

Test Report issued under the responsibility of:



TEST REPORT IEC 61386-24

Conduit systems for cable management Part 24: Particular requirements for conduit systems buried underground

Report Number.....: HU20CDEE 001

Date of issue.....: See date in digital signature

Total number of pages 18

Name of Testing Laboratory

TÜV Rheinland InterCert Kft. MEEI Division

preparing the Report:

Applicant's name: Texor Müanyagipari, Kereskedelmi és Szolgáltató Kft.

Address....:

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4002 Debrecen-Apafa HRSZ: 2635 Hungary

Test specification:

Standard: IEC 61386-24:2004 used in conjunction with IEC 61386-1:2008

Test procedure: CB Scheme

Non-standard test method: N/A

Test Report Form No.: IEC61386_24B

Test Report Form(s) Originator: IMQ S.p.A.

Master TRF: Dated 2017-09-01

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Test item description:	Condu	t systems buried underground family		
Trade Mark: TEXOR				
Manufacturer::	Texor	Müanyagipari, Kereskedelmi és Szolgáltató Kft.		
Model/Type reference TP-TY		PE ø 16mm to ø 250mm		
Ratings:	1000V	a.c./ 1500V d.c.		
Responsible Testing Laboratory (as a	pplicat	ole), testing procedure a	nd testing location(s):	
Testing location/ address	:	TÜV Rheinland InterCert	Kft. MEEI Division	
		H-1143 Budapest, Gizella	a út 51-57., Hungary	
Tested by (name, function, signature)	:	Mrs. Istvánné KALLÓS, testing associate		
Approved by (name, function, signatu	ıre) :	Mr. Ádám BOHNERT, reviewer		
Tasking was a dame. OTF Change A		NI/A		
Testing procedure: CTF Stage 1:		N/A		
Testing location/ address	:			
Tested by (name, function, signature)	:			
Approved by (name, function, signatu	ıre) :			
Testing procedure: CTF Stage 2:	:	N/A		
Testing location/ address	:			
Tested by (name + signature)	:			
Witnessed by (name, function, signat	ure).:			
Approved by (name, function, signatu	ıre) :			
Tasting procedures CTF Stone 2		NI/A		
Testing procedure: CTF Stage 3:		N/A		
Testing procedure: CTF Stage 4:		N/A		
Testing location/ address				
Tested by (name, function, signature)				
Witnessed by (name, function, signat				
Approved by (name, function, signatu				
Supervised by (name, function, signa	ture) :			

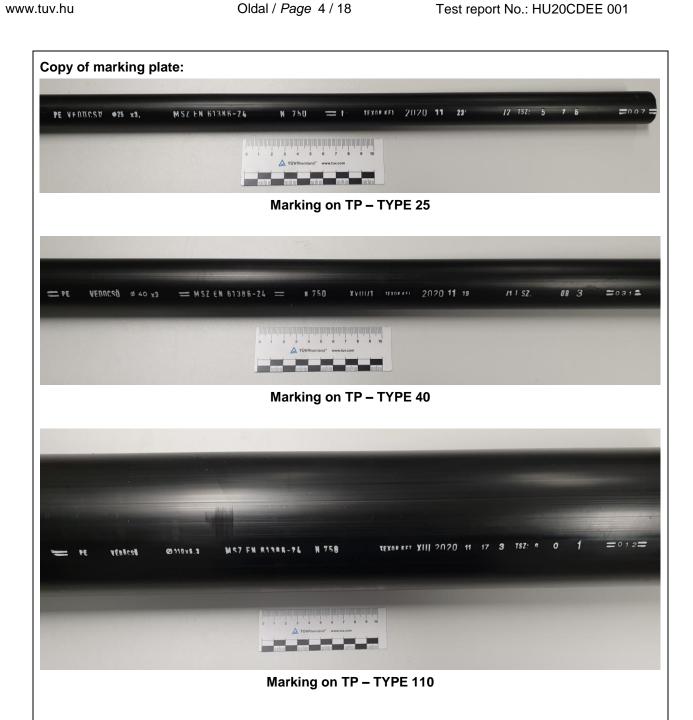


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List of Attachments (including a total number of pages in each attachment): N/A		
Summary of testing:		
All applicable tests were conducted on :		
TP - TYPE ø 25mm ,		
TP – TYPE ø 110 mm		
Partial tests were conducted on:		
TP – TYPE ø 40 mm		
At the mean of the mean feet was Floring I was and	in a constant of a constitution to 150 04000	
At the request of the manufacturer Electrical propert 1:2008+A1:2017 Clause 11.3.1. See the results in T	able 11.3.1. The testing of Electrical properties is not	
obligatory according to this product standard, therefore	ore the result are informative.	
Tests performed (name of test and test	Testing location:	
clause):	TÜV Rheinland InterCert Kft. MEEI Division	
7. Marking and documentation	H-1143 Budapest, Gizella út 51-57., Hungary	
8. Dimensions		
9. Construction		
10. Mechanical properties		
13. Fire effects		
At manufacturers request:		
11. Electrical properties		
Summary of compliance with National Difference	es (List of countries addressed): N/A	
	Conservation for Landson to a Reference La	
☐ The product fulfils the requirements of delete the text in parenthesis, leave it blank or de	(insert standard number and edition and elete the whole sentence, if not applicable)	
and the second of the second o	,	

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Test item particulars:			
Conduit system classification coding:			
Type of conduit::	☐ Metallic ☐ Non-metallic ☐ Composite		
Type of conduit::	□ Plain □ Corrugated		
Type of conduit fitting:	☐ Metallic ☑ Non-metallic ☐ Composite		
Conduit fitting – quantity:	N/A		
Conduit fitting – type(s)::	N/A		
Conduit fitting – colour(s):	N/A		
Method for connection:	☐ Threadable ☒ Non-threadable		
Resistance to compression:	☐ type 250 ☐ type 450 ☒ type 750		
Resistance to impact:	☐ Light (L) ⊠ Normal (N)		
Resistance to bending:	⊠ Rigid □ Pliable		
Electrical characteristics:	☐ With electrical continuity ☑ With electrical insulating		
Resistance to external influences:	N/A		
Resistance against corrosion:	☑ Without protection ☐ With protection: 1/2/3/4		
Resistance to flame propagation::	Non-flame propagating ☐ Flame propagating		
Possible test case verdicts:			
- test case does not apply to the test object:	N/A		
- test object does meet the requirement :	P (Pass)		
- test object does not meet the requirement:	F (Fail)		
Testing:			
Date of receipt of test item:	25-11-2020		
Date (s) of performance of tests:	From 25-11-2020 to 22-01-2021		
General remarks:			
The test results presented in this report relate only to the object tested. This report shall not be reproduced, except in full, without the written approval of the Issuing testing laboratory. "(see Enclosure #)" refers to additional information appended to the report. "(see appended table)" refers to a table appended to the report.			
Throughout this report a ⊠ comma / □ point is used as the decimal separator.			



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Manufacturer's Declaration per sub-clause 4.2.5 of	IECEE 02:
The application for obtaining a CB Test Certificate includes more than one factory location and a declaration from the Manufacturer stating that the sample(s) submitted for evaluation is (are) representative of the products from each factory has been provided:	Not applicable
When differences exist; they shall be identified in t	
Name and address of factory (ies):	Texor Müanyagipari, Kereskedelmi és Szolgáltató Kft. 4002 Debrecen-Apafa HRSZ: 2635 Hungary
General product information: Conduit systems buried underground family:	
TP – TYPE 25 TP – TYPE 32 TP – TYPE 40 TP – TYPE 50 TP – TYPE 63 TP – TYPE 75 TP – TYPE 90	
TP – TYPE 110 TP – TYPE 125 TP – TYPE 140 TP – TYPE 160 TP – TYPE 180 TP – TYPE 200 TP – TYPE 225	
TP – TYPE 250	



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	IEC 61386-24		
Clause	Requirement + Test	Result - Remark	Verdict

7	MARKING AND DOCUMENTATION		Р
7.1	Conduit (conduit fitting) is marked on the product with a trade mark or a name identifying the manufacturer or responsible vendor:	TEXOR KFT.	Р
	Conduit (conduit fitting) is marked in addition in such a way that it can be identified in the manufacturer's, or responsible vendor's, literature	marked	Р
	the code "L" or "N" according to 6.1.2	N	Р
	the code "250", "450" or "750" according to 6.1.1. This code shall be marked immediately after	750	Р
7.1.2	Manufacturer indicates the compatibility of parts within a conduit system	-	N/A
7.1.101	Conduit is marked in accordance with 7.1 along its entire length at regular intervals of preferably 1 m but not longer than 3 m (m)	1,0	Р
	The mark is on a label attached to the product at each end or on the packaging (if the marking in accordance with 7.1 along its entire length is technically impractical):		N/A
7.2	Conduit fitting is marked in accordance with 7.1, on		N/A
	- the product:		N/A
	- a label attached to the product, or on the box or carton containing the fittings (if the marking on the product is impractical):		N/A
7.5	Compliance with 7.1 to 7.4 checked by inspection	checked	Р
7.6	Marking is durable and clearly legible	legible	Р
	Compliance checked by inspection and by rubbing the marking by hand for 15 s with a piece of cloth soaked with water, and again for 15 s with a piece of cloth soaked with petroleum spirit	durable	Р
7.101	The manufacturer shall provide in his literature all information necessary for the proper and safe installation and use.		Р
	In addition, for conduit systems according to 6.1.1.1 the manufacturer shall give instruction for installation precautions following the relevant national technical rules, if any.		Р

8	}	DIMENSIONS		Р
8	3.1	Threads comply with IEC 60423:	See appended table 8	N/A



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	IEC 61386-24		
Clause	Requirement + Test	Result - Remark	Verdict
8.2	Minimum inside diameter of the conduit system is as declared by the manufacturer	See appended table 8	Р
9	CONSTRUCTION		Р
9.1	There are no sharp edges, burrs or surface projections within the conduit system	no sharp edges	Р
	The manufacturer provides guidelines to assist the safe installation of the conduit system	provides guidelines	Р
9.2	Screws, if any, used for attaching components or covers to conduit fittings, or in joints to conduits, do not cause damage to cable insulation when correctly inserted		N/A
	Screws have ISO metric threads		N/A
	Thread-cutting screws are not used		N/A
	Fixing screws and small clips for use with non- metallic or composite conduit fittings, of non- metallic material, are isolated from insulated conductors or cables		N/A
9.5	Any material within the joint have at least the same level of resistance to the external influence as either the conduit or the conduit fitting:		N/A
9.6	Indications whether the conduit system that are assembled by means other than threads can be disassembled and if so, how this can be achieved, are provided by the manufacturer		N/A
10	MECHANICAL PROPERTIES		Р
10.1	Mechanical strength		Р
10.1.1	Conduit systems have adequate mechanical strength		Р
10.1.2	Conduits do not crack and are not deformed when bent or compressed, or exposed to impact or extreme temperature, according to their classification		Р
10.1.3	Conduit systems intended as a mounting for other equipment have adequate mechanical strength		N/A
10.1.4	Compliance of 10.1.1 to 10.1.3 checked by the tests specified in 10.2 to 10.4		Р
10.2	Compression test (IEC 61386-24): conduits and ben	ds:	Р



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	IEC 61386-24		
Clause	Requirement + Test	Result - Remark	Verdict
	2 complete the liber (2000 to E) was long the foresthe		
	3 samples shall be (200 ± 5) mm long; before the test, record dimension of Cl. 8:	See appended table 10.2	P
	Compression at a rate of (15 ± 0.5) mm/min; when reaching the deflection of 5% of the original inside diameter the applied force shall be at least 250 N or	See appended table 10.2	Р
	After the test there shall be no crack allowing the ingress of light or water between the inside and the outside	>750N See appended table 10.2	P
	After the test there shall be no crack allowing the ingress of light or water between the inside and the outside for 9 samples or more	See appended table 10.2	Р
	After the test, the checking of the minimum inside diameter as specified in EN 50086-2-4 shall be satisfactory.	See appended table 10.2	Р
10.2.1	The test for conduits containing non-metallic materials is not started until 10 days after manufacture.		Р
10.2.3	Before the test, the outside and inside diameters of the samples are measured as specified in Clause 8.		Р
10.3	Impact test		
	12 samples of conduit, each (200 ± 5) mm in length, or 12 samples of conduit fittings subjected to an impact test using the apparatus shown in figure 101	See appended table 10.3	Р
10.3.3	At least 9 of the 12 samples passed the test	12	Р
10.4	Bending test		
	3 samples at temperature (-5±1) °C during 2 h; 3 samples at room temperature	See appended table 10.4	N/A
11	ELECTRICAL PROPERTIES		N/A
11.1	Electrical requirements		N/A
	(under consideration)		
11.2	Bonding test		N/A
	(under consideration)		_
11.3	Electrical insulating strength and resistance		N/A
	(under consideration)		_
12	THERMAL PROPERTIES		N/A
12.1	Clause of part 1 not applicable		_



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		IEC 61386-24		
Clause	Requirement + Test		Result - Remark	Verdict

13	FIRE HAZARD		Р
13.1	Reaction to fire		Р
13.1.1	Initiation of fire (not applicable)		_
13.1.2	Contribution to fire (under consideration)		
13.1.3	Spread of fire		Р
	Non-flame propagating conduit systems have adequate resistance to flame propagation		Р
13.1.3.1	Non-metallic and composite conduit fittings subjected 60695-2-1/1 (IEC 60695-2-11) at 750 °C	d to glow-wire test of IEC	N/A
	No visible flame or sustained glowing,	See appended table 13.1.3.1	N/A
	Flames and glowing extinguished within 30 s of the removal of the glow-wire (s)	See appended table 13.1.3.1	N/A
13.1.3.2	Non-metallic and composite conduits subjected to 1 (IEC 60695-11-2), according to the arrangement of f given in table 11		Р
	Sample does not ignite, or	See appended table 13.1.3.2	Р
	In case of ignition:		N/A
	a) Flame extinguishes within 30 s	See appended table 13.1.3.2	N/A
	b) No ignition of the tissue paper	See appended table 13.1.3.2	N/A
	c) No evidence of burning or charring within 50 mm of the lower extremity of the upper clamp	See appended table 13.1.3.2	N/A

14	EXTERNAL INFLUENCES		N/A
14.1	Degree of protection provided by enclosure		N/A
	Conduit systems, when assembled in accordance with the manufacturer's instructions, have adequate resistance to external influences according to the classification declared by the manufacturer, with a minimum requirement of IP30		N/A
14.1.1	Degree of protection – Ingress of foreign solid objects	See appended table 14.1.1	N/A
14.1.2	Degree of protection – Ingress of water	See appended table 14.1.2	N/A
14.2	Resistance against corrosion		N/A
	Resistance to corrosion classification for painted and zinc coated steel and steel composite conduits and conduit fittings (table 10)	1/2/3/4	_

TRF No. IEC61386_24B



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	IEC 61386-24		
Clause	Requirement + Test	Result - Remark	Verdict
	For non-ferrous metallic and composite conduit systems, the manufacturer provided information about its protection against corrosion		N/A
14.2.2	Tests for resistance to corrosion for painted and zinc composite conduits systems	coated steel and steel	N/A
14.2.2.1	Low protection conduit and conduit fittings inspected for completeness of covering by the protective coating, both inside and outside		N/A
14.2.2.2	Test for medium protection conduit and conduit fittings: after completion of the test, the samples showed no more than two blue coloured spots on each square centimetre of the surface, and no blue spot had a dimension larger than 1,5 mm		N/A
14.2.2.3	Test for high protection conduit and conduit fittings: after the test, the sample showed no precipitation of copper which cannot be scrubbed off in running water, if necessary after immersion for 15 s in a 10% solution of hydrochloric acid in water		N/A
15	ELECTROMAGNETIC COMPATIBILITY		N/A
	Products covered by this standards are, in normal use, passive in respect of electromagnetic influences (emission and immunity)		N/A



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IEC 61386-24					
Clause	Requirement + Test	Result - Remark	Verdict		

Nominal outside diameter (mm)	Tolerances (mm)	Outside diameter measured (mm)	Min. inside diameter (mm)	Measured (mm)	Comply (P-F-N/A)
25	+0,5/0	25,2	18	19,4	Р
32	+0,6/0		24		N/A
40	+0,8/0	40,4	30	33,8	Р
50	+1,0/0		37		N/A
63	+1,2/0		47		N/A
75	+1,4/0		56		N/A
90	+1,7/0		67		N/A
110	+2,0/0	110,9	82	94,1	Р
125	+2,3/0		94		N/A
140	+2,6/0		106		N/A
160	+2,9/0		120		N/A
180	+3,3/0		135		N/A
200	+3,6/0		150		N/A
225	+4,1/0		170		N/A
250	+4,5/0		188		N/A

8.2	TABI	TABLE: Checking of minimum inside diameter of the conduit system					
Size		Minimum inside diameter of the conduit system declared by manufacturer (mm)	Inside diameter of the conduit system measured (mm)	Comply (P-F-N/A)			
				N/A			
				N/A			
				N/A			
Supplemen	Supplementary information:						



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IEC 61386-24				
Clause	Requirement + Test	Result - Remark	Verdict	

10.2	TABLE:	Compres	sion test					Р
	code	code						_
Size	N° of sample	Ø _{bt} (mm)	F (N)	Code Compression 5 %	Øbt	- Ø 5%(mm)	No visible cracks (P/F)	Verdict
25	1	25,08	848	1,25 mm		1,11	Р	Р
25	2	25,40	821	1,27 mm		1,16	Р	Р
25	3	25,28	817	1,26 mm		1,16	Р	Р
40	1	40,46	842,9	2,02 mm		1,80	Р	Р
40	2	40,76	756,7	2,03 mm		1,82	Р	Р
40	3	40,21	876,7	2,01 mm		1,72	Р	Р
110	1	110,16	858,8	5,51 mm		4,81	Р	Р
110	2	111,44	900,6	5,57 mm		4,64	Р	Р
110	3	110,78	860,1	5,54 mm		4,83	Р	Р

Supplementary information:

F = Compression at a rate of (15 ± 0.5) mm/min; when reaching the deflection of 5% of the original outside diameter the applied force shall be at least 250 N or 450 N or 750 N =

Ø_{bt} Outside diameter measured before the test

 \emptyset_{bt} . \emptyset 5 % =Difference between outside diameter measured before and during the application of the force reaching the value 250N /450N/750N =

Code Compression 5 % = Calculated maximum allowed deflection (5% of the outside diameter measured before the test



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IEC 61386-24					
	Clause	Requirement + Test	Result - Remark	Verdict	

10.3	TABLE:	TABLE : Impact test						Р
	Classifica	ation		:	Ligh	t (L) / Normal	(N)	_
	Test temp	perature (°C)		:	-5 (±	± 1)		_
	Mass of h	nammer (table 1	02) (kg)	:	5			_
	Fall heigh	nt (table 101) (m	m)	:	Ø 40	5: 300 0: 300 0: 570		_
Size	NIO af	Check of possibility to pass the gauge specified in 10.4. through the sample		No visible cracks of				
	N° of sample	N° of samples which passed the test	N° of samples which failed the test	N° of sam which pas the tes	sed	N° of samples which failed the test	samples which passed the test	Verdict
25	1-12	12	0	12		0	12	Р
40	1-12	12	0	12		0	12	Р
110	1-12	12	0	12		0	12	Р

10.4	TABLE :	TABLE : Bending test				
	Specified bending radius (mm):					N/A
		3 samples at temperature (-5 ± 1) °C during 2 h; 3 samples at room temperature				N/A
	Checking of the minimum inside diameter (mm)					N/A
Size	N° of sample	Possibility to remove the bending aid without damage (P/F)	No visibl (P/		Possibility to pass the gauge of figure 102 (P/F)	Verdict
	1-6					N/A

Supplementary information:



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IEC 61386-24				
Clause	Requirement + Test		Result - Remark	Verdict

11.2	TABLE: Bonding test (under consideration)					N/A
	Classificatio	n (sixth digit)	:	1/3		_
Size	N° of assembly sample	Art./Type Ref. of the terminating conduit fitting assembled to the conduit		oltage drop measured (V) Resistance (Ω)		Verdict
						N/A
Suppleme	ntary informati	ion:	•		•	•

11.3.1	TABLE: E	TABLE: Electrical insulating strength and resistance test (conduits)				
Size	N° of sample	Device incorporated into the circuit not trip during the insulating strength test (P/F)	Insulation resistance measured (M Ω)	Verdict		
25	1	Р	> 3 x 10 ⁴	Р		
25	2	Р	> 3 x 10 ⁴	Р		
25	3	Р	> 3 x 10 ⁴	Р		
110	1	Р	> 3 x 10 ⁴	Р		
110	2	Р	> 3 x 10 ⁴	Р		
110	3	Р	> 3 x 10 ⁴	Р		

Supplementary information: At the request of the manufacturer Electrical properties were tested according to IEC 61386-1:2008+A1:2017 Clause 11.3.1. The testing of Electrical properties is not obligatory according to this product standard, therefore the result are informative.

11.3.2	TABLE: Electrical insulating strength and resistance test (conduit fittings)				
Size	N° of sample	Art./Type Ref. of the conduit fitting	Device incorporated into the circuit not trip during the insulating strength test (P/F)	Insulation resistance measured (MΩ)	Verdict
	1				N/A
	2				N/A
	3				N/A
Sunnleme	ntary inform	nation: Under considerati	on .		•



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IEC 61386-24					
Clause	Requirement + Test	Result - Remark	Verdict		

13.1.3.1	TABLE: Glow-wire test (non-metallic and composite conduit fittings)				
	Material designation				_
	Test ten	perature (°C)			_
Size	N° of sample	Art./Type Ref. of the conduit fitting	Visible flame or sustained glowing (Y/N)	Time of extinguishment of flames and glowing, if any, after removal of the glowwire (s)	Verdict
	1				N/A
	2				N/A
	3				N/A

13.1.3.2 TABLE: Flame-propagation resistance test (non-metallic and composite conduits)

Material designation: PΕ Time of No No extinguishmen Highest evidence Sample Flame ignition mean t of flaming or of N° of application did not of the Size material glowing, if any, burning Verdict sample time (+1/0) ignite tissue thickness after removal or (P/F) (s) paper (mm) of the test charring (P/F) flame (s) (P/F) 25 1 3,2 65 Ρ N/A Ρ Ρ Ρ 2 Р Р Ρ Ρ 40 3,7 75 N/A 7,2 500 Ρ N/A Ρ Ρ 110

Supplementary information:



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IEC 61386-24					
Clause	Requirement + Test		Result - Remark	Verdict	

14.1.1	TABLE: Verification of protection against ingress of solid objects				N/A
	Classification - Protection against ingress of solid objects (seventh digit):			3/4/5/6	_
	For IP5X, ca	ategory 2 applied			N/A
Size	N° of assembly sample	Art./Type Ref. of the conduit fitting with a short length of conduit assembled in each conduit entry	Assembly tested in accordance with the appropriate test of IEC 60529 (P/F)	No ingress of dust visible to normal or corrected vision without magnification in the assembly tested for IP5X or IP6X (P/F/NA)	Verdict
					N/A

14.1.2	TABLE: Verification of protection against ingress of water				N/A
	Classification - Protection against ingress of water (eighth digit)				
	Oscillatin	g tube used for IPX3	and IPX4		N/A
Size	N° of assembl y sample	Art./Type Ref. of the conduit fitting with a short length of conduit assembled in each conduit entry	Assembly tested in accordance with the appropriate test of IEC 60529 (P/F)	No sufficient ingress of water to form a drop visible to normal or corrected vision without magnification in the assembly tested for IPX1 and above (P/F/NA)	Verdict
					N/A



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List of test equipment used: N/A

A completed list of used test equipment shall be provided in the Test Reports when a Manufacturer Testing Laboratory according to CTF stage 1 or CTF stage 2 procedure has been used.

Note: This page may be removed when CTF stage 1 CTF stage 2 are not used. See also clause 4.8 in OD 2020 for more details.

Clause	Measurement / testing	Testing / measuring equipment / material used, (Equipment ID)	Range used	Last Calibration date	Calibration due date
N/A					