



## 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 UC300 HS26 Cat.5e
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 (TM11), with integreted dwell lever protection
Shielding	shielded
Dimensions Boot	34 mm length
	13.4 mm width
Manufacturer	Hirose (connector)
	tde (boot)
QS-Management Systems Certification	ISO 9001
	ISO 14001
	TL 9000

## **TP Cable**

### Construction

Туре	UC300 HS26 Cat.5e SF/UTP
Conductor	stranded bare copper wire Ø 0.48 mm (AWG 26/1)
Insulation	Polyethylene, Ø 0.95 mm
Twisting	2 cores to the pair
Cable lay up	4 pairs to the core
Sreen	Al-laminated plastic foil + Copper braid, tinned
Sheath	PVC or LSHF (FRNC)

### **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		≤ 2%
Insulation resistance	500 V	$\geq 5000 \text{ M}\Omega\text{km}$
Mutual capacitance	at 800 Hz	Nom. 48 nF/km
Capacitance unbalance	(pair/ground)	≤ 1200 pF/km
Characteristic impedance	100 MHz	(100 ± 5) Ω
Nominal velocity of propagation		ca. 67%
Propagation delay		$\leq$ 535 ns/100m
Delay skew		20 ns/100m
Test voltage	(DC, 1 min) core/core and core/screen	1000 V
Transfer impedance	at 1 MHz	$\leq$ 30 m $\Omega$ /m
	at 10 MHz	$\leq$ 30 m $\Omega$ /m
	at 30 MHz	$\leq 50 \text{ m}\Omega/\text{m}$
Coupling attenuation		$\geq 75 \text{ dB}$

### Electrical Data (nominal) acc. to Cat.5e (at 20°C)

F	Attenuation	NEXT	PS- NEXT	ELFEXT	PS- ELFEXT	Return Ioss
MHZ	dB/10m	dB	dB	dB/100m	dB/100m	dB
1.0	0.3	71	68	68	65	23
4.0	0.6	62	59	56	53	23
10.0	0.9	56	53	48	45	23
16.0	1.1	53	50	44	41	23
20.0	1.3	51	48	42	39	23
31.2	1.6	49	46	38	35	23
62.5	2.4	44	41	32	29	23
100.0	3.0	41	38	28	25	23
125.0	3.3	40	37	26	23	23
155.5	3.6	38	35	24	21	23
175.0	3.9	37	34	23	20	
200.0	4.1	36	33	22	19	
250.0	4.4	35	32	20	17	
300.0	4.8	34	31	16	13	

Outerdiameter	5.7 mm
Fire load	369 MJ/km
	0.103 kWh/m
Weight	37 kg/km
Copper content	22.5
Tensile force	100 N





# **Product variants & accessories**

ArtNo.	Description
SF-H5ZBL-NBLxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: blue, Length: xxxx
SF-H5ZGE-NGExxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: yellow, Length: xxxx
SF-H5ZGN-NGNxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: green, Length: xxxx
SF-H5ZGR-NGRxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: grey, Length: xxxx
SF-H5ZOR-NORxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: orange, Length: xxxx
SF-H5ZRT-NRTxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: Red, Length: xxxx
SF-H5ZSW-NSWxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: black, Length: xxxx
SF-H5ZVI-NVIxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Colour: magenta, Length: xxxx
SF-H5Zyy-Nzzxxxx	SF/UTP Patch cord RJ45/RJ45 Hirose w. tde boot Cat.5e UC300 LSHF Length: xxxx