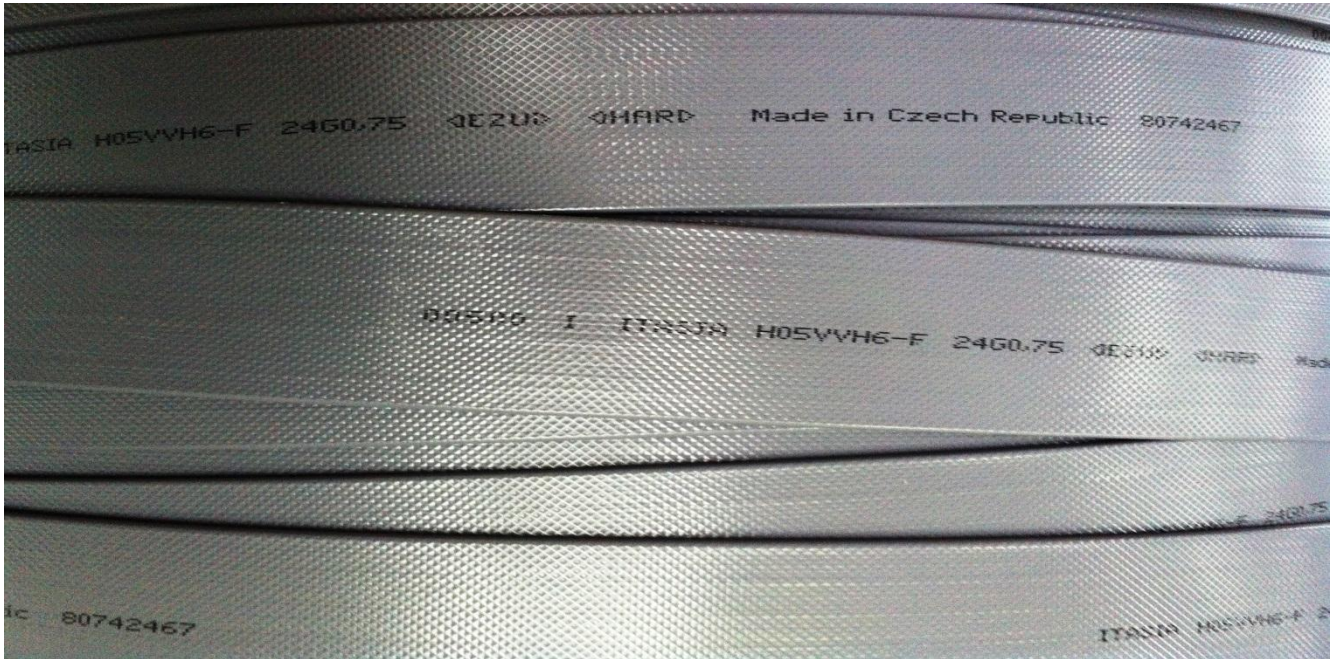




LIFTS & COMPONENTS

PIACENZA - ITALY



HIGH QUALITY FLAT CABLE MADE IN CZECH
REPUBLIC EU





ASCENSORI, MONTACARICHI E COMPONENTI

Ascensori Elevators

H05VVH6-F

Cavo piatto per ascensore / Flat elevator cable
300/500 V

Norma di riferimento
EN 50214

Descrizione del cavo

Anima

Conduttore flessibile di rame rosso elettrolitico, classe 5, in accordo alla normativa EN 60228

Isolante

Isolamento con speciale PVC secondo HD 21.1

Colori delle anime

Le anime sono disposte in parallelo e ricoperte dalla guaina esterna.

La guaina non deve aderire alle anime.

- Anime bianche numerate + 1 giallo/verde, secondo la norma EN 50334.

- 6 anime: giallo/verde tra i numeri 2 e 3

- > 6 anime: giallo/verde tra i numeri 7 e 8

Guaina

Speciale PVC secondo HD 21.1, colore grigio, RAL 7000

Marcatura

ITASIA 07 H05VVH6-F (N*xS or NGS) mm², <EZU><HAR> Made in Czech Republic**

N*: Numero di conduttori

S:** Sezione nominale

Marcatura metrica progressiva

Conforme ai requisiti essenziali delle direttive

BT 2006/95/CE

Applicazioni

Cavi piatti per ascensori. Non idonei per installazioni all'aperto. Idonei per installazioni in cui la lunghezza massima di sospensione non superiori 35 metri

e la velocità di spostamento 1,6 m/s.

Temperatura di utilizzo -10 °C; +70 °C

Standard
EN 50214

Cable design

Core

Flexible electrolytic bare copper conductor, class 5 according to EN 60228

Insulation

Special PVC insulation according to HD 21.1

Core identification

The cores are laid in parallel and covered with the outer sheath.

The sheath shall not stick the cores.

- White cores numbered + 1 yellow/green, according to EN 50334.

- 6 cores: yellow/green between numbers 2 and 3

- >6 cores: yellow/green between numbers 7 and 8

Sheath

Outer sheath of special PVC according to HD 21.1, colour: grey RAL 7000

Marking

ITASIA 07 H05VVH6-F (N*xS or NGS) mm², <EZU><HAR> Made in Czech Republic**

N*: Number of conductors

S:** Cross-section

Progressive metric marking

Compliant with the requirements of the BT 2006/95/CE directives

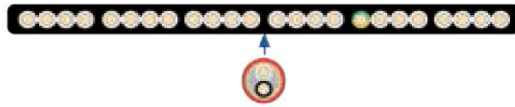
Applications

Cables for elevators. Not recommended for use outdoors. Recommended for installations where the freely suspended

length does not exceed 35 meters and the speed of travel does not exceed 1.6 m/s. Operating temperature -10 °C; +70 °C



ASCENSORI, MONTACARICHI E COMPONENTI



Ascensori Elevators

H05VVH6-F Cavo piatto per ascensore / Flat elevator cable 300/500 V

| <i>number of cores cable dimensions (n x mm²) (mm)</i> | <i>cross-section</i> | <i>height x width</i> | <i>maximum conductor approx. weight ("/km) (kg/km)</i> | <i>resistance</i> | <i>140 of cable</i> |
|---|-----------------------|-----------------------|--|-------------------|---------------------|
| 6 G 0,75 x nominal | 4,1 x 18,0 | height x width | 26,0 | 26,0 | 205 |
| 9 G 0,75 | 4,1 x 23,0 | | 26,0 | 26,0 | 265 |
| 12 G 0,75 | 4,1 x 33,0 | | 26,0 | 26,0 | 350 |
| 16 G 0,75 | 4,1 x 44,0 | | 26,0 | 26,0 | 390 |
| 18 G 0,75 20 G 0,75 | 4,1 x 48,0 4,1 x 53,5 | | 26,0 | 26,0 | 430 |
| 24 G 0,75 | 4,1 x 65,0 | | 26,0 | 26,0 | 515 |
| 28 G 0,75 | 4,1 x 74,0 | | 26,0 | 26,0 | 590 |
| 6 G 1 12 G 1 | 4,3 x 19,0 4,3 x 35,0 | | 19,5 | 19,5 | 160 300 |
| 16 G 1 | 4,3 x 46,0 | | 19,5 | 19,5 | 395 |
| 18 G 1 | 4,3 x 51,0 | | 19,5 | 19,5 | 440 |
| 20 G 1 | 4,3 x 57,0 | | 19,5 | 19,5 | 495 |
| 24 G 1 | 4,3 x 68,0 | | 19,5 | 19,5 | 590 |

I cavi piatti possono includere

Conduttori di potenza e segnale
Doppini schermati (Canbus)

Installazione dei componenti

Disponibili anche sistemi di sospensione per cavi piatti
con supporto e senza supporto

Sicurezza e performance certificate

I cavi per ascensore sono stati certificati secondo
la normativa EN 50214 e hanno ricevuto l'approvazione HAR

Flat cables can include

Power and signal conductors
Shielded pairs (Canbus)

Component installation

Suspension systems for flat cables are also
available both
with and without support

Certified Safety and Performance Systems

Cables for elevators have been certified according
to EN 50214 and they have been approved by HAR

OPTIONS AND COMPONENTS



ITASIA flat travelling cables are available in custom configurations. These can include:

- Steel-supported or high tensile non-metallic supporting members
- Specially formulated compounds for shielded data pairs meeting CANBUS impedance requirements
- Coaxial cable (75Ω) for CCT V monitoring or high resolution video
- Special color-coding and on-line marking for insulation and

jacketing

Unitized subgroups for configurations above 28 components

Optical multimode fiber components (OM2/OM3)

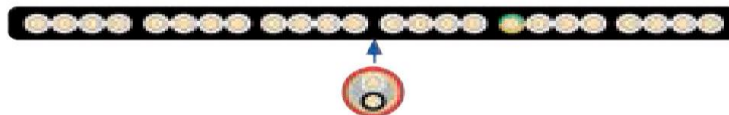
Multiple shielding types of aluminum and copper foil/braid/spiral

For any travelling speeds and heights including mining or panoramic elevators

Other international standards (UL/CSA /GBT)

0,75 or 1,0 mm² ? Data pairs or coax ? Steel support ?

PVC or HF? standard or high-impedance? Travelling speed... Hang length?



Connectorization

ITASIA can perform this to your specifications. Call for details.

Safety and performance are certified

ITASIA's flat cables have been certified EN 50214 compliant and have been earned their HAR approval. And manufacturing facility in the Czech Republic has earned both ISO 9001 and 14001 quality certification.

Installation components

ITASIA has in-stock hangers for both supported and unsupported flat cables

PROVEN TO MEET THE PERFORMANCE STANDARDS

EN 50214 tests and standards

EN 50214 is a European standard maintained by CEN (European Committee for Standardization) and CENELEC. It specifies minimum parameters in nine categories (electrical performance, dimensional characteristics, mechanical properties, bending and impact resistance, etc.). To be used commercially, a flat travelling cable must meet EN 50214 standards.

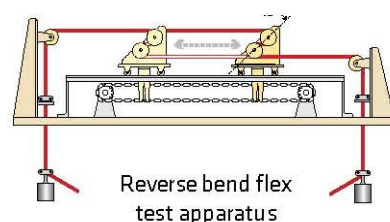
Complete EN 50214 Testing Results

| Test | Requirement | Observed |
|--|---|--------------------------|
| Cable | | |
| Cable Designation | H05VVH6-F | |
| Rated voltage | 300/500volts | |
| Construction | 24 conductors 0.75 mm ² stranded CU | |
| Electrical test | | |
| 1.1 Max resistance of conductors (ohms/km) | 26 | 25.6 |
| 1.2 Voltage test of complete cable at 2000VAC | Pass | Pass |
| 1.3 Voltage test on cores at 1500VAC | Pass | Pass |
| 1.4 Minimum insulation resistance @70°C | 0.011 | 1.05 |
| 1.6 Absence of faults | Pass | Pass |
| Constructional and dimensional characteristics | | |
| 2.1 EN 50214 compliance with constructional provisions | | 24 x 1.0 mm ² |
| 2.2 Measurement of insulation thickness (mm) (min) | 0.6 | 0.67 |
| 2.3 Measurement of web thickness (mm) (min) | 0.5 | 0.85 |
| Measurement of top thickness (mm) (min) | 0.8 | 0.89 |
| Measurement of bottom thickness (mm) (min) | 0.8 | 0.94 |
| Measurement of ends (mm) (min) | 1.2 | 1.55 |
| Mechanical properties of insulation | | |
| 3.1 Tensile before aging (N/mm ²) (min) | 10 | 11.5 |
| Tensile after aging (N/mm ²) (min) | 10 | 11.4 |
| Maximum variance | 20% | 0.80% |
| Elongation before aging (min) | 150% | 180 |
| Elongation after aging (min) | 150% | 200 |
| Maximum variance | 20% | 11.10% |
| 3.2 Loss of mass (mg/cm ²) (max) | 2 mg/cm ² | .25 mg/cm ² |
| Mechanical properties of sheath | | |
| 4.1 Tensile before aging (N/mm ²) (min) | 10 | 12.5 |
| Tensile after aging (N/mm ²) (min) | 10 | 11.3 |
| Maximum variance | 20% | 9.6% |
| Elongation before aging (min) | 150% | 250 |
| Elongation after aging (min) | 150% | 210 |
| Maximum variance | 20% | 16% |
| 4.2 Loss of mass (mg/cm ²) (max) | 2 mg/cm ² | .33 mg/cm ² |
| Pressure test at high temperatures | | |
| 5.1 Insulation (max) | 50% | 18% |
| 5.2 Sheath (max) | 50% | 34% |
| Bending and impact test at low temperatures | | |
| 6.1 Bending test for insulation | No cracks | No cracks |
| 6.2 Bending test for sheath | No cracks | No cracks |
| 6.3 Elongation test for insulation @15°C (min) | 30% | 130% |
| 6.4 Elongation test for sheath @15°C (min) | 30% | 87% |
| 6.5 Impact for insulation | No cracks | No cracks |
| 6.6 Impact for sheath | No cracks | No cracks |
| 6.7 Unrolling at low temperature @-20°C | 1 minute | 1 minute |
| Heat shock test | | |
| 7.1 Insulation | No cracks | No cracks |
| 7.2 Sheath | No cracks | No cracks |
| Mechanical properties of complete cable | | |
| 8.1 Static flexibility (mm) (max) | 700 | 304 |
| 8.2 Flexing test @400VAC | 30,000 | 30,000 |
| 1500VAC after flexing | Pass | Pass |
| 8.3 Adherence test between sheath and conductors (min) | 3 | 18 |



EN 50214 Reverse Bend Flex Test

EN 50214 specifies a severe mechanical test for flat PVC sheathed flexible cables - the reverse bend flex test. In this test, the cable ends are weighted with 10 times the weight of a one meter sample. A pulley rig traverses a specified distance forcing the cable sample into a moving reverse bend. Current is applied to each conductor so that if a conductor opens, the flexing operation will stop.





All of our cables are compliant with EN 50214 standards

| N° Conductors | Max Travel [Mt] | Conductor's Resistance Ω /Km | Cable Nom. Dim. AxL [mm] | Cable Weight |
|-------------------------|-----------------|-------------------------------------|--------------------------|--------------|
| 6x0.75 mm ² | 46 | 26.0 | 4.1 x 18.0 | 140 |
| 9x0.75 mm ² | 46 | 26.0 | 4.1 x 23.0 | 205 |
| 12x0,75 mm ² | 46 | 26.0 | 4.1 x 33.0 | 265 |
| 16x0,75 mm ² | 46 | 26.0 | 4.1 x 44.0 | 350 |
| 18x0,75 mm ² | 46 | 26.0 | 4.1 x 48.0 | 390 |
| 20x0,75 mm ² | 46 | 26.0 | 4.1 x 53.5 | 430 |
| 24x0,75 mm ² | 46 | 26.0 | 4.1 x 65.0 | 515 |
| 28x0,75 mm ² | 46 | 26.0 | 4.1 x 74.0 | 590 |
| 6x 1.0 mm ² | 46 | 19.5 | 4.3 x 19.0 | 160 |
| 9x 1.0 mm ² | 46 | 19.5 | 4.3 x 35.0 | 300 |
| 12x 1.0 mm ² | 46 | 19.5 | 4.3 x 46.0 | 395 |
| 16x 1.0 mm ² | 46 | 19.5 | 4.3 x 46.0 | 440 |
| 18x 1.0 mm ² | 46 | 19.5 | 4.3 x 57.0 | 495 |
| 20x 1.0 mm ² | 46 | 19.5 | 4.3 x 68.0 | 590 |



H05VVH6-F 20G0,75

flat elevator travelling cable

material code

20122829



Construction

| | | |
|------------|--------------------------------------|---|
| C07 | Conductor 0,75 mm² | flexible stranded copper class 5 |
| I07 | Insulation | special PVC compound according to EN 50363-3 TI 2 |
| | Groups | elements lying closely side by side |
| RIC | Ripcord | for removing sheath material |
| | Separation | talcum for elements - sheath separation |
| STH | Sheath | special PVC compound according to EN 50363-4-1 TM 2 grey sim. to RAL7000 surface without knurling |

Cores identification

| | | |
|--------------|--|---|
| | without green-yellow (x) | with green-yellow (G) |
| 4 | BU-BN-BK-GY | BK-GY-GNYE-BN |
| 5 | BU-BN-BK-GY-BK | BK-GY-GNYE-BU-BN |
| 6 | white insulation with black numbers | white insulation with black numbers + green/yellow between numbers 2 and 3 |
| >6 | white insulation with black numbers | white insulation with black numbers + green/yellow between numbers 7 and 8 |

Standards

According to EN 50214

Cable marking

meter mark ITASIA H05VVH6-F 20G0,75 <EZU> <HAR> *order number* Made in Czech Republic (EU)

Application

Flat, flexible travelling cable for use in passenger and goods lifts (elevators).

Electrical data

| Element | Rated Voltage U ₀ /U V | Test voltage Core-Core V | Test voltage Core-Screen V | Resistance Ω/km | Char. Impedance (@100kHz) Ohm ±15% |
|----------------------------------|---|--------------------------------|----------------------------------|--------------------|---|
| Power cores 0,75 mm ² | 300/500 | 2000 | - | 26,00 | - |

Technical specification

| Maximum Free Suspension Length m | Cable Net Weight (approx.) kg/km | Maximum Travelling Speed m/s | Cable Dimensions W H (approx.) mm | | Operating temp. min. max. °C | | Standard Length m |
|--|-------------------------------------|------------------------------------|---|-----|------------------------------------|------|----------------------|
| | | | W | H | min. | max. | |
| 35 | 430 | 1,6 | 53,5 | 4,1 | -15,0 | 70,0 | 500 |

Notes

H05VVH6-F

flat elevator travelling cable



Construction

| | |
|-------------------|---|
| Conductor | flexible stranded bare copper class 5 acc. to EN 60228 |
| Insulation | special PVC compound according to EN 50363-3 TI 2 PE or PP for signal pairs |
| Layout | cores lay in parallel groups twisted signal pairs lay in the middle |
| Shield | copper braid screen (C) or aluminium laminated pet foil (ST) over signal pairs |
| Separation | talcum for elements - sheath separation |
| Sheath | special PVC compound according to EN 50363-4-1 TM 2 grey similar to RAL7000 surface with knurling |

Cores identification

| cores | without green-yellow (x) | with green-yellow (G) |
|--------------|--|---|
| 4 | BU-BN-BK-GY | BK-GY-GNYE-BN |
| 5 | BU-BN-BK-GY-BK | BK-GY-GNYE-BU-BN |
| 6 | white insulation with black numbers | white insulation with black numbers + green/yellow between numbers 2 and 3 |
| >6 | white insulation with black numbers | white insulation with black numbers + green/yellow between numbers 7 and 8 |

Cable marking example

meter mark ITASIA H05VVH6-F 24G1 vEZUw vHARw *order number*

Made in Czech Republic (EU)

Repeated without meter mark in half of meter

Application

Flat, flexible travelling cable for use in passenger and goods lifts (elevators).
Recommended to use indoors.

Electrical data

| Element | Rated Voltage U0/U V | Test voltage Core-Core V | Resistance single conductor Ω /km |
|----------------------------------|----------------------------|--------------------------------|---|
| Power cores 0,75 mm ² | 300/500 | 2000 | 26,0 |

Technical specification

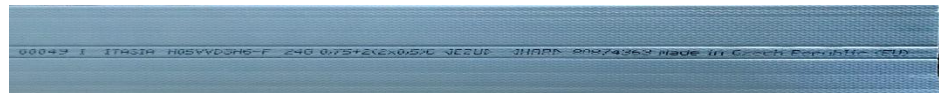
| Maximum Free Suspension Length m | Maximum Travelling Speed m/s | Natural loop (Static Flexibility) mm | Operating temp. | | Minimum bending radius | Standards |
|--|------------------------------------|---|-----------------|------------|---------------------------|-----------|
| | | | min. | max. °C | | |
| 45 | 4,0 | < 700 | -15,0 | 70,0 | 25 x cable height | EN 50214 |

| Part Number | Cable Construction number of cores x nominal cross-section | Cable Dimensions height x width | Cable Net Weight (approx.) kg/km | Impedance signal pair Ω | Standard Length m |
|-------------|--|------------------------------------|-------------------------------------|-----------------------------------|----------------------|
| 20161415 | 12 G 0,75 | 4,1 x 33,0 | 265 | - | 1000 |
| 20134874 | 20 G 0,75 | 4,1 x 53,5 | 430 | - | 500 |
| 20122829 | 24 G 0,75 | 4,1 x 65,0 | 515 | - | 500 |
| 20166641 | 24 G 0,75 + 2x (2x0,5)C | 5,4 x 74,0 | 715 | 80 | 500 |

Notes

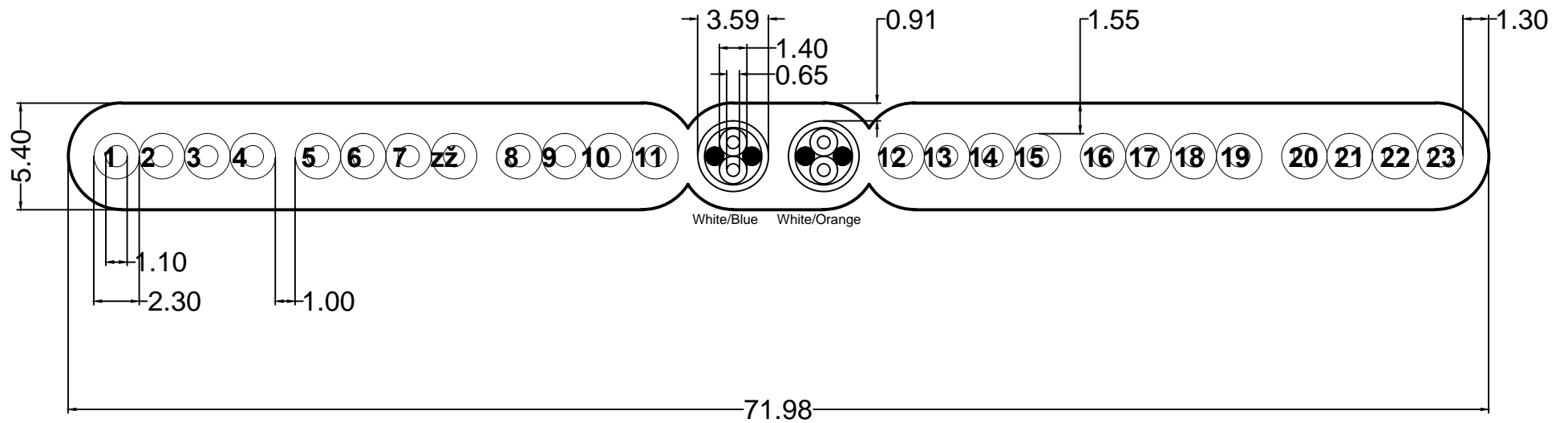
REV

20170721





24x0,75+2(2x0,5)





Flat Cable Made in EU

H05VVD3H6-F 24G0,75+2x(2x0,5)C

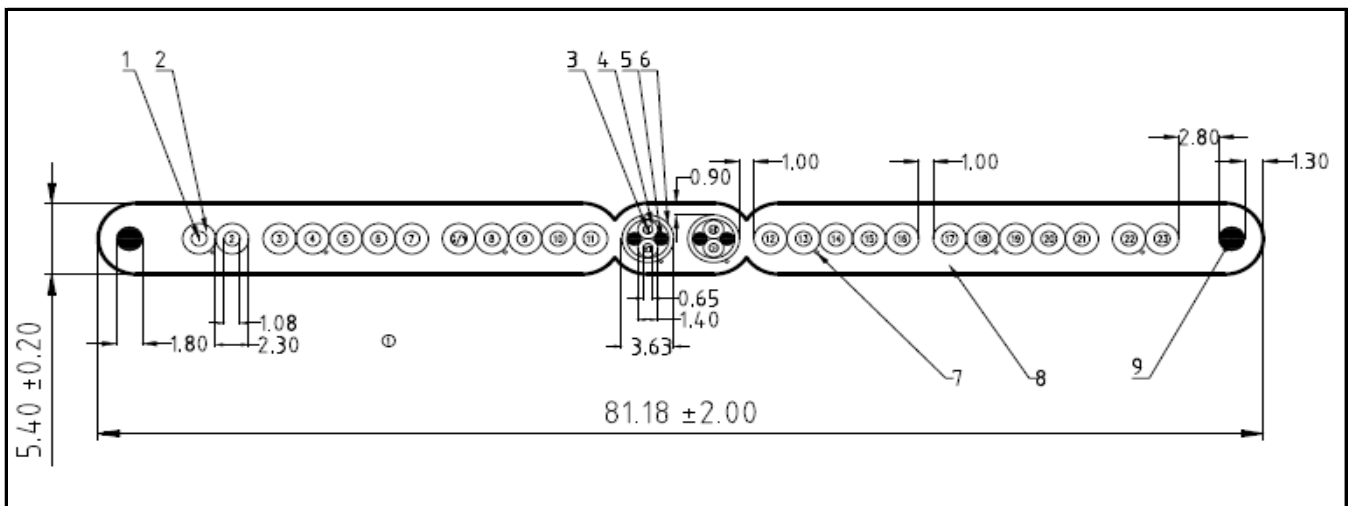
flat elevator travelling cable

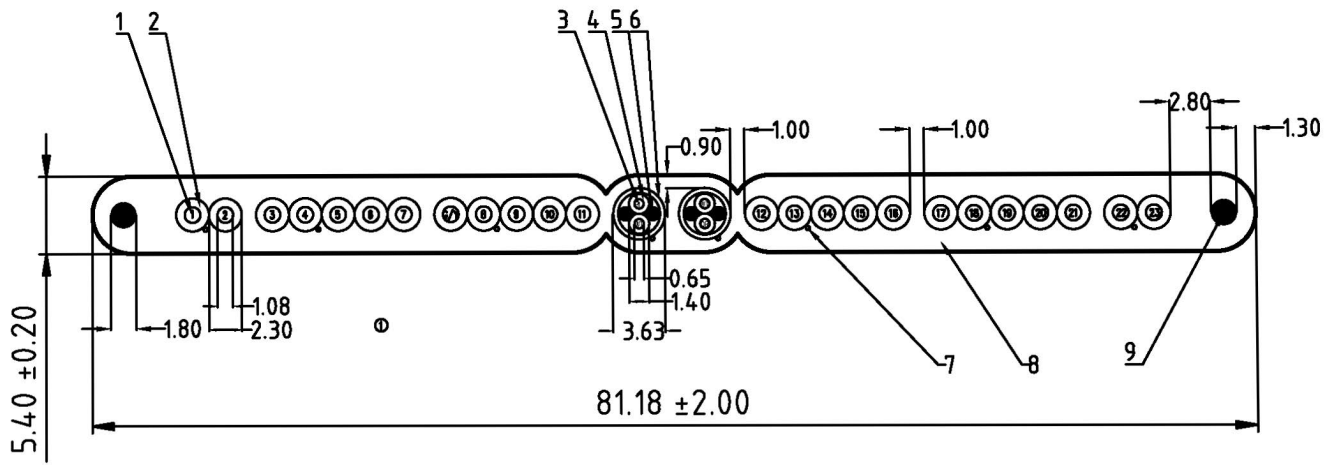
SAP code: 20134533

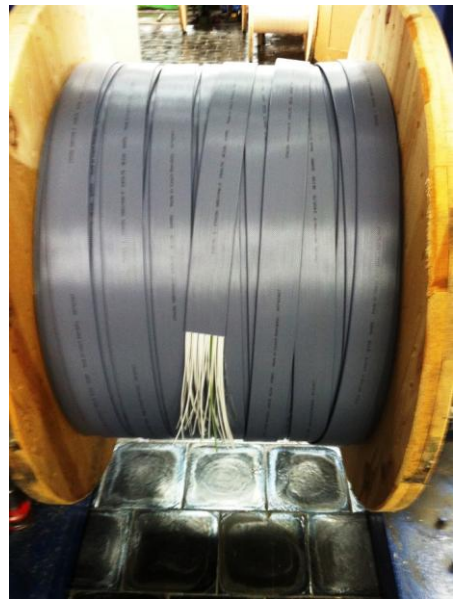
| | |
|--|---|
| 1. Conductor 0,75 mm² | flexible stranded copper, class 5 resistance: 26 Ω/km |
| 2. Insulation 0,75 mm² | special PVC insulation according HD21.1: TI2 white insulation with black numbering + 1 GN/YE |
| 3. Conductor 0,5 mm² | flexible stranded copper, class 5 resistance: 39 Ω/km |
| 4. Insulation 0,5 mm² | cellular polyethylene copolymer |
| 5. Filler element | polypropylen yarns, stranded, Ø 1,5 mm |
| 6. Shielded twisted pair | elements stranded, taped with PET foil 0,023 mm braided with tinned copper wires, 7x0,1 mm optical coverage 85% second PET foil on braided element coloring: 1.pair WH/BL 2.pair WH/OG |
| 7. Ripcord | for removing jacket material |
| 8. Sheathing material | special PVC insulation according HD21.1: TM2 grey |
| 9. Strain bearing member | zinc coated steel wire rope 7x7x0,2 mm 2x Ø 1,8 mm |
| Cable marking | <i>meter mark</i> ITASIA H05VVD3H6-F 24G0,75+2(2x0,5)C <EZU> <HAR> <i>order number</i> Made in Czech Republic (EU) |
| Electrical data | |
| Rated voltage U ₀ /U | 300/500 V |
| Test voltage | 2000 V |
| Test voltage on signal pairs | 1000 V core/screen 1500 V core/core |
| Impedance on braided signal pairs | 80 Ω ± 15% |
| Standards | acc. to EN 50214 |

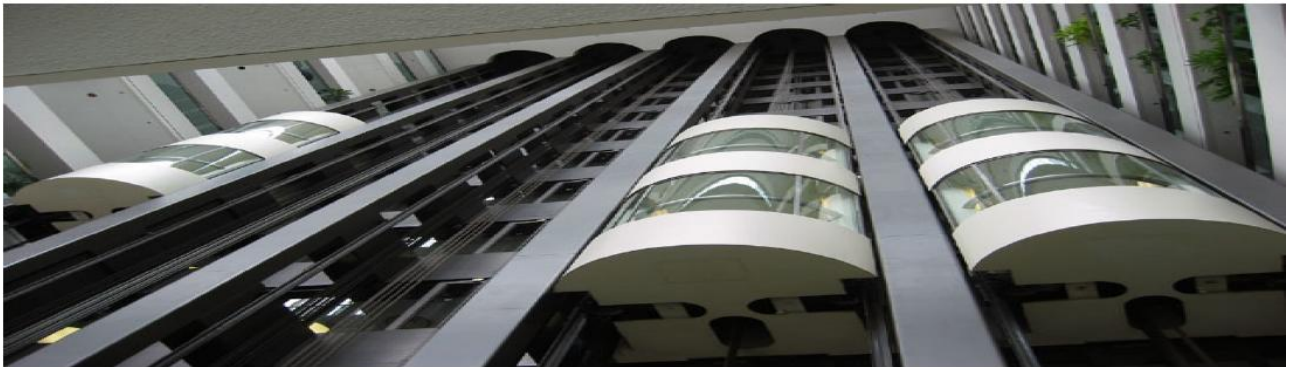
Technical data

| | |
|--------------------------------|----------------------------|
| Dimensions (width x thickness) | 81,1 ± 2 mm x 5,4 ± 0,4 mm |
| Linear weight | approx. 805 kg /km |
| Max. free suspension length | 100 m |
| Max. travelling height | approx. 180 m |
| Max. travelling speed | 6 m/s |
| Min. bending radius | 170 mm |
| Natural loop | 520 mm |
| Operating temperature range | min. -15°C – max. 70°C |
| Standard packaging | drums with 500 m |









ITASIA CO. was established in 1985 .

IT S OBJECTIVE IS TO SUPPLY ELEVATOR PART AND FULL ELEVATORS IN DIFFERENT CAPACITIES AND SPEEDS IN COMPLIANCE WITH EUROPEAN STANDARDS.

OUR EXPERIENCE FOR THE PAST 29 YEARS ENABLE US TO PLAY AN EFFECTIVE ROLE IN THE EXPORT OF VERTICAL TRANSPORT SYSTEMS.

We use the most advanced algorithm in our state- of- the - art design technology

*COMFORT, **SAFE**, RELIABILITY*

ITASIA elevators has developed a compact desing and very smooth speed elevators.



ASCENSORI, MONTACARICHI E COMPONENTI

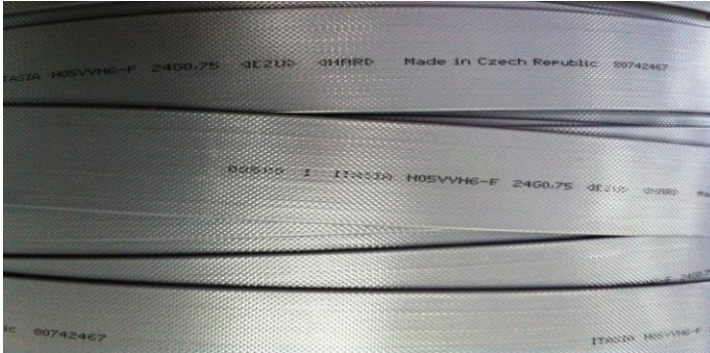
Via Emila 35 Roveleto di Cadeo 29010 Piacenza Italy

Tel. +39 0523 509927 – Fax +39 0523 500218 Cell. +39 3355669646

E.mail : itasia@itasia.it – www.itasia.it



ITASIA FLAT CABLE INSTALLATION MANUAL GUIDE



HIGH QUALITY FLAT CABLE MADE IN CZECH REPUBLIC EU

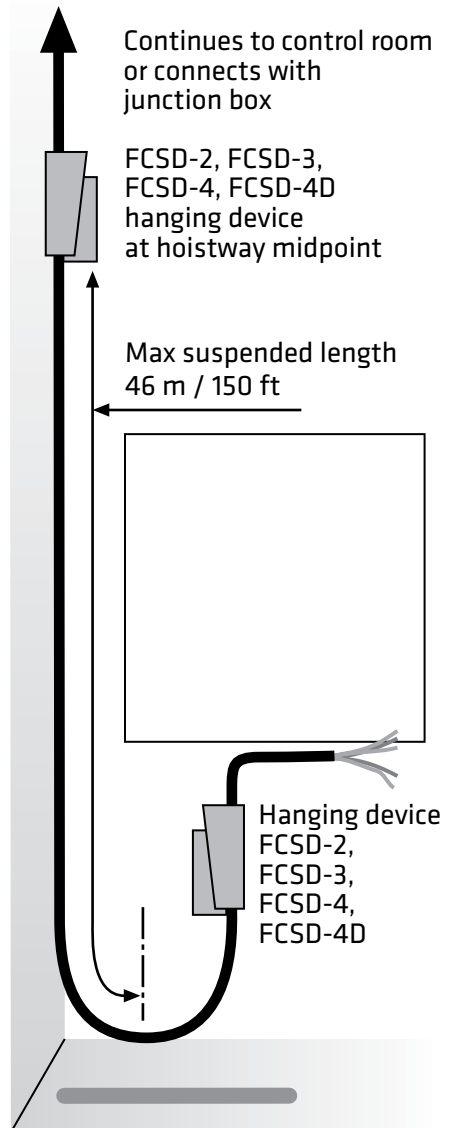
Important! Please read!
Warranty and safety information

ITASIA flat traveling cable
is designed to be used in most vertical transportation applications.
This guide has been prepared to instruct installers in the safe and efficient installation
of flat traveling cable. Failure to follow these procedures will not only invalidate
product warranty, but could endanger public safety.

Unsupported flat cable - the basics

UPPER MACHINE ROOM INSTALLATION

Unsupported cable is attached with hanging devices at the hoistway midpoint and at the bottom of the car. Another hanging device may be needed at the top of the hoistway (see page 8). The maximum hanging length for unsupported cable is 46 m / 150 ft.

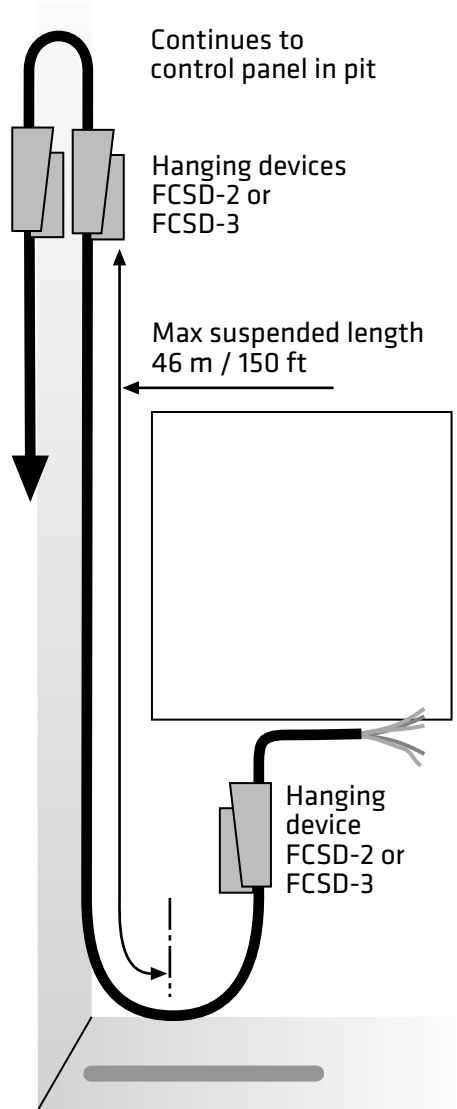


Unsupported flat cable - the basics

LOWER MACHINE ROOM INSTALLATION

In some cases, the controller is located at the first landing. A third hanging device is needed to direct the cable downward.

The maximum hanging length is 46 m / 150 ft.



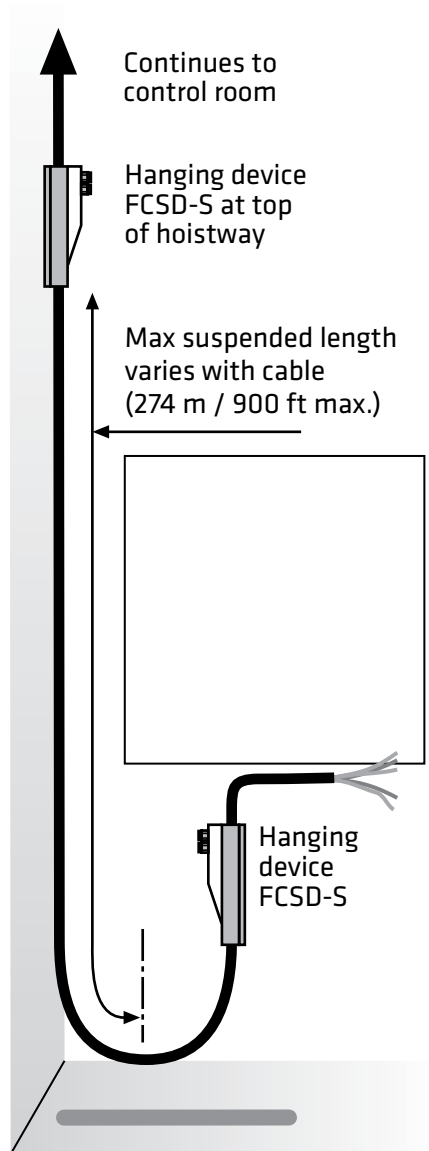
Supported flat cable - the basics

UPPER MACHINE ROOM INSTALLATION

Steel supported flat cable is attached with hanging devices at the hoistway top and at the bottom of the car.

The maximum hanging length for unsupported cable varies. The maximum hanging length for any supported cable is 274 m / 900 ft.

Check our catalog for the maximum hanging length for the cable you are installing.



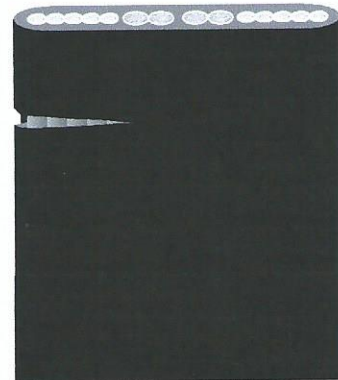
Inspecting, moving and storing reels

MOVE AND STORE CABLE SAFELY

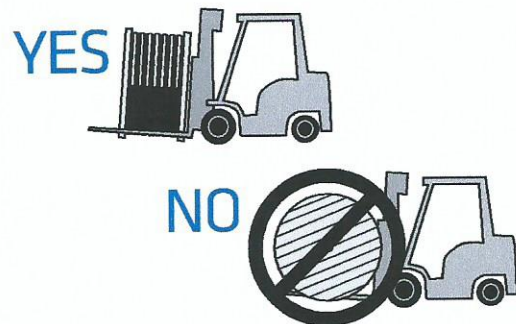
Inspect the cable immediately upon arrival. Store the cable in a protected area away from possible damage.

A cut or gash in the jacket could mean an unsafe cable. Damaged reels or boxes are a sign of rough handling in transit and may indicate cable damage.

DO NOT INSTALL POTENTIALLY DAMAGED CABLE.



Flat cable may be moved by forklift. Lift the reel by the wood, not by the cable.

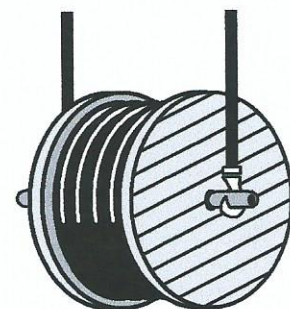
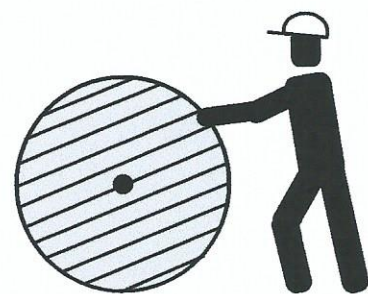


The reel may be rolled on a firm surface.

If a hoist is being used, place a strong rod through the reel and lift it by that.

Larger reels must be stored upright and not stacked.

Smaller plywood reels can be stored on their sides provided they are covered in stretch wrap material and not stacked more than two high.



Planning the installation

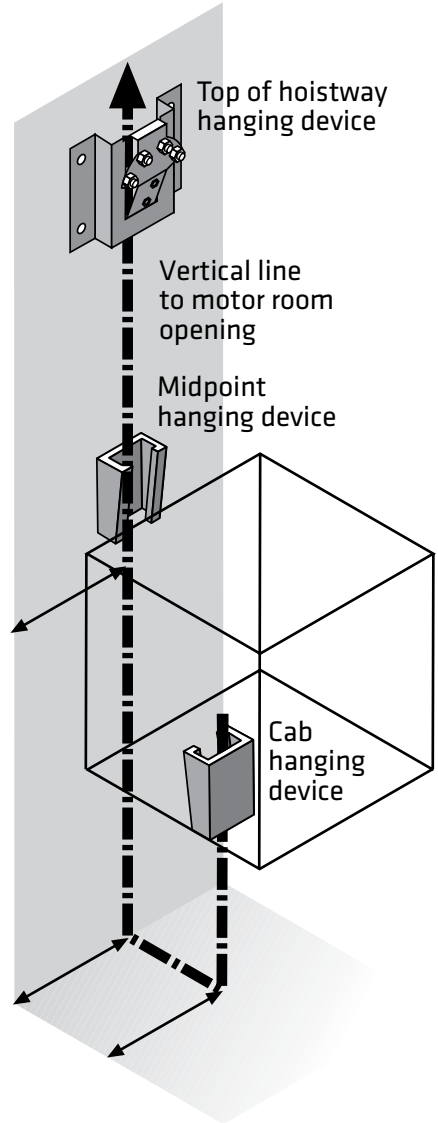
DETERMINE HANGER PLACEMENT

Flat cable connects the cab to the controller at either the top or bottom of the hoistway.

In both cases, the cable must travel in a straight plane.

Unsupported cables will be supported by hanging devices at the midpoint of the hoistway and at the car. An optional hanging device is sometimes used at the top of the hoistway.

Supported cables will be hung by their steel supports with a hanging device placed at the top of the hoistway.



Selecting a hanging device

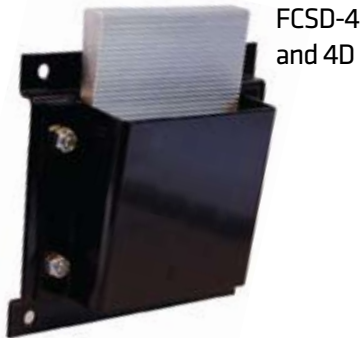
CHOOSE THE CORRECT SIZE AND TYPE

For unsupported installations, the FCSD-2 will hold up to two cables, one up to 52 mm / 2.05 in. wide, and a second no less than 70% of the width of the wider one. Total thickness of the installed cables is 12 mm / 0.47 in.



The FCSD-3 will hold up to three unsupported cables, one up to 75 mm / 2.95 in. wide, and the second/ third no less than 70% of the width of the wider one. Total thickness of the installed cables is 15 mm / 0.60 in.

The FCSD-4 will hold up to three unsupported cables with a maximum width of 101 mm / 4 in. wide. Total thickness of the installed cables is 14 mm / 0.55 in. max. The FCSD-4D variant will hold up to five cables with a total thickness of 24.4 mm / 0.96 in.



For supported installations, the FCSD-5 holds up to three cables with a total of 16 mm / 5/8 in. max. Instructions for attaching cables to it are on pages 15 and 16.



Mount the hoistway hanging device

KEEP CLEAR OF THE CAR'S PATH

The hanging device should be secured where it will not interfere with the moving car.

For unsupported cables, locate the hanging position just above the midpoint of the hoistway (shown). Keep the position of the hanging device in line with the motor room opening.

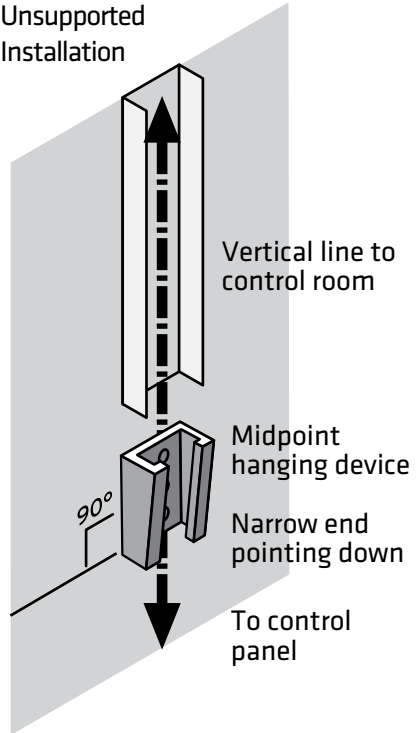
Make sure that the edges of the hanging device are parallel with the walls of the shaft, and that the narrow end of the wedge is oriented toward the bottom of the shaft.

Mark the drilling points with a pencil. Move the hanging device and drill the holes.

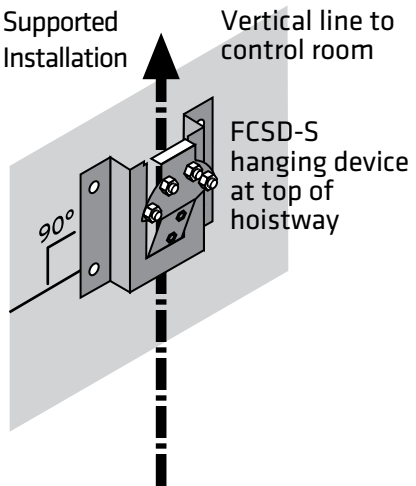
Bolt the hanging device into position using fasteners appropriate for the mounting surface (wall anchors, etc.).

For supported cables, the hanging position will be at the top of the hoistway. Do not install the FCSD-S until you are ready to expose the support members (see pages 15 and 16).

Unsupported Installation



Supported Installation



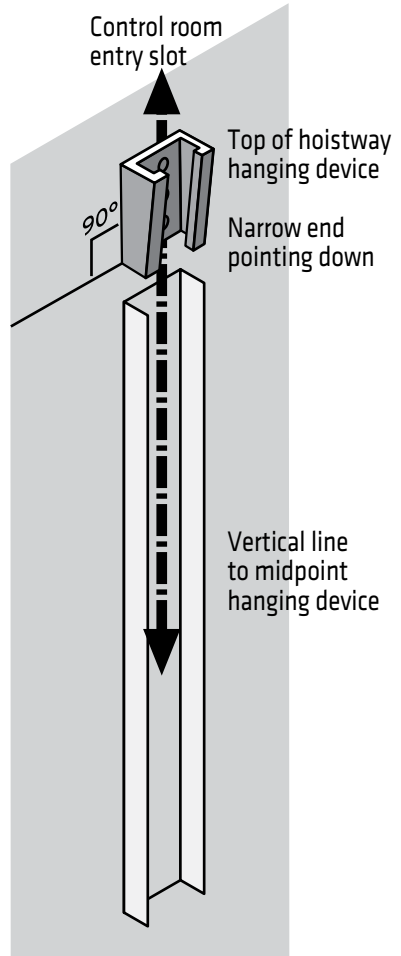
Mounting a second hoistway hanging device

WITH THE CONTROLLER AT THE TOP OF THE HOISTWAY

For unsupported cable installations of 10 or more floors, a second hanging device for supporting the cable may be needed within a few feet of the top of the hoistway. It must be in line with the midpoint hanging device.

Unsupported cables will have one hanging device at the top of the hoistway - no midpoint hanging device is needed.

It is helpful to have the raceway already in place to protect the stationary portion of cable.

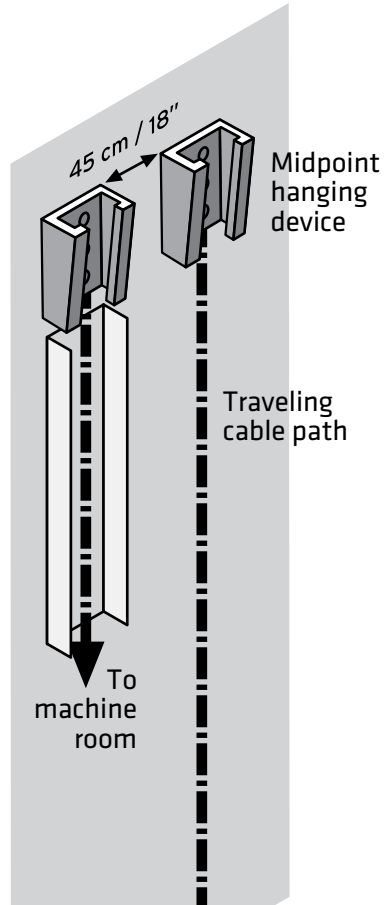


Mounting a second hoistway hanging device

WITH THE CONTROLLER AT THE BOTTOM OF THE HOISTWAY

For unsupported cable installations with a first floor machine room (such as a hydraulic), a second hanging device should be installed about 45 cm / 18 inches to the side of the midpoint hanging device.

Raceway should be installed for cable placement. The downward path should be vertical.



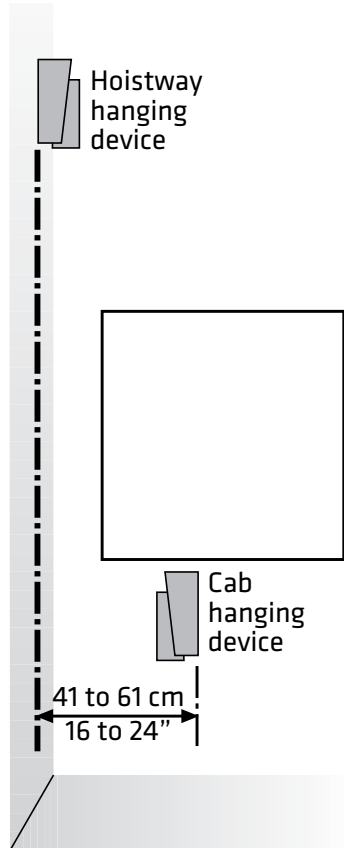
Mounting the car hanging device

DETERMINE PLACEMENT

It is critical that the hoistway hanging device and the cab hanging device(s) are aligned on the same plane. Failure to do so will result in poor tracking.

Locate a place on the cab frame on the same plane as the hoistway hanging device. The horizontal distance between the hoistway hanging device and the car hanging device should be 41 to 61 cm / 16 to 24 inches.

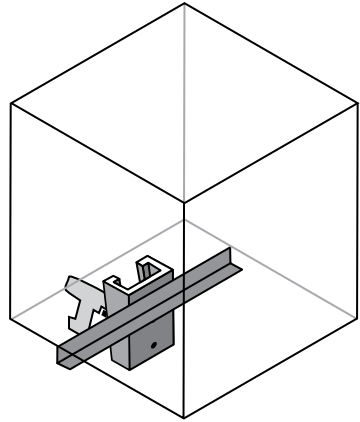
If using two devices, set the devices between 51 mm / 2 in. and 102 mm / 4 in. apart.



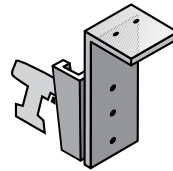
Mounting the car hanging device

ATTACH THE HANGING DEVICE

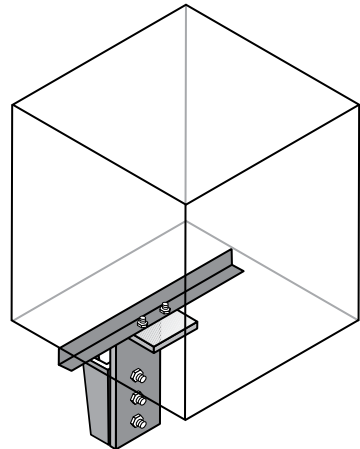
Locate a vertical surface under the car directly in line with the hoistway hanger to locate car cable hanger. Be sure to allow 10 cm / 6 inches minimum overhead clearance for the wedge and cable.



If no suitable location exists, mount the hanger to an appropriately-sized steel plate and secure the plate to the underside of the car.



A 90 degree angle bracket can be used to secure the hanger to a horizontal surface beneath the car.



Placing the cable

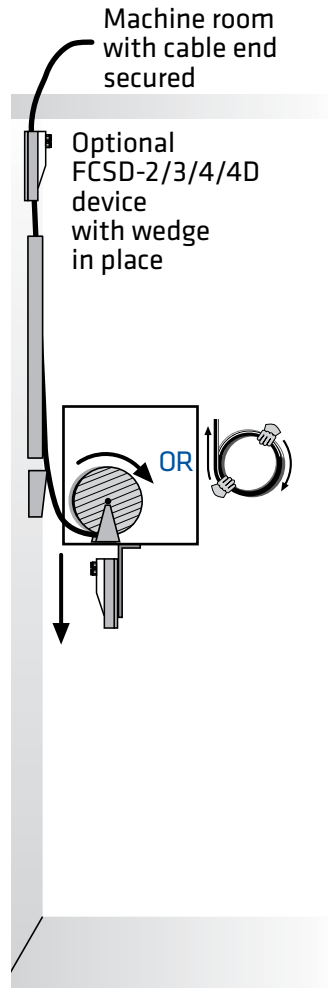
PREFERRED METHOD

Prior to paying of the cable, be sure that any hoistway obstructions be removed or, at the minimum, padded to avoid abrasion damage.

Place the reel(s) on reel rollers or jack-stands in the car and proceed to the top floor. Feed enough cable into the machine room to connect with the controller and secure the end. If you are using a hanging device at the top of the hoistway, you may attach the cable there before lowering the cab.

Slowly lower the car while carefully placing the cable into the raceway until the midpoint is reached.

The cable should pay off from the bottom of the reel so that the cable bend direction is consistent between the reel and the loop. If the flat cable is provided on coils, uncoil it as if it were on a reel, rotating it with your hands



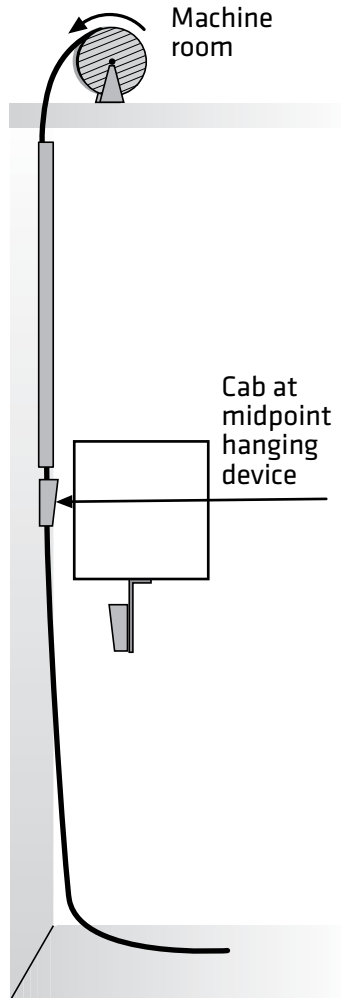
Alternate method for placing the cable

CAN BE USED FOR SHORTER RUNS

Place the reel on reel rollers or jack-stands in the machine room. Pay the cable off the top of the reel.

Make sure the reel can rotate freely.

Slowly lower the cable down the hoistway, until enough is available for undercar attachment, and then secure the cable in the hoistway hanger.

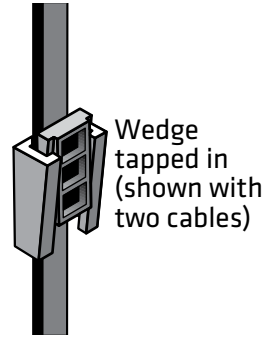


Secure the cable in the hanging device

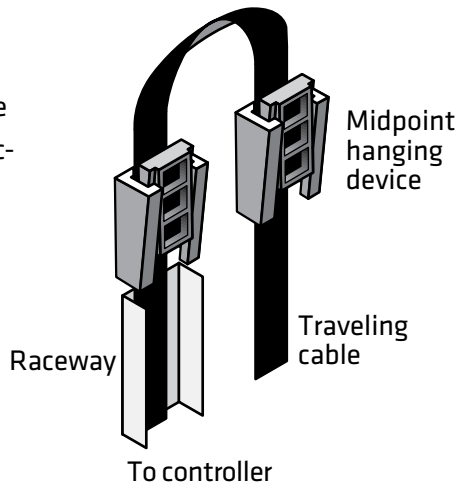
FOR UNSUPPORTED CABLES

Place the unsupported cable in the hanging device. If placing two cables, put the smaller one on top of the larger one.

Slide the clamping wedge in and temporarily secure it with a few hammer taps. The cable should be firmly held but the wedge should be easily removed with a few hammer taps.



If you are running the cable to a first floor machine room, carefully fold the cable and place it as shown in the second hanging device.

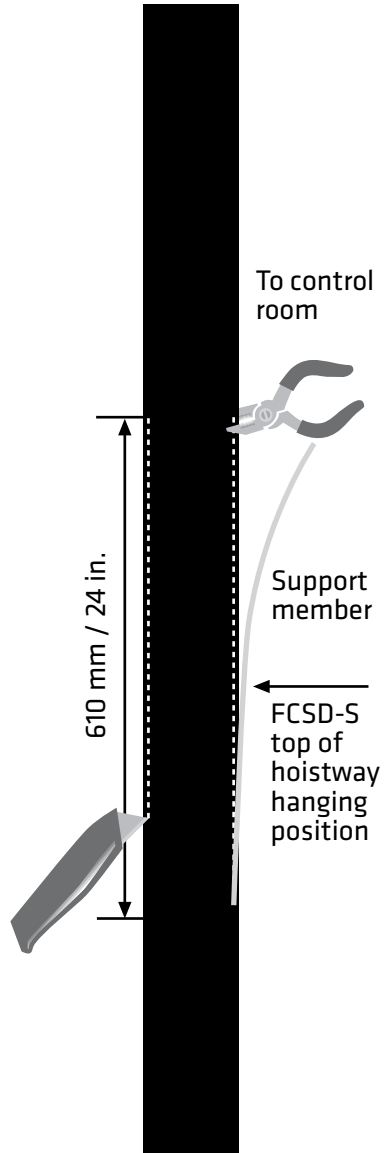


Secure the cable in the hanging device

FOR SUPPORTED CABLES

With the supported cable being held in place in the machine room, locate the hanging position for the FCSD-S. Expose 610 mm / 24 in. of steel support members by slitting the edges of the cable with a utility knife. The midpoint of this slit should be where the FCSD-S will be installed.

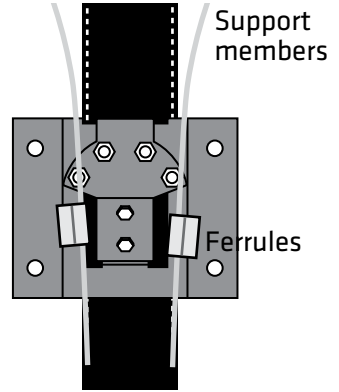
Use cutters to snip the support members, being careful not to nick or cut and of the conductors. Pull the support members away from the cable.



Secure the cable in the hanging device (con't)

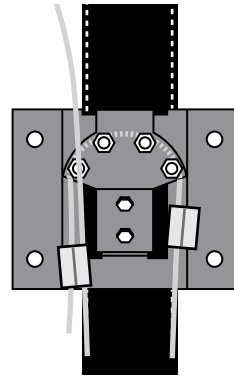
FOR SUPPORTED CABLES

Install the FCSD-S so that the cable is behind it and the support members are outside of it. Place one ferrule over each support member.

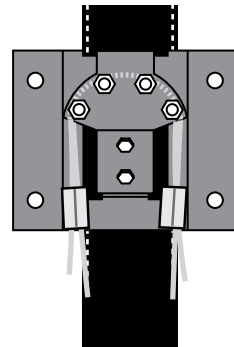


Wind the support members over the four nuts behind the semi-circular plate of the hanging device.

Run one support member through the opposing ferrule. Use a swaging tool to crimp each ferrule in three places.



Repeat with the other support member. When the cable is unsecured in the machine room, the support members will become taut and support the cable.

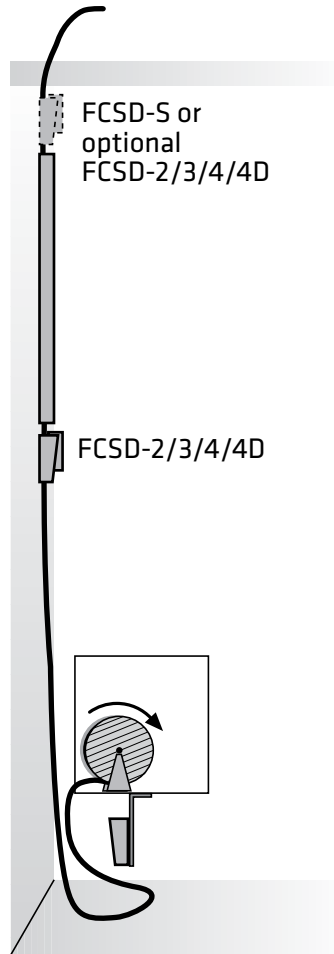


Attach the cable to the car

Once the cable is temporarily secured at the midpoint, continue descending to the bottom of the hoistway.

Pay out enough cable to reach the hanging device on the bottom of the cab. There should be sufficient cable to set a proper loop with 15 cm / 6 inches or more clearance from the pit floor PLUS enough to reach its termination in the cab.

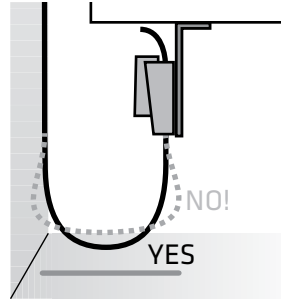
Cut the cable with tin snips or a wire cutter.



Setting the proper loop

Place the cable into the car hanger.
Have a helper hold the cable in place while setting the loop.

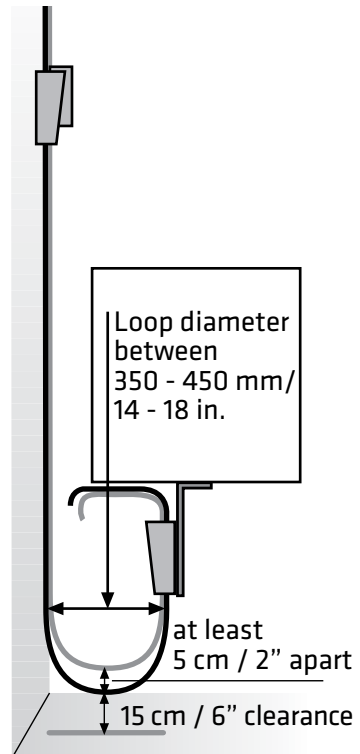
The loop should not touch the cab's bottom edges and should not 'bell out.' The cable should hang vertically so that both legs of the loop are parallel.



The loop diameter should be between 350 - 450 mm / 14 - 18 in.

If installing two or more cables, make sure there are 5 to 10 cm / 2 to 4 inches between the loops.

Once the loops are set, temporarily secure the cable in the hanging device by lightly tapping the wedge into place.



Adjusting the tracking

If the cables are running off-plane, the cable tracking can be adjusted by VERY slightly angling the cable in the hanging devices. Angling the cable by as little as 3 mm / 1/8 inch off vertical will move a cable as much as 60 cm / 2 feet in a ten story building.

For unsupported cables, once proper tracking has been confirmed or established, firmly tap in the wedges at all hanging devices.

For supported cables, attach the cable with the support members as shown on pages 15 and 16.

The cable should be tightly held but not crushed or deformed in the hanging devices.

Stripping the cable

The 36-135-M1 Flat Cable Stripper is the recommended tool for jacket removal.

Starting from the printed jacket surface, place the point of the guard between the conductor and jacket.

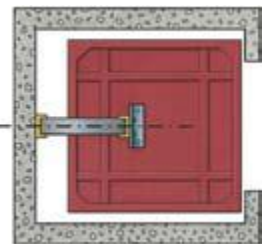
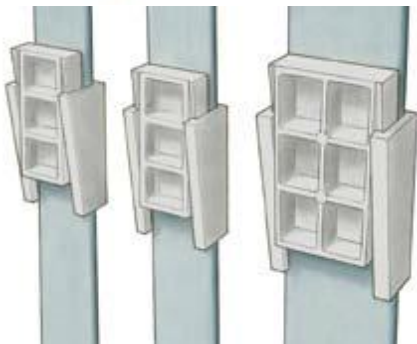
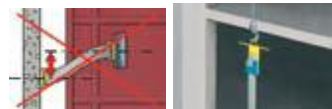
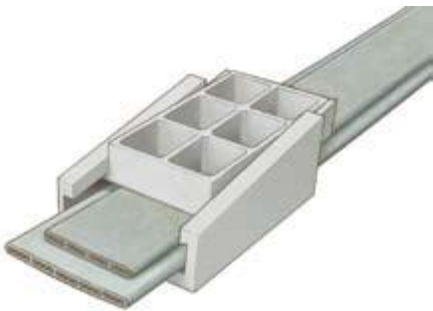
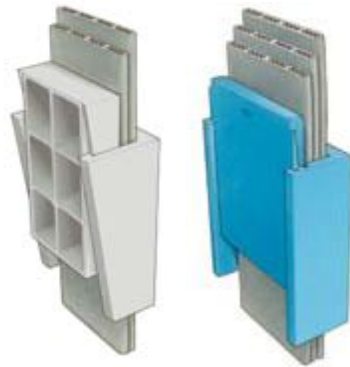
Pull the stripper smoothly for about 45 cm / 18 inches using a slight upward motion to avoid nicking the conductors.

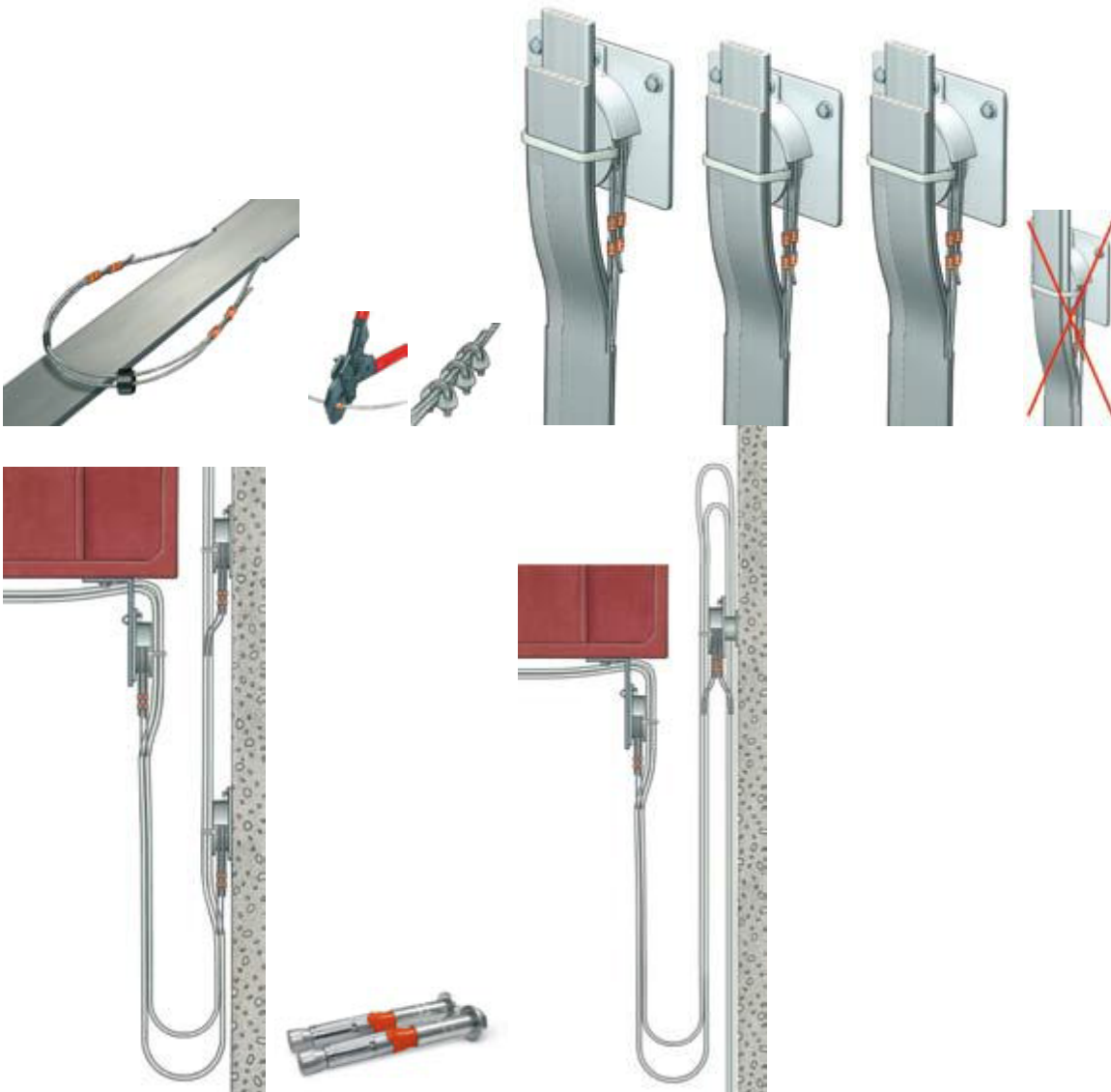
Stripping will expose the ripcords in the cable. If more jacket needs to be removed, use needle-nose pliers to grip the ripcord, twisting it around the jaws of the pliers for more grip.

Electrical tape can be used to organize bundles of exposed conductors.



NOTE: A routine inspection program should be implemented to maximize product performance and safety.





Via Emila 35 Roveleto di Cadeo 29010 Piacenza Italy

Tel. +39 0523 509927 – Fax +39 0523 500218 Cell. +39 3355669646

E.mail : itasia@itasia.it – www.itasia.it

EU Declaration of Conformity

Manufacturer's name and address:

Draka Kabely, s.r.o
Třebíčská 777/99
CZ-594 01 Velké Meziříčí

Product:

Elevator cable with or without signal pairs

Type designation:

H05VVH6-F, H05VVD3H6-F

The designated product is in conformity with the European Directives:

2014/35/EU **including amendments**

“Council Directive of 26 February 2014 on the harmonization of the laws of the Member States relating to electrical equipment designed for use within voltage limits“.

Full compliance with the standards listed below proves the conformity of the designated product with the provisions of the above –mentioned EC Directive:

EN 50214;

The EZÚ Testing and Certification Institute (Identification No. 201), Pod lipem 129, CZ-17102 Praha 8, has tested and certified the product granting the HAR Licence for the mark(s).

Licence No.:

6150006

File Reference.:

201427-01/01, 502289-01/01

The last two digits in which the CE marking was affixed: 21

Velké Meziříčí, 6th of May 2021

(Place, date)

Jiří Vostal – executive director

(Legally binding signature of the issuer)



ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV



ELECTROTECHNICAL TESTING INSTITUTE - CZECH REPUBLIC
ELEKTROTECHNISCHE PRÜFANSTALT - TSCHHECHISCHE REPUBLIK
INSTITUT ELECTROTECHNIQUE D'ESSAIS - RÉPUBLIQUE TCHÈQUE
ЭЛЕКТРОТЕХНИЧЕСКИЙ ИСПЫТАТЕЛЬНЫЙ ИНСТИТУТ - ЧЕШСКАЯ РЕСПУБЛИКА

Pod Lisem 129, 171 02 Praha 8 - Troja

LICENCE FOR HAR CONFORMITY MARK

No.: 6140002

Licensee: **Draka Kably, s.r.o.**
Třebíčská 777/99, 594 01 Velké Meziříčí, Czech Republic

Factory: **Draka Kably, s.r.o.**
Třebíčská 777/99, 594 01 Velké Meziříčí, Czech Republic

Type of product: **Flat polyvinyl chloride sheathed flexible lift cables**

Code of product: **H05VVH6-F**

Rating: **(4 - 24) x (0,75 - 1) mm², 300/500 V**

Trade Mark: **ITASIA**

Electrotechnical Testing Institute is granting a licence for using the following mark



or identification thread (black – 1 cm, red – 3 cm, yellow – 11 cm), (code 22).

One of these marks may be used for the product specified in this certificate within validity of the Agreement on the use of the HAR Mark by implementing all the rules stated in the Agreement.

The right to use the above mentioned mark for the product is based on:

- Test report No.: 402869-01/01 of: 01.08.2014

A sample of the product was tested and found to be in conformity with:
EN 50214 ed.2:2006
ČSN EN 50214 ed.2:2007

- certified quality system according to 402814-01 of 25.6.2014 performed by EZÚ
- the General Agreement on the use of the HAR Mark No. 1808 and the agreement No. 402869-01 concluded between the ordering firm and the Electrotechnical Testing Institute
- compliance with the certification scheme „HAR“

Certificate supersedes: -

This certificate is issued according to the rules of the HAR Agreement. The certification Scheme meets the criteria for type 5 systems laid down in the ISO/IEC Guide 67:2004 (Type Testing, Factory Inspection with assurance of conformity by continuous sample testing, production surveillance and market surveillance). The certificate issued by any Certification Body adhering to the HAR Agreement has the same worth and validity in all the other Certification Bodies' countries.

Compliance with the requirements of the above listed Harmonised Standards carries a presumption of conformity with the essential safety requirements of Directive 2006/95/EC (Low Voltage Directive).

2.9.2014

Prague

Miroslav Sedláček
Head of Certification Body



* C E R / 6 1 4 0 0 2 *

402869-01

ELEKTROTECHNICKÝ ZKUŠEBNÍ ÚSTAV



ELECTROTECHNICAL TESTING INSTITUTE - CZECH REPUBLIC
ELEKTROTECHNISCHE PRÜFANSTALT - TSCHECHISCHE REPUBLIK
INSTITUT ELECTROTECHNIQUE D'ESSAIS - RÉPUBLIQUE TCHÉQUE
ЭЛЕКТРОТЕХНИЧЕСКИЙ ИСПЫТАТЕЛЬНЫЙ ИНСТИТУТ - ЧЕШСКАЯ РЕСПУБЛИКА

Pod Lisem 129, 171 02 Praha 8 - Troja

CERTIFICATE

No.: 1140389

Product: Elevator cable

Type: H05VVH6-F

Rating: (4-24) x (0,75-1) mm²; 300/500 V

Ordering firm: ITASIA srl.
Via Emilia 35, 29010 Roveleto, Cadeo Piacenza, Italy

Manufacturer: ITASIA srl.
Via Emilia 35, 29010 Roveleto, Cadeo Piacenza, Italy

Factories: Draka Kabely, s. r. o.
Třebíčská 777/99, 594 01 Velké Meziříčí, Czech Republic

Trade mark: ITASIA

The test results are stated in the test-report No.: 201427-01/01 of: 20.04.2012

A sample of the product was found to be in conformity with:
ČSN EN 50214 ed.2:2007+1:2008 (EN 50214:2006+1:2007)

www.ezuzk.cz

15.5.2018

Prague

Miroslav Sedláček
Head of Certification Body



Stamp



401973-01