Overview
M12 product program

D coded

M12 circular connector

PC board jacks – **4-pole, D coded**

	PRODUCT NAME	CONNECTION TYPE	MOUNTING / COLOR	P/N
	M12 printed circuit board jack	solderable, 90° angled	<2.5 mm wall thickness	MMT471A115
			<4.0 mm wall thickness	MMT471A115-0001
			<5.0 mm wall thickness	MMT471A115-0002
	M12 printed circuit board jack	solderable	Front mounting	MMW360A1A1
	M12 printed circuit board jack	solderable Solderable, in individual parts potted, IP67 when unplugged	Front mounting	MMT361A115
				MMT361A115-0001
				MMT361A115-0009
	M12 printed circuit board jack	solderable	Back wall mounting	MMW370A1A1
	M12 printed circuit board jack	solderable Solderable, in individual parts potted, IP67 when unplugged	Back wall mounting	MMT371A115
				MMT371A115-0001
				MMT371A115-0009
	Printed circuit board insert M12	solderable	green	MMT060A115

X coded

PC board jacks – **8-pole, X coded**

	PRODUCT NAME	CONNECTION TYPE	MOUNTING / COLOR	P/N
	M12 printed circuit board jack	solderable, angled 90°, back wall mounting	<2.5 mm wall thickness	MMT471A315
			<4.0 mm wall thickness	MMT471A315-0001
			<5.0 mm wall thickness	MMT471A315-0002
	M12 printed circuit board jack	in individual parts, solderable, 90° angled	<2.5 mm wall thickness	MMT471A315-0003
			<4.0 mm wall thickness	MMT471A315-0004
			<5.0 mm wall thickness	MMT471A315-0005
	M12 printed circuit board jack	solderable Solderable, in individual parts potted, IP67 when unplugged	Front mounting	MMT361A315
				MMT361A315-0001
				MMT361A315-0009
	M12 printed circuit board jack	solderable Solderable, in individual parts potted, IP67 when unplugged	Back wall mounting	MMT371A3B5
				MMT371A3B5-0001
				MMT371A3B5-0009
	Printed circuit board insert M12	solderable	green	MMT060A315
			black	MMT060A315-0001
	Printed circuit board insert M12	solderable, 90° angled	Back wall mounting	MMTA70A315

A coded

M12 circular connector
PC board jacks – **2-pole, A coded**

PRODUCT NAME		CONNECTION TYPE	MOUNTING / COLOR	P/N
M12 printed circuit board jack		solderable Solderable, in individual parts potted, IP67 when unplugged	Front mounting	MMT361A915 MMT361A915-0001 MMT361A915-0009
		solderable Solderable, in individual parts potted, IP67 when unplugged	Back wall mounting	MMT371A915 MMT371A915-0001 MMT371A915-0009
Printed circuit board insert M12		solderable	black	MMT060A915-0001

Printed circuit board jacks – **3-pole, A coded**

PRODUCT NAME		CONNECTION TYPE	MOUNTING / COLOR	P/N
M12 printed circuit board jack		solderable Solderable, in individual parts potted, IP67 when unplugged	Front mounting	MMT361A615 MMT361A615-0001 MMT361A615-0009
		solderable Solderable, in individual parts potted, IP67 when unplugged	Back wall mounting	MMT371A615 MMT371A615-0001 MMT371A615-0009
Printed circuit board insert M12		solderable	black	MMT060A615-0001

PC board jacks – **4-pole, A coded**

PRODUCT NAME		CONNECTION TYPE	MOUNTING / COLOR	P/N
M12 printed circuit board jack		solderable Solderable, in individual parts potted, IP67 when unplugged	Front mounting	MMT361A715 MMT361A715-0001 MMT361A715-0009
		solderable Solderable, in individual parts potted, IP67 when unplugged	Back wall mounting	MMT371A715 MMT371A715-0001 MMT371A715-0009
Printed circuit board insert M12		solderable	black	MMT060A715-0001

PC board jacks – **5-pole, A coded**

PRODUCT NAME		CONNECTION TYPE	MOUNTING / COLOR	P/N
M12 printed circuit board jack		solderable Solderable, in individual parts potted, IP67 when unplugged	Front mounting	MMT361A815 MMT361A815-0001 MMT361A815-0009
		solderable Solderable, in individual parts potted, IP67 when unplugged	Back wall mounting	MMT371A815 MMT371A815-0001 MMT371A815-0009
Printed circuit board insert M12		solderable	black	MMT060A815-0001

M12 circular connector

M12 Control cabinet feedthrough

	PRODUCT NAME	FEATURE 1	FEATURE 2	P/N
	panel feed through adapters M12	4-pole, D coded to RJ45	straight angled	MWN811A115 MWN911A115
	panel feed through adapters M12	8-pole, X coded to RJ45	straight angled	MWN811A415 MWN911A415

Field assembly jacks and connectors

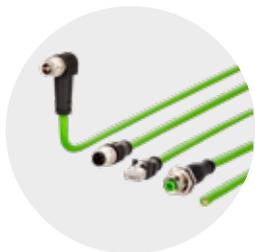|	PRODUCT NAME	FEATURE 1	FEATURE 2	P/N
	M12 jack	4-pole, D coded, IP67, straight, Cat.5e	without flange with flange	MMF881A115 MMF881A115-0001
	M12 connector	4-pole, D coded, IP67, straight	field assembly	MNF881A115
	M12 jack	8-pole, X coded, IP67, straight, field assembly	without flange with flange	MMF881A315 MMF881A315-0001
	M12 connector	8-pole, X coded, IP67, straight	field assembly	MNF881A315-0001

M12 accessories

	PRODUCT NAME	FEATURES	P/N
	M12 connector protective cap IP54	Protective cap M12x1 for connector, screw-on, black, similar to RAL9005	700669
	M12 jack screw-on plugs IP54	Protective plugs M12x1 for adapter, screw-on, black, similar to RAL9005	700701

M12 extension/connection cables

The M12 extension/connection cable product family is divided into M12 Industrial Ethernet, D and X coded, as well as M12 sensor/actuator, A coded.

M12 Industrial Ethernet extension/connection cables, D and X coded

Shielded M12 Industrial Ethernet extension/connection cables for secure, industrial-level data transmission in automation and fieldbus technology. Various cable types for increased mechanical loads, such as abrasion, bending, vibration, drag chain operation and torsion, in various performance classes Cat.5 (100 MBit/s), Cat.6_A (10 GBit/s) with D and X coded connectors.

Cable types

> AWG 22/19 PUR 5_e
> AWG 22/7 PUR 5_e
> AWG 24/7 PUR 6_A
> AWG 26/19 PUR 5_e
> AWG 26/19 PUR 6_A
> AWG 26/7 PUR 6_A

Interfaces

> M12 jack
> M12 connector
> M12 connector angled
> RJ45 connectors
> Free cable end

M12 sensor/actuator extension/connection cables, A coded

M12 sensor/actuator extension/connection cables with injection molded M12 A coded connectors fulfill the typical requirements of the automation industry. The sensor connectors are available in various designs and with different numbers of poles. The diverse range of sensor connectors also includes 360° shielded and unshielded variants. All extension and connection cables are available in PUR and PVC cable qualities.

Cable types

> PUR shielded / unshielded
  4, 5, 8 poles
> PVC shielded / unshielded
  4, 5, 8 poles

Interfaces

> M12 jack
> M12 jack angled
> M12 connector
> M12 connector angled
> Free cable end

You can create your cable quickly and easily online using the configurator.
All part numbers and technical information is provided here.

www.metz-connect.com/configurator-m12

D coded

M12 Industrial Ethernet extension/connection cables, **D coded**

AWG 22/19 PUR Cat.5e

CABLE PROPERTIES:	POSSIBLE CONNECTOR END		PRODUCT NAME	P/N
Outer coat diameter: Ø (6.5 ± 0.2) mm, material: PUR Buffer diameter/strand structure: AWG22/19 Buffer insulation material: PE Buffer colors: 1 YE, 2 WH, 3 OG, 4 BU Temperature range: permanently installed -40 to +80°C, moving -20 to +80°C Torsion: +/-180°/m, ≥ 5 million cycles Drag chain-compatible: max. 20m/s² 5 million cycles Category: Cat.5e Shielding: yes	M12 connector straight			
	M12 connector angled			
	M12 jack straight		Connection cable M12 jack straight - RJ45 connector straight	142MBD25xxx
	M12 jack angled			
SPECIFIC PROPERTIES: flame-retardant, seawater-resistant, recyclable, PWIS-free, RoHs-compliant, acid- and alkali-resistant, ozone-resistant, UV-resistant, hydrolysis-resistant, drag chain-compatible, torsion-capable, halogen-free, oil-resistant, high flexibility, microbe-resistant, PROFINET Type R, UN ECER118	RJ45 connector molded			

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

AWG 22/7 PUR Cat.5e

CABLE PROPERTIES:	POSSIBLE CONNECTOR END		PRODUCT NAME	P/N
Outer coat diameter: Ø (6.5 ± 0.2) mm, material: PUR Buffer diameter/strand structure: AWG22/7 Buffer insulation material: FRNC Temperature range: permanently installed -40 to +70°C, moving -20 to +60°C Drag chain-compatible: max. 4m/s² 3 million cycles Category: Cat.5e Shielding: yes	M12 connector straight		Connection cable M12 connector straight - free cable end	142M1D10xxx
	M12 connector angled			
	M12 jack straight			
SPECIFIC PROPERTIES: flame-retardant, seawater-resistant, recyclable, PWIS-free, RoHs-compliant, acid- and alkali-resistant, ozone-resistant, UV-resistant, hydrolysis-resistant, drag chain-compatible, halogen-free, oil-resistant, high flexibility, microbe-resistant, UN ECER118, PROFINET Type C	M12 jack angled		Connection cable M12 jack straight - free cable end	142M1D20xxx
	RJ45 connector molded			

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

AWG 26/19 PUR Cat.5e

CABLE PROPERTIES:	POSSIBLE CONNECTOR END		PRODUCT NAME	P/N
Outer coat diameter: Ø (4.8 ± 0.2) mm, material: PUR Buffer diameter/strand structure: AWG26/19 Buffer insulation material: PP Temperature range: permanently installed -40 to +80°C, moving -20 to +80°C Torsion: +/-180°/m, ≥ 5 million cycles Drag chain-compatible: max. 5m/s² 3 million cycles Category: Cat.5	M12 connector straight		Connection cable M12 connector straight - M12 connector straight	142M4D11xxx
	M12 connector angled			
	M12 jack straight		Connection cable M12 connector straight - M12 jack straight	142M4D12xxx
	M12 jack angled			
SPECIFIC PROPERTIES: seawater-resistant, recyclable, PWIS-free, RoHs-compliant, acid- and alkali-resistant, ozone-resistant, UV-resistant, hydrolysis-resistant, drag chain-compatible, halogen-free, oil-resistant, high flexibility, microbe-resistant	RJ45 connector molded		Connection cable M12 connector straight - RJ45 connector straight	142M4D15xxx

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

X coded

M12 Industrial Ethernet extension/connection cables, **X coded**

AWG 26/7 PUR Cat.7

CABLE PROPERTIES:
Outer coat diameter: Ø (6.4 ± 0.2) mm; material: PUR
Buffer diameter/strand structure: AWG26/7
Buffer insulation material: FRNC
Temperature range:
permanently installed -40 to +80°C, moving -20 to +60°C
Halogen-free: yes
Category: Cat.7
Shielding: yes

SPECIFIC PROPERTIES:

seawater-resistant, recyclable, PWIS-free, RoHS-compliant, acid- and alkali-resistant, UV-resistant, hydrolysis-resistant, halogen-free, oil-resistant, high flexibility, no corrosive gases, microbe-resistant, no fire propagation

POSSIBLE CONNECTOR END		PRODUCT NAME	P/N
M12 connector straight		Connection cable M12 connector straight - free cable end	142M2X10xxx
M12 connector angled, bottom cable outlet*		Connection cable M12 connector angled - free cable end	142M2X90xxx 142M2XA0xxx 142M2XB0xxx 142M2XC0xxx
M12 jack straight		Connection cable M12 jack straight - free cable end	142M2X20xxx
RJ45 connector molded		Connection cable RJ45, RJ45 connector straight - RJ45 connector straight	142M2X55xxx

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.
*Various codings are possible. Example: top left 315°, top right 45°, bottom right 135°, bottom left 225°.

AWG 26/19 PUR Cat.6ₐ

CABLE PROPERTIES:
Outer coat diameter: Ø (7.8 ± 0.2) mm; material: PUR
Buffer diameter/strand structure: AWG26/19
Buffer insulation material: FRNC
Temperature range:
permanently installed -40 to +80°C, moving -30 to +70°C
Drag chain-compatible: max. 3m/s² 4 million cycles
Category: Cat.6
Shielding: yes

SPECIFIC PROPERTIES:

flame-retardant, recyclable, PWIS-free, RoHS-compliant, ozone-resistant, UV-resistant, drag chain-compatible, halogen-free, oil-resistant, high flexibility

POSSIBLE CONNECTOR END		PRODUCT NAME	P/N
M12 connector straight		Connection cable M12 M12 connector straight - free cable end	142M6X10xxx
M12 jack straight		Connection cable M12 M12 jack straight - free cable end	142M6X20xxx
RJ45 field plug		Connection cable M12 connector straight - free cable end	142M6X18xxx

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

AWG 24/7 PUR Cat.6ₐ

CABLE PROPERTIES:
Outer coat diameter: Ø (9.4 ± 0.2) mm; material: PUR
Buffer diameter/strand structure: AWG24/7
Buffer insulation material: Foam-Skin polyolefin
Temperature range:
permanently installed -40 to +70°C, moving -30 to +70°C
Halogen-free: yes
Torsion-capable: +/-180°/m, ≥ 5 million cycles
Category: Cat.7
Shielding: yes

SPECIFIC PROPERTIES:

c(UL)us type CMX according to UL 444; UL AWM styles 11117 and 21576 (1000 V, 80 °C) according to UL 758, flame-retardant, recyclable, PWIS-free, RoHs-compliant, ozone-resistant, UV-resistant, torsion-capable, halogen-free, oil-resistant

POSSIBLE CONNECTOR END		PRODUCT NAME	P/N
		Connection cable M12 connector straight - free cable end	142M7X10xxx
M12 connector straight		Connection cable M12 connector straight - M12 connector straight	142M7X11xxx
M12 jack straight		Connection cable M12 jack straight - free cable end	142M7X20xxx
		Connection cable M12 connector straight - M12 jack straight	142M7X12xxx

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

A coded

M12 sensor/actuator extension/connection cables, **A coded**

PUR shielded / unshielded; 4, 5, 8 buffers

CABLE TYPES:
4 x 0.34 mm²; 42 x 0.10 mm
5 x 0.34 mm²; 42 x 0.10 mm
8 x 0.25 mm²; 32 x 0.10 mm

CABLE PROPERTIES:
Material: PUR
moving: -30˚C to +90˚C
Permanently installed: -40˚C to +80˚C
In drag chain & torsion mode: -25˚C to +60˚C
Torsion-capable: +/-360°/m, ≥ 2 million cycles
Drag chain-compatible: max. 5m/s² 5 million cycles

SPECIFIC PROPERTIES:
flame-retardant, seawater-resistant, recyclable, PWIS-free,
RoHs-compliant, acid- and alkali-resistant, ozone-resistant,
UV-resistant, hydrolysis-resistant, drag chain-compatible,
torsion-resistant, welding spark-resistant, halogen-free, sili-
cone-free, oil-resistant.

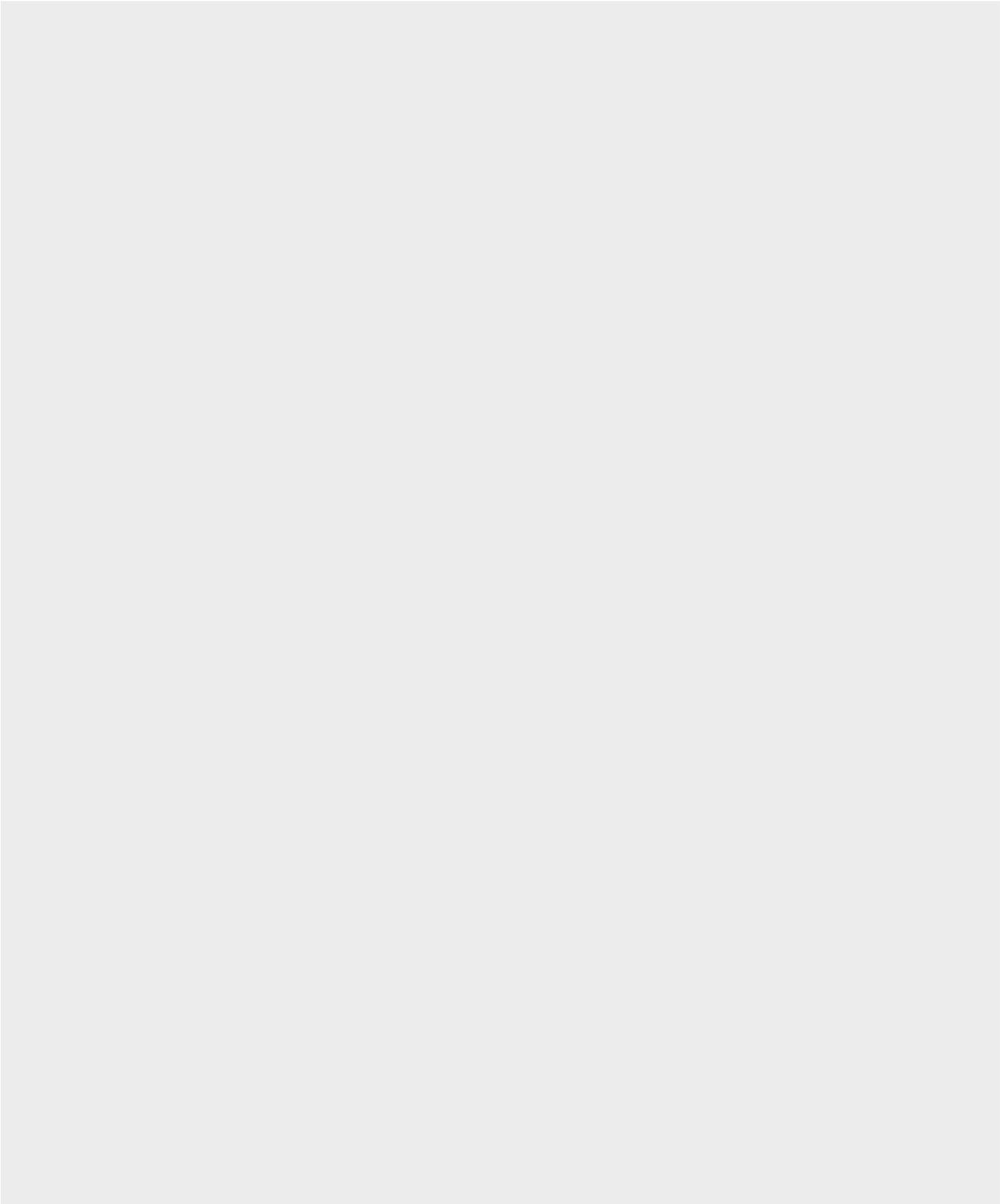| PRODUCT NAME	CODING POSITION	P/N
M12 connector straight - free cable end	4-pole 5-pole 8-pole	142MCA10xxx 142MDA10xxx 142MEA10xxx
M12 jack straight - free cable end	4-pole 5-pole 8-pole	142MCA20xxx 142MDA20xxx 142MEA20010

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

PVC shielded / unshielded; 4, 5, 8 buffers

CABLE TYPES:
4 x 0.34 mm²; 19 x 0.15 mm
5 x 0.34 mm²; 19 x 0.15 mm
8 x 0.25 mm²; 14 x 0.15 mm

CABLE PROPERTIES:
Material: PVC;
Buffer insulation material: PVC
Temperature range:
- moving: -0˚C to +80˚C
- Permanently installed: -25˚C to +80˚C

SPECIFIC PROPERTIES:
seawater-resistant, recyclable, PWIS-free, RoHs-compliant,
acid- and alkali-resistant, ozone-resistant, UV-resistant.

PRODUCT NAME	FEATURES	P/N
M12 connector straight - free cable end	4-pole 5-pole 8-pole	142MIA10xxx 142MJA10xxx 142MKA10xxx
M12 jack straight - free cable end	4-pole 5-pole 8-pole	142MIA20xxx 142MJA20xxx 142MKA20xxx

Standard versions available in the following lengths: 1.0 m, 2.0 m, 5.0 m, 10.0 m. Further lengths can be found on our website or in the configurator.

315° 0° 45°
225° 135°

Coding position on angled connector

Part number with: **9** = M12 connector angled, bottom cable outlet, top left coding 315°
A = M12 connector angled, bottom cable outlet, top right coding 45°
B = M12 connector angled, bottom cable outlet, bottom right coding 135°
C = M12 connector straight, bottom cable outlet, bottom left coding 225°

Notes

Configurator
quick and easy

Whether planning a new network cabling or expanding an existing installation - the fastest and easiest way to create an individual data network is to use pre-assembled installation cables.

And that is exactly what you can achieve with the METZ CONNECT cable configurator – a convenient online tool.

Attractive design, simple, intuitive operation and runs directly in your browser without the installation of additional software. With just a few selection steps, you can configure and request a wide variety of cable assemblies for structured cabling.

You will receive all important information for each configuration: Part number, short description, and sales price. The issued list price can be discounted directly by selecting your discount level.

Different cable types can be configured: from pre-assembled fiber optic installation cables to fiber optic patch cords and IP-protected copper and fiber links, a wide range of different configurations is possible. Additional functions such as the selection of suitable patch panels or the possibility to view detailed product information sheets round off the offer.

Strong production depth in fiber optic and copper manufacture
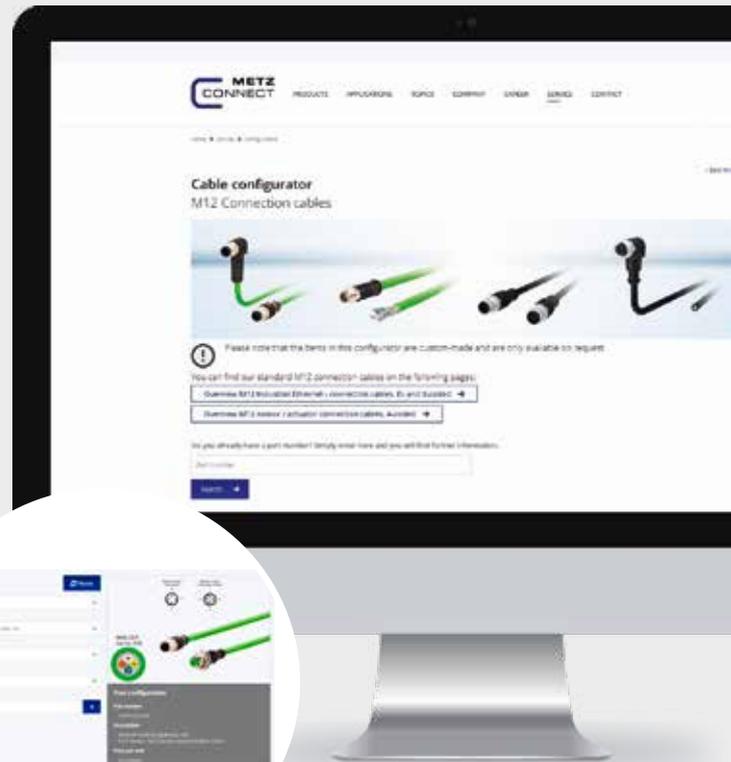
The METZ CONNECT cable configurator is always kept updated and regularly expanded with new functions and product variants.

If, in exceptional cases, your specific cable request cannot be implemented in the cable configurator, please contact us. Due to the high vertical range of manufacture of our own fiber optic manufacture, we can respond individually to your particular cable specifications.

For further information, product information sheets are available for the products of the cable configurator, which describe all product specifics in great detail. This includes information on the actual structure of the pre-assembled installation cables (VIK), the different variants of our cable dividers, and the corresponding order number codes.

In addition to mechanical data and performance values of the individual components, dimensions, and packaging types are also discussed. In addition, fan-out protection variants used and notes on cable fastening options are explained in detail.

Of course, the METZ CONNECT specific optical parameters, such as insertion loss and return loss, are also mentioned in the product information.

More cable lengths on request, and via our cable configurator:
www.metz-connect.com/configurator

METZ CONNECT GmbH

Im Tal 2
78176 Blumberg
Germany

Phone +49 7702 533-0
Fax +49 7702 533-189

info@metz-connect.com
www.metz-connect.com

METZ CONNECT USA Inc.

200 Tornillo Way
Tinton Falls, NJ 07712
USA
Phone + 1 732 389 1300
Fax + 1 732 389 9066

METZ CONNECT France SAS

28, Rue Schweighaeuser
67000 Strasbourg
France
Phone + 33 38 86 170 73
Fax + 33 38 86 194 73

METZ CONNECT AUSTRIA GmbH

c/o German chamber of commerce
in Austria

Schwarzenbergplatz 5, Top 3/1
1030 Vienna
Austria
Phone + 43 1 227 12 64
Fax + 43 1 227 12 66

METZ CONNECT Zhongshan Ltd.

Ping Chang Road
Ping Pu Industrial Park
Sanxiang Town
Zhongshan City, 528 463
Guangdong Province
China
Phone + 86 760 86365 055
Fax + 86 760 86365 050

METZ CONNECT Asia Pacific Ltd.

Suite 1803, 18/F
Chinachem Hollywood Centre,
1 Hollywood Road, Central
Hong Kong
Phone + 852 26 027 300
Fax + 852 27 257 522

RIA CONNECT **BTR** NETCOM

QUALITÄTSMANAGEMENTSYSTEM
IQNet
DQS-zertifiziert nach
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