



中国认可
国际互认
检测
TESTING
CNAS L0095

Page 1 of 19 Pages

No.: GJW2017-1080

TEST REPORT

NAME OF SAMPLE: PVC Rigid conduits for cable management

CLIENT: Univolt Extrusions (Dongguan) Ltd.


CLASSIFICATION OF TEST: Commission test



TEST REPORT

No.: GJW2017-1080

Page 2 of 19 pages

Name of product: PVC Rigid conduits for cable management	Trade mark: UNIVOLT
Type/Model : BSSH 20, BSSH 25, BSSH 32, BSSH 40	Sample status: —
Manufacturer: Univolt Extrusions (Dongguan) Ltd.	Commissioned by: Univolt Extrusions (Dongguan) Ltd.
Manufacturer address: Dongshan Yongfa Industrial Area, Qi Shi Town Dongguan City, Prov. Guangdong, China	Commissioner address: Dongshan Yongfa Industrial Area, Qi Shi Town Dongguan City, Prov. Guangdong, China
Quantity of sample: 21 pcs	Sampled by: —
Sample identification: 1#~21#	Sampling at (place): —
Means of receiving: Submitted by the client	Means of sampling: —
Classification of test: Commission test	Sampling date: —
Receiving date: 2017.03.02	Completing date: 2017.04.19
Tested according to: IEC 61386-1: 2008 IEC 61386-21: 2002	Test item: Full safety items
<p>Test conclusion:</p> <p>The conduits submitted by the client is tested according to the following standard:</p> <p>IEC 61386-1: 2008 Conduit systems for cable management - Part 1: General requirements</p> <p>IEC 61386-21: 2002 Conduit systems for cable management -- Part 21: Particular requirements - Rigid conduit systems</p> <p>Test result: Pass.</p> <div style="text-align: right;">  Seal of CVC Date of issue: 2017.04.19 </div>	

Approved by: Liu Bo

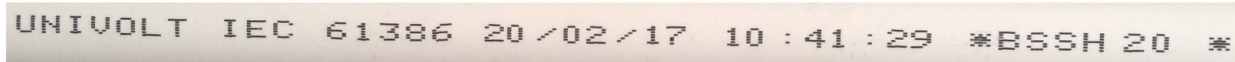
Reviewed by: Lü Guowei

Tested by: Hong Zhijing

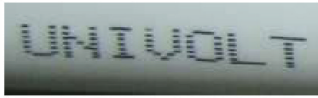
Liu Bo

Lü Guowei

Hong Zhijing

Test item particulars:	
Conduit system classification coding.....: (according to Annex A)	44211230X010
Type of conduit.....:	<input type="checkbox"/> Metallic <input checked="" type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Type of conduit.....:	<input checked="" type="checkbox"/> Plain <input type="checkbox"/> Corrugated
Type of conduit fitting	<input type="checkbox"/> Metallic <input checked="" type="checkbox"/> Non-metallic <input type="checkbox"/> Composite
Conduit fitting –quantity	N/A
Conduit fitting –type(s)	N/A
Conduit fitting –colour(s)	White
Method for connection	<input type="checkbox"/> Threadable <input checked="" type="checkbox"/> Non-threadable
Resistance to compression.....:	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Resistance to impact.....:	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input checked="" type="checkbox"/> Heavy <input type="checkbox"/> Very heavy
Lower / Upper temperature range	-5°C / 60°C
Resistance to bending	Rigid
Electrical characteristics	<input type="checkbox"/> With electrical continuity <input checked="" type="checkbox"/> With electrical insulating
Resistance to external influences.....:	IP30
Resistance against corrosion	<input checked="" type="checkbox"/> Without protection <input type="checkbox"/> With protection: High protection inside and outside
Tensile strength.....:	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy <input checked="" type="checkbox"/> None declared
Resistance to flame propagation.....	<input checked="" type="checkbox"/> Non-flame propagating <input type="checkbox"/> Flame propagating
Suspended load capacity.....:	<input type="checkbox"/> Light <input type="checkbox"/> Medium <input type="checkbox"/> Heavy <input type="checkbox"/> Very heavy <input checked="" type="checkbox"/> None declared
Copy of marking plate: BSSH 20 20mm 4421 for example:	
	
Summary of test results:	
1. This test report is issued and based on the full-item tests carried out on the PVC Rigid conduits for cable management BSSH 20 20mm 4421. 2. Test of clause 7 of Marking and documentation, clause 8 Dimensions and clause 9 Construction are carried out on other types of PVC Rigid Conduits.	

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
7	MARKING AND DOCUMENTATION		P
7.1	Conduit (conduit fitting) is marked on the product with a trade mark or a name identifying the manufacturer or responsible vendor		P
	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	BSSH 20, BSSH 25, BSSH 32, BSSH 40	P
7.1.1	Conduit is also marked with the classification code, in accordance with annex A, and includes at least the first four digits (optional)		P
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)	2.5	P
	Each length is marked at least once		P
7.1.102	Minimum inside diameter and the classification for the system in accordance with clause 6 are documented by the manufacturer	See appended table 7.1.102	P
7.2	Conduit fitting is marked in accordance with 7.1, on		P
	- the product		P
	- a label attached to the product, or on the box or carton containing the fittings (if the marking on the product is impractical)		P
7.3	Flame propagating material is orange in colour		N/A
	Flame propagating material is not coloured orange by painting or other superficial means		N/A
	Non-flame propagating material is of any colour except yellow, orange or red, unless is clearly marked on the product to be of non-flame propagating material	White	P
7.4	Earthing facilities are indicated by the symbol for protective earth in accordance with IEC 60417, symbol 60417-IEC-5019-a		N/A
	This marking is not placed on easily removable parts, for example screws		N/A
7.5	Compliance with 7.1 to 7.4 checked by inspection		P
7.6	Marking is durable and clearly legible		P
	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		P
8	DIMENSIONS		P
8.1	Outside diameters comply with IEC 60423	See appended table 8.1A	P

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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	Threads comply with IEC 60423	See appended table 8.1B	N/A
8.2	Threadable conduits and threadable conduit fittings comply with table 101 (except terminating conduit fittings)	See appended table 8.2A	N/A
	Non-threadable conduit fittings comply with table 102 (except fittings which are part of a conduit system declaring tensile strength)	See appended table 8.2B	N/A
	Minimum inside diameter of the conduit system is as declared by the manufacturer	See appended table 8.2C	P

9	CONSTRUCTION		P
9.1	There are no sharp edges, burrs or surface projections within the conduit system		P
	The manufacturer provides guidelines to assist the safe installation of the conduit system		P
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
9.3	Test for screw fixing using preformed threads	See appended table 9.3	N/A
	After the test: no damage sustained by the screw or nut, such as breakage of the screw or damage to the head or thread		N/A
9.4	Test for screw fixing using thread-forming screws	See appended table 9.4	N/A
	After the test: no damage, such as breakage of the screw or damage to the head or thread		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		P
10.1	Mechanical strength		P
10.1.1	Conduit systems have adequate mechanical strength		P
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		P

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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 10.8		P
10.2	Compression test		P
	3 samples of conduit, each (200 ± 5) mm long, subjected to a compression test at (23 ± 2) °C, using the apparatus shown in figure 1	See appended table 10.2	P
10.3	Impact test		P
	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 2	See appended table 10.3	P
10.3.3	At least 9 of the 12 samples passed the test		P
10.4	Bending test		P
	Conduits declared by the manufacturer as being bendable tested in accordance with 10.4.101, 10.4.102 or 10.4.103		P
10.4.101	Metallic conduits		N/A
	Conduit sizes 16, 20 and 25, having a length equal to 30 times the nominal diameter, subjected to a bending test using the apparatus shown in figure 101	See appended table 10.4.101	N/A
	Other sizes tested in accordance with the manufacturer's instructions		N/A
10.4.102	Non-metallic conduits		P
	Conduit sizes 16, 20 and 25, having a length of approximately 500 mm, subjected to a bending test using the apparatus shown in figure 103	See appended table 10.4.102	P
	Other sizes tested in accordance with the manufacturer's instructions		N/A
10.4.103	Composite conduits		N/A
	Composite conduits declared by the manufacturer as being bendable tested both in accordance with 10.4.101 and 10.4.102, using new samples for each test	See appended tables 10.4.101 and 10.4.102	N/A
	Other sizes tested in accordance with the manufacturer's instructions		N/A
10.5	Flexing test		N/A
	Sub-clause of part 1 not applicable		—
10.6	Collapse test		P
10.6.101	Metallic conduits		N/A
	Metallic conduits not subjected to a collapse test		N/A
10.6.102	Non-metallic and composite conduits		P

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
10.6.102.1	Conduits declared by the manufacturer as being bendable tested in accordance with 10.4.102 with the exception of 10.4.102.3		P
	Conduit sizes 16, 20 and 25, having a length of approximately 500 mm, subjected to a bending test using the apparatus shown in figure 103	See appended table 10.6.102	P
	Other sizes tested in accordance with the manufacturer's instructions		P
10.6.102.2	Samples tested after fixing to a rigid support by means of four straps as shown in figure 104	See appended table 10.6.102	P
10.7	Tensile test		N/A
	Conduit systems declaring tensile strength: test carried out on an assembly prepared in accordance with the manufacturer's instructions so that the overall length is approximately 200 mm	See appended table 10.7	N/A
10.8	Suspended load test		N/A
	Conduit fitting declared by the manufacturer to be suitable for suspended loads: test carried out with a load suspended by the means provided and installed in accordance with the manufacturer's instructions for a time duration given in table 7	See appended table 10.8	N/A
11	ELECTRICAL PROPERTIES		P
11.1	Electrical requirements		P
11.1.1	Conduit systems declaring electrical continuity characteristics are checked by the tests in 11.2 immediately after the tests in 14.2		N/A
11.1.2	Conduit systems of metal or composite materials are so constructed that accessible metal parts can be bonded to earth		N/A
11.1.3	Accessible conductive parts of the metal or composite conduit system, which may become live in the event of a fault, are be effectively earthed		N/A
11.1.4	Conduit systems of non-metallic or composite materials, where declared, have an adequate electrical insulating strength and insulating resistance		P
11.2	Bonding test		N/A
	Test carried out on an arrangement of conduits and conduit fittings prepared in accordance with the manufacturer's instructions and figure 3: resistance not exceed 0,1 Ω	See appended table 11.2	N/A
11.3	Electrical insulating strength and resistance		P
11.3.1	Conduits		P

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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	3 samples of conduit tested in a salt water solution at $(23 \pm 2) ^\circ\text{C}$, in accordance with figure 4, and submitted after $24 \text{ h} \pm 15 \text{ min}$ to a voltage of 2000 V maintained for a period of $15 \text{ min} +5/0 \text{ s}$: trip device incorporated into the circuit not trip during the test	See appended table 11.3.1	P
	Same samples then subjected to an electrical insulation resistance test with a direct voltage of 500 V applied for $(60 \pm 2)\text{s}$: measured insulation resistance greater than $100 \text{ M}\Omega$	See appended table 11.3.1	P
11.3.2	Conduit fittings		P
	3 samples of conduit fittings immersed for $24 \text{ h} \pm 15 \text{ min}$ in water at $(23 \pm 2) ^\circ\text{C}$ and then submitted by means of lead spheres to a voltage of 2000 V maintained for a period of $15 \text{ min} +5/0 \text{ s}$: trip device incorporated into the circuit not trip during the test	See appended table 11.3.2	P
	Same samples then subjected to an electrical insulation resistance test with a direct voltage of 500 V applied for $(60 \pm 2)\text{s}$: measured insulation resistance greater than $100 \text{ M}\Omega$	See appended table 11.3.2	P

12	THERMAL PROPERTIES		P
12.1	Non-metallic and composite conduits have adequate resistance to heat		P
12.2	Samples of conduit, each $(100 \pm 5) \text{ mm}$ long, together with the test apparatus as shown in figure 8, kept for $4 \text{ h} \pm 5 \text{ min}$ in a heating cabinet at the declared temperature given in table 2, with a tolerance of $\pm 2 ^\circ\text{C}$	See appended table 12	P
	Each sample then loaded for $24 \text{ h} \pm 15 \text{ min}$ in the apparatus of figure 8 with a total mass as shown in table 9	See appended table 12	P
12.3	It is possible to pass the appropriate gauge of figure 102 immediately after the removal of the load	See appended table 12	P

13	FIRE HAZARD		P
13.1	Reaction to fire		P
13.1.1	Initiation of fire (not applicable)		—
13.1.2	Contribution to fire (under consideration)		—
13.1.3	Spread of fire		P
	Non-flame propagating conduit systems have adequate resistance to flame propagation		P
13.1.3.1	Non-metallic and composite conduit fittings subjected to glow-wire test of IEC 60695-2-1/1 (IEC 60695-2-11) at $750 ^\circ\text{C}$		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

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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13.1.3.2	Non-metallic and composite conduits subjected to 1 kW flame of IEC 60695-2-4/1 (IEC 60695-11-2), according to the arrangement of figure 7, applied for the period given in table 11		P
	▪ Sample does not ignite, or	See appended table 13.1.3.2	N/A
	▪ In case of ignition:		P
	a) Flame extinguishes within 30 s	See appended table 13.1.3.2	P
	b) No ignition of the tissue paper	See appended table 13.1.3.2	P
	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	P
13.1.4	Additional reaction to fire characteristics (under consideration)		—
13.2	Resistance to fire (not applicable)		—

14	EXTERNAL INFLUENCES		P
14.1	Degree of protection provided by enclosure		P
	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	IP30	P
14.1.1	Degree of protection – Ingress of foreign solid objects	See appended table 14.1.1	P
14.1.2	Degree of protection – Ingress of water	See appended table 14.1.2	N/A
14.2	Resistance against corrosion		N/A
14.2.1	Resistance to corrosion classification for painted and zinc coated steel and steel composite conduits and conduit fittings (table 10).....	1/2/3/4	—
	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 coated steel and steel composite conduits systems		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

IEC 61386-21			
Cl.	Requirement – Test	Result	Verdict
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

8.1A	TABLE: Checking of dimensions of conduits						P
Size		Maximum outside diameter (all type of conduits)		Minimum outside diameter (metallic conduits)		Minimum outside diameter (non-metallic conduits)	
Outside diameters (mm)	Metric threads	Gauge fig.2 d _g (mm)	Comply (P-F-N/A)	Gauge fig.3A c (mm)	Comply (P-F-N/A)	Gauge fig.3b d _g (mm)	Comply (P-F-N/A)
20 +0/-0,3	M20	20,04	P	19,700	N/A	19,70	P
25 +0/-0,4	M25	25,04	P	24,600	N/A	24,60	P
32 +0/-0,4	M32	32,04	P	31,600	N/A	31,60	P
40 +0/-0,4	M40	40,04	P	39,600	N/A	39,60	P
Supplementary information:							

8.1B	TABLE: Checking of dimensions of threads					N/A
Size		External threads of conduits and fittings		Internal threads of fittings		
Outside diameters (mm)	Metric threads	Go gauge fig. 4 (threaded) Comply (P-F-N/A)	No go gauge fig. 4 (plain) Comply (P-F-N/A)	Go gauge fig. 5 (threaded) Comply (P-F-N/A)	No go gauge fig. 5 (plain) Comply (P-F-N/A)	
20 +0/-0,3	M20					
25 +0/-0,4	M25					
32 +0/-0,4	M32					
40 +0/-0,4	M40					
Supplementary information:						

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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8.2A	TABLE: Checking of thread lengths according to table 101 (threadable conduits and threadable conduit fittings)					N/A
Size	External thread			Internal thread		
	Minimum length allowed (mm)	Length measured (mm)	Comply (P-F-N/A)	Minimum length allowed (mm)	Length measured (mm)	Comply (P-F-N/A)
20	14,0			15,0		
25	17,0			18,0		
32	19,0			20,0		
40	19,0			20,0		
Supplementary information:						

8.2B	TABLE: Checking of maximum entry diameter and minimum entry length details according to table 102 (non-threadable conduits and non-threadable conduit fittings)					N/A
Size	Maximum entry diameter allowed (mm)	Entry diameter measured (mm)	Comply (P-F-N/A)	Minimum entry length allowed (mm)	Entry length measured (mm)	Comply (P-F-N/A)
20	20,5	N/A	N/A	20,0	N/A	N/A
25	25,5	N/A	N/A	25,0	N/A	N/A
32	32,6	N/A	N/A	30,0	N/A	N/A
40	40,7	N/A	N/A	32,0	N/A	N/A
Supplementary information:						

8.2C	TABLE: Checking of minimum inside diameter of the conduit system			P
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)	
20	16.1	16.20	P	
25	20.8	20.86	P	
32	27.5	27.60	P	
38	34.8	34.92	P	
Supplementary information:				

9.3	TABLE: Screw test (screw fixing using preformed threads)				N/A
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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Supplementary information:

9.4	TABLE: Screw test (screw fixing using thread-forming screws)					N/A
Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict	
Supplementary information:						

Threaded part identification	Nominal diameter of thread (mm)	Column number of table 3 (I or II)	Applied torque (Nm)	Times (5/10)	Verdict

Supplementary information:

10.2	TABLE: Compression test								P
	Classification (first digit)						2/3/4/5		—
Size	N° of sample	\varnothing_{bt} (mm)	F (N)	\varnothing_{at1} (mm)	$[\varnothing_{bt} - \varnothing_{at1}/\varnothing_{bt}]100 \leq 25 \%$ (%)	\varnothing_{at2} (mm)	$[\varnothing_{bt} - \varnothing_{at2}/\varnothing_{bt}]100 \leq 10 \%$ (%)	No visible cracks (P/F)	Verdict
20	1	19.96	1250	17.26	13.5%	19.84	0.6%	P	P
	2	19.84	1250	16.69	15.9%	19.80	0.2%	P	P
	3	19.76	1250	17.26	12.7%	19.72	0.2%	P	P

Supplementary information:
F = Compression force, reaching the value shown in table 4 within (30 ± 3) s
 \varnothing_{bt} = Outside diameter measured before the test
 \varnothing_{at1} = Outside diameter measured after the force given in table 4 has been applied for (60 ± 2) s where flattening has taken place, without removing the force
 \varnothing_{at2} = Outside diameter measured after the test where flattening has taken place, (60 ± 2) s after removal of the force given in table 4 and the intermediate piece

	Classification (first digit)	2/3/4/5	—
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Size	N° of sample	\varnothing_{bt} (mm)	F (N)	\varnothing_{at1} (mm)	$[\varnothing_{bt} - \varnothing_{at1} / \varnothing_{bt}] 100 \leq 25 \%$ (%)	\varnothing_{at2} (mm)	$[\varnothing_{bt} - \varnothing_{at2} / \varnothing_{bt}] 100 \leq 10 \%$ (%)	No visible cracks (P/F)	Verdict
20	1	19.96	1250	17.26	13.5%	19.84	0.6%	P	P
	2	19.84	1250	16.69	15.9%	19.80	0.2%	P	P
	3	19.76	1250	17.26	12.7%	19.72	0.2%	P	P

Supplementary information:

F = Compression force, reaching the value shown in table 4 within (30 ± 3) s

\varnothing_{bt} = Outside diameter measured before the test

\varnothing_{at1} = Outside diameter measured after the force given in table 4 has been applied for (60 ± 2) s where flattening has taken place, without removing the force

\varnothing_{at2} = Outside diameter measured after the test where flattening has taken place, (60 ± 2) s after removal of the force given in table 4 and the intermediate piece

10.3	TABLE: Impact test						P
	Classification (second digit)					4	—
	Test temperature (table 1) (°C)					-5	—
	Mass of hammer (table 5) (kg)					2.0	—
	Fall height (table 5) (mm)					300	—
Size	N° of sample	Check of possibility to pass the gauge of figure 102 through the sample		No sign of disintegration / No visible cracks		Total n° of samples which passed the test	Verdict
		N° of samples which passed the test	N° of samples which failed the test	N° of samples which passed the test	N° of samples which failed the test		
—	1-12	12	—	12	—	12	P
Supplementary information:							

Classification (second digit)	4	—
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Test temperature (table 1) (°C)	-5	—
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Mass of hammer (table 5) (kg)	2.0	—
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	Fall height (table 5) (mm)	300	—
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		Full height (table 5) (mm)					
Size	N° of sample	Check of possibility to pass the gauge of figure 102 through the sample		No sign of disintegration / No visible cracks		Total n° of samples which passed the test	Verdict
		N° of samples which passed the test	N° of samples which failed the test	N° of samples which passed the test	N° of samples which failed the test		
—	1-12	12	—	12	—	12	P

Supplementary information:

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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10.4.101	TABLE: Bending test (metallic or composite conduits)							N/A
Size	N° of sample	Length of sample (mm)	Inside bending radius R (mm)	Welded seam, if any (outside of the bend/on the side)	No visible cracks (P/F)	Seam not opened, if any (P/F)	Section not distorted unduly: test with gauge of figure 102 (P/F)	Verdict
20								
Supplementary information:								

10.4.102	TABLE: Bending test (non-metallic or composite conduits)				P
	Type of bending aid		Coiled spring		—
	Classification (third digit)		2		—
	Samples conditioned at least 2 h at test temperature (table 1) (°C)		-5		—
Size	N° of sample	Possibility to remove the bending aid without damage (P/F)	No visible cracks (P/F)	Possibility to pass the gauge of figure 102 (P/F)	Verdict
20	1	P	P	P	P
	2	P	P	P	P
	3	P	P	P	P
Supplementary information:					

10.6.102	TABLE: Collapse test (non-metallic and composite conduits)					P
	Type of bending aid		Coiled spring			—
	Classification (fourth digit)		1			—
	Test temperature of the heating cabinet at which the support with the sample in position was kept for 24 h ± 15 min (table 2) (°C)		60			—
Size	N° of sample	Possibility to remove the bending aid without damage (P/F)	No visible cracks (P/F)	Possibility to pass the gauge of figure 102 (P/F)	Possibility to pass the gauge of figure 102 after the heating period of 24 h (P/F)	Verdict
20	1	P	P	P	P	P
	2	P	P	P	P	P
	3	P	P	P	P	P
Supplementary information:						

10.7	TABLE: Tensile test							N/A
	Classification (tenth digit)				2/3/4/5			—
	Increasing tensile force value reached in (30 ± 3)s and then applied for (120 ± 10)s (table 6) (N)							—

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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Size	N° of assembly sample	Art./Type Ref. of the conduit fittings assembled to the conduit	Elongation occurred (Y/N)	After the test the conduit fittings or terminating conduit fittings remained properly assembled (P/F)	No visible cracks (P/F)	Verdict
Supplementary information:						

10.8	TABLE: Suspended load test (conduit fittings)						N/A
	Classification (twelfth digit)			2/3/4/5			—
	Test temperature of the heating cabinet at which the non-metallic and composite conduit fitting was kept during the test (table 2) (°C)						—
Size	N° of sample	Art./Type Ref. of the conduit fitting	Load (N)	Duration (h)	No visible cracks (P/F)	No deformation (P/F)	Verdict
	1						
	2						
	3						
Supplementary information:							

11.2	TABLE: Bonding test					N/A
	Classification (sixth digit): 1/3				—	
Size	N° of arrangement sample	Number and Art./Type Ref. of the conduit fittings coupled together the 10 pieces of conduit		Voltage drop measured (V)	Resistance (Ω)	Verdict
Supplementary information:						

11.3.1	TABLE: Electrical insulating strength and resistance test (conduits)				P
Size	N° of sample	Device incorporated into the circuit not trip during the insulating strength test (P/F)	Insulation resistance measured (MΩ)	Verdict	
20	1	P	500	P	
	2	P	500	P	
	3	P	500	P	
Supplementary information:					

11.3.2	TABLE: Electrical insulating strength and resistance test (conduit fittings)						N/A
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

IEC 61386-21

Cl.	Requirement – Test	Result	Verdict
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20			
Supplementary information:			

12	TABLE: Heating test (conduits)			P
	Classification (fourth digit)	1		—
	Test temperature of the heating cabinet at which the non-metallic and composite conduit fitting was kept for 4 h ± 5 min (table 2) (°C)	60		—
	Classification (first digit)	4		—
	Total mass applied for 24 h ± 5 min in an apparatus as shown in figure 8 (table 9) (kg)	4.0		—
Size	N° of sample	Sample after the period of 24 h ± 5 min and then cool to room temperature under load: no visible cracks (P/F)	Possibility to pass the gauge of figure 102 immediately after the removal of the load (P/F)	Verdict
20	1	P	P	P
	2	P	P	P
	3	P	P	P
Supplementary information:				

13.1.3.1	TABLE: Glow-wire test (non-metallic and composite conduit fittings)				N/A
	Material designation	PVC			—
	Test temperature (°C)	750			—
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 glow-wire (s)	Verdict
20					
Supplementary information:					

13.1.3.2	TABLE: Flame-propagation resistance test (non-metallic and composite conduits)							P
	Material designation							—
Size	N° of sample	Highest mean material thickness (mm)	Flame application time (+1/0) (s)	Sample did not ignite (P/F)	Time of extinguishment of flaming or glowing, if any, after removal of the test flame (s)	No ignition of the tissue paper (P/F)	No evidence of burning or charring (P/F)	Verdict
20	1	1.84	35	Y	0	P	P	P

IEC 61386-21								
Cl.	Requirement – Test				Result			Verdict

	2	1.82	35	Y	0	P	P	P
	3	1.88	35	Y	0	P	P	P

Supplementary information:

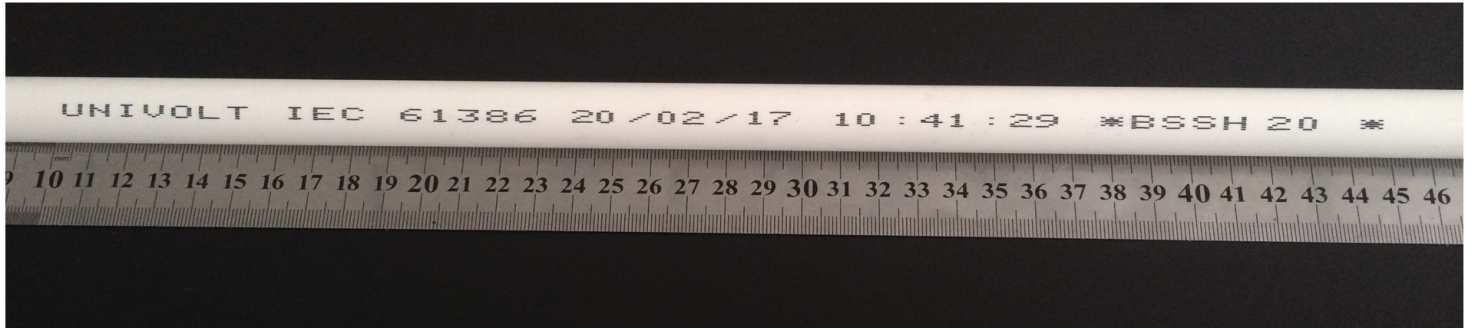
14.1.1	TABLE: Verification of protection against ingress of solid objects					P
	Classification - Protection against ingress of solid objects (seventh digit): 3					—
	For IP5X, category 2 applied				—	—
Size	N° of assembly sample	Art./Type Ref. of the conduit fitting with a short length of conduit assembled 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	
20	1	—	P	N/A	P	
	2	—	P	N/A	P	
	3	—	P	N/A	P	

Supplementary information:

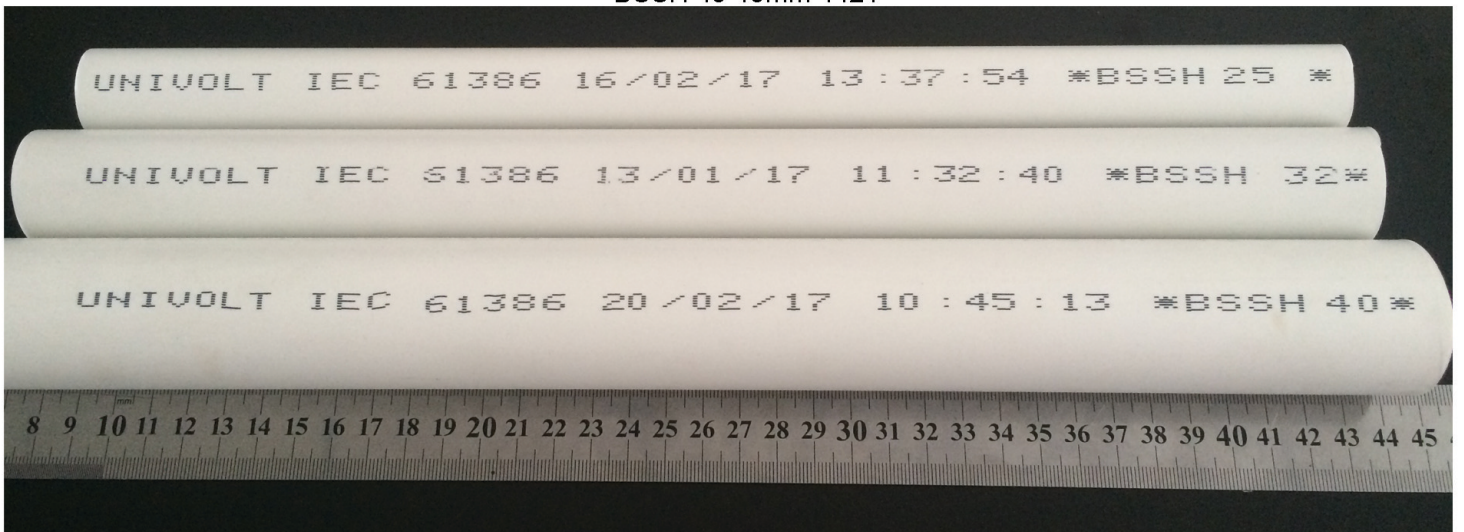
14.1.2	TABLE: Verification of protection against ingress of water					N/A
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ANNEX 1 PHOTOGRAPH

PVC Rigid conduits for cable management
BSSH 20 20mm 4421



BSSH 25 25mm 4421
BSSH 32 32mm 4421
BSSH 40 40mm 4421



Important

1. The test report is invalid without the official stamp of CVC;
2. Any photocopies or part photocopies of the test report are forbidden without the written permission from CVC;
3. The test report is invalid without the signatures of Approval and Reviewer;
4. The test report is invalid if altered;
5. Objections to the test report must be submitted to CVC within 15 days;
6. Generally, commission test is responsible for the tested samples only;
7. "P" means "pass", "F" means "fail", "N/A" means "not applicable" and " / " means "not test".

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