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

FIRES-JR-104-16-NURE

Name of the product: Cable bearing system LINEAR 1 with power and communication cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o.

Sponsor:
ARKYS, s.r.o.
Podstránská 1
62700 Brno
Česká republika

Manufacturer
ARDIC ELEKTRIK SAN VE TIC LTD STI.
EVREN MAH.BAHAR CAD.NO:2
GUNESLI-BAGCILAR-ISTANBUL
TURKEY

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1. INTRODUCTION

This expert judgement report with classification defines the function in fire classification assigned to element „Cable bearing system LINEAR 1 with power and communication cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o.” in accordance with the classes given in DIN 4102-12: 1998-11.

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

This products have already been classified by FIRES, s.r.o. and number of previous fire resistance expert judgement report with classification is FIRES-JR-035-11-NURE, issued on 27. 06. 2011 with validity until 27. 06. 2016. Document FIRES-JR-104-16-NURE replaces expert judgement report with classification FIRES-JR-035-11-NURE.

2. DETAILS OF CLASSIFIED PRODUCT

2.1 GENERAL

The element, Cable bearing system LINEAR 1 with power and communication cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o., is defined as a cable bearing system with power and communication halogen free cables with circuit integrity maintenance in fire.

2.2 PRODUCT DESCRIPTION

The element comprise of cable bearing system LINEAR 1 – cable trays with accessories (consoles, brackets, supports, hangers, threaded rods, etc.) and power and communication halogen free cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o. with circuit integrity maintenance in fire.

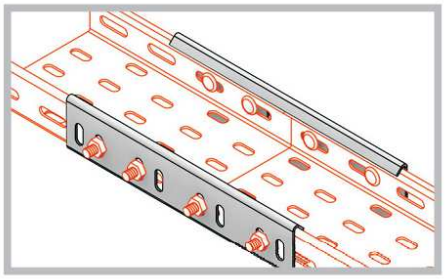
Cable trays LINEAR 1

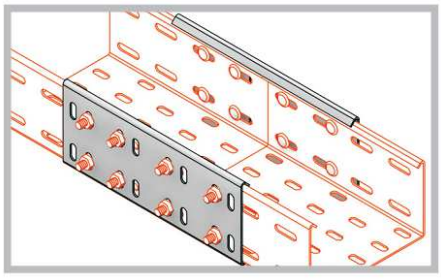
Cable trays LINEAR 1 are made from steel sheet of class 11343, 1,5 mm thick. Length of trays is 3000 mm. Height of tray side is 50 mm, 60 mm or 100 mm. The sides of cable tray are perforated with dimensions Ø 8,5 × 30 mm and bottom is perforated with dimensions Ø 8,5 × 20 mm. The sheet of trays is perforated with dimension of holes 8,5 x 20 mm. The distance between individual holes is 20 mm broadwise and axial distance is 35 mm.

Product range of tray LINEAR 1 is (tray width / height of tray side)
Height of tray side 50 mm: L1 50/50-P, L1 100/50-P, L1 120/50-P, L1 160/50-P, L1 200/50-P, L1 260/50-P, L1 300/50-P, L1 400 / 50-P, L1 500/50-P.
Height of tray side 60 mm: L1 70/60-P, L1 100/60-P, L1 120/60-P, L1 160/60-P, L1 200/60-P, L1 260/60-P, L1 300/60-P.
Height of tray side 100 mm: L1 100/100-P, L1 120/100-P, L1 160/100-P, L1 200/100-P, L1 260/100-P, L1 300/100-P, L1 400/100-P, L1 500/100-P.
Tested trays were L1 300/60-P, L1 500/50-P, L1 500/100-P, L1 160/50-P, L1 200/50-P.

Junction of trays L1 – SL 3

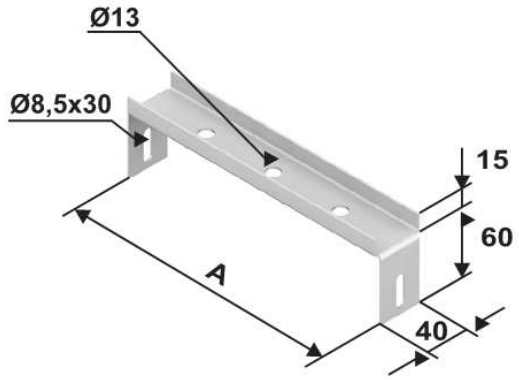
Junction is used for joining of sheet trays LINEAR 1 from outside. It is made from steel sheet of class 11343, 1,5 mm thick. The sheet of junction is perforated with dimension of wholes 8,5 x 20 mm. Length of junction is 250 mm. Carriage screws M8 x 15 with collar nuts are used for joining.
Product range: height of tray side 50 mm SL 3/50, height of tray side 60 mm – SL 3/60, height of tray side 100 mm – SL 3/100.



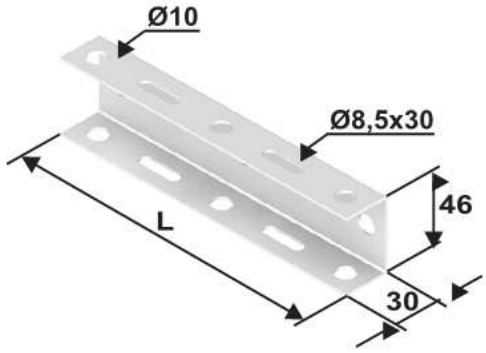


Junction of trays L1 – SL4
Junction is used for joining of sheet trays LINEAR 1 from bottom outside. It is made from steel sheet of class 11343, 1,5 mm thick. The sheet of junction is perforated with dimension of wholes 8,5 x 20 mm. Length of junction is 250 mm. Carriage screws M8 x 15 with collar nuts are used for joining.
Product range: height of tray side 50 mm – SL 4/50, height of tray side 60 mm – SL 4/60, height of tray side 100 mm – SL 4/100.

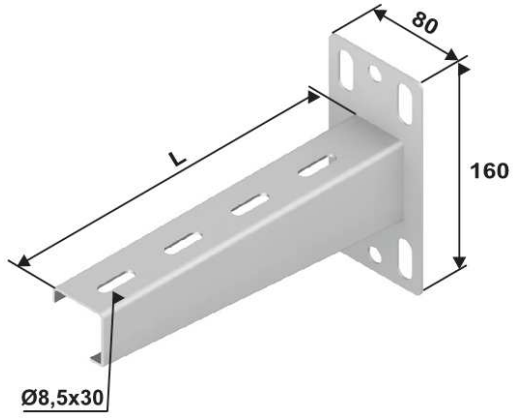
Centre holder of tray - DSL
Holder is used for attachment of tray LINEAR 1 to the ceiling construction by means of center threaded rods. Holder is made of steel sheet of class 11343, 1,5 mm thick. Attachment is made by carriage screws M8 x 15 with collar nut at tray side and by nuts M8 with washers under and over the holder directly to threaded rod.
Product range: height of tray side 50 mm - DSL 50, DSL 70, DSL 100, DSL 120, DSL 160.
Holders DSL 160 at threaded rods ZT 8 fixed to ceiling were tested.



Support - PL
Support – PL is used for attachment of trays LINEAR 1 to the ceiling construction by means of threaded rods ZT8. Support – PL is made from steel sheet of class 11343, 2 mm thick (1,5 mm) Attachment is made by nuts M8 with washers under and over support directly to threaded rods ZT8.
Product range: PL200, PL 300, PL 400, PL 500.
Supports PL 500 at threaded rods ZT8 fixed to ceiling were tested.

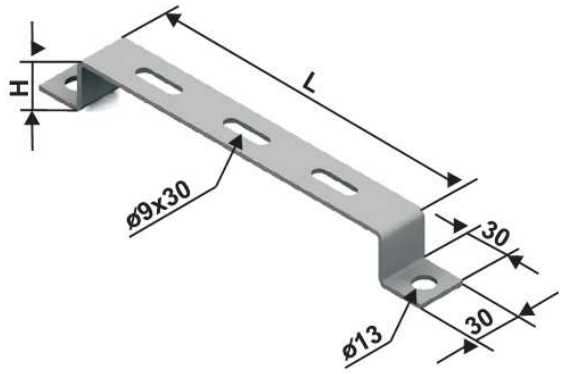


Support - NL
Support NL is used for attachment of trays LINEAR 1 either to profile STPM or direct to wall. Support is made from steel sheet of class 11343, 2 mm thick (1,5 mm). Attachment to profile STPM is made by carriage screws M8 x 15 with collar nuts.
Product range: NL50, NL 70, NL 100, NL 120, NL 160, NL 200, NL 260, NL 300, NL 400, NL 500.
Supports NL 500 and NL 200 at profile STPM fixed to ceiling, support NL 300 fixed to wall in standard construction and support NL 300 at profile STPM fixed to ceiling in standard construction were tested.



Wall holder of tray – DNL

Holder is used for attachment of tray LINEAR 1 to wall. Holder is made from steel sheet of class 11343, 2 mm thick (1,5 mm). Attachment of tray to holder is made by carriage screws M8 x 15 with collar nuts.
Product range: DNL 50, DNL 70, DNL 100, DNL 120, DNL 160, DNL 200, DNL 260, DNL 300, DNL 400, DNL 500.
Holders DNL 250 were tested.

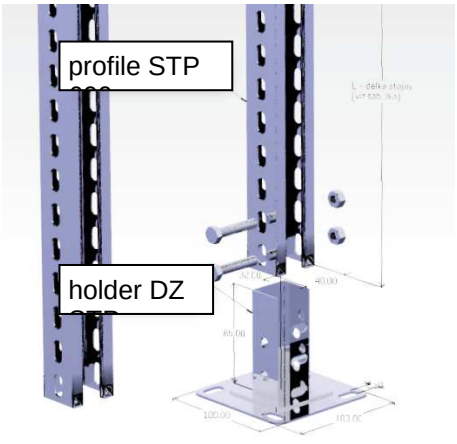


Holders DZM

Holder DZM STP is made from steel sheet of class 11 343, 2 mm thick. It is used for fixation of profile STPM to ceiling. Profile STPM is inserted to holder DZM and attached by carriage screws M8 x 20 with washers and nuts M8.
Holder DZM 12 is made from steel sheet class 11343, 1,5 mm thick. It is used for fixation to wall.
Holders DZM STP and DZM 12 were tested.

Profile STPM

Profile (upright) STPM (length 200 – 3000 mm) is made from steel sheet of class 11 343, 2 mm thick, 40 mm wide and 35 mm high. It is used for creation of various multi-sides ceiling constructions in space. Supports NZ 50 and NZ 500 are attaching to this profile. Holders DZM STP are used for fixation of profiles to ceiling. Profiles with length 1200 mm were tested



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:
PRAKAB PRAŽSKÁ KABELOVNA, s.r.o.

- type PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R... (22x – acc. TP PRAKAB 04/08)
- type PRAFlaDur® 90 (N)HXH-J 4x10 RE FE180/P90-R... (2x – acc. TP PRAKAB 04/08)
- type PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R... (18x – acc. TP PRAKAB 04/08)
- type PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R... (20x – acc. TP PRAKAB 05/01 – 5th issue)

Length of tested cables was 4,5 m and 3,1 m from that was exposed to fire.

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

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 sponsor	Name of manufacturer	Test report No.	Date of the test	Test method
[1]	FIRES, s.r.o., Batizovce, Slovak Republic	K.B.K. fire, s.r.o., Ostrava – Přívoz, Czech Republic	ARDIC ELEKTRIK SAN VE TIC LTD STI., GUNESLI-BAGCILAR-ISTANBUL, TURKEY	FIRES-FR-087-11-AUNE	21. 04. 2011	DIN 4102-12

3.2 TEST RESULTS

Test report No. /Test method	Specimen No.	Cables	Track No.	Time to first failure / interruption of conductor
[1] DIN 4102-12	8	PRAFlaDur® 90 (N)HXH-J 4x10 RE FE180/P90-R...	E2	120 minutes no failure / interruption
	9	PRAFlaDur® 90 (N)HXH-J 4x10 RE FE180/P90-R...	E2	120 minutes no failure / interruption
	10	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	E1	120 minutes no failure / interruption
	11	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	E1	120 minutes no failure / interruption
	12	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	13	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	14	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	15	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	D2	120 minutes no failure / interruption
	16	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	17	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	18	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	19	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	D1	120 minutes no failure / interruption
	20	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C3	85 minutes
	21	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C3	85 minutes
	22	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	C3	120 minutes no failure / interruption
	23	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	C3	120 minutes no failure / interruption
	24	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C2	120 minutes no failure / interruption
	25	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C2	120 minutes no failure / interruption

Test report No. /Test method	Specimen No.	Cables	Track No.	Time to first failure / interruption of conductor
[1] DIN 4102-12	26	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	C2	113 minutes
	27	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	C2	120 minutes no failure / interruption
	28	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	29	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	30	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	31	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	C1	120 minutes no failure / interruption
	34	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	B1	120 minutes no failure / interruption
	35	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	B1	120 minutes no failure / interruption
	36	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	B1	120 minutes no failure / interruption
	37	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	B1	117 minutes
	42	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	A1	120 minutes no failure / interruption
	43	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	A1	120 minutes no failure / interruption
	44	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	A1	112 minutes
	45	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...	A1	120 minutes no failure / interruption
	53A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	E1	120 minutes no failure / interruption
	53B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	E1	120 minutes no failure / interruption
	54A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	D2	120 minutes no failure / interruption
	54B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	D2	120 minutes no failure / interruption
	55A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	D1	93 minutes
	55B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	D1	107 minutes
	56A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	C3	54 minutes
	56B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	C3	105 minutes
	57A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	C2	75 minutes
	57B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	C2	120 minutes no failure / interruption
	58A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	C1	99 minutes
	58B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	C1	119 minutes
	61A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	B1	120 minutes no failure / interruption
	61B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	B1	114 minutes
	70A	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	A1	120 minutes no failure / interruption
	70B	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...	A1	120 minutes no failure / interruption

[1] The fire test was discontinued in 123rd minute at the request of test sponsor.

Specimens S1 – S49 were tested by three-phase voltage supply 3 x 230/400V with bulbs 240V / 60 W.
Specimens S52 – S70 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 LINEAR 1 – cable trays with accessories (consoles, brackets, supports, hangers, threaded rods, etc.) and power and communication halogen free cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o. is classified according to the following combinations of performance parameters and classes as appropriate.

Used cables by test are classified as follows:

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 cable**
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 300/60-P. Supports NL 300 with holders DPL1 and threaded rods ZT8. Wall mounting. Loading of trays 10 kg.m^{-1}. Spacing of supports 1200 mm. Track No. A1.	**E 90**	n x ≥ 1,5 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 90**	n x 2 x ≥0,8 mm n ≥ 1 **E 90**
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 300/60-P. Profiles STPM 1200 with holders DZM STP and supports NL 300 and holders DPL1 and threaded rods ZT8. Ceiling mounting. Loading of trays 10 kg.m^{-1}. Spacing of supports 1200 mm. Track No. B1.	**E 90**	n x ≥ 1,5 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 90**	n x 2 x ≥0,8 mm n ≥ 1 **E 90**
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/100-P. Supports PL 500 P with threaded rods ZT8. Ceiling mounting. Loading of trays 15 kg.m^{-1}. Spacing of supports 1200 mm. Track No. C1.	**E 90**	n x ≥ 1,5 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 90**	n x 2 x ≥0,8 mm n ≥ 1 **E 90**
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In traysL1 500/50-P. Supports PL 500 P with threaded rods ZT8. Ceiling mounting. Loading of trays 15 kg.m^{-1}. Spacing of supports 1200 mm. Track No. C2.	**E 90**	n x ≥ 1,5 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 60**	n x 2 x ≥0,8 mm n ≥ 1 **E 60**
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/100-P. Profiles STPM 1200 with holders DZM STP and supports NL 500. Ceiling mounting. Loading of trays 15 kg.m^{-1}. Spacing of profiles 1200 mm. Track No. D1.	**E 90**	n x ≥ 1,5 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 90**	n x 2 x ≥0,8 mm n ≥ 1 **E 90**

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 cable
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 500/50-P. Profiles STPM 1200 with holders DZM STP a supports NL 500. Ceiling mounting. Loading of trays 15 kg.m^{-1}. Spacing of profiles 1200 mm. Track No. D2.	**E 90**	n x ≥ 1,5 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x50 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 90**	n x 2 x ≥0,8 mm n ≥ 1 **E 90**
PRAFlaDur® 90 (N)HXH-J	PRAFlaDur® 90 (N)HXH-J 5x1,5 RE FE180/P90-R...	In trays L1 160/50-P. Holders DSL 160 with threaded rods ZT8. Ceiling mounting. Loading of trays 7 kg.m^{-1}. Spacing of holders 1200 mm. Track No. E1.	**E 90**	n x 1,5 - 10 mm^2 n ≥ 2 **E 90**
	PRAFlaDur® 90 (N)HXH-J 4x10 RE FE180/P90-R...		**E 90**	
PRAFlaGuard® F SSKFH-V180	PRAFlaGuard® F SSKFH-V180 1x2x0,8 P90-R...		**E 90**	n x 2 x ≥0,8 mm n ≥ 1 **E 90**

The element, cable bearing system LINEAR 1 – cable trays with accessories (consoles, brackets, supports, hangers, threaded rods, etc.) and power and communication halogen free cables of company PRAKAB PRAŽSKÁ KABELOVNA s.r.o. are 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. 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;
- 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 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;
- test results of function in fire test of cables at nonstandard supporting construction are valid only for tested construction with particular tested cable type and are also applicable for supporting construction with smaller spacing of consoles and smaller loading;
- test results of cables tested in cable trays or ladders are applicable also for cable trays and ladders with particular construction with smaller width as tested with particular smaller loading;
- 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.);
- it is possible to use tested standard cable tracks (tracks A and B, trays L1 300/60-P) maximally for three levels one under another;
- it is possible to use tested nonstandard cable track (track C, trays L1 500/50-P, L1 500/100-P) suspended at threaded rods ZT8 with supports PL 500 P maximally for three levels one under another;
- it is possible to use tested nonstandard cable track (track D, trays L1 500/50-P, L1 500/100-P) suspended at space profiles (uprights) STPM 1200 with supports NL 500 maximally for three various levels one under another in asymmetrical loading with maximal difference of loading 25 kg.m^{-1};

- it is possible to use tested nonstandard cable track (track E, trays L1 160/50-P) suspended at threaded rods ZT 8 with holders DSL 160 maximally for two various levels one under another;
- test results are applicable for tested dimension range L1 300/60-P, L1 500/50-P, L1 500/100-P and L1 160/50-P or smaller of same construction as tested with particular smaller loading;
- maximal span of supports must be 1200 mm for trays L1;
- test results of cables in trays fixed to wall are applicable only for bearing construction attached to wall with same or smaller hangers span and loading;
- test results of cables at bearing construction made from zinc-coated steel are applicable also for bearing construction made from stainless steel;
- test results are applicable only for systems without connection elements (e.g. junction box, branch bar).

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.

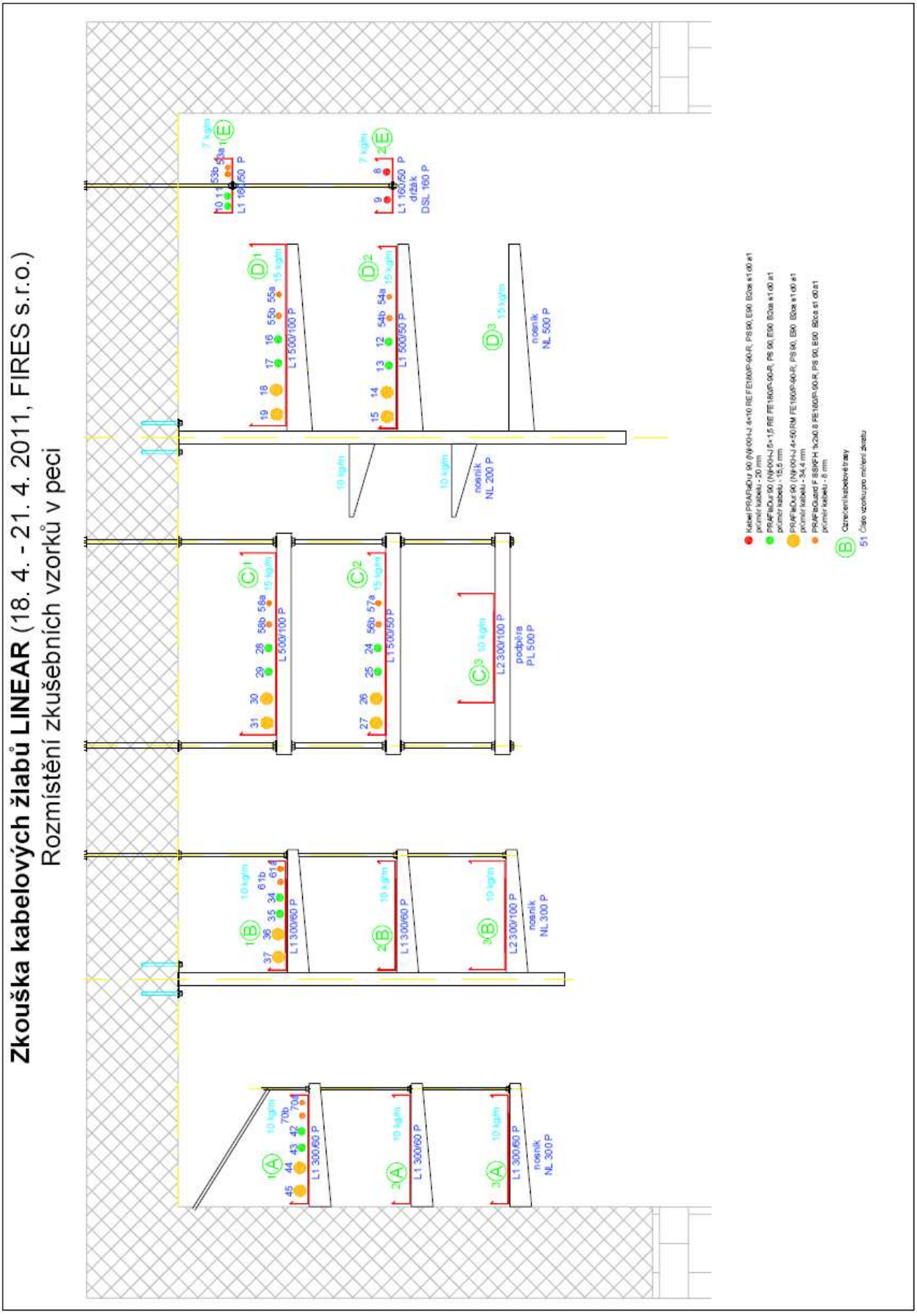
This classification document does not represent type approval or certification of the product.

The classification is valid until 26. 08. 2021 provided that the product, field of application and standards and regulations are not changed.

Approved: Signed:

Ing. Štefan Rástocký
leader of the testing laboratory

Miroslav Hudák
technician of the testing laboratory


Zkouška kabelových žlabů LINEAR (18. 4. - 21. 4. 2011, FIRES s.r.o.)
Rozmístění zkušebních vzorků v peci
L1 300/60 P
L1 500/100 P
L1 500/50 P
L1 160/50 P
L2 300/100 P
nosník NL 300 P
nosník NL 500 P
nosník NL 200 P
podpěra PL 500 P
10 kg/m
15 kg/m
7 kg/m
Čárové vzorky pro měření zkratu