

FUNCTION IN FIRE EXPERT JUDGEMENT REPORT WITH CLASSIFICATION IN ACCORDANCE WITH DIN 4102-12: 1998-11

FIRES-JR-080-22-NURE

Name of the product: Cable bearing system VERGOKAN with cables PRYSMIAN, FABER and PRAKAB

Sponsor: VERGOKAN
Meersbloem Melden 16
9700 Oudenaarde
Belgium

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Slovak Republic

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1. INTRODUCTION

This expert judgement report with classification defines the function in fire classification assigned to element „Cable bearing system VERGOKAN with cables PRYSMIAN, FABER and PRAKAB” in accordance with the classes given in DIN 4102-12: 1998-11.

Test of function in fire was carried out according to standard STN 92 0205. Similar standards for tests of function in fire is DIN 4102-12: 1998-11.

Deviations from standard at the test according to DIN 4102-12: 1998-11: This test was carried out according to standard STN 92 0205: 2012 and meets requirements of DIN 4102-12: 1998-11. Basic deviation in process and carrying out of test between these standards is in measuring and in control of temperature in the test furnace. According to STN 92 0205: 2012, plate thermometers according to EN 1363-1: 1999 are used. According to DIN 4102-12: 1998-11, common thermocouples of construction which was used for this measurement till issue of EN 1363-1:1999 are used. Measurement by plate thermometers acc. to EN 1363-1: 1999 can be considered as stricter method of temperature control in test furnace in compare with thermocouples used till issue of EN 1393-1: 1999. Therefore, it is possible to use results of test according to STN 92 025: 2012 for classification of tested cables according to DIN 4102-12: 1998-11, but not conversely. Identified deviation results in stricter course of test and it can lead to reduced classification of tested cables what is accepted as enhanced security in practice.

This expert judgement report defines field of application which is outside the field of direct application according test standard. This expert judgement expresses the opinion of the FIRES and is based on the experience or internal rules of FIRES.

This product has already been classified by FIRES, s.r.o. and number of previous fire resistance expert judgement report with classification is FIRES-JR-063-16-NURE (issued on 14. 06. 2016) with validity until 14. 06. 2021. Document FIRES-JR-080-22-NURE replaces expert judgement report with classification FIRES-JR-063-16-NURE.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, cable bearing system VERGOKAN with cables PRYSMIAN, FABER and PRAKAB, is defined as a cable bearing system for power and communication halogen free cables with circuit integrity maintenance in fire.

2.2 PRODUCT DESCRIPTION

The element comprise of cable bearing system VERGOKAN – cable trays with accessories (consoles, brackets, screws etc.) with power and communication halogen free cables PRYSMIAN, FABER and PRAKAB with circuit integrity maintenance in fire.

Cable trays KBSI

Cable trays are made of steel sheet 1,0 mm thick. Height of side wall is 60 mm. Width of tray is 400 mm. The trays are perforated on the sides and on the bottom. Cable tray is equipped with integrated junction. Trays are jointed together with 5 pcs of screws VMK 6x10 (new trademark is VMK6.10). Maximum load of trays is 20 kg.m⁻¹. Tested trays were KBSI 60x400x1,00 (new trademark is KBSI60.400.100).

Brackets WKM

Brackets are made of steel sheet 2,5 mm thick. Dimensions of the base steel sheet is (70x175) mm and 8,0 mm thick and is equipped by holes for installation. Holes for installation of trays are in upper part of the brackets.

Tested brackets were WKM 400 (new trademark is HDWKM400).

Consoles HSMU

Consoles are made from steel sheet and are composed of a head plate and the U 50 profile. Dimensions of the base head is (123x123) mm and 4,0 mm thick or (135x135) mm and 5,0 mm thick and is equipped by holes for installation. Dimensions of the U profile is (50x50) mm and 2,5 mm thick and is equipped by holes for installation of brackets. Tested consoles were HSMU 50x1000 (new trademark is HDHSMU50.1000).



SPACER TSU50 and HDTSU50

Spacers are made of steel sheet 1,0 mm thick (TSU50) or 1,5 mm thick (HDTSU50).

Cables

Power and communication free halogen cables are specified for stationary distribution of electrical energy in dry and damp premises. Since they are free from halogens and exhibit enhanced fire performance, these cables are used in those applications where in the event of fire, the negative effect on concentrations of people and valuable material goods must be minimized. Suitable for hotels, hospitals, underground railways, airport etc. to protect people and technical building equipment in the event of fire where there is requirement for maintaining the functional integrity all cable installation in the event of fire. The cables develop in case of fire low heat released rate and smoke and no burning particles drop away during fire accident. Functional integrity all cable installation in the event of fire is guaranteed only with use specified supporting member and cables grips.

Used cables by test

PRYSMIAN cables (producer Prysmian, Viale Sarca 222, IT-20126 Milano, Italy)

- cable (N)HXH-J E30 4x50 RM (2x);
- cable (N)HXH-J E30 4x1,5 RE (2x);
- cable (N)HXCH E30 4x50 RM/25 (2x);
- cable (N)HXCH E30 4x1,5 RE/1,5 (2x);
- cable (N)HXHX-J E90 4x50 RM (2x);
- cable (N)HXHX-J E90 4x1,5 RE (2x);
- cable (N)HXCHX E90 4x50 RM/25 (2x);
- cable (N)HXCHX E90 4x2,5 RE/2,5 (2x);
- cable JE-H(St)H E30 2x2x0,8 (2x).

FABER cables (producer Klaus Faber AG, Lebacher Str. 152-156, D-66009 Saarbrücken, Germany)

- cable (N)HXH FE180 E90 4x50 RM FACAB (2x);
- cable (N)HXH FE180 E90 4x1,5 RE FACAB (2x);
- cable (N)HXCH FE180 E30 4x50 RM/25 FACAB (2x);
- cable (N)HXCH FE180 E30 4x1,5 RE/1,5 FACAB (2x);
- cable (N)HXH FE180 E30 4x50 RM FACAB (2x);
- cable (N)HXH FE180 E30 4x1,5 RE FACAB (2x);
- cable (N)HXCH FE180 E90 4x50 RM/25 FACAB (2x);
- cable (N)HXCH FE180 E90 4x1,5 RE/1,5 FACAB (2x);

PRAKAB cables (producer PRAKAB PRAŽSKÁ KABELOVNA, s.r.o., Ke Kablu 278, 102 09 Praha 15, Czech Republic)

- cable JE-H(St)H FE180 E90 2x2x0,8 (2x).

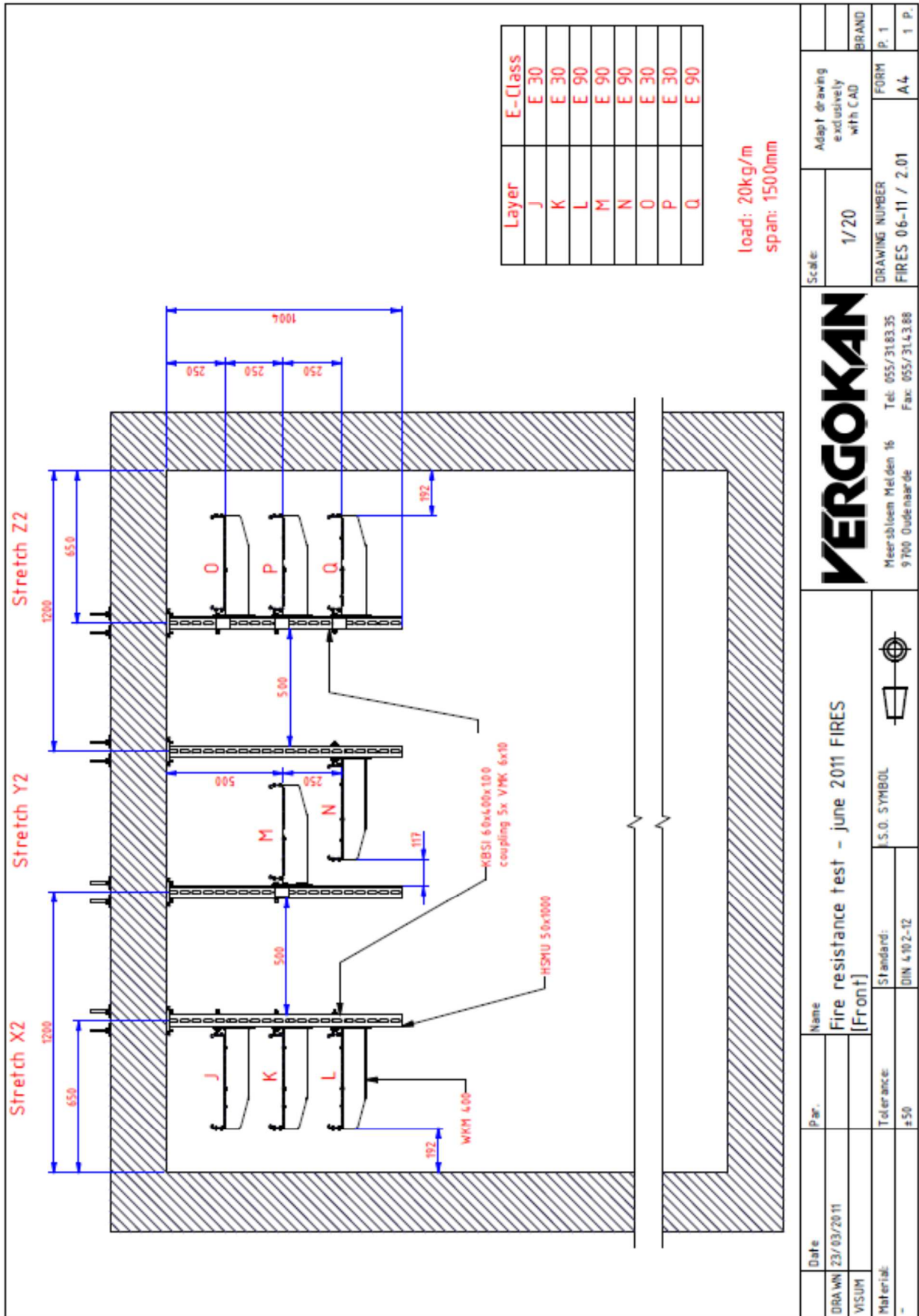
The length of cables was 5,5 m and 4,0 m from that was exposed to fire.

Power and communication cables were fixed to the steel sheet trays in the points of allowed bending radius by steel clamps according to the cable diameter.

More detailed information about product construction is shown in the drawings which form an integral part of test report [1]. Drawings were delivered by sponsor.



Assembly of the tested structure, more information in the test report [1].



Date	23/03/2011	Par.		Name	Fire resistance test - june 2011 FIRES [Front]
DRAWN	VISUM				
Material:	-	Tolerance:	±50	Standard:	DIN 4102-42
				S.O. SYMBOL	
				VERGOKAN	
				Meersbloem Melken 16 9700 Oudenaarde	Tel: 055/3143.35 Fax: 055/3143.88
				Scale:	1/20
				DRAWING NUMBER	FIRES 06-11 / 2.01
				Adapt drawing exclusively with CAD	FORM P. 1
					A4
					1 P.



3. TEST REPORTS AND EXTENDED APPLICATION REPORTS IN SUPPORT OF CLASSIFICATION

3.1 TEST REPORTS AND EXTENDED APPLICATION REPORTS

No.	Name of laboratory	Name of sponsors	Test report No.	Date of the test	Test method
[1]	FIRES, s.r.o., Batizovce, Slovak Republic	VERGOKAN, Oudenaarde, Belgium	FIRES-FR- 119-11-AUNE	02. 06. 2011	STN 92 0205

3.2 TEST RESULTS

Test report No. /Test method	Specimen No.	Cables	Producer	Track No.	Time to first failure / interruption of conductor
[1] STN 92 0205	S1	cable (N)HXH-J E30 4x50 RM	Prysmian	X2-J	91 minutes
	S2	cable (N)HXH-J E30 4x50 RM	Prysmian	X2-J	91 minutes
	S3	cable (N)HXH-J E30 4x1,5 RE	Prysmian	X2-J	31 minutes
	S4	cable (N)HXH-J E30 4x1,5 RE	Prysmian	X2-J	39 minutes
	S5	cable (N)HXCH E30 4x50 RM/25	Prysmian	X2-K	83 minutes
	S6	cable (N)HXCH E30 4x50 RM/25	Prysmian	X2-K	93 minutes
	S7	cable (N)HXCH E30 4x1,5 RE/1,5	Prysmian	X2-K	39 minutes
	S8	cable (N)HXCH E30 4x1,5 RE/1,5	Prysmian	X2-K	93 minutes no failure / interruption
	S9	cable (N)HXHX-J E90 4x50 RM	Prysmian	X2-L	93 minutes no failure / interruption
	S10	cable (N)HXHX-J E90 4x50 RM	Prysmian	X2-L	93 minutes no failure / interruption
	S11	cable (N)HXHX-J E90 4x1,5 RE	Prysmian	X2-L	93 minutes no failure / interruption
	S12	cable (N)HXHX-J E90 4x1,5 RE	Prysmian	X2-L	93 minutes no failure / interruption
	S13	cable (N)HXCHX E90 4x50 RM/25	Prysmian	Y2-M	93 minutes no failure / interruption
	S14	cable (N)HXCHX E90 4x50 RM/25	Prysmian	Y2-M	93 minutes no failure / interruption
	S15	cable (N)HXCHX E90 4x2,5 RE/2,5	Prysmian	Y2-M	93 minutes no failure / interruption
	S16	cable (N)HXCHX E90 4x2,5 RE/2,5	Prysmian	Y2-M	93 minutes no failure / interruption
	S17	cable (N)HXH FE180 E90 4x50 RM FACAB	FABER	Y2-N	93 minutes no failure / interruption
	S18	cable (N)HXH FE180 E90 4x50 RM FACAB	FABER	Y2-N	76 minutes
	S19	cable (N)HXH FE180 E90 4x1,5 RE FACAB	FABER	Y2-N	93 minutes no failure / interruption
	S20	cable (N)HXH FE180 E90 4x1,5 RE FACAB	FABER	Y2-N	93 minutes no failure / interruption
	S21	cable (N)HXCH FE180 E30 4x50 RM/25 FACAB	FABER	Z2-O	79 minutes
	S22	cable (N)HXCH FE180 E30 4x50 RM/25 FACAB	FABER	Z2-O	93 minutes no failure / interruption
	S23	cable (N)HXCH FE180 E30 4x1,5 RE/1,5 FACAB	FABER	Z2-O	88 minutes
	S24	cable (N)HXCH FE180 E30 4x1,5 RE/1,5 FACAB	FABER	Z2-O	93 minutes no failure / interruption
	S25	cable (N)HXH FE180 E30 4x50 RM FACAB	FABER	Z2-P	86 minutes
	S26	cable (N)HXH FE180 E30 4x50 RM FACAB	FABER	Z2-P	93 minutes no failure / interruption
	S27	cable (N)HXH FE180 E30 4x1,5 RE FACAB	FABER	Z2-P	93 minutes no failure / interruption
	S28	cable (N)HXH FE180 E30 4x1,5 RE FACAB	FABER	Z2-P	93 minutes no failure / interruption
	S29	cable (N)HXCH FE180 E90 4x50 RM/25 FACAB	FABER	Z2-Q	73 minutes
	S30	cable (N)HXCH FE180 E90 4x50 RM/25 FACAB	FABER	Z2-Q	93 minutes
	S31	cable (N)HXCH FE180 E90 4x1,5 RE/1,5 FACAB	FABER	Z2-Q	83 minutes
	S32	cable (N)HXCH FE180 E90 4x1,5 RE/1,5 FACAB	FABER	Z2-Q	93 minutes no failure / interruption
	S52	cable JE-H(St)H E30 2x2x0,8	Prysmian	X2-J	93 minutes no failure / interruption
S53	cable JE-H(St)H E30 2x2x0,8	Prysmian	X2-K	65 minutes	
S54	cable JE-H(St)H FE180 E90 2x2x0,8	PRAKAB	Y2-N	66 minutes	
S55	cable JE-H(St)H FE180 E90 2x2x0,8	PRAKAB	Z2-Q	56 minutes	

[1] The fire test was discontinued in 94th minute at the request of test sponsor.

Specimens S1 – S32 were tested by three-phase voltage supply 3 x 230/400V with bulbs 240V / 60 W.
Specimens S52 – S55 were tested by one-phase voltage supply 1 x 110V with LED diodes 3V /0,03W.

Circuit breakers with rating 3 A and performance characteristics B(gL) were used.



4. CLASSIFICATION AND FIELD OF APPLICATION

4.1 CLASSIFICATION ACCORDING TO DIN 4102-12: 1998-11

The element, cable bearing system VERGOKAN – cable trays with accessories (consoles, brackets, screws etc.) with power and communication halogen free cables PRYSMIAN, FABER and PRAKAB with circuit integrity maintenance in fire, is classified according to the following combinations of performance parameters and classes as appropriate.

Used cables PRYSMIAN by test are classified as follows:

Type of cable	Type of tested cable, single cross-sections and number of conductors	Arrangement	Classification for type of tested cable (by cross-sections and number of conductors)	Classification for type of cable
(N)HXH E30	(N)HXH-J E30 4x1,5 RE	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track X2-J.	E 30	n x ≥ 1,5 mm ² n ≥ 1 E 30
	(N)HXH-J E30 4x50 RM		E 90	
JE-H(St)H E30	JE-H(St)H E30 2x2x0,8	Non-standard track X2-J and X2-K.	E 60	n x 2 x ≥ 0,8 mm n ≥ 2 E 60
(N)HXCH E30	(N)HXCH E30 4x1,5 RE/1,5	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track X2-K.	E 30	n x ≥ 1,5/1,5 mm ² n ≥ 1 E 30
	(N)HXCH E30 4x50 RM/25		E 60	
(N)HXHX E90	(N)HXHX-J E90 4x1,5 RE	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track X2-L.	E 90	n x ≥ 1,5 mm ² n ≥ 1 E 90
	(N)HXHX-J E90 4x50 RM		E 90	
(N)HXCHX E90	(N)HXCHX E90 4x2,5 RE/2,5	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track Y2-M.	E 90	n x ≥ 2,5/2,5 mm ² n ≥ 1 E 90
	(N)HXCHX E90 4x50 RM/25		E 90	



Used cables FABER by test are classified as follows:

Type of cable	Type of tested cable, single cross-sections and number of conductors	Arrangement	Classification for type of tested cable (by cross-sections and number of conductors)	Classification for type of cable
(N)HXH FE180 E90 FACAB	(N)HXH FE180 E90 4x1,5 RE FACAB	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track Y2-N.	E 90	n x ≥ 1,5 mm ² n ≥ 1 E 60
	(N)HXH FE180 E90 4x50 RM FACAB		E 60	
(N)HXCH FE180 E30 FACAB	(N)HXCH FE180 E30 4x1,5 RE/1,5 FACAB	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track Z2-O.	E 60	n x ≥ 1,5/1,5 mm ² n ≥ 1 E 60
	(N)HXCH FE180 E30 4x50 RM/25 FACAB		E 60	
(N)HXH FE180 E30 FACAB	(N)HXH FE180 E30 4x1,5 RE FACAB	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track Z2-P.	E 90	n x ≥ 1,5 mm ² n ≥ 1 E 60
	(N)HXH FE180 E30 4x50 RM FACAB		E 60	
(N)HXCH FE180 E90 FACAB	(N)HXCH FE180 E90 4x1,5 RE/1,5 FACAB	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track Y2-M.	E 60	n x ≥ 1,5/1,5 mm ² n ≥ 1 E 60
	(N)HXCH FE180 E90 4x50 RM/25 FACAB		E 60	

Used cables PRAKAB PRAŽSKÁ KABELOVNA, s.r.o.by test are classified as follows:

Type of cable	Type of tested cable, single cross-sections and number of conductors	Arrangement	Classification for type of tested cable (by cross-sections and number of conductors)	Classification for type of cable
JE-H(St)H FE180 E90	JE-H(St)H FE180 E90 2x2x0,8	In cable trays KBSI60.400.100. Ceiling consoles HDHSMU50.1000 wits brackets HDWKM400. Loading 20 kg.m ⁻¹ . Consoles in spacing of 1500 mm. Non-standard track Y2-N and Z2-Q.	E 30	n x 2 x ≥ 0,8 mm n ≥ 2 E 30

The element, cable bearing system VERGOKAN – cable trays with accessories (consoles, brackets, screws etc.) with power and communication halogen free cables PRYSMIAN, FABER and PRAKAB with circuit integrity maintenance in fire, is classified to classes according to achieved test results of tested cables at tracks. Other classification is not allowed.



4.2 FIELD OF APPLICATION

This classification is valid for the following end use applications:

- throughout the period during which circuit integrity is to be maintained, neighboring building components shall not have a negative effect on circuit integrity;
- although testing is only carried out on cables arranged horizontally, test results also apply to cables arranged either diagonally or vertically (e.g. in risers), as long as the cable system is supported in transitional areas (i.e. where it switches from a horizontal to a vertical arrangement) in such a manner that the cables will not slip or kink at corners;
- test results of function in fire test of cables tested at standard supporting construction are also applicable for tested standard supporting construction of other producers;
- test results of function in fire test of cables tested at standard supporting construction are also applicable for cables of other producers tested at standard supporting construction;
- where risers are used, circuit integrity classification only applies if the cable is effectively supported (i.e. with a spacing of supports of 3 500 mm or less and the distance between cable clips is ≤ 300 mm). Figure 5 of standard DIN 4102-12 shows a suitable means of mounting cables on risers. Cables may also be stabilized by a seal at penetrations in floors, provided that the sealant material is of a suitable material class, or using clips of proven suitability. The suitability of any design other than that shown in figure 5 may only be assessed by an accredited test laboratory;
- for vertical systems, the test results obtained for cables mounted singly on the ceiling using single clips apply. Brackets of proven suitability may also be used, as long as their spacing is equal to that of the single clips tested;
- test results of testing single cables on the ceiling apply also to cables mounted horizontally on walls;
- test results of testing bunched cables on a ladder or tray also apply to support construction attached to a wall. However, such constructions required proof of suitability by means of a test certificate or other document issued by an accredited testing laboratory;

4.3 FIELD OF APPLICATION BEYOND THE APPLICATION DEFINED IN STANDARD

- classification for type of cable (by cross-sections and number of conductors) is valid only for tested cable types, number and cross-sections of conductors;
- classification for cable is valid for all numbers and cross-sections of tested cable type;
- test results of cable systems placed on a non-standard support structures are directly applied only to the tested cable systems;
- test results of cables tested at cable trays or ladders are applicable also for another products trays and ladders (cross, elbow, T-bend, bends and etc.);
- test result obtained from testing of cables with five or four conductors applies also to cables of the same type with smaller or greater number of conductors;
- direct application of test results is only for the tested methods of connecting cable trays and cable ladders;
- test results obtained for cable system with cable trays are directly applicable also for usage of cable trays coverings; the coverings shall be ensured against movement with a proper manner. The weight of the cover must be added to the total load;
- **test result is applicable to welded head plate to steel U-shaped ceiling profiles;**
- **heavy joined steel brackets WKM... shall be fixed to steel U-shaped ceiling profiles HSMU from one or from two sides, providing the maximum loading of U-shaped ceiling profiles is not more than during the fire test and only if sufficient type of fixation of the head plates to ceiling is provided;**
- **is possible use the new type of spacer TSU50 instead of spacer HDTSU50;**
- **is possibly change the construction of tested console (base of console) type HDHSMU in accordance with construction drawings in part 6.4.**



4.4 CONSTRUCTION DRAWINGS

load: 20kg/m
span: 1,5m
no of layers: max. 3

5 VMK 6x10 in the coupling

Trays are fixated with 2 VMK 6x10 on each bracket.

no	qty	drawing	description	reference
9	3	44.001	Cable tray with interlocking ends	[KBSI 60x---x1.00]
8	11	VMK 6x10	Toothed round head bolt/nut	[VMK 6x10]
7	3	B 10x80 (DIN 933)	Bolt	[B 10x80]
6	3	TSU PROTO_01	Spacer	[TSU 50]
5	1	HSMU PROTO_03	Ceiling profile: U-shaped	[HSMU 50x-----]
4	2	-	Fire resistant plug	M 10
3	6	CRO 10 (DIN 9029)	Flat giant washer	[CRO 10]
2	5	M 10 (DIN 934)	Nut	[M 10]
1	3	4.554.7	heavy joined bracket	[VMK ---]
no	qty	drawing	description	reference

VERGOKAN

Meerslooten Meldeën 16
9700 Oudenaarde

Tel: 055/3183.35
Fax: 055/314.388

DRAWING NUMBER
FIRES 06-11

Scale: 1/10

Adapt drawing exclusively with CAD

FORM P. 1
A4
1 P.

Date: 23/03/2011
DRAWN: VISUM
Material: -
Tolerance: +50
Standard: DIN 4102-12
S.O. SYMBOL

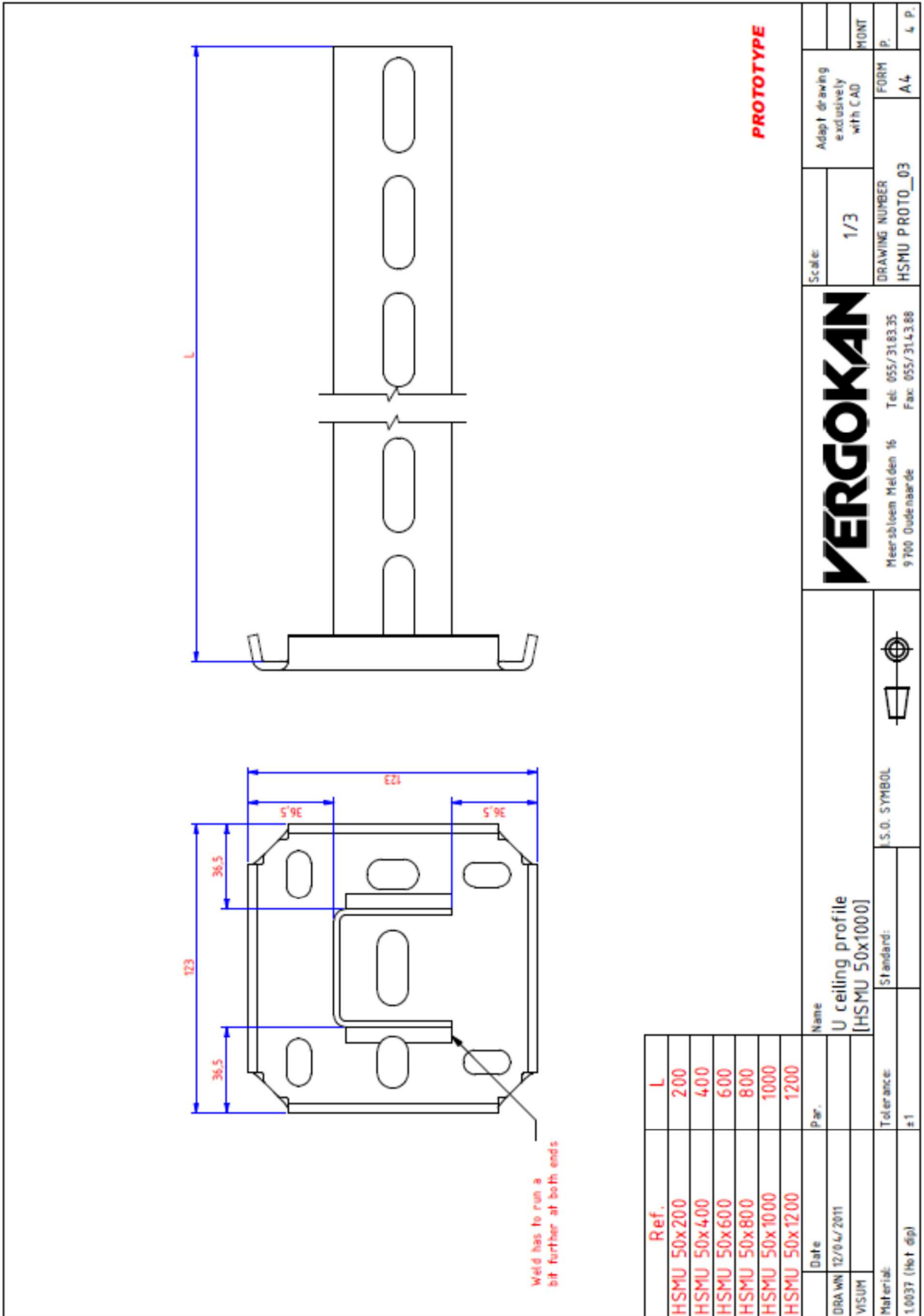
Name: Fire resistance - june 2011 FIRES Without threaded rod, with KBSI 60x---x1.00

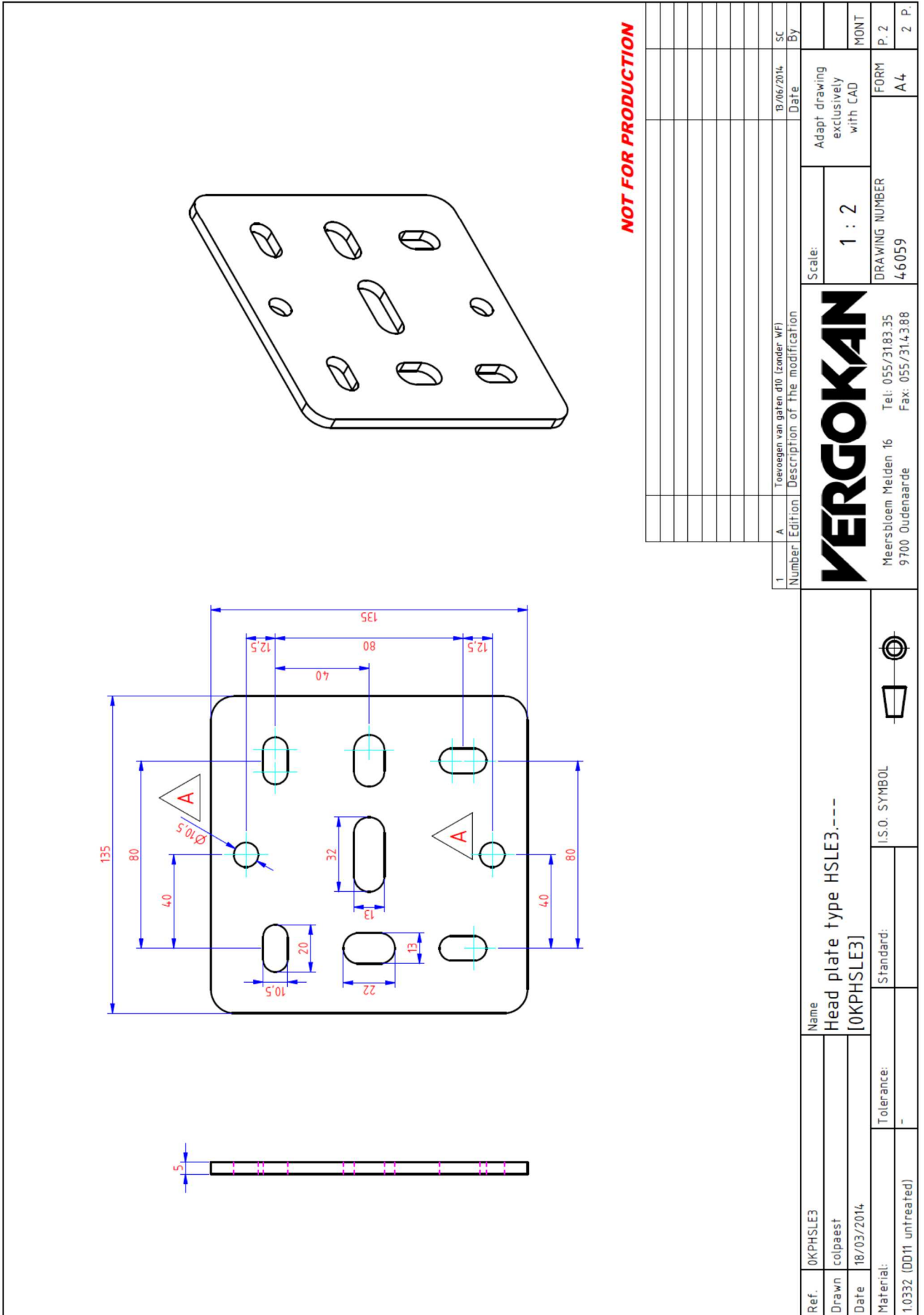


1	A	Aangepaste aluminiumpatronen (NF 888 80075x1 00 25/05/2010)	25/05/2010	Fabrik	GET.	-	VISUM
Aantal		Mt.	Omschrijving		Schied : 1/5		Tekening enkel m.b.v. CAD gereedschap.
		PLANNUMMER 4.4.001		FORM 05/MS	/ 4 / -		KSAAN
		Perruolven Padlen 16 1700 Oefenarbeid		Tel. 055/314335 Fax. 055/314348		k. 11	
						12 k.	

NOT FOR PRODUCTION

Naam	Datum	Par.	Benoaming		
Get. Van Comperebat	02-01-08	<w>	Kabelbaan ineenschuifbaar Perforatiepatronen		
Material : 1.0037 - Sands. In. It.	Tolerantie : 10.5		Norm : -	U.S. SYMBOL	





NOT FOR PRODUCTION

1	A	Toevoegen van gaten d10 (zonder WF)	13/06/2014	SC	By
Number		Edition		Description of the modification	
		Scale:		Adapt drawing exclusively with CAD	
		1 : 2		FORM P. 2	
		DRAWING NUMBER		A4	
		4-6059		2 P.	

VERGOKAN

Meersbloem Meiden 16
9700 Oudenaarde
Tel: 055/31.83.35
Fax: 055/31.4.3.88

Ref.	OKPHSLE3	Name	Head plate type HSLE3.---
Drawn	colpaest		
Date	18/03/2014		
Material:	1.0332 (DD11 untreated)	Tolerance:	-
		Standard:	
		I.S.O. SYMBOL	



NOT FOR PRODUCTION

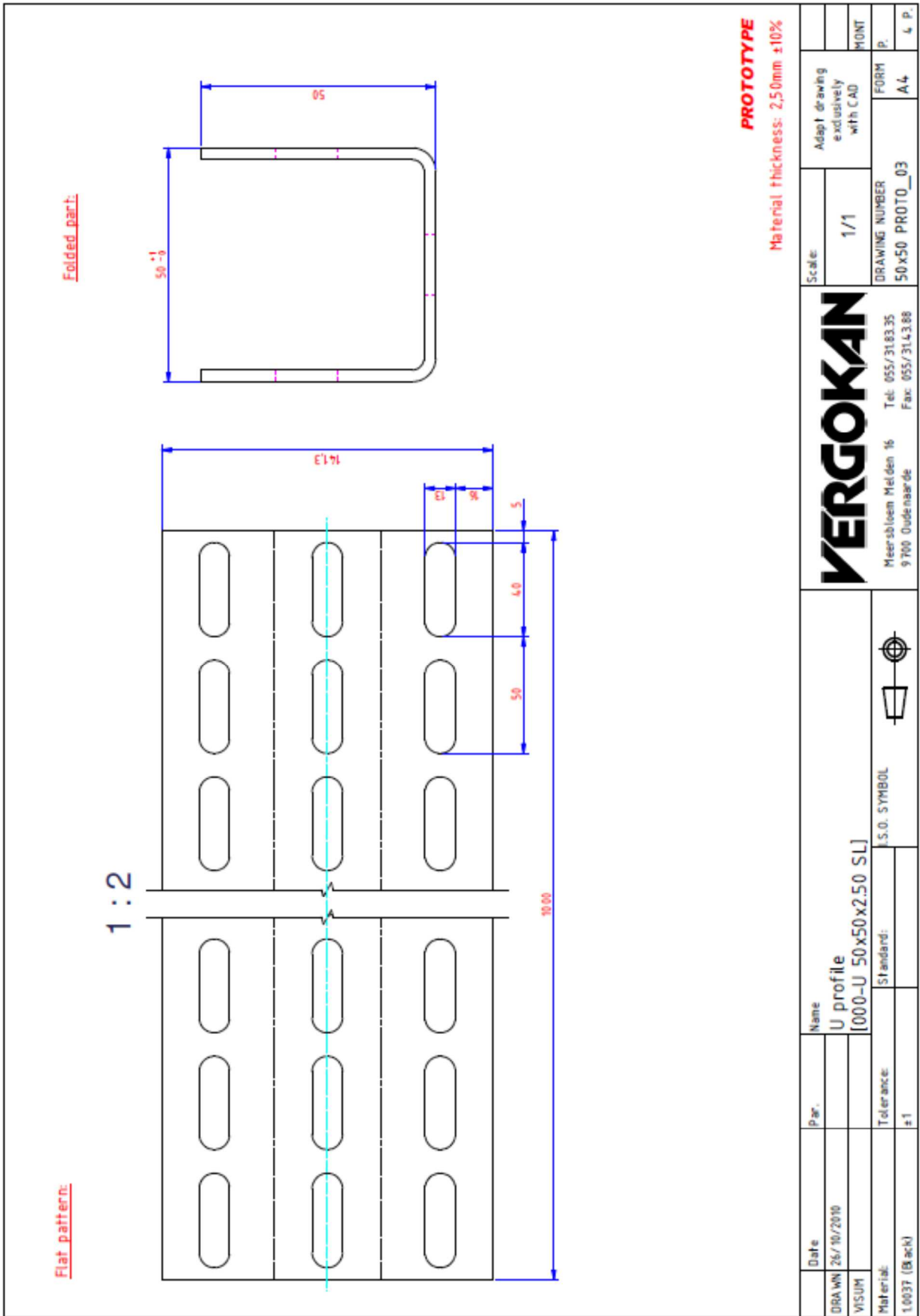
Ref.	L
HDHSMU50.200	200
HDHSMU50.300	300
HDHSMU50.400	400
HDHSMU50.500	500
HDHSMU50.600	600
HDHSMU50.800	800
HDHSMU50.1000	1000
HDHSMU50.1200	1200
HDHSMU50.1500	1500

Ref.	HDHSMU50.----
Drawn	Paul
Date	11/04/2011
Material:	1.0332 (0011 hot dip)
Tolerance:	-

Name		Ceiling profile medium heavy, U shape	
Standard:		[HDHSMU50.1000]	
I.S.O. SYMBOL			

Number	1	viaakje koppilaaf	Description of the modification	
Edition	A			
Date	11/03/2015			
By				

Scale:	1 : 2
Adapt drawing exclusively with CAD	MONT
DRAWING NUMBER	4.5732
FORM	A4
P. 1	1 P.





1	1	M10x80 (DIN 933)	[B10.80]	Zeskantbout
2	2	M10 (DIN 9021)	[CRO10]	Carrossieronddiel
3	1	M10 (DIN 934)	[M10]	Zeskantmoer
4	1	45728	[TTSU50]	Spaeker, HSMU 50
item	qty	drawing	reference	description

Parts list	

NOT FOR PRODUCTION

1	A	Herontwerp naar aarleiding brandstreek 2015 (zw WF HDHSMU50.000 - 27 10 2015)	27/03/2015	notepa
Number	Edition	Description of the modification	Date	By

VERGOKAN	Meersbloem Melden 16 9700 Oudenaarde	Tel: 055/3183.35 Fax: 055/314.388	Scale: 1 : 2 DRAWING NUMBER 45730
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Ref.	TSU--	Name	Spacer HDHSMU 50
Drawn	Paul Note		
Date	15/06/2011		
Material:	10226 (DX51 Pregalva)	Tolerance:	-
		Standard:	I.S.O. SYMBOL

Adapt drawing exclusively with CAD	FORM P.
MONT	A.4



Ref.	Head plate	Thickness head plate	Bracket	Thickness bracket	H	W
000-WKM 100	000-KPWK 300	5,00mm ±10%	000-CWKM 100	2,50mm ±10%	76,3	125
000-WKM 200	000-KPWK 400	5,00mm ±10%	000-CWKM 200	2,50mm ±10%	85,0	225
000-WKM 300	000-KPWKZ 300	8,00mm ±10%	000-CWKM 300	2,50mm ±10%	93,8	325
000-WKM 400	000-KPWKZ 300	8,00mm ±10%	000-CWKM 400	2,50mm ±10%	102,5	425

Number		Edition		Description of the modification		Date	Visum
Scale:		1/5		Adapt drawing exclusively with CAD			
DRAWING NUMBER		WKM FIRES 05-2011		FORM		A4	16 P.
DRAWING NUMBER		WKM FIRES 05-2011		FORM		A4	16 P.

Name		Heavy joined bracket		S.O. SYMBOL			
Date	Par.	[000-WKM 100]		Standard:			
DRAWN 21/03/2011				Tolerance:		±1	
VISUM							
Material:							
1.0037 (Zwart)							

		Meer sbloem Mel den 16 9700 Oudenaarde		Tel: 055/31.83.35 Fax: 055/31.43.88	
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4.5 LABELING OF CABLE TRACK

Contractor marks cable system by attachment of label which must contain the following informations:

- name of responsible person, who installed the system;
- name of cable system as it is stated in this judgement;
- class of circuit integrity maintenance and classification report number;
- real value of mechanical loading of cable system by cables
- date of assembly of cable system.

If the track is long, it is appropriate to repeat the labeling approximately every 50 m.

5. LIMITATIONS

Load-bearing construction elements for fixing of cable systems must be proved for at least the same fire resistance compare to classified function in fire of cable system.

The construction contractor is solely responsible for proper preparation.

This classification document does not represent type approval or certification of the product.

The classification is valid provided that the product, field of application and standards and regulations are not changed.

Approved by:

Ing. Štefan Rástocký
Head of the testing laboratory

Prepared by:

Miroslav Hudák
Technician of the testing laboratory