

S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: yellow, Length: xxxx



# tde - TP cable assemblies

The tde patch and trunk cables are manufactured completely at the German facility in Ohrte. Production processes at tde meet the latest standards. The patch cables and trunk cables are manufactured in many different configurations using highly automated processes. The range of products on offer encompasses the entire spectrum of connector types available on the market. To guarantee consistently top quality, only the best components from renowned vendors are used. All tde production staff have the necessary qualifications and education, and have been well trained in using specialist technical equipment.

Each cable application is subjected to a full test procedure and a final visual inspection to ensure that only 100% error-free products are shipped to the customer.

Products made by tde perform at least internationally accepted quality standards and norms. The quality management system is ISO 9001, ISO 14001 and TL9000 certified.

RJ45 Patch cord for the employment in the distribution frame or for the connection of terminals.



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# **Technical Data**

| Cabletype     | Draka UC900 SS27 Cat.7  |
|---------------|---|
| Configuration | 1:1   |
| Tests         | 100% electrical test on short-circuit and visual final inspection |
|               | optional: Link Performance Tests                                  |
|               | QS-Managementsystem ISO 9001, ISO 14001 and TL 9000               |

xxxx = Length in cm

# **Connectors**

| Туре                                   | RJ45 (TM21), with integreted dwell lever protection, yellow |
|--|---|
| Category                               | Cat.6   |
| Shielding                              | shielded  |
| Dimensions Boot                        | 34 mm length  |
|  | 13.4 mm width   |
| Manufacturer                           | Hirose (connector)  |
|  | tde (boot)  |
| QS-Management Systems<br>Certification | ISO 9001  |
|  | ISO 14001   |
|  | TL 9000   |

# **TP Cable**

| Standards                      | EN 50173-1      |
|--------------------------------|-----------------|
|                                | EN 50288-4-2    |
|                                | ISO/IEC 11801   |
|                                | IEC 61156-6     |
| Flame resistance LSHF (FRNC)   | IEC 60332-1     |
|                                | IEC 60754-2     |
|                                | IEC 61034       |
| Reaction to fire (Euroclasses) | E <sub>ca</sub> |

#### Construction

| Туре         | UC900 SS27 Cat.7 S/FTP                         |
|--------------|--|
| Conductor    | stranded bare copper wire Ø 0.42 mm (AWG 27/7) |
| Insulation   | Foam Skin Polyethylene, Ø 0.98 mm              |
| Twisting     | 2 cores to the pair                            |
| Pair screen  | Al-laminated plastic foil                      |
| Cable lay up | 4 pairs (PiMF) to the core                     |
| Screen       | Copper braid, tinned                           |



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| Sheath | LSHF, yellow |  |  |
|--------|--------------|--|--|
|--------|--------------|--|--|

#### **Mechanical properties**

| Minimum bending radius | Without load        | ≥ 25 mm           |
|------------------------|---------------------|-------------------|
|                        | With load           | ≥ 50 mm           |
| Temperature range      | During operation    | -20°C up to +60°C |
|                        | During installation | 0°C up to +50°C   |

# Electrical properties at 20°C ± 5°C

| Loop resistance                 |                                       | $\leq$ 340 $\Omega$ /km             |
|---------------------------------|---------------------------------------|-------------------------------------|
| Resistance unbalance            |                                       | ≤ 3%                                |
| Insulation resistance           | 500 V                                 | $\geq 2000~\text{M}\Omega\text{km}$ |
| Mutual capacitance              | at 800 Hz                             | Nom. 43 nF/km                       |
| Capacitance unbalance           | (pair/ground)                         | ≤ 1500 pF/km                        |
| Mean characteristic impedance   | 100 MHz                               | $100 \pm 5 \Omega$                  |
| Nominal velocity of propagation |                                       | ca. 79%                             |
| Propagation delay               |                                       | ≤ 427 ns/100m                       |
| Delay skew                      |                                       | ≤ 12 ns/100m                        |
| Test voltage                    | (DC, 1 min) core/core and core/screen | 1000 V                              |
| Transfer impedance              | at 1 MHz                              | 10 mΩ/m                             |
|                                 | at 10 MHz                             | 10 mΩ/m                             |
|                                 | at 30 MHz                             | 30 mΩ/m                             |
| Coupling attenuation            |                                       | 85 dB                               |

#### Electrical Data (nominal) acc. to Cat.7 (at 20°C)

| F     | Attenuation | NEXT | PS-<br>NEXT | ACR     | ELFEXT  | PS-ELFEXT | Return<br>loss |
|-------|-------------|------|-------------|---------|---------|-----------|----------------|
| MHZ   | dB/10m      | dB   | dB          | dB/100m | dB/100m | dB/100m   | dB             |
| 1,0   | 0,3         | 90   | 87          | 90      | 80      | 77        | 23             |
| 4,0   | 0,6         | 90   | 87          | 89      | 80      | 77        | 24             |
| 10,0  | 1,0         | 90   | 87          | 89      | 80      | 77        | 25             |
| 16,0  | 1,3         | 90   | 87          | 89      | 76      | 73        | 25             |
| 20,0  | 1,4         | 90   | 87          | 89      | 74      | 71        | 25             |
| 31,2  | 1,8         | 90   | 87          | 88      | 70      | 67        | 25             |
| 62,5  | 2,6         | 90   | 87          | 87      | 64      | 61        | 23             |
| 100,0 | 3,2         | 87   | 84          | 84      | 60      | 57        | 21             |
| 125,0 | 3,6         | 85   | 82          | 81      | 58      | 55        | 20             |
| 155,5 | 4,0         | 84   | 81          | 80      | 56      | 53        | 19             |
| 175,0 | 4,3         | 83   | 80          | 79      | 55      | 52        | 19             |
| 200,0 | 4,6         | 82   | 79          | 77      | 54      | 51        | 18             |
| 250,0 | 5,1         | 81   | 78          | 76      | 52      | 49        | 18             |
| 300,0 | 5,6         | 80   | 77          | 74      | 50      | 47        | 17             |



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| 450,0  | 6,9  | 77 | 74 | 70 | 47 | 44 | 17 |
|--------|------|----|----|----|----|----|----|
| 600,0  | 7,9  | 75 | 72 | 67 | 44 | 41 | 17 |
| 750,0  | 8,7  | 73 | 70 | 64 | 42 | 39 |    |
| 900,0  | 9,7  | 72 | 69 | 62 | 41 | 38 |    |
| 1000,0 | 10,2 | 71 | 68 | 61 | 40 | 37 |    |

| Outerdiameter  | 5.9 mm      |
|----------------|-------------|
| Fire load      | 349 MJ/km   |
|                | 0.097 kWh/m |
| Weight         | 39 kg/km    |
| Copper content | 24          |
| Tensile force  | 100 N       |

# **Product variants & accessories**

| ArtNo.           | Description  |
|------------------|--|
| SS-H6ZBL-NBLxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: blue, Length: xxxx   |
| SS-H6ZGE-NGExxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: yellow, Length: xxxx |
| SS-H6ZGN-NGNxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: green, Length: xxxx  |
| SS-H6ZGR-NGRxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: grey, Length: xxxx   |
| SS-H6ZOR-NORxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: orange, Length: xxxx |
| SS-H6ZRT-NRTxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: red, Length: xxxx    |
| SS-H6ZSW-NSWxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: black, Length: xxxx  |
| SS-H6ZVI-NVIxxxx | S/FTP Patch cord RJ45 Hirose w. tde boot Cat.6 UC900 LSHF Colour: purple, Length: xxxx |