

## Data sheet

**BTR DCCS 26/1 Cat.7 S/FTP 24P LSHF-FR**  
**class D<sub>ca</sub> s2 d2 a1**

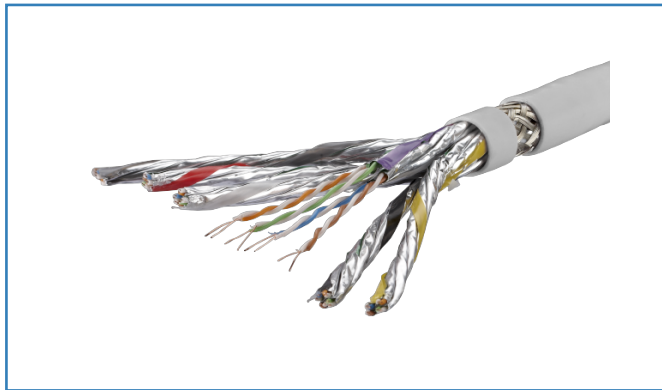
Page 1/6

P/N  
**130DCL1M**

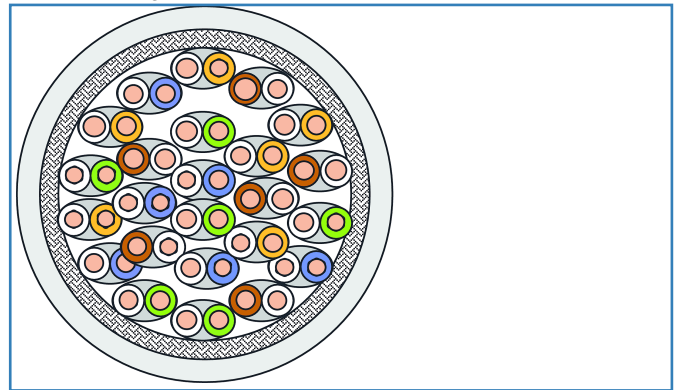
EAN 4250184140085

2017-26-09

### Illustrations



Principle diagram



See enlarged drawings at the end of document



### Product specification

- 24-pair 10 GBit installation cable
- wires shielded in pairs, Cat.7 AWG 26 S/FTP 24P installation cable
- 24 pairs (PiMF)
- pair shield: plastic foil with aluminum coating
- overall shield: tinned copper braid
- coupling attenuation 85dB
- applicable standards: EN 50173-5:2011-09; ISO/IEC 11801 Ed.2.2:2011-06; EN 50288-4-1; IEC 61156-6
- flame-retardant to IEC 60332-1; IEC 60332-3-24; IEC 60754-2 and IEC 61034
- cable jacket: LSHF-FR (LSOH-FR)
- external cable diameter: 13.9 mm
- meets as a minimum the requirements of Class E<sub>A</sub> in a permanent link with a cable length of max. 60 m
- fire behaviour: Class D<sub>ca</sub> s2 d2 a1 acc. to EN 50399 (classification acc. to EN 13501-6)



## Technical Data

### General Data

Design	Installation cables
Shielding	shielded
Transmission technology	Copper
Cable Type	S/FTP
Number of twisting elements	24
Twisting element	Pair
Color coding fiber/ wire(s)	white, orange, white, green, white, brown, white, blue
Color coding of bundle	white, red, black, yellow, purple, grey
Color	gray

### Transmission characteristics

Category (ISO)	7
Transmission rate up to 10 GBit	IEEE 802.3an
Transmission values (nominal)	see table

### Connections/interfaces

Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 26/1
Conductor cross section, solid wire	0.128 mm <sup>2</sup>
Conductor diameter, solid wire (bare copper)	0.409 mm
Conductor diameter, solid wire (bare copper)	0.016 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	13.9 mm
Cable sheath diameter	0.547 in.

### Electrical characteristics

Loop resistance	max. 280 Ohm/km
Transfer impedance 1 MHz	max. 5 mOhm/m
Transfer impedance 10 MHz	max. 5 mOhm/m
Transfer impedance 30 MHz	max. 10 mOhm/m
Transfer impedance 100 MHz	max. 20 mOhm/m
Characteristic impedance 1-100 MHz	100+/-5 Ohm
Resistance unbalance	max. 2 %
Coupling attenuation	min. 85 dB
Capacitance at 800 Hz	Nom 44 nF/km

### Technical Data

#### Electrical characteristics

Capacitance unbalance pair to ground	max. 1600 pF/km
Nominal velocity of propagation	ca.76 %
Signal propagation delay	max. 425 ns/100 m
Delay skew	max. 9 ns/100 m
Dielectric strength conductor-conductor (primarily)	1000 V DC
Dielectric strength conductor-conductor (secondary)	1000 V DC
Dielectric strength conductor-shield	1000 V DC

#### Mechanical characteristics

Bending radius without load	min. 55 mm
Bending radius without load	min. 2.17 in.
Bending radius with load	min. 110 mm
Bending radius with load	min. 4.33 in.

#### Materials and material properties

Material - Conductor	Cu (copper)
Material - Conductor Insulation	Foam-Skin Polyethylen
Material - Cable jacket	LSHF-FR (LSOH-FR)
Material - Pair shield	plastic film
Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn (tin)
Flame retardancy	yes

#### Environmental conditions

Temperature (min. - max.)	
Temperature - Storage °C	-20 - 60 °C
Temperature - Storage °F	-4 - 140 °F
Temperature - Operating °C	-20 - 60 °C
Temperature - Operating °F	-4 - 140 °F
Temperature - Installation °C	10 - 40 °C
Temperature - Installation °F	50 - 104 °F



Data sheet

Page 4/6

**BTR DCCS 26/1 Cat.7 S/FTP 24P LSHF-FR**  
**class D<sub>ca</sub> s2 d2 a1**

P/N  
**130DCL1M**

EAN 4250184140085

2017-26-09

## Technical Data

### Approvals

RoHS compliant

### The product meets the following standards

Generic cabling systems	
General requirements	ISO/IEC 11801 Ed.2.2:2011-06   DIN EN 50173-1:2011-09
Data centers	DIN EN 50173-5: 2011-09
Multi-element metallic cables used in analogue and digital communication and control	DIN EN 50288-4-1
Common test methods for cables under fire conditions	
Fire behaviour - class	fire behaviour: Class D <sub>ca</sub> s2 d2 a1 acc. to EN 50399 (classification acc. to EN 13501-6)
Test for vertical flame propagation for a single insulated wire or cable	IEC 60332-1
Test for vertical flame spread of vertically-mounted bunched wires or cables	IEC 60332-3-24
Measurement of smoke density of cables burning	IEC 61034
Determination of acidity (by measuring the pH value) and conductivity	IEC 60754-2

### Classifications

ETIM 5.0	EC000830
ETIM 6.0	EC000830

### Packing details

Type of packaging meter / drum

Data sheet

**BTR DCCS 26/1 Cat.7 S/FTP 24P LSHF-FR**  
**class D<sub>ca</sub> s2 d2 a1**

Page 5/6

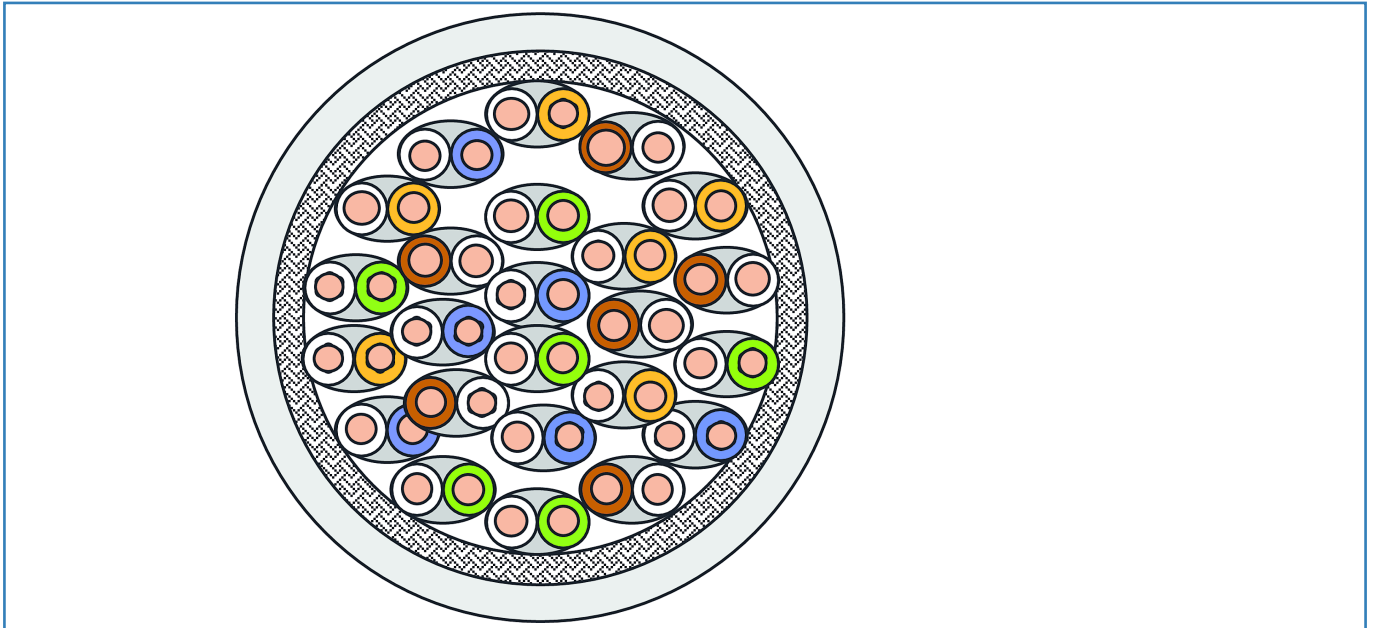
P/N  
130DCL1M

EAN 4250184140085

2017-26-09

## Illustrations

Principle diagram



Data sheet

Page 6/6

**BTR DCCS 26/1 Cat.7 S/FTP 24P LSHF-FR**  
**class D<sub>ca</sub> s2 d2 a1**

P/N  
**130DCL1M**

EAN 4250184140085

2017-26-09

**Transmission values (nominal) as per Cat. 7 (at 20°C)**

FREQ (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	Return loss (dB)
1.0	0.3	90	87	80	77	23
4.0	0.6	90	87	80	77	24
10.0	1.0	90	87	80	77	25
16.0	1.3	90	87	76	73	25
20.0	1.4	90	87	74	71	25
31.2	1.8	90	87	70	67	25
62.5	2.6	90	87	64	61	23
100.0	3.2	87	84	60	57	21
125.0	3.6	85	82	58	55	20
155.5	4.0	84	81	56	53	19
175.5	4.3	83	80	55	52	19
200.0	4.6	82	79	54	51	18
250.0	5.1	81	78	52	49	18
300.0	5.6	80	77	50	47	17
450.0	6.9	77	74	47	44	17
600.0	7.9	75	72	44	41	17

© 2017 METZ CONNECT - Technische Änderungen vorbehalten! Subject to modifications! Sous réserve de modifications techniques!

