI,
JAMNAGAR-361004 INDIA

Address

ग्राहक का सन्दर्भ सं एवं दिनांक

SIIN/081120191

Date: 08/11/2019

Customer's Ref. No.

पंजिका सं एवं दिनांक

00483/NTH(WR)/EL(A)/08/11/2019

Register No & Date

परीक्षण सामग्री का विवरण

Three sizes of Glands, each 8 in number stated to be of Double
Compression Glands (Weather Proof) DC Type for Armoured
Cables bearing Cat. No:- 19 DC, 32 DC, 82 DC of CGS make
along with cables of respective sizes.

Description of Test Item

परीक्षण सामग्री का पहचान

Three sizes of Glands, each 8 in number stated to be of Double
Compression Glands (Weather Proof) DC Type for Armoured
Cables bearing Cat. No:- 19 DC, 32 DC, 82 DC of "CGS" make
along with cables of respective sizes.

Identification of Test Item

नमूना का विशिष्टि (यदि हों)

BS:6121-1-2005

Product Specification (if any)

नमूना प्राप्ति की तिथि

08/11/2019

Date of Receipt of the Test Item

कार्य सम्पादन की तिथि

From: 11/11/2019

To: 21/11/2019

Date(s) of Performance of Tests

व्यावहृत प्रणाली का पहचान

BS:6121-1-2005

Method(s) used for Test

N/A

नमूना प्रक्रिया जहाँ प्रासंगिक हों

Sampling Procedure where relevant

Tested By

Checked By

Approved By

KISHALAY PAUL

Anil Kumar Pandey

Rane Narendra Dodhu

SA(Electrical)

Scientist- B (Electrical)

Scientist- D (Electrical)

Note : Please See Overleaf / सूचनार्थ : कृपया पृष्ठ के पीछे ध्यान दें ।

37175



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Three sizes of Glands, each 8 in number stated to be of Double Compression Glands (Weather Proof) DC Type for Armoured Cables bearing Cat. No:- 19 DC, 32 DC, 82 DC of "CGS" make along with cables of respective sizes.

The given Samples was subjected to following Tests in accordance with BS:6121-1-2005 with the results noted below:

Marking:- 1) On the Glands following markings were Observed:

- CGS 19 D.C.
- CGS 32 D.C.
- CGS 82 D.C.

Tests:-

Sr. No.	Test Description	Standard Specification	Observations on sample	Remarks												
1.	<u>Equipotential Bonding:</u> Gland was assembled on a metallic plate and Resistance measured between the plate and the glands:- 19 DC,32DC,82 DC	Resistance between the gland and the plate shall not exceed 0.1 ohm	Resistance between the gland and the plate was less than 0.1 ohm	---Satisfactory---												
2.	<u>Cable Retention:</u> Gland was assembled on a Cable with smallest specified outer diameter and tightened to the specified Torque and the cable was loaded with specific load for 5 minutes	The cable shall not move by more than 3 mm	The cable did not move relative to the glands by more than 3 mm.	---Satisfactory---												
	<table border="1"> <thead> <tr> <th>Gland</th> <th>Cable Dia.</th> <th>Force</th> </tr> </thead> <tbody> <tr> <td>19 D.C</td> <td>13.5mm</td> <td>1280N</td> </tr> <tr> <td>32 D.C</td> <td>26.1 mm</td> <td>2480N</td> </tr> <tr> <td>82 D.C.</td> <td>72.0 mm</td> <td>5760N</td> </tr> </tbody> </table>	Gland	Cable Dia.	Force	19 D.C	13.5mm	1280N	32 D.C	26.1 mm	2480N	82 D.C.	72.0 mm	5760N			
Gland	Cable Dia.	Force														
19 D.C	13.5mm	1280N														
32 D.C	26.1 mm	2480N														
82 D.C.	72.0 mm	5760N														

Tested By

Kishalay Paul
SA (Electrical)

Checked By

Anil Kumar Pandey
Scientist-B (Electrical)

Approved By

Rane Narendra Dodhu
Scientist-D (Electrical)



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Tests:-

Sr. No.	Test Description	Standard Specification	Observations on sample	Remarks
3.	Resistance to Impact: After assembling on a piece of cable for required gland impact test is applied. Gland Energy(J) Mass Height 19 D.C. 1 0.2kg 0.5m 32 D.C 4 1.0kg 0.4m 82 D.C 20 2.0kg 1.0m	The Armour gland shall show no visible signs of damage	The Armour gland did not show visible signs of damage	---Satisfactory---
4.	Resistance to excess Torque: After assembling on a largest size cable for required gland 1.5 times the specified Torque was applied. (19 D.C, 32 D.C, 82 D.C)	There shall be no damage after dismantling the gland	The Armour gland did not show visible signs of damage	---Satisfactory---
5.	Ingress Protection: Armour glands when fitted on Enclosure with required Torque shall show degree of Protection of IP66.	No ingress of Dust and water should be observed	No ingress of Dust and water was observed	--Satisfactory--
6.	Electrical connection to the metallic layer(s) of cable Gland was assembled on an Armoured Cable and Resistance measured between the Armour and the gland: 19 D.C, 32 D.C, 82 D.C	Resistance between the gland and the Armour shall not exceed 0.1 ohm	Resistance between the gland and the Armour was less than 0.1 ohm	--Satisfactory--

Tested By

Kishalay Paul
SA (Electrical)

Checked By

Anil Kumar Pandey
Scientist-B (Electrical)

Approved By

Rane Narendra Dodhu
Scientist-D (Electrical)



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Tests:-

Sr. No.	Test Description	Standard Specification	Observations on sample	Remarks
7.	Dimensions: Dimension of Gland checked with Drawing/Catalogue No:10DC TO 100DC Dated 01/11/2019 (for 19DC,32 DC,82 DC)	Dimensions shall be as per the given Drawing /Catalogue No:-10DC TO 100DC Dated 01/11/2019 (for 19DC,32 DC,82 DC)	Dimensions are as per the given Drawing /Catalogue No:-10DC TO 100DC Dated 01/11/2019 (for 19DC,32 DC,82 DC)	--Satisfactory--

Note:-

- The average ambient condition of laboratory during the period of above tests was:
Temperature, °C : 29 Relative humidity, % : 66
- Certified copy of Drawing/Catalogue No- 10DC TO 100DC Dated 01/11/2019 (for 19DC,32DC,82DC) as received is attached with this Report.
- Chemical Composition as declared by the manufacturer:-
19 DC :: Copper 58.39% , Total Impurities: 4.6%, Remaining Zinc
32 DC :: Copper 57.92% , Total Impurities: 4.1%, Remaining Zinc
82 DC :: Copper 56.07% , Total Impurities: 3.15%, Remaining Zinc

Remark: The sample complies with the requirements of the standard BS 6121-1-2005 in respect of the tests carried out.

Tested By

Kishalay Paul
SA (Electrical)

Checked By

Anil Kumar Pandey
Scientist-B (Electrical)

Approved By

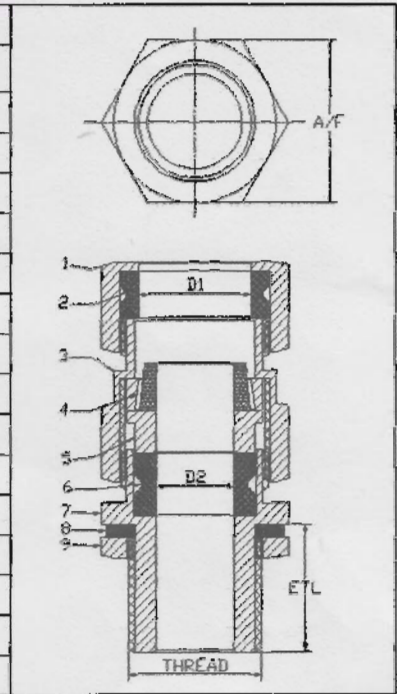
Rane Narendra Dodhu
Scientist-D (Electrical)

CGS MAKE DOUBLE COMPRESSION WEATHERPROOF CABLE GLANDS FOR ARMOURED CABLES

037213

1200

TECHNICAL DATA		
No.	DESCRIPTION	MATERIAL
1	Compression Nut	BRASS / ALUMINIUM / S.S. 304/316
2	Outer Seal	NEOPRENE RUBBER
3	Cover Nut	BRASS / ALUMINIUM / S.S. 304/316
4	Clamping Ring	BRASS / ALUMINIUM / S.S. 304/316
5	Armour Cone	BRASS / ALUMINIUM / S.S. 304/316
6	Inner seal	NEOPRENE RUBBER
7	Gland Body	BRASS / ALUMINIUM / S.S. 304/316
8	Flat Washer	NEOPRENE RUBBER
9	Lock Nut	BRASS / ALUMINIUM / S.S. 304/316
Material		Brass as per IS-12943:1990 Aluminium / S.S. 304/316
Design Specification		BS 6121
Threads		BS Conduit (ET), BSP, NPT, METRIC & PG
Nickel Plating Thickness		Up to 10 Micron as per IS 12943:1990 (Brass Only)
IP Protection		IP-66




Cat. No.	GLAND SIZE (Cat. No.)	Crimping Range D1	Crimping Range D2	NIPPLE THREAD	THREAD LENGTH (ETL)	A/F
10DC	3/8" (10 mm)	9.50 - 6.00	8.00 - 5.00	1/2" ET	25.00	17.75
12DC	1/2" (12 mm)	15.00 - 10.00	11.50 - 08.00	5/8" ET	25.00	22.00
16DC	5/8" (16 mm)	16.00 - 11.00	11.50 - 08.00	3/4" ET	25.00	23.00
19DC	3/4" (19 mm)	17.50 - 13.50	13.00 - 09.50	3/4" ET	25.00	24.00
22DC	7/8" (22 mm)	19.00 - 14.00	13.00 - 09.50	3/4" ET	25.00	25.50
25DC	1" (25 mm)	23.00 - 17.00	18.00 - 14.50	1" ET	25.00	31.50
28DC	1.1/8" (28 mm)	26.00 - 21.00	20.00 - 16.00	1.1/8" ET	25.00	34.50
32DC	1.1/4" (32 mm)	31.00 - 26.00	25.00 - 20.00	1.1/4" ET	25.00	41.00
35DC	1.3/8" (35 mm)	35.00 - 29.00	27.50 - 22.00	1.3/8" ET	25.00	45.50
38DC	1.1/2" (38 mm)	38.00 - 34.00	32.00 - 26.50	1.1/2" ET	25.00	47.50
45DC	1.3/4" (45 mm)	46.00 - 40.00	38.00 - 31.00	1.3/4" ET	25.00	56.50
50DC	2" (50 mm)	49.00 - 42.00	41.50 - 35.00	2" ET	25.00	61.00
57DC	2.1/4" (57 mm)	57.00 - 49.00	48.00 - 41.00	2.1/4" ET	25.00	67.00
63DC	2.1/2" (63 mm)	63.00 - 55.00	55.00 - 47.00	2.1/2" ET	25.00	74.50
70DC	2.3/4" (70 mm)	68.00 - 61.00	64.00 - 56.00	2.3/4" ET	25.00	82.50
75DC	3" (75 mm)	76.00 - 70.00	68.00 - 60.00	3" ET	25.00	92.00
82DC	3.1/4" (82 mm)	78.00 - 72.00	70.00 - 64.00	3.1/4" ET	25.00	93.00
88DC	3.1/2" (88 mm)	85.00 - 76.00	76.00 - 67.00	3.1/2" ET	25.00	102.00
100DC	4" (100 mm)	96.00 - 87.00	84.00 - 75.00	4" ET	25.00	115.00

• All Dimensions except thread size are in mm

Rane
एन. डी. राणे
N. D. RANE

वैज्ञानिक (एस.डी.) विद्या
SCIENTIST S.D. (ELECTRIC)
GOVERNMENT OF INDIA
राष्ट्रीय परीक्षण शाला (प. ...)
NATIONAL TEST HOUSE (P. ...)

PROPERTY OF SIGMA INDUSTRIES		SIGMA INDUSTRIES IAMNAGAR	Catalogue No. 10DC TO 100DC
Date: 01/11/2019			Material: Brass, Aluminium, S.S. 304/316
Drawn by: Shailesh Moliya	Approved by: Himanshu Joshi		
Dimensional Tolerance: ± 1mm	Title: Cable Glands		
Description: CGS make Double Compression Cable Glands (Weatherproof) for armoured cables	Drg. Code: SL/DC-Rev.0		