METZ CONNECT
We realize ideas

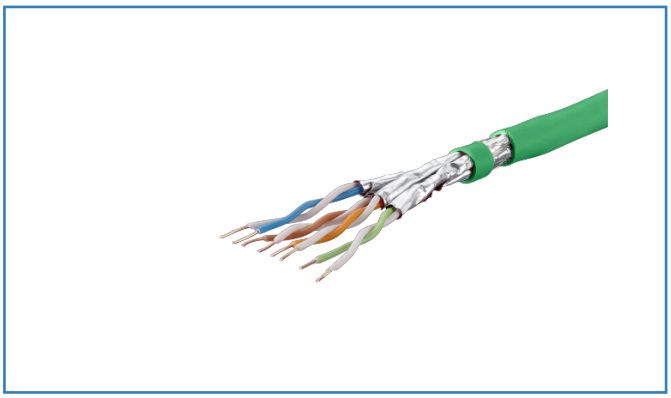
Data sheet

MC IC1000 PUR 23/1 Cat.7 S/FTP 4P 3280 ft, class F_{ca}

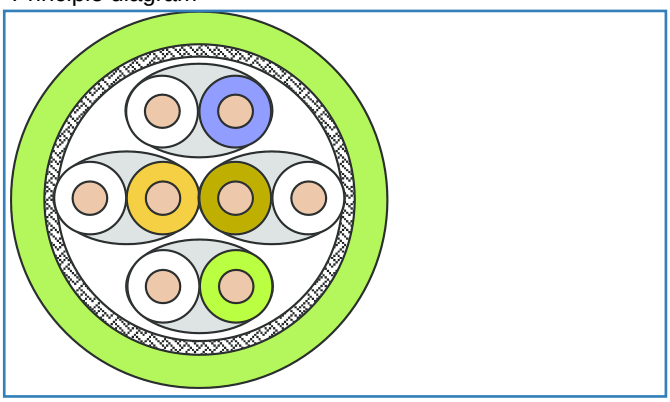
P/N 1308427038102
EAN 4250184175346

2017-31-05

Illustrations



Principle diagram



See enlarged drawings at the end of document

Product specification

- 10 GBit installation cable
- installation cable Cat.7 AWG 23 S/FTP with wires shielded in pairs
- 4 pairs (PiMF)
- pair shield: plastic foil with aluminum coating
- overall shield: tinned copper braid
- outer diameter 7.5 mm
- color of the cable jacket: green
- coupling attenuation 85 dB
- applicable standards: EN 50173-1:2011-09; ISO/IEC 11801 Ed.2.2:2011-06; EN 50288-4-1 and IEC 61156-5
- cable jacket: PUR, oil resistant
- flame-retardant to IEC 60332-1; IEC 60754-2 and IEC 61034
- fire behaviour: Class F_{ca}

Shipping Units:

1640 ft (500 m)	on drum
3280 ft (1000 m)	on drum

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Technical Data

General Data	
Design	Installation cables
Shielding	shielded
Transmission technology	Copper
Cable Type	S/FTP
Number of twisting elements	4
Twisting element	Pair
Color coding fiber/ wire(s)	white, orange, white, green, white, brown, white, blue
Color	green
Cable length (m)	1000.00 m
Cable length (ft)	3280.84 ft

Transmission characteristics	
Category (ISO)	7
Transmission rate up to 10 GBit	IEEE 802.3an

Connections/interfaces	
Termination data, solid wire (min. - max.)	
Conductor cross section, solid wire	AWG 23/1
Core diameter (min. - max.)	
Core diameter (conductor with insulation)	1.4 mm
Core diameter (conductor with insulation)	0.055 in.
Cable sheath diameter (min. - max.)	
Cable sheath diameter	7.5 mm
Cable sheath diameter	0.295 in.

Electrical characteristics	
Loop resistance	max. 150 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
Characteristic impedance 100-250 MHz	100+/-10 Ohm
Characteristic impedance 250-600 MHz	100+/-15 Ohm
Resistance unbalance	max. 2 %

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Technical Data

Electrical characteristics	
Coupling attenuation	85 dB
Capacitance at 800 Hz	Nom 43 nF/km
Capacitance unbalance pair to ground	max. 1500 pF/km
Nominal velocity of propagation	ca.79 %
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
Segregation classification	D

Mechanical characteristics	
Bending radius without load	min. 30 mm
Bending radius without load	min. 1.18 in.
Bending radius with load	min. 60 mm
Bending radius with load	min. 2.36 in.

Materials and material properties	
Material - Conductor	Cu (copper)
Material - Conductor Insulation	Foam-Skin Polyethylen
Material - Cable jacket	PUR
Material - Pair shield	plastic film
Material - Pair shield finish	Al (Aluminium)
Material - Main shield	Cu (copper) braid
Material - Main shield finish	Sn (tin)
Flame retardancy	yes
Oil resistance	yes

Environmental conditions	
Temperature (min. - max.)	
Temperature - Storage °C	-30 - 75 °C
Temperature - Storage °F	-22 - 167 °F
Temperature - Operating °C	-30 - 75 °C
Temperature - Operating °F	-22 - 167 °F
Temperature - Installation °C	-5 - 50 °C

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Technical Data

Environmental conditions

Temperature (min. - max.)	
Temperature - Installation °F	23 - 122 °F

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
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	 Klasse F_{ca}
Test for vertical flame propagation for a single insulated wire or cable	DIN EN 60332-1
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

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Accessories

P/N	Designation
140302-01-E	Jokari dismantle tool

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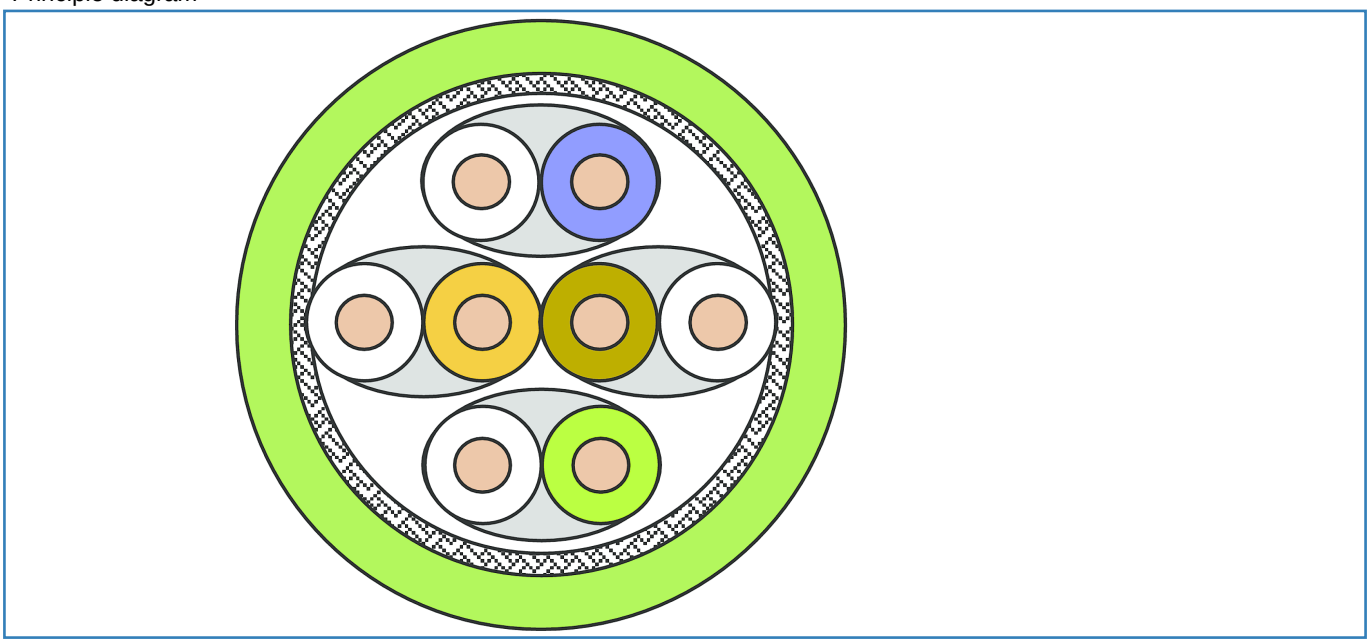

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Transmission values (nominal) as per Cat. 7 (at 20°C)

FREQ (MHz)	Attenuation (dB/100m)	NEXT (dB)	PS-NEXT (dB)	ACR (dB/100m)	PS-ACR (dB/100m)	ELFEXT (dB/100 m)	PS-ELFEXT (dB/100 m)	Return loss (dB)
1.0	1.8	100	97	98	95	105	105	-
4.0	3.4	100	97	97	94	105	102	27
10.0	5.4	100	97	95	92	97	94	30
16.0	6.8	100	97	93	90	93	90	30
20.0	7.7	100	97	92	89	91	88	30
31.2	9.6	100	97	90	87	87	84	30
62.5	13.7	100	97	86	83	81	78	30
100.0	17.4	100	97	83	80	77	74	30
125.0	19.5	95	92	75	72	75	72	26
155.5	21.9	94	91	72	69	73	70	26
175.0	23.3	93	90	70	67	72	69	25
200.0	25.0	92	89	67	64	71	68	25
250.0	28.1	90	87	62	59	69	66	24
300.0	30.9	89	86	58	55	67	64	24
450.0	38.3	87	84	48	45	64	61	23
600.0	44.8	85	82	40	37	61	58	22
750.0	52.0	83	80	31	28	59	56	21
900.0	59.4	82	79	23	20	58	55	20
1000.0	63.1	80	77	17	14	57	54	20