



CE LVD TEST REPORT

For
PAVANELLO S.R.L.

Model No.: MAGNETIK Track System

Applicant: Pavanello S.R.L.
via A. Diaz, 21
31048 San Biagio di Callalta (TV)

Manufacturer: Pavanello S.R.L.
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Issued Date: January 11, 2021
Date(s) of Tests: December 07 - December 22, 2020

Note

The test data and result is based on the tested sample only.

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TEST REPORT
EN 60570

Electrical supply track system for luminaires

Report number: PVN 007/390-15
Date of issue: January 11, 2021
total number of pages: 27

Name of Testing Laboratory preparing the Report: First Group sas - Mogliano V.to - Treviso - Italy

Applicant's name: Pavanello S.R.L.
Address: via A. Diaz, 21
31048 San Biagio di Callalta (TV)

Test specification Standard: EN 60570: 2003 use in conjunction with EN 60598-1: 2015

Non standard test method: N/A

Trade Mark: Pavanello

Model/Type designation: MAGNETIK Track System

Test Item Description: track system and magnetic adaptor

Ratings: 12/24/48Vdc max 7A

Operating Condition: continuous


Class of equipment: CL III


Protection against ingress of water: IP20

Possible test verdict

N/A test case does not apply to the test object
P (pass) test object does meet the requirement
F (fail) test object does not meet the requirement

Name and adress of the testing laboratory: First Group sas
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31021 Mogliano V.to - Treviso
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Tested by: Valter Benetton 
Date: December 07 - December 22, 2020

Reviewed and approved by: Giorgio Lovisetto 
Date: January 11, 2021

General remarks:

This report includes the following parts:

- _ All clause of EN 60570:2003 and appropriate clause of EN 60598-1: 2015.
- _ Annex 1: Critical Components information
- _ Annex 2: Temperature Measurement
- _ Annex 3: Screw Terminals.
- _ Annex 4: Screwless Terminals.
- _ Annex 5: European Group Differences and National Differences.
- _ Annex 6: Photo Documentation.
- _ Annex 7: Instruction Sheet.
- _ Annex 8: Thermal Graphic.

The test result presented in this report relate only to the object tested.

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Unless otherwise specified, test are made under normal conditions at an ambient temperature within the range of 15°C to 35°C, RH 45% to 75% and an air pressure of 860mbar to 1060mbar.

LABEL

Track label

PAVANELLO
via Diaz, 21 - 31048 San Biagio di Callalta (TV)
Magnetik Track System - CM00K15GANI
12/24/48Vdc
max 7A
IP20
Serial number
Made in



Adaptor label / supply connector label *

PAVANELLO
Magnetik Track System - CM01GA
12/24/48Vdc
Max 3A



* Component with double function: adaptor when connected to light source and supply connector when connected to driver

Others components label

PAVANELLO
Magnetik Track System



Note

- _ The artwork above may be only a draft.

EN 60570			
Clause	Requirement + Test	Result - Remark	Verdict
1	GENERAL		
1	This standard applies to the following track systems:		-
	_rated voltage max 440V, max 16A, with earth		-
	_SELV system max 25Vac or 60Vdc, max 25A		-
	_mixed supply system		-
	_only ordinary interior use		-
4	CLASSIFICATION		P
	Type of protection	Class III	P
	Degree of protection	IP20	P
6	MARKING		P
6 (3.2)	Mandatory markings		P
	Position of the marking		P
	Format of symbols/text		P
6 (3.3)	Additional information		P
	Language of instructions	IT (see Annex 7)	P
6 (3.3.2)	Nominal frequency in Hz		N/A
6 (3.3.3)	Operating temperature	70°C	P
6 (3.3.4)	Symbol or warning notice		N/A
6 (3.3.5)	Wiring diagram	See instructions - Annex 7	P
6 (3.3.6)	Special conditions		N/A
6 (3.3.9)	Power factor and supply current	max 7A	P
6 (3.3.10)	Suitability for use indoors		N/A
6 (3.3.11)	Track with remote control		N/A
6 (3.3.14)	Symbol for nature of supply		P
6 (3.3.15)	Rated current of socket outlet		N/A
6 (3.3.17)	Mounting instruction for type Y, type Z and some type X attachments		P
6 (3.3.19)	Protective conductor current in instruction if applicable		N/A
6 (3.3.20)	Provided with information if not intended to be mounted within arm's reach		N/A
6 (3.3.22)	Controllable track, classification of insulation provided		N/A
6 (3.4)	Test with water	15s	P
	Test with hexane	15s	P
	Legible after test		P
	Label attached		P
6.1	Rated current (A)	7A	P
	Rated voltage (V)	12/24/48Vdc	P
	Class III symbol		P
	For mixed supply system:		N/A
	_rated current (A) on the main voltage sector		N/A
	_rated voltage (V) on the main voltage sector		N/A
	_rated current (A) on SELV sector		N/A
	_rated voltage (V) on SELV sector		N/A
	_symbol of Class III on SELV sector		N/A
6.2	Adaptors:		P
	_rated current (A)	3A	P
	_rated voltage (V)	12/24/48Vdc	P

	_manufacturers name or trade mark		P
	_Class III symbol		P
	_fuse rated current		N/A
	_fuse type		N/A
6.3	Couplers and connectors:		P
	_manufacturers name or trade mark		P
	_type reference		P
	_Class III symbol		P
	Supply connector not incorporate: marked with rated current and rated voltage		P
6.4	Rated current and rated voltage easily discernible during and after installation		N/A
6.5	Additional information (marked or instructions)		P
	a) maximum load	track designed only for supply	N/A
	b) warning: components unsuitable for inductive load		N/A
	c) maximum track temperature if different from 70°C		N/A
	d) warning: user's responsibility		P
	Adaptors instructions: use limited to track system specified		N/A
6.6	Instruction for Class III and mixed supply:		P
	a) warning: class III system or sector connect only SELV supply		P
	b) safety isolating transformer: correct terminals connections		N/A
	c) adaptors compatibility only with Class III track	Magnetik Track System	P
	d) overload and short-circuit protection of SELV circuit		P
	e) minimum cross-section and maximum length between transformer and track supply connector		P
	Warning: "To reduce risk of overheating and fire do not bridge conductors"		P
7	GENERAL REQUIREMENTS AND RATINGS		P
	Class I: max 440V, max 16A		N/A
	Class III: max 25Vac or 60Vdc, max 25A	12/24/48Vdc, 7A	P
8	CONSTRUCTION		P
8 (4.2)	Components replaceable without difficulty		P
8 (4.3)	Wireways smooth and free from sharp edges		P
8 (4.6)	Terminal blocks		N/A
	Tails	connector	N/A
	Unsecured blocks		N/A
8 (4.7)	Terminals and supply connections		N/A
8 (4.7.1)	Contact to metal parts		N/A
8 (4.7.2)	Test 8 mm live conductor		N/A
	Test 8 mm earth conductor		N/A
8 (4.7.3)	Terminals for supply conductors		P
8 (4.7.3.1)	Welded method and material		P
	_ stranded or solid conductor		N/A
	_ spot welding		P
	_ welding between wires		N/A
	_ Type Z attachment		N/A
	_ mechanical test according to 15.6.2		N/A
	_ electrical test according to 15.6.3		N/A

	_ heat test according to 15.6.2.3 and 15.6.2.4		N/A
8 (4.7.4)	Terminals other than supply connection		N/A
8 (4.7.5)	Heat-resistant wiring/sleeves		N/A
8 (4.7.6)	Multi-pole plug		P
	_ test at 30 N		P
8 (4.8)	Switches		N/A
	_ adequate rating		N/A
	_ adequate fixing		N/A
	_ polarized supply		N/A
	_ compliance with IEC 61058-1 for electronic switches		N/A
8 (4.9)	Insulating lining and sleeves		N/A
8 (4.9.1)	Retainment		N/A
	Method of fixing		N/A
8 (4.9.2)	Insulated linings and sleeves:		N/A
	Resistant to a temperature > 20 °C to the wire temperature or		N/A
	a) & c) Insulation resistance and electric strength		N/A
	b) Ageing test. Temperature (°C)		N/A
8 (4.10)	Double or reinforced insulation		N/A
8 (4.10.1)	No contact, mounting surface – accessible metal parts – wiring of basic insulation		N/A
	Safe installation fixed luminaires		N/A
	Capacitors and switches		N/A
	Interference suppression capacitors according to IEC 60384-14		N/A
8 (4.10.2)	Assembly gaps:		N/A
	_ not coincidental		N/A
	_ no straight access with test probe		N/A
8 (4.10.3)	Retainment of insulation:		N/A
	_ fixed		N/A
	_ unable to be replaced; luminaire inoperative		N/A
	_ sleeves retained in position		N/A
	_ lining in lampholder		N/A
8 (4.11)	Electrical connections and current-carrying parts		P
8 (4.11.1)	Contact pressure		N/A
8 (4.11.2)	Screws:		N/A
	_ self-tapping screws		N/A
	_ thread-cutting screws		N/A
8 (4.11.3)	Screw locking:		N/A
	_ spring washer		N/A
	_ rivets		N/A
8 (4.11.4)	Material of current-carrying parts		P
8 (4.11.5)	No contact to wood or mounting surface		P
8 (4.11.6)	Electro-mechanical contact systems		P
8 (4.12)	Screws and connections (mechanical) and glands		N/A
8 (4.12.1)	Screws not made of soft metal		N/A
	Screws of insulating material		N/A
	Torque test: torque (Nm); part		N/A
	Torque test: torque (Nm); part		N/A
	Torque test: torque (Nm); part		N/A

8 (4.12.2)	Screws with diameter < 3 mm screwed into metal		N/A
8 (4.12.4)	Locked connections:		P
	_ couplers and connector; torque (Nm).....		N/A
	_ various; torque (Nm)		N/A
	_ push-button switches; torque 0,8 Nm		N/A
8 (4.12.5)	Screwed glands; force (Nm)		N/A
8 (4.13)	Mechanical strength		P
8 (4.13.1)	Impact tests:		P
	_ fragile parts; energy (Nm)	0,2Nm	P
	_ other parts; energy (Nm)	0,35Nm	P
	1) live parts		P
	2) linings		N/A
	3) protection		N/A
	4) covers		N/A
8 (4.13.3)	Straight test finger		P
8 (4.13.4)	Rough service luminaires		N/A
	- IP54 or higher		N/A
	a) fixed		N/A
	b) hand-held		N/A
	c) delivered with a stand		N/A
	d) for temporary installations and suitable for mounting on a stand		N/A
8 (4.13.6)	Tumbling barrel		N/A
8 (4.14)	Suspensions, fixings and means of adjusting		N/A
8 (4.14.1)	Mechanical load	replaced by 8.6	N/A
8 (4.14.2)	Load to flexible cables		N/A
	Mass (kg)		N/A
	Stress in conductors (N/mm ²)		N/A
8 (4.14.3)	Adjusting devices:		N/A
	_ flexing test; number of cycles		N/A
	_ strands broken		N/A
	_ electric strength test afterwards		N/A
8 (4.14.4)	Telescopic tubes: cords not fixed to tube; no strain on conductors		N/A
8 (4.14.5)	Guide pulleys		N/A
8 (4.14.6)	Strain on socket-outlets		N/A
8 (4.15)	Flammable materials		N/A
	_ glow-wire test 650°C		N/A
	_ spacing ≥30 mm		N/A
	_ screen withstanding test of 13.3.1		N/A
	_ screen dimensions		N/A
	_ no fiercely burning material		N/A
	_ thermal protection		N/A
	_ electronic circuits exempted		N/A
8 (4.16)	Track for mounting on normally flammable surfaces		P
	No track control gear	(compliance with Section 12)	P
8 (4.16.1)	Track control gear spacing:		N/A
	_ spacing 35 mm		N/A
	_ spacing 10 mm		N/A
8 (4.16.2)	Thermal protection:		N/A

	_ in track control gear		N/A
	_ external		N/A
	_ fixed position		N/A
	_ temperature marked lamp control gear		N/A
8 (4.16.3)	Design to satisfy the test of 12.6		N/A
8 (4.18)	Resistance to corrosion		N/A
8 (4.18.1)	rust-resistance		N/A
8 (4.18.2)	season cracking in copper		N/A
8 (4.18.3)	corrosion of aluminium		N/A
8 (4.20)	Rough service vibration		N/A
8 (4.25)	Mechanical hazard		P
	No sharp point or edges		P
8 (4.26)	Short-circuit protection		P
8 (4.26.1)	Adequate means of uninsulated accessible SELV parts		P
8 (4.26.2)	Short-circuit test with test chain according 4.26.3		P
	Test chain not melt through		P
	Test sample not exceed values of Table 12.1 and 12.2		P
8 (4.27)	Terminal blocks with integrated screwless earthing contacts		N/A
	Test according Annex V		N/A
	Pull test of terminal fixing (20 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Pull test of mechanical connection (50 N)		N/A
	After test, resistance < 0,05 Ω		N/A
	Voltage drop test, resistance < 0,05 Ω		N/A
8 (4.28)	Fixing of thermal sensing control		N/A
	Not plug-in or easily replaceable type		N/A
	Reliably kept in position		N/A
	No adhesive fixing if UV radiations from a lamp can degrade the fixing		N/A
	Not outside the track or adaptor enclosure		N/A
	Test of adhesive fixing:		N/A
	Max. temperature on adhesive material (°C) : —		N/A
	100 cycles between t min and t max		N/A
	Temperature sensing control still in position		N/A
8 (4.31)	Insulation between circuits		P
	Circuits insulated from LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
	Controllable track requiring same level of insulation for all components, the insulation between control terminals and LV supply fulfil requirements according 4.31.1 – 4.31.3		N/A
8 (4.31.1)	SELV circuits		P
	Used SELV source		P
	Voltage ≤ ELV		N/A
	Insulating of SELV circuits from LV supply		N/A
	Insulating of SELV circuits from other non SELV circuits		P
	Insulating of SELV circuits from FELV		N/A
	Insulating of SELV circuits from other SELV circuits	N/A	N/A

	SELV circuits insulated from accessible parts according Table X.1		P
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
8 (4.31.2)	FELV circuits		N/A
	Used FELV source		N/A
	Voltage \leq ELV		N/A
	Insulating of FELV circuits from LV supply		N/A
	FELV circuits insulated from accessible parts according Table X.1		N/A
	Plugs not able to enter socket-outlets of other voltage systems		N/A
	Socket outlets does not admit plugs of other voltage systems		N/A
	Plugs and socket-outlets does not have protective conductor contact		N/A
8 (4.31.3)	Other circuits		N/A
	Other circuits insulated from accessible parts according Table X.1		N/A
	Class II construction with equipotential bonding for protection against indirect contacts with live parts:		N/A
	_ conductive parts are connected together		N/A
	_ test according 7.2.3 of above		N/A
	- conductive part not cause an electric shock in case of an insulation fault		N/A
	_ equipotential bonding in master/slave applications		N/A
	_ master luminaire provided with terminal for accessible conductive parts of slave luminaires		N/A
	_ slave luminaire constructed as class I		N/A
8 (4.32)	Overvoltage protective devices		N/A
	Comply with IEC 61643-11		N/A
	External to control gear and connected to earth:		N/A
	_ only in fixed track		N/A
	_ only connected to protective earth		N/A
8.1	Class I track: no contact between earth and current-carrying parts		N/A
8.1.1	Adaptors, couplers and supply connector: connection with other system/sector opening prevented		P
8.2	Adaptors incorporate mechanical connection		P
	Class I adaptors: earth connection first		N/A
8.3	Adaptors: contact no removable, pins not possible to replace.		P
	Class II luminaire: integral adaptor with earthing contact, class II requirements maintained		N/A
8.5	Adjacent track mechanically locked		N/A
	_couplers		N/A
	_other separate systems		N/A

	_rigidly fixing to mounting surface		N/A
8.6	Mechanical suspension		N/A
	_track mechanical load (five times the weight, 1h, min 50N)	5 x ___ kg = ___kg	N/A
	_luminaire mechanical load (five times the weight, 1h, min 50N)	5 x ___ kg = ___kg	N/A
	_after test: no safety impair		N/A
	_bending test (2,5Nm, 1 min, parallel and perpendicular to track axis)		N/A
	_after test: no safety impair		N/A
	_metal parts inclosing live parts: test finger 30N		N/A
	_after test: no clearance distance impair		N/A
8.8	Polarity		P
8.9	Mechanical and electrical endurance	tested with luminaire's integrated adaptor	P
	_mechanical support system: 100 cycles		N/A
	_electrical contact operate simultaneously with mechanical fixing: 100 cycles		N/A
	_electrical contact operate independently from mechanical fixing: 1000 cycles		P
	_class III adaptors positioned along the axis: 150 cycles		P
	_electrical strength after test	500V	P
8.10	Shot-circuit protection		P
8.10.1	Class I system: no shot circuit with test probe D		N/A
8.10.2	Class III system: no accidental short-circuit		P
8.11	Insulating's opening		N/A
8.12	Adaptors interchangeability and safety in use		P
9 (11)	CREEPAGE DISTANCES AND CLEARANCES		N/A
9 (11.2)	Creepage distances and clearances	See annex 6	-
	Working voltage (V)	max48V	-
	Voltage form	Sinusoidal <input type="checkbox"/> Non-sinusoidal <input checked="" type="checkbox"/>	-
	PTI	<600 <input checked="" type="checkbox"/> ≥600 <input type="checkbox"/>	-
10 (14)	SCREW TERMINALS		N/A
	Separately approved; component list	(see Annex 1)	-
	Part of the luminaire	(see Annex 3)	-
10 (15)	SCREWLESS TERMINALS AND ELECTRICAL CONNECTIONS		P
	Separately approved; component list	(see Annex 1)	-
	Part of the luminaire	(see Annex 4)	-
11 (5)	EXTERNAL AND INTERNAL WIRING		P
11 (5.2)	Supply connection and external wiring		P
11 (5.2.1)	Means of connection	connector	P
	Outdoor luminaire has not PVC insulated external wiring if not class III or SELV ≤ 25 V a.c./60 V d.c. or protected from outdoor environment		N/A
	Non-detachable cable only connect to non-extended track		N/A
11 (5.2.2)	Type of cable		-
	Nominal cross-sectional area (mm ²)		-

11 (5.2.3)	Type of attachment, X, Y or Z	Z type (supply connector)	P
11 (5.2.5)	Type Z not connected to screws		P
11 (5.2.6)	Cable entries:		N/A
	_ suitable for introduction		N/A
	_ adequate degree of protection		N/A
11 (5.2.7)	Cable entries through rigid material have rounded edges		N/A
11 (5.2.8)	Insulating bushings:		N/A
	_ suitably fixed		N/A
	_ material in bushings		N/A
	_ material not likely to deteriorate		N/A
	_ tubes or guards made of insulating material		N/A
11 (5.2.9)	Locking of screwed bushings		N/A
1.10 (5.2.10)	Cord anchorage:		N/A
	_ covering protected from abrasion		N/A
	_ clear how to be effective		N/A
	_ no mechanical or thermal stress		N/A
	_ no tying of cables into knots etc.		N/A
	_ insulating material or lining		N/A
11 (5.2.10.1)	Cord anchorage for type X attachment:		N/A
	a) at least one part fixed		N/A
	b) types of cable		N/A
	c) no damaging of the cable		N/A
	d) whole cable can be mounted		N/A
	e) no touching of clamping screws		N/A
	f) metal screw not directly on cable		N/A
	g) replacement without special tool		N/A
	Glands not used as anchorage		N/A
	Labyrinth type anchorages		N/A
11 (5.2.10.2)	Adequate cord anchorage for type Y and type Z attachment		N/A
11 (5.2.10.3)	Tests:		N/A
	_ impossible to push cable; unsafe		N/A
	_ pull test: 25 times; pull (N)		N/A
	_ torque test: torque (Nm)		N/A
	_ displacement ≤ 2 mm		N/A
	_ no movement of conductors		N/A
	_ no damage of cable or cord		N/A
	_ function independent of electrical connection		N/A
11 (5.2.11)	External wiring passing into track		N/A
11 (5.2.12)	Looping-in terminals		N/A
11 (5.2.13)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A

11 (5.2.14)	Mains plug same protection		P
	Class III track plug		P
	No unsafe compatibility		P
11 (5.2.16)	Appliance inlets (IEC 60320)		N/A
	Installation couplers (IEC 61535)		N/A
	Other appliance inlet or connector according relevant IEC standard		N/A
11 (5.2.17)	No standardized interconnecting cables properly assembled		N/A
11 (5.2.18)	Used plug in accordance with		N/A
	_ IEC 60083		N/A
	_ other standard		N/A
11 (5.3)	Internal wiring		P
11 (5.3.1)	Internal wiring of suitable size and type		P
	Through wiring		N/A
	_ not delivered/ mounting instruction		N/A
	_ factory assembled		N/A
	_ socket outlet loaded (A)		N/A
	_ temperatures	(see Annex 2)	N/A
	Green-yellow for earth only		N/A
11 (5.3.1.1)	Internal wiring connected directly to fixed wiring		N/A
	Cross-sectional area (mm ²)	2x0,75mm ²	P
	Insulation thickness		P
	Extra insulation added where necessary		N/A
11 (5.3.1.2)	Internal wiring connected to fixed wiring via internal current-limiting device		N/A
	Adequate cross-sectional area and insulation thickness		N/A
11 (5.3.1.3)	Double or reinforced insulation for class II		N/A
11 (5.3.1.4)	Conductors without insulation		N/A
11 (5.3.1.5)	SELV current-carrying parts		P
11 (5.3.1.6)	Insulation thickness other than PVC or rubber		N/A
11 (5.3.2)	Sharp edges etc.		P
	No moving parts of switches etc.		N/A
	Joints, raising/lowering devices		N/A
	Telescopic tubes etc.		N/A
	No twisting over 360°		N/A
11 (5.3.3)	Insulating bushings:		N/A
	_ suitable fixed		N/A
	_ material in bushings		N/A
	_ material not likely to deteriorate		N/A
	_ cables with protective sheath		N/A

11 (5.3.4)	Joins and junctions effectively insulated		N/A
11 (5.3.5)	Strain on internal wiring		N/A
11 (5.3.6)	Wire carriers		N/A
11 (5.3.7)	Wire ends not tinned		N/A
	Wire ends tinned: no cold flow		N/A
12	ENDURANCE TEST AND THERMAL TEST		P
12	Endurance test:		-
	_ mounting-position	ceiling	-
	_ test temperature (°C)	class III: Ta +20°C	-
	_ total duration (h)	168h	-
	_ supply voltage and current	12Vdc 7A	-
12	After endurance test:		P
	_ no deterioration signs		P
	_ insulation compliance to clause 8, 13.1 and 15.1		P
	_ no damage to track system		P
	_ marking legible		P
	_ no cracks, deformation etc.		P
12	Thermal test (normal operation)		P
13 (8)	PROTECTION AGAINST ELECTRIC SHOCK		P
13 (8.2.1)	Live parts not accessible		P
	Basic insulated parts not used on the outer surface without appropriate protection		N/A
	Basic insulated parts not accessible with Ø 50 mm probe from outside, other types of luminaires		N/A
	Protection in any position		P
	Double-ended tungsten filament lamp		N/A
	Insulation lacquer not reliable		N/A
13 (8.2.3.c)	SELV circuits with exposed current carrying parts:		P
	Ordinary track:	<60Vdc	P
	_ touch current		N/A
	_ no-load voltage		N/A
	Other than ordinary track:		N/A
	_ nominal voltage		N/A
13.1 (8.2.5)	Compliance with the standard test probe D (IP4x probe Ø1mm)		N/A
13 (8.2.6)	Covers reliably secured		N/A
13.2	Adaptor: live part not accessible when partial engagement		N/A
13.3	Not possible to remove live part protection (cover, components)	remote driver	N/A
14 (9)	RESISTANCE TO DUST, SOLID OBJECTS AND MOISTURE		P
14 (-)	If IP > IP 20 the order of tests as specified in clause 1.12		-
14 (9.2)	Tests for ingress of dust, solid objects and moisture:		-
	_ classification according to IP	IP20	-
	_ mounting position during test	wall	-
	_ fixing screws tightened; torque (Nm)		-
	_ tests according to clauses	9.2.0	-
	_ electric strength test afterwards		N/A

	a) no deposit in dust-proof track		N/A
	b) no talcum in dust-tight track		N/A
	c) no trace of water on current-carrying parts or on insulation where it could become a hazard		N/A
	d) i) For track without drain holes – no water entry		N/A
	d) ii) For track with drain holes – no hazardous water entry		N/A
	e) no water in watertight track		N/A
	f) no contact with live parts (IP 2X)		P
	f) no entry into enclosure (IP 3X and IP 4X)		N/A
	f) no contact with live parts (IP3X and IP4X)		N/A
	g) no trace of water on part of track requiring protection from splashing water		N/A
	h) no damage of protective shield or glass envelope		N/A
14 (9.3)	Humidity test 48 h	93%, 25°C	P

15 (10)	INSULATION RESISTANCE AND ELECTRIC STRENGTH		P
15 (10.2.1)	Insulation resistance test		P
	Cable or cord covered by metal foil or replaced by a metal rod of mm Ø	metal foil	-
	Insulation resistance (MΩ)	100 MΩ / 3 mt = 33,3 MΩ	-
	TEST		
	_ between current-carrying parts of different polarity :	>50MΩ	P
	_ between current-carrying parts and mounting surface..... :	>50MΩ	P
	_ between current-carrying parts and metal parts of the luminaire..... :		N/A
	between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	_ Insulation bushings as described in Section 5		N/A
15 (10.2.2)	Electric strength test		P
	Test voltage (V) : P	Class III: 500V	-
	TEST Class I or Class III system		P
	_ between current-carrying parts of different polarity :		P
	_ between current-carrying parts and mounting surface..... :		P
	_ between current-carrying parts and metal parts of the luminaire..... :		N/A
	between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts		N/A
	_ Insulation bushings as described in Section 5		N/A
	TEST Mixed supply system		N/A
	_ between live parts of different polarity		N/A
	_ between live parts and mounting surface		N/A
	_ between live parts and metal parts		N/A

	_ between live parts of different polarity through action of a switch..... :		N/A
	_ between the outer surface of a flexible cord or cable where it is clamped in a cord anchorage and accessible metal parts :		N/A
	_ Insulation bushings as described in Section 5 :		N/A
16 (7)	PROVISION FOR EARTHING		N/A
16.1	Test current 25A		-
16 (7.2.1 + 7.2.3)	Accessible metal parts		N/A
	Metal parts in contact with supporting surface		N/A
	Resistance < 0,1 Ω:		N/A
	Self-tapping screws used		N/A
	Thread-forming screws		N/A
	Thread-forming screw used in a groove		N/A
	Earth makes contact first		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
	Protective earthing of the track not via built-in control gear		N/A
16 (7.2.2 + 7.2.3)	Earth continuity in joints, etc.		N/A
16 (7.2.4)	Locking of clamping means		N/A
	Compliance with 4.7.3		N/A
	Terminal blocks with integrated screwless earthing contacts tested according Annex V		N/A
16 (7.2.5)	Earth terminal integral part of connector socket		N/A
16 (7.2.6)	Earth terminal adjacent to mains terminals		N/A
16 (7.2.7)	Electrolytic corrosion of the earth terminal		N/A
16.2	Risk of corrosione from contact between alluminium and copper		N/A
16 (7.2.8)	Material of earth terminal		N/A
	Contact surface bare metal		N/A
16 (7.2.11)	Earthing core coloured green-yellow		N/A
	Length of earth conductor		N/A
16.3	Class I track with removable parts: earth makes contact first		N/A
16.4	Earth continuity in all lenght		N/A
17 (13)	RESISTANCE TO HEAT, FIRE AND TRACKING		
17 (13.2.1)	Ball-pressure test :	See Test Table 17	P
17 (13.3.1)	Needle-flame test (10 s) :	See Test Table 17 (13.3.1)	N/A
17 (13.3.2)	Glow-wire test (650°C) :	See Test Table 17 (13.3.2)	N/A

9 (11.2)	TABLES: Creepage distances and clearances						N/A
Table 11.1	Minimum distances (mm) for a.c. (50/60 Hz) sinusoidal voltages						
RMS working voltage (V) not exceeding	50	150	250	500	750	1000	
Creepage distances							
Required basic insulation, PTI >= 600	0,6	0,8	1,5	3	4	5,5	
Measured							
Required basic insulation, PTI < 600	1,2	1,6	2,5	5	8	10	
Measured							
Required supplementary insulation PTI >= 600	-	0,8	1,5	3	4	5,5	
Measured							
Required supplementary insulation PTI < 600	-	1,6	2,5	5	8	10	
Measured							
Required reinforced insulation	-	3,2	5	6	8	11	
Measured							
Clearances							
Required basic insulation	0,2	0,8	1,5	3	4	5,5	
Measured							
Required supplementary insulation	-	0,8	1,5	3	4	5,5	
Measured							
Required reinforced insulation	-	1,6	3	6	8	11	
Measured							
Table 11.2	Minimum distances (mm) for non-sinusoidal pulse voltages						
Rated pulse voltage (peak kV)	2	2,5	3	4	5	6	8
Required clearances	1	1,5	2	3	4	5,5	8
Measured							
Rated pulse voltage (peak kV)	10	12	15	20	25	30	40
Required clearances	11	14	18	25	33	40	60
Measured							
Rated pulse voltage (peak kV)	50	60	80	100	-	-	-
Required clearances	75	90	130	170	-	-	-
Measured							

17	TABLE: Ball Pressure Test of Thermoplastics			P
Allowed impression diameter (mm)				
Object/ Part No./ Material	Manufacturer/ trademark	Test temperature (°C)	Impression diameter (mm)	
current-carrying insulation	Pavanello	125°C	1,9mm	
Supplementary information:				

17 (13.3.1)	TABLE: Needle-flame test (IEC 60695-11-5)				N/A
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Impression diameter (mm)	Verdict

Supplementary information:					

17 (13.3.2)	TABLE: Glow-wire test (IEC 60695-2-11)					N/A
Glow-wire temperature						
Object/ Part No./ Material	Manufacturer/ trademark	Duration of application of test flame (ta); (s)	Ignition of specified layer Yes/No	Duration of burning (tb) (s)	Verdict	
Any flame or glowing of the sample extinguished within 30 s of withdrawing the glow-wire, and any burning or molten drop did not ignite the underlying parts (Yes/No)						
Supplementary information:						

ANNEX 1	TABLE: Critical components information					
Object / part No.	Code	Manufacturer/ trademark	Type / model	Technical data	Standard	Mark(s) of conformity
Wire	A	SALCAVI	03VH-H	2x0,75mm ² , PVC, T 90°C	IEC 60228 EN 50363	CE
Connector	A	TE	Mini Mate-N-Lok	max 9A; 0,05 to 1,2 mm ² ; T 105°C		VDE
Track	C	Pavanello	CM0020G ANI	20x3mm, current-carrying part in copper iron alloy, insulation in PVC		
Adaptor	C	Pavanello	CM01GA	plastic enclosure in PVC, integrated ARU bipolar connector (*)		
* Connector	B	ARU	ZX series	250V 3A; T 85°C		VDE

Supplementary information:

The codes above have the following meaning:

- A - The component is replaceable with another one, also certified, with equivalent characteristics
- B - The component is replaceable if authorised by the test house
- C - Integrated component tested together with the appliance
- D - Alternative componen

ANNEX 2 TABLE: Temperature measurements, thermal tests of Section 12			
Type reference	Magnetik Track System		-
Lamp used	-		-
Lamp control gear used	remote		-
Track Ta	-		-
Mounting position of luminaire	wall		-
Supply wattage (W)	84W		-
Supply current (A)	7A		-
Calculated power factor	-		-
Table: measured temperatures corrected for ta = 25 °C:			P
_ abnormal operating mode	1) output of LED driver short circuit (protected) 2) output of LED driver (input of fan ,protected) 3) Block fan		N/A
_ test 1: rated voltage	12Vdc - 7A		P
_ test 2: 1,06 times rated voltage or 1,05 times rated wattage			N/A
_ test 3: Load on wiring to socket-outlet, 1,06 times voltage or 1,05 times wattage			N/A
_ test 4: 1,1 times rated voltage or 1,05 times rated wattage			N/A
Through wiring or looping-in wiring loaded by a current of A during the test			N/A

Temperature measurements, (°C)							
Part	Ambient	Clause 12.4 - normal				Clause 12.5 - abnormal	
		test 1	test 2	test 3	limit	test 4	limit
mounting surface	25	54			90		
surface under adaptor	25	73			90		
adaptor	25	64			90		
current carrying	25	50			70*		
Supplementary information							
* considered touchable parts							

ANNEX 3		Screw terminals (part of the luminaire)	
(14)	SCREW TERMINALS		N/A
(14.2)	Type of terminal		N/A
	Rated current (A)		N/A
(14.3.2.1)	One or more conductors		N/A
(14.3.2.2)	Special preparation		N/A
(14.3.2.3)	Terminal size		N/A
	Cross-sectional area (mm ²)		N/A
(14.3.3)	Conductor space (mm)		N/A
(14.4)	Mechanical tests		N/A
(14.4.1)	Minimum distance		N/A
(14.4.2)	Cannot slip out		N/A
(14.4.3)	Special preparation		N/A
(14.4.4)	Nominal diameter of thread (metric ISO thread)		N/A
	External wiring		N/A
	No soft metal		N/A
(14.4.5)	Corrosion		N/A
(14.4.6)	Nominal diameter of thread (mm)		N/A
	Torque (Nm)		N/A
(14.4.7)	Between metal surfaces		N/A
	Lug terminal		N/A
	Mantle terminal		N/A
	Pull test; pull (N)		N/A
(14.4.8)	Without undue damage		N/A

ANNEX 4		Screwless terminals (part of the luminaire)	
(15)	SCREWLESS TERMINALS		N/A
(15.2)	Type of terminal		N/A
	Rated current (A)		N/A
(15.3.1)	Material		N/A
(15.3.2)	Clamping		N/A
(15.3.3)	Stop		N/A
(15.3.4)	Unprepared conductors		N/A
(15.3.5)	Pressure on insulating material		N/A
(15.3.6)	Clear connection method		N/A
(15.3.7)	Clamping independently		N/A
(15.3.8)	Fixed in position		N/A
(15.3.10)	Conductor size		N/A
	Type of conductor		N/A
(15.5.1)	Terminals internal wiring		N/A
(15.5.1.1)	Pull test spring-type terminals (4 N, 4 samples)		N/A
(15.5.1.2)	Pull test pin or tab terminals (4 N, 4 samples)		N/A
	Insertion force not exceeding 50 N		N/A
(15.5.1.2)	Permanent connections: pull-off test (20 N)		N/A
(15.5.2)	Electrical tests		N/A
	Voltage drop (mV) after 1 h (4 samples)		N/A
	Voltage drop of two inseparable joints		N/A
	Number of cycles:		N/A
	Voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A

	Voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 10th alt. 25th cycle (4 samples)		N/A
	After ageing, voltage drop (mV) after 50th alt. 100th cycle (4 samples)		N/A
(15.6)	Terminals external wiring		N/A
(15.6.2.1)	Terminal size and rating		N/A
	Pull test spring-type terminals or welded connections (4 samples); pull (N)		N/A
	Pull test pin or tab terminals (4 samples); pull (N)		N/A

ANNEX 5	EUROPEAN DIFFERENCES AND NATIONAL DIFFERENCES
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ATTACHMENT TO TEST REPORT EN 60570 EUROPEAN GROUP DIFFERENCES AND NATIONAL DIFFERENCES	Electrical
supply track systems for luminaires	
Differences according to EN 60570:2004 used in conjunction with EN 60598-1:2015	

6 (3)	MARKING	N/A
6 (3.3.101)	For luminaires not supplied with terminal block: Adequate warning on the package	N/A

8 (4)	CONSTRUCTION	N/A
8 (4.11.6)	Electro-mechanical contact systems	N/A

11 (5)	EXTERNAL AND INTERNAL WIRING	N/A
11 (5.2.1)	Connecting leads	N/A
	_ without a means for connection to the supply	N/A
	_ terminal block specified	N/A
	_ relevant information provided	N/A
	_ compliance with 4.6, 4.7.1, 4.7.2, 4.10.1, 11.2, 12 and 13.2 of Part 1	N/A
11 (5.2.2)	Cables equal to EN 50525	N/A
	Replace table 5.1 – Supply cord	N/A

12 (12)	ENDURANCE TEST AND THERMAL TEST	N/A
12 (12.4.2c)	Thermal test (normal operation) see footnote c to table 12.2 relating to unsleeved fixed wiring	N/A

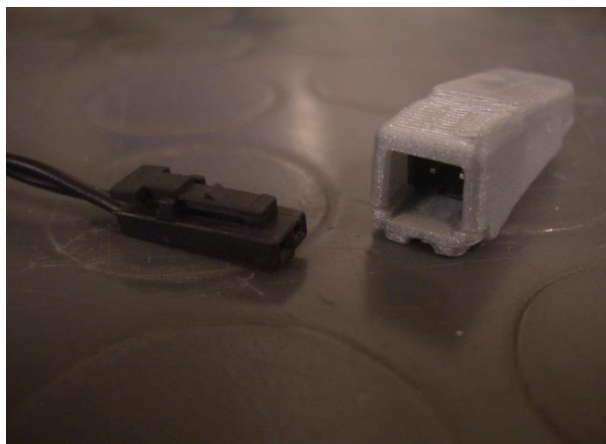
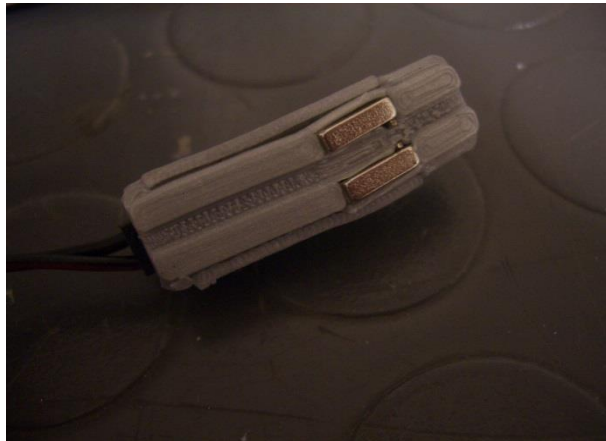
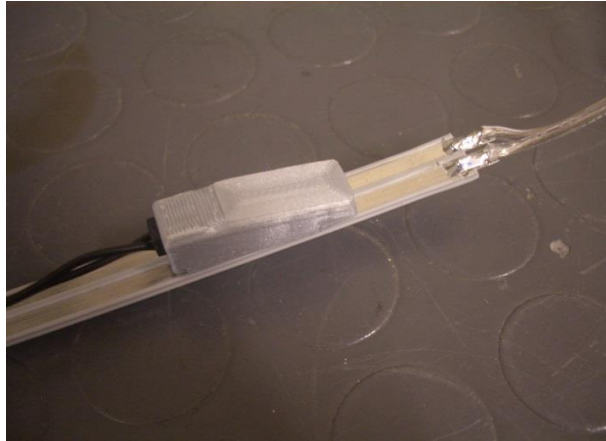
ZB	ANNEX ZB, SPECIAL NATIONAL CONDITIONS (EN)	N/A
(3.3)	DK: power supply cords of class I luminaires with label	N/A
(4.5.1)	DK: socket-outlets	N/A
(5.2.1)	CY, DK, FI, GB: type of plug	N/A

ZC	ANNEX ZC, NATIONAL DEVIATIONS (EN)	N/A
(4 & 5)	FR: Shuttered socket-outlets 10/16A	N/A
	FR: Safety requirements for high buildings (Arrêté du 30 décembre 2011 portant règlement de sécurité pour la construction des immeubles de grande hauteur et leur protection contre les risques d'incendie et de panique; Section VIII; Article GH 48, Eclairage) Glow-wire test for outer parts of luminaires:	N/A
	_ 850°C for luminaires in stairways and horizontal travel paths	N/A
	_ 650°C for indoor luminaires	N/A
	GB: Requirements according to United Kingdom Building Regulation	N/A

(15.6.3.1) TABLE: Contact resistance test											N/A
Voltage drop (mV) after 1 h											
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Voltage drop of two inseparable joints											
Voltage drop after 10th alt. 25th cycle											
Max. allowed voltage drop (mV)											
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Voltage drop after 50th alt 100th cycle											
Max. allowed voltage drop (mV)											
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Voltage drop after 10th after 25th cycle											
Max. allowed voltage drop (mV)											
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Voltage drop after 50th after 100th cycle											
Max. allowed voltage drop (mV)											
terminal	1	2	3	4	5	6	7	8	9	10	
voltage drop (mV)											
Supplementary information:											

ANNEX 6

PHOTO DOCUMENTATION



ANNEX 7

INSTRUCTION SHEET

VERSIONE "KIT"

Binario lunghezza max 1,5 mt
12-48Vcc max 7A

PAVANELO S.p.A.
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Made in Italy IP20

PAVANELO S.p.A. - 31048 San Biagio di Calata (TV) - Tel. +39 0422 800380 - info@pavanello.eu - www.pavanello.store

ATTENZIONE - PER EVITARE IL RISCHIO DI SURRISCALDAMENTO E/O INCENDIO NON CORTOCIUCIARE I CONDUTTORI O INVERTIRE LA POLARITÀ DEI CONNETTORI. PAVANELO SRL NON È RESPONSABILE DI UN USO IMPROPRIO DEL DISPOSITIVO

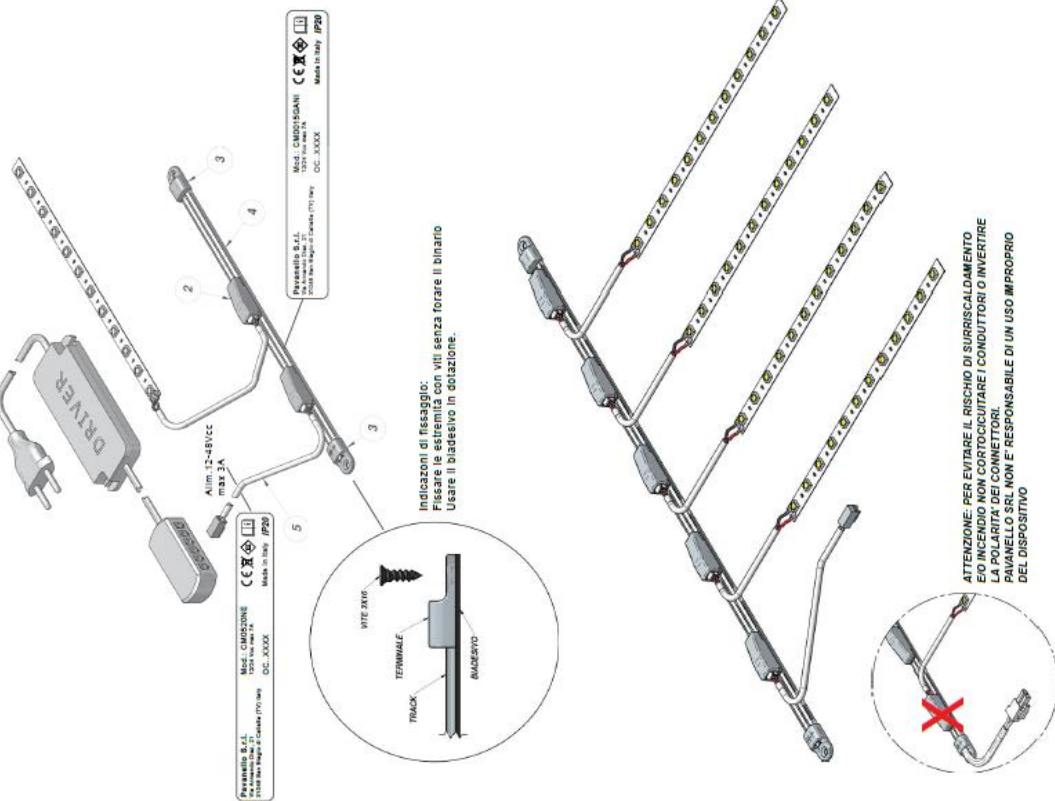
MAGNETIK TRACK SYSTEM

PAVANELO

MAGNETIK TRACK SYSTEM



VERSIONE "FREE"



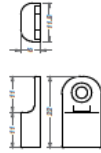
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Art.	Descrizione	PZ
CM001160ANI	Kit Binario cobaltessivo Grigio antracite mt 1,5 + Cavo 1,5 mt. con terminali MPK Tensione di alimentazione 12-48VCC max 7A	1
CM001160ANI	Kit Binario cobaltessivo Grigio alluminio mt 1,5 + Cavo 1,5 mt. con terminali MPK Tensione di alimentazione 12-48VCC max 7A	1



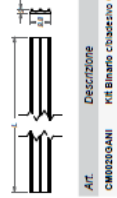
2

Art.	Descrizione	PZ
CM1010A	Connettore magnetico Grigio alluminio Tensione di alimentazione 12-48V/CC max 3A	1
CM1010S	Connettore magnetico Grigio scuro Tensione di alimentazione 12-48V/CC max 3A	1



3

Art.	Descrizione	PZ
CM2020A	Terminale da avvitare Grigio alluminio	1
CM2020S	Terminale da avvitare Grigio scuro	1



4

Art.	Descrizione	PZ
CM002010ANI	Kit Binario cobaltessivo Grigio alluminio mt 2	1
CM002010ANI	Kit Binario cobaltessivo Grigio antracite mt 2	1

5

Art.	Descrizione	PZ
CM3030NE	Prolunga AMP lineo mt 2 Nero	1

ANNEX 8 THERMAL TEST GRAPHIC

PAVANELLO MAGNETIK 7A SS



Before Scan

Time/Div: 01:00hr

03.59.40.726

Channel Name	Units/Div	Reference	Marker: 1	Marker: 2
1 <201>MOUNTING SURFACE	50.00000 C	80.00000 C	Off	Off
2 <202>SURFACE UNDER ADAPTO	50.00000 C	80.00000 C	Off	Off
3 <203>ADAPTOR	50.00000 C	80.00000 C	Off	Off
4 <204>CURRENT CARRYING	50.00000 C	80.00000 C	Off	Off
5				
6				
7				
8 <220>AMBIENT	5.000000 C	39.00000 C	Off	Off

Time/Div	01:00hr	y2:(Off)	t2:(Off)
		y1:(Off)	t1:(Off)
		Delta y	Delta t:

Data Grid			
	Channel	Reading	Time
1	<201>MOUNTING SURFACE	52.96900 C	03.59.40.544
2	<202>SURFACE UNDER ADAPTO	72.29200 C	03.59.40.590
3	<203>ADAPTOR	63.66900 C	03.59.40.635
4	<204>CURRENT CARRYING	49.28700 C	03.59.40.681
5	<220>AMBIENT	24.30500 C	03.59.40.726