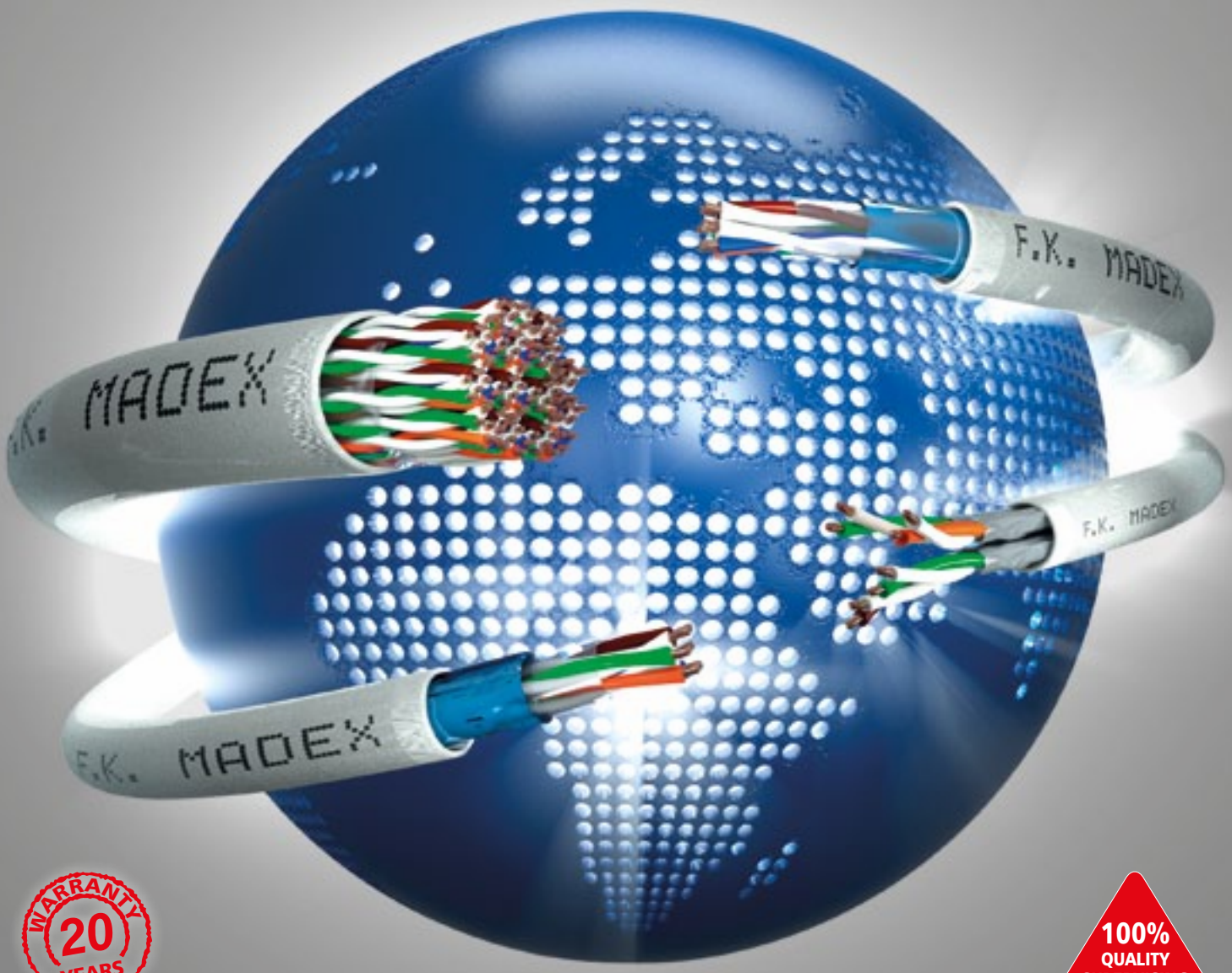
FABRYKA KABLI

MADEX

rok założenia 1988

DATA CABLES

- INDOOR
- OUTDOOR
- MULTI-PAIR



WARRANTY 20 YEARS

100% QUALITY SUPERVISING

FABRYKA KABLI MADEX

rok założenia 1988

100% QUALITY SUPERVISING

FIRMA POLSKA

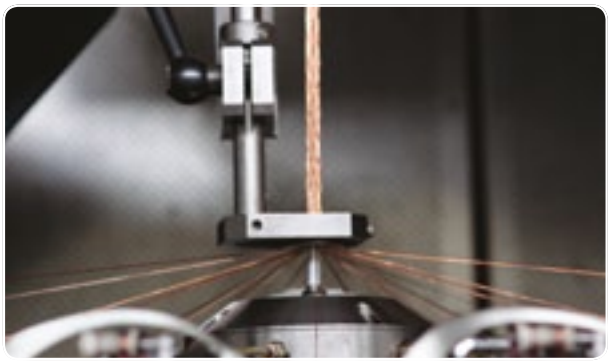
WARRANTY 20 YEARS

Zertifiziert durch QUACERT DIN EN ISO 9001

Zertifiziert durch QUACERT DIN EN ISO 14001

THIRD PARTY TESTING 3P

RoHS



The Cable Factory Madex operates on the market since 1988. The Company specialises in manufacturing of data communication, telecommunication and coaxial copper cables.

Our production lines are equipped with machines and devices of the best companies on the cable machinery market: Northampton Machinery Company, Henrich, Unitek and Beta Lasermike.

The complete production profile offer includes:

- **data cables: UTP, FTP, S-FTP, STP, SSTP cat.5e-7$_A$ solid and stranded conductors, both PVC and LSOH sheath;**
- **telecommunication cables incl. cables for broadband transmission;**
- **halogen-free and fire-resistant cables;**
- **low voltage power cables;**
- **coaxial cables;**
- **signal and steering cables**
- **special cables.**

Permanent maintaining of high quality of production is possible through implementation of the Quality Management System ISO 9001. In anxiety for natural environment we have implemented the System of Environmental Management ISO 14001.

Fully computerised research and control laboratory equipped with the most modern devices of AESA Cortaillod allows for accurate and universal assessment of final product quality. The offered by us cables comply with the most restricted quality requirements set for modern products of cable industry. It is confirmed by the awarded Certificates of Homologation and Quality, and other documents.

The quality of the entire data cables production process, not only the electric parameters, is confirmed by awarded certificates by Danish company 3P Third Party Testing which are honoured all over the world. Each commercial unit of the computer cable is fully controlled and delivered with parameter printout.

Cable Factory Madex is the recognised supplier for the biggest cable purchasers of the telecommunication and data communication market such as: TP S.A., Netia Telekom, Molex Premise Networks, C&C Partners Krone, Panduit and many others. Data communication cables and coaxial cables are also offered within the distribution network throughout Poland.

The strategic objective of the Company is to offer products of the best possible quality at moderate prices with the most convenient date and place of delivery for our Customer.

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DATA CABLES

FABRYKA KABLI MADEX
rok założenia 1988

U/UTP category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Types of cables

- **Powernet 4 x 2 x 24AWG**
- **Ultralink 4 x 2 x 0,5**
- **Internet 2 x 2 x 0,5**

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which are not exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,511mm (24AWG) or 0,5mm

b. insulation: solid PE

c. cable' core: 4 or 2 pairs stranded together

d. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)

- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
Powernet 4PR 24AWG	5,5	33
Ultralink 4 x 2 x 0,5	5,0	30
Internet 2 x 2 x 0,5	4,5	21

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box, cable 2 x 2 x 0,5 – box 500m.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

FABRYKA KABLI MADEX
rok założenia 1988

U/UTP Duplex category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which are not exposed to electromagnetic interference. Cables are mainly used in public buildings, where are data terminals concentration.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. cable' core: 4 pairs stranded together

d. cable: 2 cores in common jacket

e. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

f. jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP 2x4PR 24AWG Cat. 5e	5,0 x 10,0	62

Standard package

Standard length - 305m (1000 foot) wound on wooden reel.

Other lengths - according to Client's specification

Additional data

Conductor identification colours (in each cable core)

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

U/UTP category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to ISO/IEC 11801; EN 50173-1; IEC 61156-5;
EN 50288-6-1 and ANSI/TIA/EIA 568-C.2-1.

Resistance for flame propagation according to IEC 60332-1-2 (EN 60332-1-2).

Cables produced by FK MADEX meets the requirements of category 6 in the frequency up to 500MHz.

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which are not exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

d. cable' core: 4 pairs placed between the walls of cross web

e. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

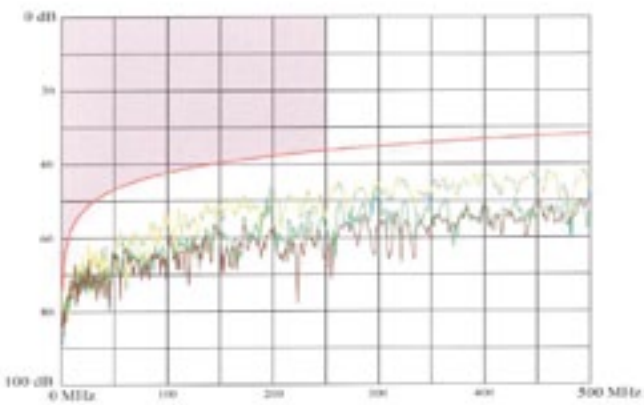
Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP 4PR 23AWG	6,5	46

Standard package

Standard length - 305 m (1000 foot) wound on reel. Other lengths - according to Client's specification.



PS NEXT characteristic of U/UTP category 6 cable produced by FK MADEX

U/UTP category 6_A

Standard: ZN-MADEX-04

Cables meet requirements of category 6A according to ISO/IEC 11801; EN 50173-1; IEC 61156-5 and ANSI/TIA/EIA 568-C.2-1.

Resistance for flame propagation according to IEC 60332-1-2 (EN 60332-1-2).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which are not exposed to electromagnetic interference.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to 10 GBASE-T. Signal frequency spectrum up to 500MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

d. cable' core: 4 pairs placed between the walls of cross web

d. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP 4PR 23AWG cat. 6_A	7,5	65

Standard package

Standard length - 305 m (1000 foot) wound on reel. Other lengths - according to Client's specification.

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTP category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-5;
EN 50288-2-1 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1)

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. screen of cable core: Al/PET foil

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTP 4 PR 24AWG Cat. 5e	6,5	43

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

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SF/UTP category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-5;
EN 50288-2-1 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,511mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. screen of cable core: Al/PET foil, Al outside and tinned copper braid

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
SF/UTP 4PR 24AWG Cat. 5e	6,8	42

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTP category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-5-1 and ANSI/TIA/EIA 568-C.2-1.

Resistance for flame propagation according to IEC 60332-1-2 (EN 60332-1-2).

Cables produced by FK MADEX meets the requirements of category 6 in the frequency up to 500MHz.

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to Gigabit-Ethernet 1000Base-T.
Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

d. cable' core: 4 pairs placed between the walls of cross web

e. screen of cable core: Al/PET foil

f. drain wire: tinned copper wire diameter ≥ 0,4 mm

g. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

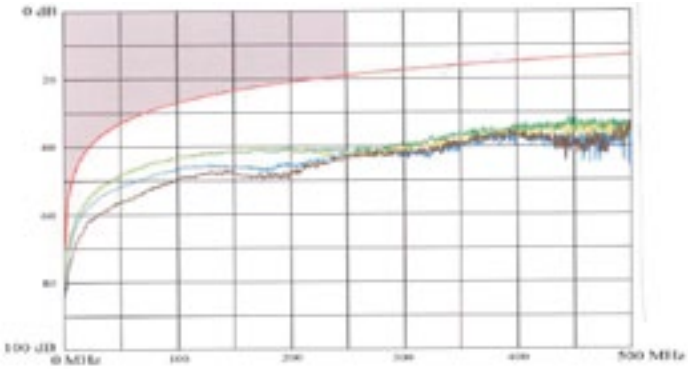
Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTP 4PR 23AWG Cat. 6	7,5	55

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.



PS ELFEXT characteristic of F/UTP category 6 cable produced by FK MADEX

F/UTP category 6_A

Standard: ZN-MADEX-04

Cables meet requirements of category 6A according to ISO/IEC 11801; EN 50173-1; IEC 61156-5 and ANSI/TIA/EIA 568-C.2-1.

Resistance for flame propagation according to IEC 60332-1-2 (EN 60332-1-2).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to 10 GBASE-T. Signal frequency spectrum up to 500MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

d. cable' core: 4 pairs placed between the walls of cross web and wrapped with plastic foil

e. screen of cable core: Al/PET foil

f. drain wire: tinned copper wire diameter ≥ 0,4 mm

g. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTP 4PR 23AWG cat. 6_A	8,0	60

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

S/FTP category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to z ISO/IEC 11801; EN 50173; IEC 61156-5;
EN 50288-5-1 and ANSI/TIA/EIA 568-C.2-1. .

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Cables produced by FK MADEX meets the requirements of category 6 in the frequency up to 600MHz.

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM-1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

d. shield of single pair: Al/PET foil, Al outside

e. cable' core: 4 shielded pairs stranded together

f. screen of cable core: tinned copper braid

g. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
S/FTP 4PR 23AWG Cat. 6	8,5	59,5

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

U/FTP category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to z ISO/IEC 11801; EN 50173; IEC 61156-5;
EN 50288-5-1 and ANSI/TIA/EIA 568-C.2-1. .

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Cables produced by FK MADEX meets the requirements of category 6 in the frequency up to 600MHz.

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM-1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	blue – clearly blue
2	orange – clearly orange
3	green – clearly green
4	brown – clearly brown

d. shield of single pair: Al/PET foil, Al outside

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. cable' core: 4 shielded pairs stranded together

g. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/FTP 4PR 23AWG Cat. 6	8,0	55

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

FABRYKA KABLI MADEX
rok założenia 1988

U/FTP category 6_A

Standard: ZN-MADEX-04

Cables meet requirements of category 6A according to z ISO/IEC 11801; EN 50173; IEC 61156-5.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM-1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 500MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	blue – clearly blue
2	orange – clearly orange
3	green – clearly green
4	brown – clearly brown

d. shield of single pair: Al/PET foil, Al outside

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. cable' core: 4 shielded pairs stranded together

g. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/FTP 4PR 23AWG Cat. 6_A	8,0	56

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

F/FTP category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to z ISO/IEC 11801; EN 50173; IEC 61156-5;
EN 50288-5-1 and ANSI/TIA/EIA 568-C.2-1. .

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Cables produced by FK MADEX meets the requirements of category 6 in the frequency up to 600MHz.

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM-1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	blue – clearly blue
2	orange – clearly orange
3	green – clearly green
4	brown – clearly brown

d. shield of single pair: Al/PET foil, Al outside

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. cable' core: 4 shielded pairs stranded together

g. screen of cable core: Al/PET foil, Al inside

h. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/FTP 4PR 23AWG Cat. 6	8,5	60

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

FABRYKA KABLI MADEX
rok założenia 1988

F/FTP category 6_A

Standard: ZN-MADEX-04

Cables meet requirements of category 6A according to z ISO/IEC 11801; EN 50173; IEC 61156-5.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM-1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 500MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	blue – clearly blue
2	orange – clearly orange
3	green – clearly green
4	brown – clearly brown

d. shield of single pair: Al/PET foil, Al outside

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. cable' core: 4 shielded pairs stranded together

g. screen of cable core: Al/PET foil, Al inside

h. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/FTP 4PR 23AWG Cat. 6A	8,5	60

Standard package

Standard length - 305 m (1000 foot) wound on reel. Other lengths - according to Client's specification.

S/FTP category 7

Standard: ZN-MADEX-04

Cables meet requirements of category 7 according to z ISO/IEC 11801; EN 50173; IEC 61156-5; EN 50288-4-1.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Cables produced by FK MADEX meets the requirements of category 7 in the frequency up to 900MHz.

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be exposed to electromagnetic interference.

Mainly used where the terminal density is very high, e.g. for wiring office, administration and development buildings in the tertiary area (floor wiring). Signal frequency spectrum up to 600MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	blue – clearly blue
2	orange – clearly orange
3	green – clearly green
4	brown – clearly brown

d. shield of single pair: Al/PET foil, Al outside

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. cable' core: 4 shielded pairs stranded together

g. screen of cable core: Al/PET foil, Al inside

h. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
S/FTP 4PR 23AWG Cat. 7	8,5	60

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

S/FTP category 7_A

Standard: ZN-MADEX-04

Cables meet requirements of category 7 according to z ISO/IEC 11801; EN 50173 and IEC 61156-5.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Application

Cables are intended for use in SCS as horizontal or backbone cable within networks, which can be strongly exposed to electromagnetic interference.

Suitable for digital signals transmission with speed over 10 Gb/s, e.g. Ethernet 10GBase-T. Signal frequency spectrum up to 1000MHz.

Mainly used where the terminal density is very high, e.g. for wiring office, administration and development buildings in the tertiary area (floor wiring).

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,64mm (22AWG)

b. insulation: foam-skin PE

c. conductor identification colours

Number of pair	Colour
1	blue – clearly blue
2	orange – clearly orange
3	green – clearly green
4	brown – clearly brown

d. shield of single pair: Al/PET foil, Al outside

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. cable' core: 4 shielded pairs stranded together

g. screen of cable core: tinned copper braid

h. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
S/FTP 4PR 22AWG Cat. 7_A	9,5	70

Standard package

Standard length - 305 m (1000 foot) wound on reel.
Other lengths - according to Client's specification.

U/UTP category 5e Patch Cable

Standard: ZN-MADEX-03

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-6;
EN 50288-3-2 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Types of cables

- **U/UTP PC 4PR 24AWG Cat.5e**
- **U/UTP PC 4PR 26AWG Cat. 5e**
- **U/UTP PC 2PR 24AWG Cat. 5e**

Application

Cables are intended to be used as work area cables to connect a telecommunications outlet to the terminal equipment and for patch cord cables to establish connections on a patch panel. Work area cables may also be used as patch cord cables in any distributor of a generic building wiring system to interconnect with equipment or to cross-connect between cabling systems. Suitable for digital signals transmission, signal frequency spectrum up to 125MHz.

Cables are not intended for connection of power devices.

Construction

a. conductor: stranded copper wires 7 x 0,20mm (24AWG) or 7 x 0,16mm (26AWG)

b. insulation: solid PE

c. cable' core: 2 or 4 pairs stranded together

d. jacket : - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX B**, page 44-45.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP PC 4PR 24AWG Cat.5e	6,0	35
U/UTP PC 4PR 26AWG Cat. 5e	5,5	25
U/UTP PC 2PR 24AWG Cat. 5e	4,8	20

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

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U/UTP category 6 Patch Cable

Standard: ZN-MADEX-03

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-6; EN 50288-6-2 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Application

Cables are intended to be used as work area cables to connect a telecommunications outlet to the terminal equipment and for patch cord cables to establish connections on a patch panel. Work area cables may also be used as patch cord cables in any distributor of a generic building wiring system to interconnect with equipment or to cross-connect between cabling systems. Suitable for digital signals transmission, signal frequency spectrum up to 250MHz.

Cables are not intended for connection of power devices.

Construction

a. conductor: stranded copper wires 7 x 0,20mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs placed between the walls of cross web

d. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX B**, page 44-45.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP PC 4PR 24AWG Cat.6	7,0	41

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTP category 5e Patch Cable

Standard: ZN-MADEX-03

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-6; EN 50288-2-2 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Types of cables

- **F/UTP PC 4PR 24AWG Cat.5e**
- **F/UTP PC 4PR 26AWG Cat.5e**

Application

Cables are intended to be used as work area cables to connect a telecommunications outlet to the terminal equipment and for patch cord cables to establish connections on a patch panel. Work area cables may also be used as patch cord cables in any distributor of a generic building wiring system to interconnect with equipment or to cross-connect between cabling systems. These cables features high resistance against electromagnetic interference. Suitable for digital signals transmission, signal frequency spectrum up to 125MHz.

Cables are not intended for connection of power devices.

Construction

a. conductor: stranded copper wires 7 x 0,20mm (24AWG) or 7 x 0,16mm (26AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. screen of cable core: Al/PET foil

e. drain wire: stranded tinned copper wires 24AWG

f. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX B**, page 44-45.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTP PC 4PR 24AWG Cat.5e	6,0	44
F/UTP PC 4PR 26AWG Cat. 5e	5,0	34

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

SF/UTP category 5e Patch Cable

Standard: ZN-MADEX-03

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173; IEC 61156-6; EN 50288-2-2 and ANSI/TIA/EIA 568-C.2.

Resistance for flame propagation according to IEC 60332-1 (EN 60332-1).

Types of cables

- **SF/UTP PC 4PR 24AWG Cat.5e**
- **SF/UTP PC 4PR 26AWG Cat.5e**

Application

Cables are intended to be used as work area cables to connect a telecommunications outlet to the terminal equipment and for patch cord cables to establish connections on a patch panel. Work area cables may also be used as patch cord cables in any distributor of a generic building wiring system to interconnect with equipment or to cross-connect between cabling systems. These cables features very high resistance against electromagnetic interference. Suitable for digital signals transmission, signal frequency spectrum up to 125MHz.

Cables are not intended for connection of power devices.

Construction

a. conductor: stranded copper wires 7 x 0,20mm (24AWG) or 7 x 0,16mm (26AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. screen of cable core: Al/PET foil, Al outside and tinned copper braid

e. jacket: - flame retardant PVC with oxygen index > 31 (FR-PVC)
- low smoke zero halogen flame retardant material (LSOH)

jacket colour: standard grey 7035 (other colours - red, blue, yellow, green - available upon request)

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX B**, page 44-45.

Working conditions

Temperature range during installation:	
• cables with PVC jacket	0°C do +50°C
• cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C ÷ +70°C
Corrosiveness of combustion gases for cables with LSOH jacket	EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	EN 50268-2; IEC 61034-2
Min. bending ratio during installation	8 x outer diameter of the cable
Min. bending ratio after installation	4 x outer diameter of the cable
Maximal pulling force	20N per pair

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
SF/UTP PC 4PR 24AWG Cat.5e	7,0	48
SF/UTP PC 4PR 26AWG Cat. 5e	6,5	38

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification

Additional data

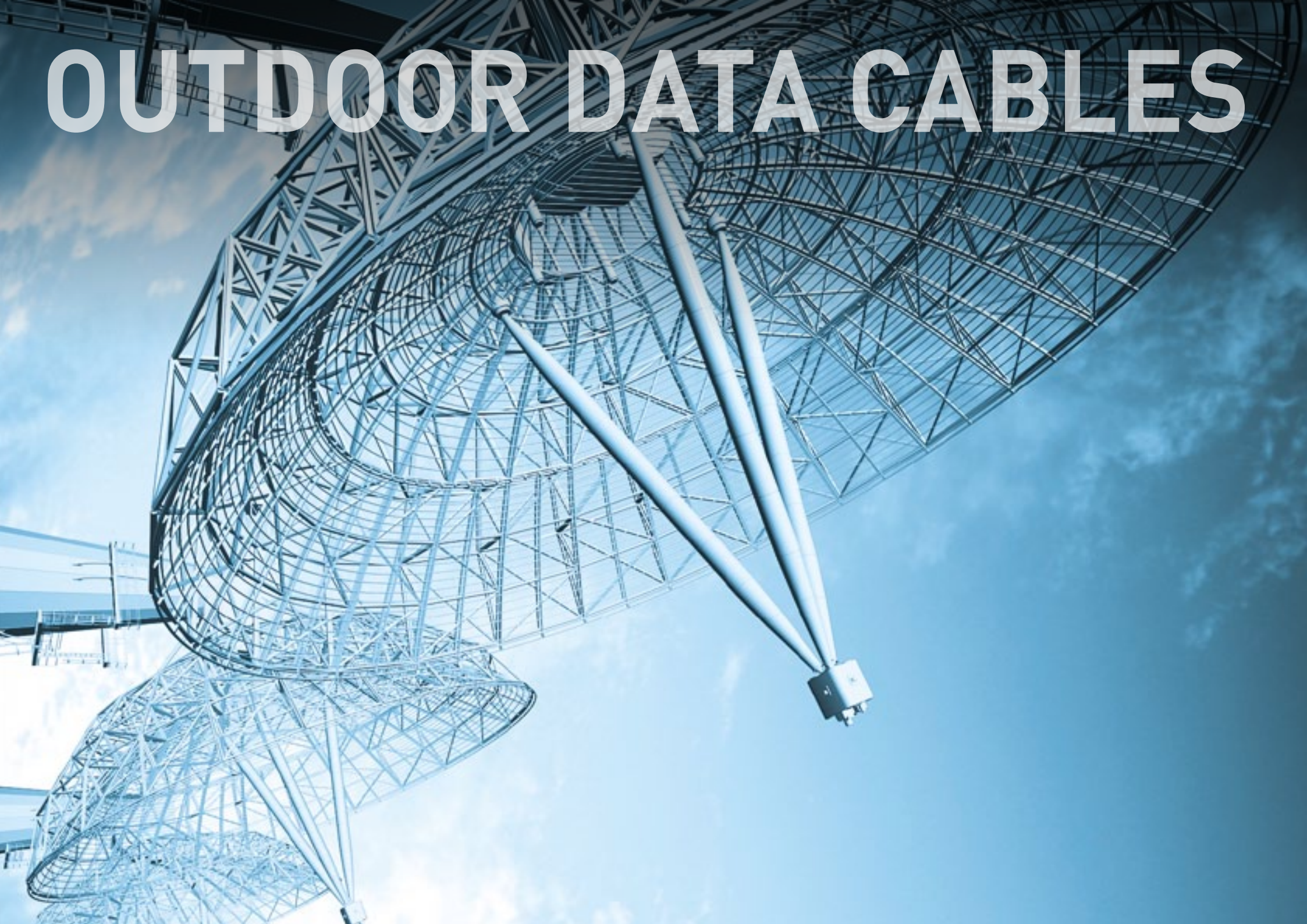
Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

OUTDOOR DATA CABLES



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U/UTPz category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables are intended for use in outdoor data communication networks to be installed under batten, features high resistance against UV radiation. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. cable' core: 4 pairs stranded together

d. jacket: polyethylene with carbon black

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	4 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPz 4 x 2 x 0,5 Cat.5e	6,0	26

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

U/UTPzn category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables are intended for use in outdoor data communication networks to be installed between buildings, features high resistance against UV radiation. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. cable' core: 4 pairs stranded together

d. outer sheath - polyethylene with carbon black, covers the suspension strand and cable core to form a figure „8" construction, in which the suspension strand is parallel with but separate from the cable core

e. suspension strand: strand of steel wires covered with zinc

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPzn 4 x 2 x 0,5 Cat.5e	6,0 / 11,0	50

Standard package

Standard package Standard length - 500 m wound on reel.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

SF/UTPz category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-2-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables are intended for use in outdoor data communication networks to be installed under batten, features very high resistance against electromagnetic interference and UV radiation. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. screen of cable core: Al/PET foil, Al outside and tinned copper braid

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. jacket: polyethylene with carbon black

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	4 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
SF/UTPz 4PR 24AWG cat. 5e	6,8	38

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

U/UTPz category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-6-1 and ANSI/TIA/EIA 568-C.2-1.

Application

Cables are intended for use in outdoor data communication networks to be installed under batten, in networks which are not exposed for electromagnetic interference, features high resistance against UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM -1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. cable' core: 4 pairs placed between the walls of cross web

d. jacket : polyethylene with carbon black

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	4 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPz 4PR 23AWG Cat. 6	7,0	37

Standard package

Standard length - 500m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

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F/UTPz category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-2-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables are intended for use in outdoor data communication networks to be installed under batten, features high resistance against electromagnetic interference and UV radiation. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. screen of cable core: Al/PET foil

e. drain wire: tinned copper wire diameter ≥ 0,4 mm

f. jacket: polyethylene with carbon black

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	4 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTPz 4PR 24AWG cat. 5e	6,5	35

Standard package

Standard length - 305 m (1000 foot) coiled and packed in box.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTPzn category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables are intended for use in outdoor data communication networks to be installed between buildings, features high resistance against UV radiation. Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. cable' core: 4 pairs stranded together

d. outer sheath - polyethylene with carbon black, covers the suspension strand and cable core to form a figure „8" construction, in which the suspension strand is parallel with but separate from the cable core

e. suspension strand: strand of steel wires covered with zinc

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTPzn 4PR 24AWG cat. 5e	6,5 / 11,5	58

Standard package

Standard length - 500 m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTPz category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-5-1 and ANSI/TIA/EIA 568-C.2-1.

Application

Cables are intended for use in outdoor data communication networks to be installed under batten, features high resistance against electromagnetic interference and UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM -1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. cable' core: 4 pairs placed between the walls of cross web and wrapped with plastic foil

d. screen: Al/PET foil applied longitudinally, Al inside, with a minimum overlap 6mm; tinned copper wire diameter ≥ 0,4 mm placed between plastic tape and aluminum

e. jacket: polyethylene with carbon black

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditionsWorking conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	4 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTPz 4PR 23AWG Cat.6	7,5	49

Standard package

Standard length - 500m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

U/UTPw category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables for outdoor installation for pulling in ducts or directly buried in ground, where mechanical stresses are likely to occur, features high resistance against UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70oC

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. jacket: polyethylene with carbon black

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPw 4PR 24AWG Cat. 5e	7,5	48

Standard package

Standard length - 500m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

U/UTPzw category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables for outdoor installation for pulling in ducts or directly buried in ground, where mechanical stresses are likely to occur, features high resistance against UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70oC

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. moisture barrier: both sides plastic coated aluminum tape applied longitudinally with a minimum overlap 6 mm, the thickness of aluminium part - 0,04 mm

g. outer sheath - black coloured polyethylene, fused with the aluminum foil.

Working conditionsWorking conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPzw 4PR 24AWG Cat. 5e	8,0	54

Standard package

Standard length - 500m wound on reel.

Other lengths - according to Client's specification

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

U/UTPzwn category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-3-1 and ANSI/TIA/EIA 568-C.2.

Application

Self-supporting cables are suitable for aerial installation, features high resistance against UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70oC

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. moisture barrier: both sides plastic coated aluminum tape applied longitudinally with a minimum overlap 6 mm, the thickness of aluminium part - 0,04 mm

g. outer sheath - polyethylene with carbon black, fused with the aluminium foil, covers the suspension strand and cable core to form a figure „8" construction, in which the suspension strand is parallel with but separate from the cable core

h. suspension strand: strand of steel wires covered with zinc

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPzwn 4PR 24AWG Cat. 5e	8,0 / 14,0	83

Standard package

Standard length - 500 m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

U/UTPw category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-6-1 and ANSI/TIA/EIA 568-C.2-1.

Application

Cables for outdoor installation for pulling in ducts or directly buried in ground, where mechanical stresses are likely to occur, features high resistance against UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM -1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. cable' core: 4 pairs placed between the walls of cross web

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70oC

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. jacket : polyethylene with carbon black, fused with the aluminum foil

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPw 4PR 23AWG Cat. 6	8,5	65

Standard package

Standard length - 500 m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTPw category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-2-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables for outdoor installation for pulling in ducts or directly buried in ground, where mechanical stresses are likely to occur, features high resistance against electromagnetic interference and UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70oC

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. screen: one side plastic coated aluminum tape applied longitudinally, Al inside, with a minimum overlap 6mm; tinned copper wire diameter ≥ 0,4 mm placed between plastic tape and aluminum

g. jacket : polyethylene with carbon black, fused with the aluminum foil

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTPw 4PR 24AWG Cat. 5e	8,0	52

Standard package

Standard length - 500 m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTPwn category 5e

Standard: ZN-MADEX-04

Cables meet requirements of category 5e according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-2-1 and ANSI/TIA/EIA 568-C.2.

Application

Cables for outdoor installation, for aerial installation between buildings, features high resistance against UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM and Gigabit-Ethernet 1000Base-T. Signal frequency spectrum up to 125MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,51mm (24AWG)

b. insulation: solid PE

c. cable' core: 4 pairs stranded together and wrapped with plastic foil

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70oC

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. screen: one side plastic coated aluminum tape applied longitudinally, Al inside, with a minimum overlap 6mm; tinned copper wire diameter ≥ 0,4 mm placed between plastic tape and aluminum

g. outer sheath - polyethylene with carbon black, fused with the aluminium foil, covers the suspension strand and cable core to form a figure „8" construction, in which the suspension strand is parallel with but separate from the cable core

h. suspension strand: strand of steel wires covered with zinc

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTPwn 4PR 24AWG Cat. 5e	8,0 / 14,0	81

Standard package

Standard length - 500 m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.

F/UTPw category 6

Standard: ZN-MADEX-04

Cables meet requirements of category 6 according to ISO/IEC 11801; EN 50173-1; IEC 61156-5; EN 50288-5-1 and ANSI/TIA/EIA 568-C.2-1.

Application

Cables for outdoor installation for pulling in ducts or directly buried in ground, where mechanical stresses are likely to occur, features high resistance against electromagnetic interference and UV radiation.

Suitable for digital signals transmission, ranging from Token Ring, Ethernet, ISDN, TPDDI, Fast-Ethernet 100Base-TX to ATM -1200/Category 6 (ATM LAN 1,2 Gbit/s). Signal frequency spectrum up to 250MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,57 mm (23AWG)

b. insulation: solid PE

c. cable' core: 4 pairs placed between the walls of cross web

d. filling of cable core: moisture resistant filling compound, having drop point ≥ 70°C

e. wrapping of cable's core: plastic tape applied longitudinally with an overlap not less than 4mm

f. screen: one side plastic coated aluminum tape applied longitudinally, Al inside, with a minimum overlap 6mm; tinned copper wire diameter ≥ 0,4 mm placed between plastic tape and aluminum

g. jacket : polyethylene with carbon black, fused with the aluminum foil

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX A**, page 38-43.

Working conditions

Temperature range during installation	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio	10 x outer diameter of the cable
Maximal pulling force	80N

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTPw 4PR 23AWG Cat.6	9,0	77

Standard package

Standard length - 500 m wound on reel.

Other lengths - according to Client's specification.

Additional data

Conductor identification colours

Number of pair	Colour
1	white/blue – blue
2	white/orange – orange
3	white/green – green
4	white/brown – brown

Cable marking

According to Client's specification. Length marking in the distance of 1 meter made on each cable factory length.


19:52
10:08
13

ANNEX A - ELECTRICAL PARAMETERS AT TEMPERATURE 20°C

Parameter	Unit
Maximum referenced frequency for category	MHz
DC Loop Resistance	Ω/km
Resistance unbalance	%
Insulation resistance	MΩ x km
Capacitance unbalance pair to ground	pF/km
Dielectric strength conductor/conductor conductor/screen	V
Input impedance at frequency range: 1 ÷ 100 MHz 100 ÷ 250 MHz 250 ÷ 500 MHz 500 ÷ 600 MHz 600 ÷ 1000 MHz	Ω
Mean characteristic impedance at frequency: 100 MHz	Ω
Transfer impedance (screened cables) at frequency range: 1 MHz 10 MHz 30 MHz 100 MHz	mW/m
Return Loss (RL) at frequency range (f): 1 ÷ 10MHz 10 ÷ 20MHz 20 ÷ 125MHz 20 ÷ 250MHz 250 ÷ 500 MHz 250 ÷ 600MHz 250 ÷ 1000MHz	dB
Phase delay at frequency range (f) 4 MHz ÷ maximum referenced for category	ns/100m

Category 5e	Category 6	Category 6_A	Category 7	Category 7_A
125	250	500	600	1000
≤ 190				
≤ 2				
≥ 5000				
≤ 1600		≤ 1200		
700 (~) 1000 (=)				
100 ± 15 - - - -	100 ± 15 100 ± 22 100 ± 22 - -	100 ± 15 100 ± 22 100 ± 22 - -	100 ± 15 100 ± 22 100 ± 25 100 ± 25 -	100 ± 15 100 ± 22 100 ± 25 100 ± 25 100 ± 25
100 ± 5				
≤ 50 ≤ 100 ≤ 200 -	≤ 50 ≤ 100 ≤ 200 -	≤ 50 ≤ 100 ≤ 200 ≤ 1000	≤ 50 ≤ 100 ≤ 200 ≤ 1000	≤ 50 ≤ 100 ≤ 200 ≤ 1000
≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20 - - - -	≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20 ≥ 25-7log (f/20 - - -	≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20 ≥ 25-7log (f/20 17,3 - -	≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20 ≥ 25-7log (f/20 17,3 17,3 -	≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20 ≥ 25-7log (f/20 17,3 17,3 17,3
534+36/√f				

ANNEX A - ELECTRICAL PARAMETERS AT TEMPERATURE 20°C

Frequency	Attenuation, max. dB / 100m [1]						
[MHz]	**Cat. 5e**	**Cat. 6**	**Cat. 6_A**	**Cat. 7**	**Cat. 7_A**	**Cat. 5e**	**Cat. 6**
1	2,0	2,0	2,1	2,0	2,1	65,3	75,0
4	4,0	3,8	3,8	3,6	3,7	56,3	66,3
10	6,3	6,0	5,9	5,7	5,8	50,3	60,3
16	8,0	7,6	7,5	7,2	7,3	47,2	57,2
20	9,0	8,5	8,4	8,1	8,2	45,8	55,8
31,25	11,4	10,8	10,5	10,1	10,3	42,9	52,9
62,50	16,5	15,5	15,0	14,5	14,6	38,4	48,4
100	21,3	19,8	19,1	18,5	18,5	35,3	45,3
125	24,2	22,4	21,5	20,8	20,8	33,8	43,8
200	-	29,0	27,6	26,8	26,5	-	40,8
250	-	32,9	31,1	30,2	29,7	-	39,3
300	-	-	34,2	33,3	32,7	-	-
500	-	-	45,2	44,1	42,8	-	-
600	-	-	-	48,9	47,1	-	-
900	-	-	-	-	58,5	-	-
1000	-	-	-	-	61,9	-	-

[1] Values between 1 MHz and 4 MHz are for information only.

NEXT minimum dB/100m			PS NEXT minimum dB/100m				
Cat. 6_A	**Cat. 7**	**Cat. 7_A**	**Cat. 5e**	**Cat. 6**	**Cat. 6_A**	**Cat. 7**	**Cat. 7_A**
75,0	78,0	78,0	62,3	72,0	72,0	75,0	75,0
66,3	78,0	78,0	53,3	63,3	63,3	75,0	75,0
60,3	78,0	78,0	47,3	57,3	57,3	75,0	75,0
57,2	78,0	78,0	44,2	54,2	54,2	75,0	75,0
55,8	78,0	78,0	42,8	52,8	52,8	75,0	75,0
52,9	78,0	78,0	39,9	49,9	49,9	75,0	75,0
48,4	75,5	78,0	35,4	45,4	45,4	72,5	75,0
45,3	72,4	75,4	32,3	42,3	42,3	69,4	72,4
43,8	70,9	73,9	30.8	40,8	40,8	67,9	70,9
40,8	67,9	70,9	-	37,8	37,8	64,9	67,9
39,3	66,4	69,4	-	36,3	36,3	63,4	66,4
38,1	65,2	68,2	-	-	35,1	62,2	65,2
34,8	61,9	64,9	-	-	31,8	58,9	61,9
-	60,7	63,7	-	-	-	57,7	60,7
-	-	61,1	-	-	-	-	58,1
-	-	60,4	-	-	-	-	57,4

ANNEX A - ELECTRICAL PARAMETERS AT TEMPERATURE 20°C

Frequency	ELFEXT minimum dB/100m			
[MHz]	**Cat. 5e**	**Cat. 6**	**Cat. 6_A**	**Cat. 7**
1	64	66	66	78
4	52	58	58	78
10	44	50	50	75
16	40	46	46	71
20	38	44	44	69
31,25	34	40	40	65
62,50	28	34	34	59
100	24	30	30	55
125	22	28	28	53
200	-	24	24	49
250	-	22	22	47
300	-	-	20	46
500	-	-	16	41
600	-	-	-	40
900	-	-	-	-
1000	-	-	-	-

	PS ELFEXT minimum dB/100m				
Cat. 7_A	**Cat. 5e**	**Cat. 6**	**Cat. 6_A**	**Cat. 7**	**Cat. 7_A**
78	61	64	64	75	75
78	49	55	55	75	75
75	41	47	47	72	72
71	37	43	43	68	68
69	35	41	41	66	66
65	31	37	37	62	62
59	25	31	31	56	56
55	21	27	27	52	52
53	19	25	25	50	50
49	-	21	21	46	46
47	-	19	19	44	44
46	-	-	17	43	43
41	-	-	13	38	38
40	-	-	-	37	37
36	-	-	-	-	33
35	-	-	-	-	32

ANNEX B

Patch Cables

ELECTRICAL PARAMETERS AT TEMPERATURE 20°C

Parameter	Unit	Category 5e	Category 6
Maximum referenced frequency for category	MHz	125	250
DC Loop Resistance	Ω/km	≤ 190	
Resistance unbalance	%	≤ 2	
Insulation resistance	MΩ x km	≥ 5000	
Capacitance unbalance pair to ground	pF/km	≤ 1600	
Dielectric strength conductor/conductor conductor/screen	V	700 (~) 1000 (=)	
Input impedance at frequency range 1 ÷ 100 MHz 100 ÷ 250 MHz	Ω	100 ± 15 -	100 ± 15 100 ± 22
Mean characteristic impedance at frequency	Ω	100 ± 5	
Transfer impedance (screened cables) at frequency range: 1 MHz 10 MHz 30 MHz	mW/m	≤ 50 ≤ 100 ≤ 200	≤ 50 ≤ 100 ≤ 200
Return Loss (RL) at frequency range (f): 1 ÷ 10MHz 10 ÷ 20MHz 20 ÷ 125MHz 20 ÷ 250MHz	dB	≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20)	≥ 20 + 5 log(f) ≥ 25 ≥ 25-7log (f/20)
Phase delay at frequency range (f) 4 MHz ÷ maximum referenced for category	ns/100m	534+36/√f	

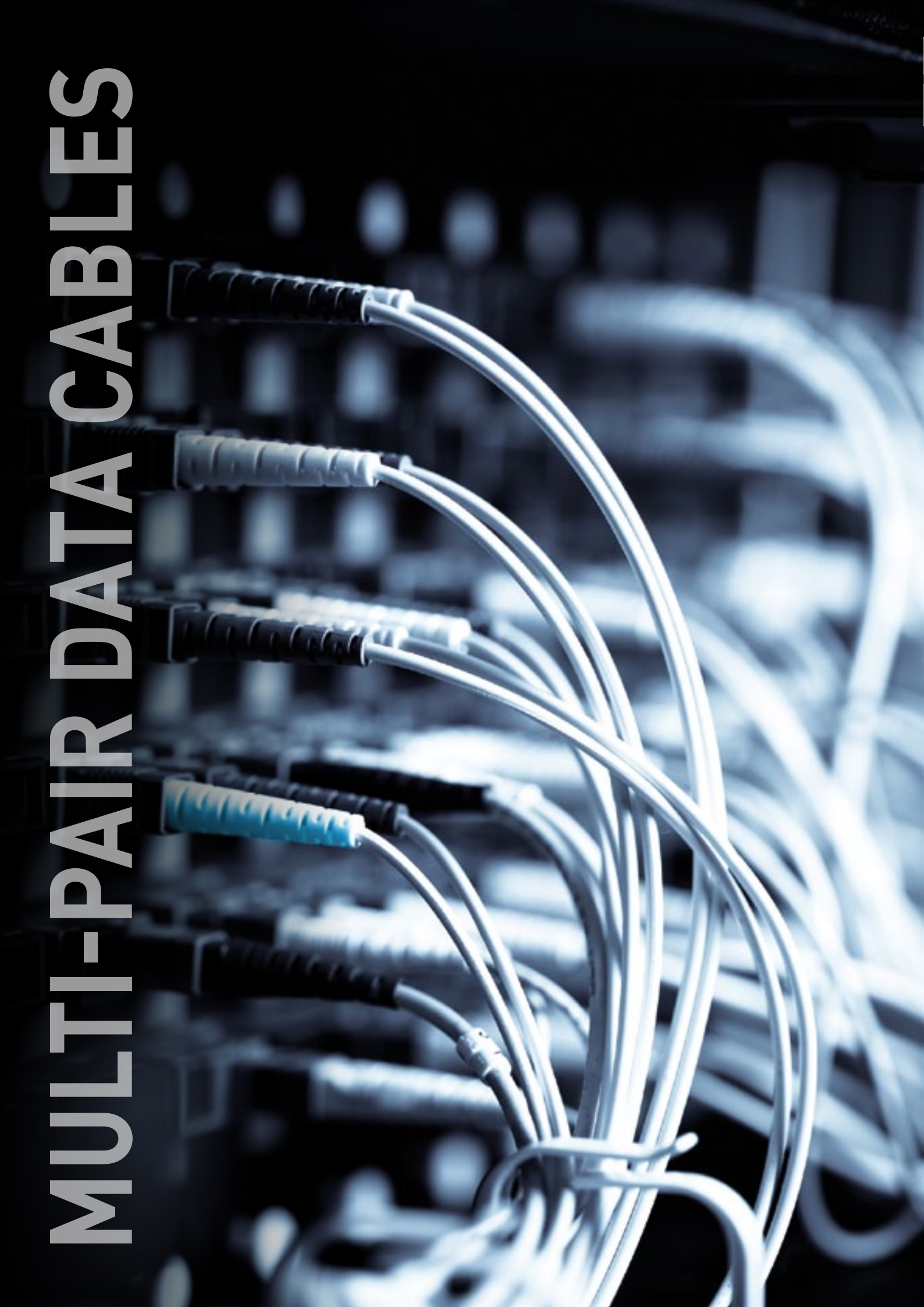
ANNEX B

Patch Cables

ELECTRICAL PARAMETERS AT TEMPERATURE 20°C

Frequency	**Attenuation** maximum dB/100m		**NEXT** minimum dB/100m		**PS NEXT** minimum dB/100m		**ELFEXT** minimum dB/100m		**PS ELFEXT** minimum dB/100m	
[MHz]	**Cat. 5e**	**Cat. 6**	**Cat. 5e**	**Cat. 6**	**Cat. 5e**	**Cat. 6**	**Cat. 5e**	**Cat. 6**	**Cat. 5e**	**Cat. 6**
1	3,2	3,1	65,3	66,0	62,3	64,0	63,8	66,0	60,8	64,0
4	6,0	5,7	56,3	65,3	53,3	63,3	51,7	58,0	48,7	55,0
10	9,5	9,0	50,3	59,3	47,3	57,3	43,8	50,0	40,8	47,0
16	12,1	11,4	47,2	56,2	44,2	54,2	39,7	45,9	36,7	42,9
20	13,6	12,8	45,8	54,8	42,8	52,8	37,7	44,0	34,7	41,0
31,25	17,1	16,1	42,9	51,9	39,9	49,9	33,9	40,1	30,9	37,1
62,50	24,8	23,2	38,4	47,4	35,4	45,4	27,8	34,1	24,8	31,1
100	32,0	29,9	35,3	44,3	32,3	42,3	23,8	30,0	20,8	27,0
125	36,2	33,6	33,8	42,8	30,8	40,8	21,8	28,1	18,8	25,1
200	-	43,7	-	39,8	-	37,8	-	24,0	-	21,0
250	-	49,5	-	38,3	-	36,3	-	22,0	-	19,0

MULTI-PAIR DATA CABLES



FABRYKA KABLI MADEX
rok założenia 1988

U/UTP category 3

Standard: ZN-MADEX-09

Cables meet requirements of category 3 according to ISO/IEC 11801; EN 50173 and ANSI/TIA/EIA 568-B.2. Resistance for flame propagation according to IEC 60332-1.

Application

Cables are intended for use in SCS as backbone cable within networks, which are not exposed to electromagnetic interference. Suitable for digital signals transmission, signal frequency spectrum up to 16MHz.

Cables are not intended for direct connection to mains electricity supply.

Examples of cables symbols:

U/UTP 25PR 24AWG Cat. 3 - PVC

Unscreened data cable category 3, 25 pairs with conductors 24AWG, flame retardant PVC jacket

U/UTP 100PR 24AWG Cat. 3 - LSZH

Unscreened data cable category 3, 100 pairs with conductors 24AWG, low smoke zero halogen flame retardant jacket material

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. twisting: two insulated conductors stranded to form a pairs with lay lengths ensuring required crosstalk

d. basic units: 5 pairs

e. main units: 5 basic units, coloured bindings of tape applied over each main unit

f. cable' core: basic or main units stranded together and wrapped with plastic tape

g. number of pairs: 5; 10; 15; 25; 50; 75; 100 and 150

h. jacket: - flame retardant PVC with oxygen index > 31
- low smoke zero halogen flame retardant material

jacket colour: standard grey

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX C**, page 51.

Working conditions

Temperature range during installation:	
cables with PVC jacket	0°C do +50°C
cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio during installation	10 x outer diameter of the cable
Corrosiveness of combustion gases for cables with LSOH jacket	PN-EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	PN-EN 50268-2; IEC 61034-2

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP 5PR 24AWG Cat. 3	6,5	46
U/UTP 10PR 24AWG Cat. 3	9,5	80
U/UTP 25PR 24AWG Cat. 3	13,0	164
U/UTP 50PR 24AWG Cat. 3	17,5	303
U/UTP 75PR 24AWG Cat. 3	21,0	448
U/UTP 100PR 24AWG Cat. 3	23,5	574
U/UTP 150PR 24AWG Cat. 3	28,0	834
U/UTP 200PR 24AWG Cat. 3	31,5	1079

Standard package

Standard length - 1000m wound on reels. Other lengths - according to Client's specification.

Additional data

– see **ANNEX D**, page 52.

U/UTP category 5

Standard: ZN-MADEX-09

Cables meet requirements of category 3 according to ISO/IEC 11801; EN 50173 and ANSI/TIA/EIA 568-B.2. Resistance for flame propagation according to IEC 60332-1.

Application

Cables are intended for use in SCS as backbone cable within networks, which are not exposed to electromagnetic interference. Suitable for digital signals transmission, signal frequency spectrum up to 100MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. twisting: two insulated conductors stranded to form a pairs with lay lengths ensuring required crosstalk

d. basic units: 5 pairs stranded around the filler and wrapped with bindings tape

e. cable' core: 5 basic units stranded together and wrapped with plastic tape

f. jacket: - flame retardant PVC with oxygen index > 31
- low smoke zero halogen flame retardant material

jacket colour: standard grey

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX C**, page 51.

Working conditions

Temperature range during installation:	
cables with PVC jacket	0°C do +50°C
cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio during installation	10 x outer diameter of the cable
Corrosiveness of combustion gases for cables with LSOH jacket	PN-EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	PN-EN 50268-2; IEC 61034-2

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTP 25PR 24AWG Cat. 5	15,0	194
U/UTP 50PR 24AWG Cat. 5	18,0	348
U/UTP 100PR 24AWG Cat. 5	27,5	691

Standard package

Standard length - 1000m wound on reels.
Other lengths - according to Client's specification.

Additional data

– see **ANNEX D**, page 52.

FABRYKA KABLI MADEX
rok założenia 1988

U/UTPzw category 3

Standard: ZN-MADEX-09

Cables meet requirements of category 3 according to ISO/IEC 11801; EN 50173 and ANSI/TIA/EIA 568-B.2.

Application

Cables for outdoor installation, for pulling in ducts or directly buried in ground, where mechanical stresses are likely to occur, features high resistance against electromagnetic interference and UV radiation. Suitable for digital signals transmission, signal frequency spectrum up to 16MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5 mm

b. insulation: solid PE

c. twisting: two insulated conductors stranded to form a pairs with lay lengths ensuring required crosstalk

d. basic units: 5 pairs

e. main units: 5 basic units, coloured bindings of tape applied over each main unit

f. cable' core: basic or main units stranded together and wrapped with plastic tape

g. number of pairs: 5; 10; 15; 25; 50; 75; 100 and 200

h. filling of cable core: moisture resistant filling compound, having drop point ≥ 70°C

i. wrapping of cable's core – plastic tape applied longitudinally with an overlap not less than 4 mm

j. moisture barrier / screen: both sides plastic coated aluminum tape applied longitudinally with a minimum overlap 6 mm, the thickness of aluminum part - 0,15 mm

k. outer sheath - black coloured polyethylene (with carbon black), fused with the aluminum foil.

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX C**, page 51.

Working conditions

Temperature range during installation: cables with PVC jacket cables with LSOH jacket	 0°C do +50°C -10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio during installation	10 x outer diameter of the cable

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
U/UTPzw 5PR 24AWG Cat. 3	9,5	70
U/UTPzw 10PR 24AWG Cat. 3	11,5	111
U/UTPzw 25PR 24AWG Cat. 3	15,0	234
U/UTPzw 50PR 24AWG Cat. 3	19,5	419
U/UTPzw 75PR 24AWG Cat. 3	23,0	598
U/UTPzw 100PR 24AWG Cat. 3	25,5	760
U/UTPzw 200PR 24AWG Cat. 3	35,0	1480

Standard package

Standard length - 1000m wound on reels.
Other lengths - according to Client's specification.

Additional data

– see **ANNEX D**, page 52.

FABRYKA KABLI MADEX rok założenia 1988

F/UTP category 3

Standard: ZN-MADEX-09

Cables meet requirements of category 3 according to ISO/IEC 11801; EN 50173 and ANSI/TIA/EIA 568-B.2. Resistance for flame propagation according to IEC 60332-1 or IEC 60332-3.

Application

Cables are intended for use in SCS as backbone cable within networks, which can be exposed to electromagnetic interference. Suitable for digital signals transmission, signal frequency spectrum up to 16MHz.

Cables are not intended for direct connection to mains electricity supply.

Construction

a. conductor: solid copper wires with diameter 0,5mm

b. insulation: solid PE

c. twisting: two insulated conductors stranded to form a pairs with lay lengths ensuring required crosstalk

d. basic units: 5 pairs

e. main units: 5 basic units, coloured bindings of tape applied over each main unit

f. cable' core: basic or main units stranded together and wrapped with plastic tape

g. number of pairs: 5; 10; 15; 25; 50; 75 and 100

h. screen of cable core: Al/PET foil

i. drain wire: tinned copper wire diameter ≥ 0,4 mm

j. jacket: - flame retardant PVC with oxygen index > 31
- low smoke zero halogen flame retardant material

jacket colour: standard grey

Characteristic

Electrical parameters at temperature 20°C – see **ANNEX C**, page 51.

Working conditions

Temperature range during installation:	
cables with PVC jacket	0°C do +50°C
cables with LSOH jacket	-10°C do +50°C
Temperature range during working	-20°C do +70°C
Min. bending ratio during installation	10 x outer diameter of the cable
Corrosiveness of combustion gases for cables with LSOH jacket	PN-EN 50267-2-3; IEC 60754-2
Smoke density for cables with LSOH jacket	PN-EN 50268-2; IEC 61034-2

Weight and dimensions data of 1 km cable

Type of cable	Maximum overall cable diameter	Standard weight
	[mm]	[kg/km]
F/UTP 5PR 24AWG Cat. 3	6,5	46
F/UTP 10PR 24AWG Cat. 3	9,5	81
F/UTP 25PR 24AWG Cat. 3	13,0	165
F/UTP 50PR 24AWG Cat. 3	17,5	304
F/UTP 75PR 24AWG Cat. 3	21,0	450
F/UTP 100PR 24AWG Cat. 3	23,5	577
F/UTP 150PR 24AWG Cat. 3	28,0	839
F/UTP 200PR 24AWG Cat. 3	31,5	1085

Standard package

Standard length - 1000m wound on reels.
Other lengths - according to Client's specification.

Additional data

– see **ANNEX D**, page 52.

ANNEX C

Multi-pair data cables

ELECTRICAL PARAMETERS AT TEMPERATURE 20°C

Parameter	Unit	Category 3	Category 5
Maximum referenced frequency for category	MHz	16	100
DC Loop Resistance – maximal value	Ω/km	≤ 190	
Resistance unbalance – maximal value	%	≤ 3	
Insulation resistance – minimal value	MΩ x km	≥ 5000	
Capacitance unbalance pair to ground – maximal value	pF/km	≤ 1600	
Dielectric strength conductor/conductor conductor/screen	V	700 (~) 1000 (=)	
Characteristic impedance at frequency range: 16 MHz 100 MHz	Ω	100 ± 15	100 ± 15
Transfer impedance (screened cables) at frequency range: 1 MHz 10 MHz 30 MHz	mW/m	≤ 50 ≤ 100 -	≤ 50 ≤ 100 ≤ 200
Structural Return Loss) - minimal value at frequency range (f): 1 ÷ 10 MHz 10 ÷ 16 MHz 16 ÷ 100 MHz	dB	≥ 12 ≥ 12-10log (f/10) -	≥ 12 ≥ 12-10log (f/10) ≥ 12-10log (f/10)

OTHER TRANSMISSION PARAMETERS

Frequency	**Attenuation** max. dB/100m		**PS NEXT** min. dB/100m		**PS ACR** min. dB/100m	
[MHz]	**Cat. 3**	**Cat. 5**	**Cat. 3**	**Cat. 5**	**Cat. 3**	**Cat. 5**
0,772	2,2	1,8	43	64	40,8	62,2
1	2,6	2,1	41	62	38,4	59,9
4	5,6	4,3	32	53	26,4	48,7
10	9,7	6,6	26	47	16,3	40,4
16	13,1	8,2	23	44	9,9	35,8
20	-	9,2	-	42	-	32,8
31,25	-	11,8	-	40	-	28,2
62,50	-	17,1	-	35	-	17,9
100	-	22,0	-	32	-	10,0

ANNEX D

Multi-pair data cables

Conductor identification colours in 25 pairs unit

Twisted pair number	Colour "a" wire	Colour "b" wire	Twisted pair number	Colour "a" wire	Colour "b" wire
1	white	blue	16	yellow	blue
2	white	orange	17	yellow	orange
3	white	green	18	yellow	green
4	white	brown	19	yellow	brown
5	white	grey	20	yellow	grey
6	red	blue	21	violet	blue
7	red	orange	22	violet	orange
8	red	green	23	violet	green
9	red	brown	24	violet	brown
10	red	grey	25	violet	grey
11	black	blue	Two coloured insulation can be made by extrusion two longitudinal lines in the colour of second conductor in pair (e.g. white-blue and blue – white)		
12	black	orange			
13	black	green			
14	black	brown			
15	black	grey			

THE STRUCTURE OF THE CABLE CORES AND THE COLOURS OF THE BINDERS OVER BASIC UNITS

Number of pairs in cable	Number of basic units in cable	Number of main units in cable	Colours of main unit's binder
5	1	-	-
10	2	-	-
25	5	-	-
50	10	-	red, blue
75	15	3	red, blue, brown
100	20	4	red, blue, brown red, blue, brown, green
150	30	6	natural, blue, orange, green, brown, white
200	40	8	natural, blue, orange, green, brown, white, red, yellow
The core of 50 pairs cable stranded as 10 basic units (3+7) has 5 basic units with conductors identified by one colour and 5 basic units with two coloured insulation.			

FABRYKA KABLI MADEX

rok założenia 1988

QUACERT

CERTYFIKAT

DIN EN ISO 9001:2008

FABRYKA KABLI MADEX

FABRYKA KABLI MADEX SPÓŁKA JAWNA
STEFANÓWKA, ul. ŻURAWIA 96
05-462 WIĄZOWNA

w zakresie

projektowania, produkcji i sprzedaży kabli telekomunikacyjnych, teleinformatycznych i energetycznych

QUACERT

CERTYFIKAT

DIN EN ISO 14001:2005

FABRYKA KABLI MADEX

FABRYKA KABLI MADEX SPÓŁKA JAWNA
STEFANÓWKA, ul. ŻURAWIA 96
05-462 WIĄZOWNA

w zakresie

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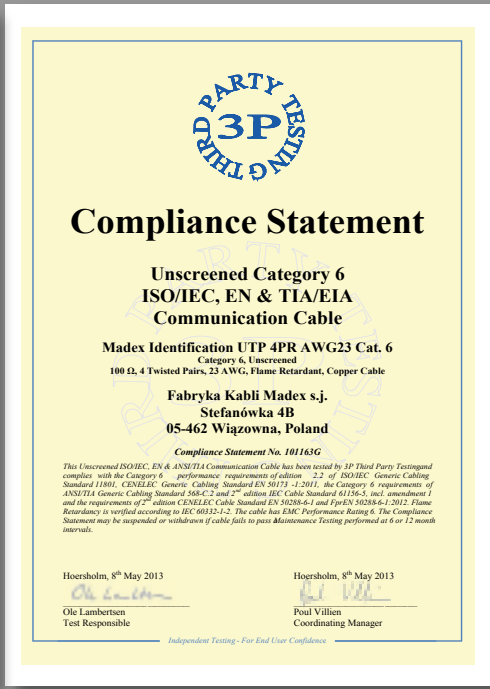


3P THIRD PARTY TESTING

Compliance Statement

Unscreened Category 6
ISO/IEC, EN & TIA/EIA
Communication Cable

Madex Identification UTP 4PR AWG23 Cat. 6
Category 6, Unscreened
100 Ω, 4 Twisted Pairs, 23 AWG, Flame Retardant, Copper Cable

Fabryka Kabli Madex s.j.
Stefanówka 4B
05-462 Wiązowna, Poland

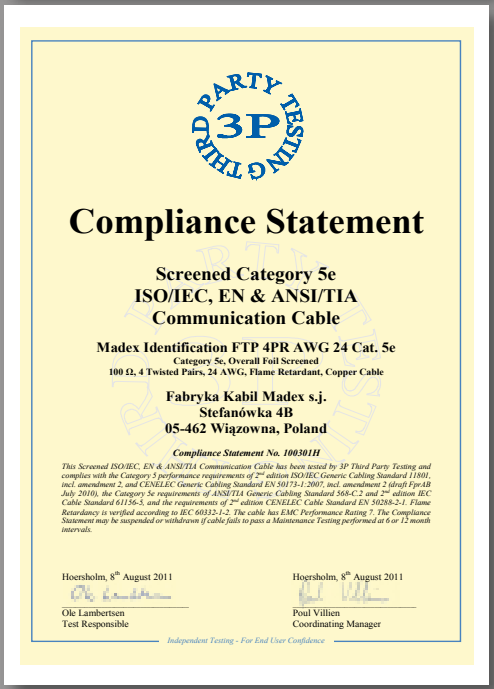
Compliance Statement No. 101163G

This Unscreened ISO/IEC, EN & ANSI/TIA Communication Cable has been tested by 3P Third Party Testingand complies with the Category 6 performance requirements of edition 2.2 of ISO/IEC Generic Cabling Standard 11801, CENELEC Generic Cabling Standard EN 50173 -1:2011, the Category 6 requirements of ANSI/TIA Generic Cabling Standard 568-C.2 and 2nd edition IEC Cable Standard 61156-5, incl. amendment 1 and the requirements of 2nd edition CENELEC Cable Standard EN 50288-6-1 and FprEN 50288-6-1:2012. Flame Retardancy is verified according to IEC 60332-1-2. The cable has EMC Performance Rating 6. The Compliance Statement may be suspended or withdrawn if cable fails to pass Maintenance Testing performed at 6 or 12 month intervals.

Hoersholm, 8th May 2013 — Ole Lambertsen, Test Responsible

Hoersholm, 8th May 2013 — Poul Villien, Coordinating Manager

Independent Testing - For End User Confidence



3P THIRD PARTY TESTING

Compliance Statement

Screened Category 5e
ISO/IEC, EN & ANSI/TIA
Communication Cable

Madex Identification FTP 4PR AWG 24 Cat. 5e
Category 5e, Overall Foil Screened
100 Ω, 4 Twisted Pairs, 24 AWG, Flame Retardant, Copper Cable

Fabryka Kabil Madex s.j.
Stefanówka 4B
05-462 Wiązowna, Poland

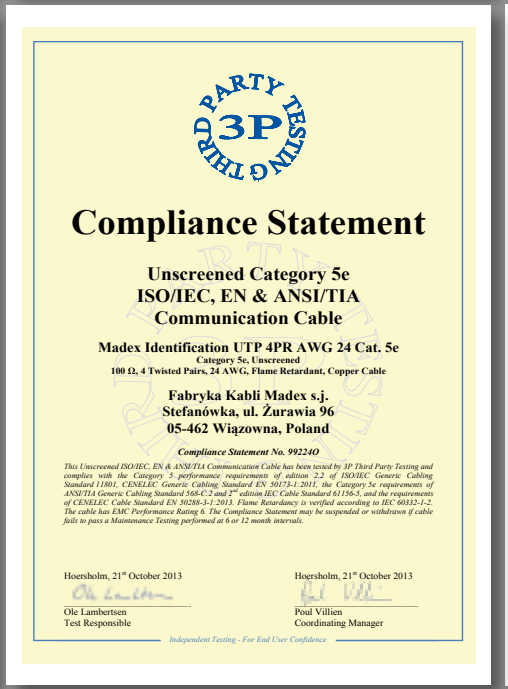
Compliance Statement No. 100301H

This Screened ISO/IEC, EN & ANSI/TIA Communication Cable has been tested by 3P Third Party Testing and complies with the Category 5 performance requirements of 2nd edition ISO/IEC Generic Cabling Standard 11801, incl. amendmnet 2, and CENELEC Generic Cabling Standard EN 50173-1:2007, incl. amendmnet 2 (draft FprAB July 2010), the Category 5e requirements of ANSI/TIA Generic Cabling Standard 568-C.2 and 2nd edition IEC Cable Standard 61156-5, and the requirements of 2nd edition CENELEC Cable Standard EN 50288-2-1. Flame Retardancy is verified according to IEC 60332-1-2. The cable has EMC Performance Rating 7. The Compliance Statement may be suspended or withdrawn if cable fails to pass a Maintenance Testing performed at 6 or 12 month intervals.

Hoersholm, 8th August 2011 — Ole Lambertsen, Test Responsible

Hoersholm, 8th August 2011 — Poul Villien, Coordinating Manager

Independent Testing - For End User Confidence



3P THIRD PARTY TESTING

Compliance Statement

Unscreened Category 5e
ISO/IEC, EN & ANSI/TIA
Communication Cable

Madex Identification UTP 4PR AWG 24 Cat. 5e
Category 5e, Unscreened
100 Ω, 4 Twisted Pairs, 24 AWG, Flame Retardant, Copper Cable

Fabryka Kabli Madex s.j.
Stefanówka, ul. Żurawia 96
05-462 Wiązowna, Poland

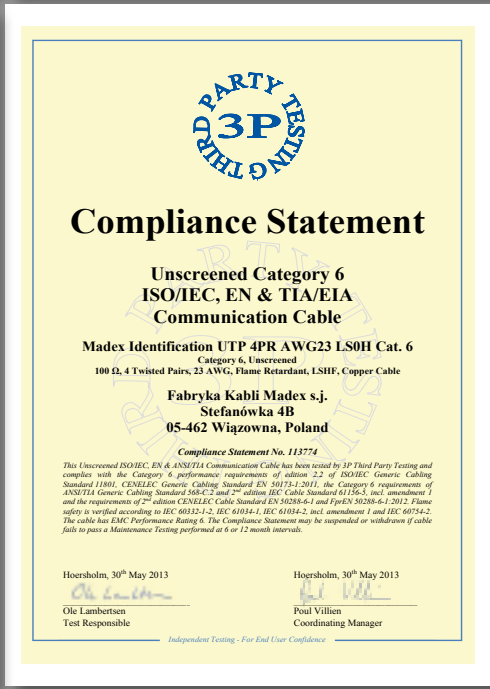
Compliance Statement No. 99224O

This Unscreened ISO/IEC, EN & ANSI/TIA Communication Cable has been tested by 3P Third Party Testing and complies with the Category 5 performance requirements of edition 2.2 of ISO/IEC Generic Cabling Standard 11801, CENELEC Generic Cabling Standard EN 50173-1:2011, the Category 5e requirements of ANSI/TIA Generic Cabling Standard 568-C.2 and 2nd edition IEC Cable Standard 61156-5, and the requirements of CENELEC Cable Standard EN 50288-3-1:2013. Flame Retardancy is verified according to IEC 60332-1-2. The cable has EMC Performance Rating 6. The Compliance Statement may be suspended or withdrawn if cable fails to pass a Maintenance Testing performed at 6 or 12 month intervals.

Hoersholm, 21st October 2013 — Ole Lambertsen, Test Responsible

Hoersholm, 21st October 2013 — Poul Villien, Coordinating Manager

Independent Testing - For End User Confidence



3P THIRD PARTY TESTING

Compliance Statement

Unscreened Category 6
ISO/IEC, EN & TIA/EIA
Communication Cable

Madex Identification UTP 4PR AWG23 LS0H Cat. 6
Category 6, Unscreened
100 Ω, 4 Twisted Pairs, 23 AWG, Flame Retardant, LSHF, Copper Cable

Fabryka Kabli Madex s.j.
Stefanówka 4B
05-462 Wiązowna, Poland

Compliance Statement No. 113774

This Unscreened ISO/IEC, EN & ANSI/TIA Communication Cable has been tested by 3P Third Party Testing and complies with the Category 6 performance requirements of edition 2.2 of ISO/IEC Generic Cabling Standard 11801, CENELEC Generic Cabling Standard EN 50173-1:2011, the Category 6 requirements of ANSI/TIA Generic Cabling Standard 568-C.2 and 2nd edition IEC Cable Standard 61156-5, incl. amendment 1 and the requirements of 2nd edition CENELEC Cable Standard EN 50288-6-1 and FprEN 50288-6-1:2012. Flame safety is verified according to IEC 60332-1-2, IEC 61034-1, IEC 61034-2, incl. amendmnet 1 and IEC 60754-2. The cable has EMC Performance Rating 6. The Compliance Statement may be suspended or withdrawn if cable fails to pass a Maintenance Testing performed at 6 or 12 month intervals.

Hoersholm, 30th May 2013 — Ole Lambertsen, Test Responsible

Hoersholm, 30th May 2013 — Poul Villien, Coordinating Manager

Independent Testing - For End User Confidence

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