



Pushing Performance



People | Power | Partnership

## HARTING News 2019

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Number of contacts

**8**  
+ 2x GND



Inter-  
face

## Features

- Miniaturised Ethernet data interface suitable for industry in acc. to IEC 61076-3-124 type A
- Robust industrial design
- 360° shielding
- Category of transmission Cat. 6A
- 5000 mating cycles
- 70 % reduced size compared to RJ45
- Suitable for all PoE versions

## Technical characteristics

Number of contacts	8
Additional contacts	+ 2x GND
Rated current	1.5 A
Rated voltage	50 V AC, 60 V DC
Test voltage $U_{r.m.s.}$	0.5 kV
Contact resistance	$\leq 30 \text{ m}\Omega$
Contact resistance, shielding	$\leq 100 \text{ m}\Omega$
Shielding resistance	$\leq 100 \text{ m}\Omega$
Limiting temperature	-40 ... +85 °C
Storage temperature	-30 ... +60 °C
Mating cycles	$\geq 5000$
Degree of protection acc. to IEC 60529	IP20
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s
Insertion force	$\leq 25 \text{ N}$
Withdrawal force	$\leq 25 \text{ N}$
Material (insert)	LCP
Colour (insert)	Black
Material (contacts)	Copper alloy
Surface (contacts)	Au over Ni
Material flammability class acc. to UL 94	V-0
RoHS	compliant

## Specifications and approvals

IEC 61076-3-124



## Details

**Cable assemblies** see chapter 8

Interface

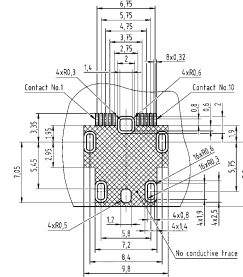
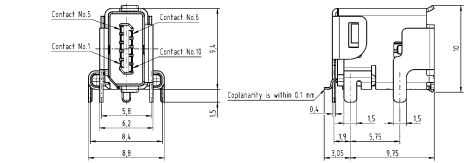
Identification

Part number

Drawing  
(dimensions in mm)

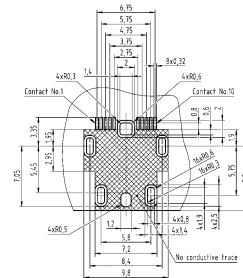
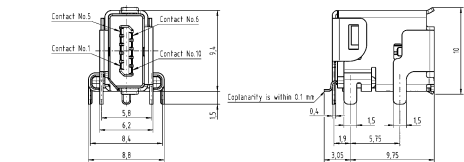
HARTING ix Industrial®,  
Data,  
PCB connector,  
Angled,  
Solder termination,  
Fully shielded, 360° shielding contact,  
Pack contents:  
Sample

09 45 281 2560 333



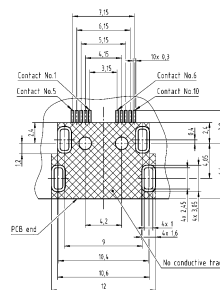
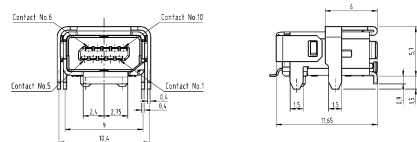
HARTING ix Industrial®,  
Data,  
PCB connector,  
Angled,  
Solder termination,  
Fully shielded, 360° shielding contact,  
Pack contents:  
400 pieces on reel


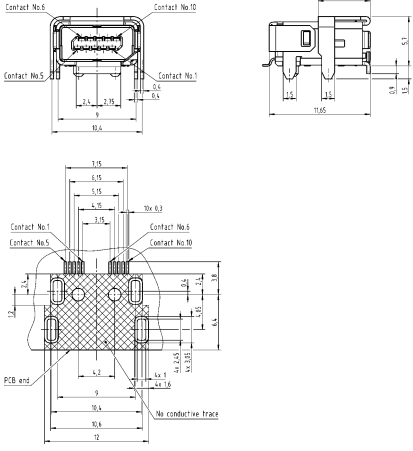

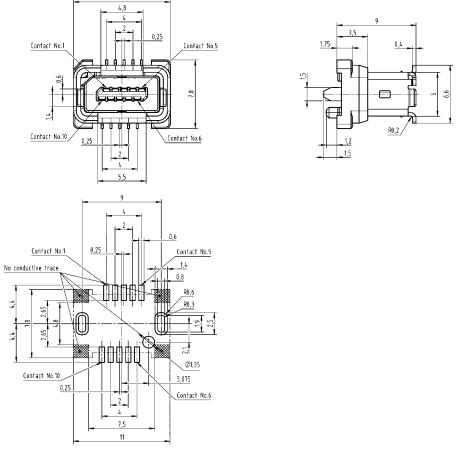

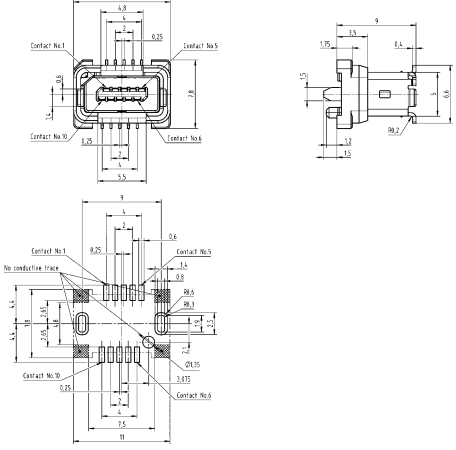
09 45 281 2560



HARTING ix Industrial®,  
Data,  
PCB connector,  
Horizontal,  
Solder termination,  
Fully shielded, 360° shielding contact,  
**Available as from Q2/2019,**  
Pack contents:  
Sample

09 45 281 2561 333



Identification	Part number	Drawing (dimensions in mm)
<p>HARTING ix Industrial®, Data, PCB connector, Horizontal, Solder termination, Fully shielded, 360° shielding contact, <b>Available as from Q2/2019,</b> Pack contents: 400 pieces on reel</p> 	<p>09 45 281 2561</p>	
<p>HARTING ix Industrial®, Data, PCB connector, Vertical, Solder termination, Fully shielded, 360° shielding contact, Pack contents: Sample</p> 	<p>09 45 281 2562 333</p>	
<p>HARTING ix Industrial®, Data, PCB connector, Vertical, Solder termination, Fully shielded, 360° shielding contact, Pack contents: 450 pieces on reel</p> 	<p>09 45 281 2562</p>	

Inter-  
face

Inter-  
face

Identification

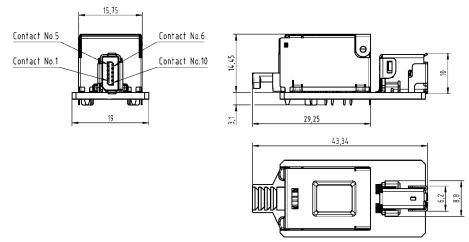
HARTING ix Industrial®,  
Adapter PCB,  
preLink® PCB to ix Industrial® module,  
preLink® termination,  
Fully shielded, 360° shielding contact



Part number

20 82 008 0001

Drawing  
(dimensions in mm)



New  
6  
·  
10

Number of contacts

8

+ 2x GND

Inter-  
face

## Features

- Miniaturised Ethernet data interface suitable for industry in acc. to IEC 61076-3-124 type A
- Robust industrial design
- 360° shielding
- Category of transmission Cat. 6<sub>A</sub>
- 5000 mating cycles
- Suitable for all PoE versions

## Technical characteristics

Number of contacts	8
Additional contacts	+ 2x GND
Rated current	1.5 A
Rated voltage	50 V AC, 60 V DC
Test voltage $U_{r.m.s.}$	0.5 kV
Contact resistance	≤30 mΩ
Shielding resistance	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Storage temperature	-30 ... +60 °C
Mating cycles	≥5000
Wire outer diameter	≤1.55 mm, 0.95 ... 1.05 mm, 1.1 ... 1.25 mm
Degree of protection acc. to IEC 60529	IP20
Cable diameter	5.5 ... 7.2 mm
Transmission characteristics	Cat. 6 <sub>A</sub> , Class E <sub>A</sub> up to 500 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s
Insertion force	≤25 N
Withdrawal force	≤25 N
Material (insert)	LCP
Colour (insert)	Black
Material (contacts)	Copper alloy
Surface (contacts)	Au over Ni
Material flammability class acc. to UL 94	V-0

## Specifications and approvals


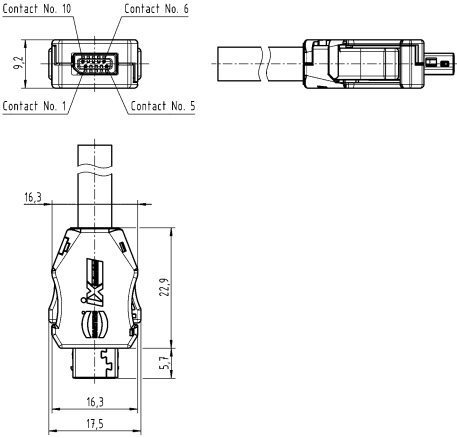

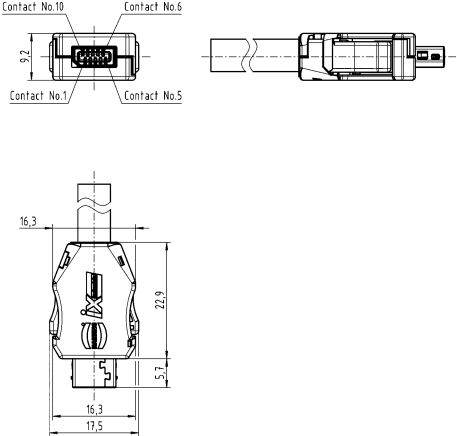

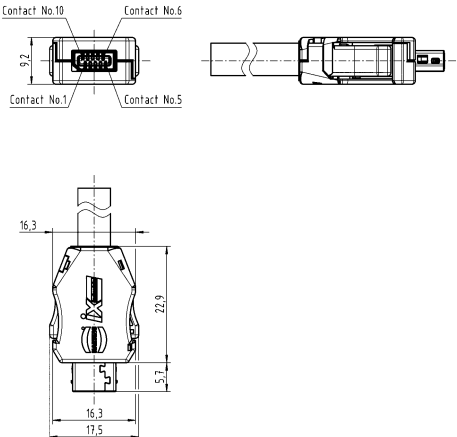

IEC 61076-3-124



## Details

Cable assemblies see chapter 8

Interface

Identification	Part number	Drawing (dimensions in mm)
<p>HARTING ix Industrial®, Data, Cable connector, Solder termination, Fully shielded, 360° shielding contact, for AWG 28/7 - 22/7 and conductor diameters up to 1.55 mm, Pack contents: Packaging with 100 pieces</p> 	<p>09 45 181 2560 XL</p>	
<p>HARTING ix Industrial®, Data, Cable connector, IDC termination, Fully shielded, 360° shielding contact, for AWG 28/7 - 26/7 and conductor diameters from 0.95 - 1.05 mm, Pack contents: Packaging with 100 pieces</p> 	<p>09 45 181 2561 XL</p>	
<p>HARTING ix Industrial®, Data, Cable connector, IDC termination, Fully shielded, 360° shielding contact, for AWG 24 and conductor diameters from 1.1 - 1.25 mm, Pack contents: Packaging with 100 pieces</p> 	<p>09 45 181 2562 XL</p>	
<p>Assembly tool, for HARTING ix Industrial® to assemble the single wire to the IDC and the cable strain relief crimping</p>	<p>09 45 800 0181</p>	

Number of contacts

10



Interface

### Features

- Miniaturised interface for signals and bus systems in acc. to IEC 61076-3-124 type B, suitable for industrial use
- Robust industrial design
- 360° shielding
- 5000 mating cycles
- Very small and space saving interface

### Technical characteristics

Number of contacts	10
Rated current	1.5 A
Rated voltage	50 V AC, 60 V DC
Test voltage $U_{r.m.s.}$	0.5 kV
Contact resistance	≤30 mΩ
Shielding resistance	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Storage temperature	-30 ... +60 °C
Mating cycles	≥5000
Degree of protection acc. to IEC 60529	IP20
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz
Insertion force	≤25 N
Withdrawal force	≤25 N
Material (insert)	LCP
Colour (insert)	Black
Material (contacts)	Copper alloy
Surface (contacts)	Au over Ni
Material flammability class acc. to UL 94	V-0
RoHS	compliant


### Specifications and approvals

IEC 61076-3-124



### Details

Cable assemblies see chapter 8

Identification	Part number	Drawing (dimensions in mm)
<p>HARTING ix Industrial®, Signal, PCB connector, Angled, Solder termination, Fully shielded, 360° shielding contact, Pack contents: Sample</p> 	<p>09 45 281 9000 333</p>	





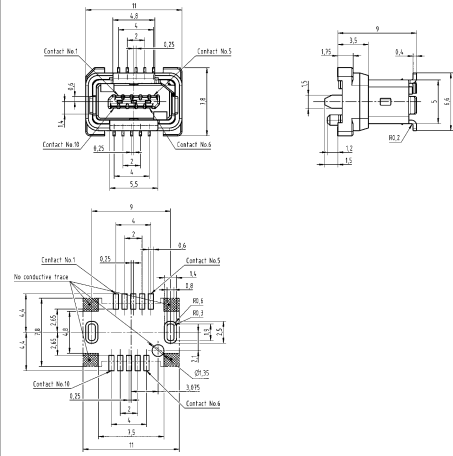
Identification

Part number

Drawing  
(dimensions in mm)

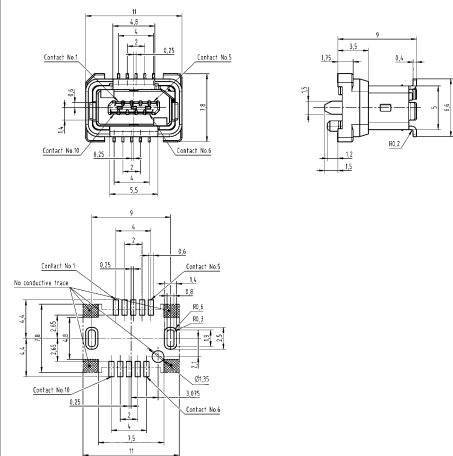
HARTING ix Industrial®,  
 Signal,  
 PCB connector,  
 Vertical,  
 Solder termination,  
 Fully shielded, 360° shielding contact,  
 Pack contents:  
 Sample

09 45 281 9002 333



HARTING ix Industrial®,  
 Signal,  
 PCB connector,  
 Vertical,  
 Solder termination,  
 Fully shielded, 360° shielding contact,  
 Pack contents:  
 450 pieces on reel

09 45 281 9002



Inter-  
face

Number of contacts

10

Inter-  
face



### Features

- Miniaturised interface for signals and bus systems in acc. to IEC 61076-3-124 type B, suitable for industrial use
- Robust industrial design
- 360° shielding
- 5000 mating cycles
- Very small and space saving interface

### Technical characteristics

Number of contacts	10
Rated current	1.5 A
Rated voltage	50 V AC, 60 V DC
Test voltage $U_{r.m.s.}$	0.5 kV
Contact resistance	≤30 mΩ
Shielding resistance	≤100 mΩ
Limiting temperature	-40 ... +85 °C
Storage temperature	-30 ... +60 °C
Mating cycles	≥5000
Wire outer diameter	≤1.55 mm, 0.95 ... 1.05 mm, 1.1 ... 1.25 mm
Degree of protection acc. to IEC 60529	IP20
Cable diameter	5.5 ... 7.2 mm
Insertion force	≤25 N
Withdrawal force	≤25 N
Material (insert)	LCP
Colour (insert)	Black
Material (contacts)	Copper alloy
Surface (contacts)	Au over Ni
Material flammability class acc. to UL 94	V-0


### Specifications and approvals


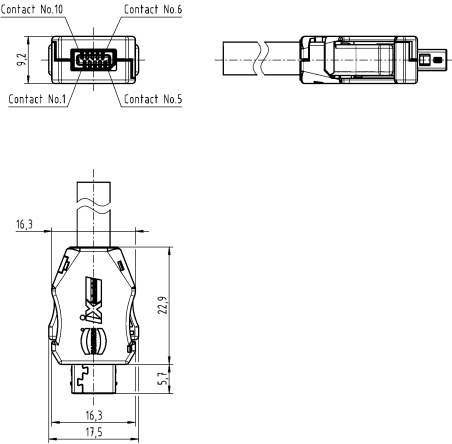

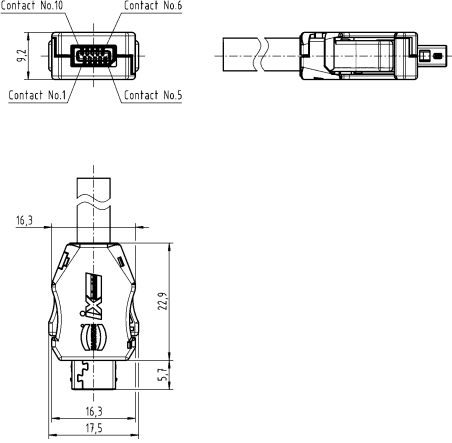

IEC 61076-3-124



### Details

Cable assemblies see chapter 8

Identification	Part number	Drawing (dimensions in mm)
<p>HARTING ix Industrial®, Signal, Cable connector, Solder termination, Fully shielded, 360° shielding contact, for AWG 28/7 - 22/7 and conductor diameters up to 1.55 mm, Pack contents: Packaging with 100 pieces</p> 	<p>09 45 181 9000 XL</p>	

Identification	Part number	Drawing (dimensions in mm)
<p>HARTING ix Industrial®, Signal, Cable connector, IDC termination, Fully shielded, 360° shielding contact, for AWG 28/7 - 26/7 and conductor diameters from 0.95 - 1.05 mm, Pack contents: Packaging with 100 pieces</p> 	<p>09 45 181 9001 XL</p>	
<p>HARTING ix Industrial®, Signal, Cable connector, IDC termination, Fully shielded, 360° shielding contact, for AWG 24 and conductor diameters from 1.1 - 1.25 mm, Pack contents: Packaging with 100 pieces</p> 	<p>09 45 181 9002 XL</p>	
<p>Assembly tool, for HARTING ix Industrial® to assemble the single wire to the IDC and the cable strain relief crimping</p>	<p>09 45 800 0181</p>	



4x 2x AWG 28/7  
HARTING ix Industrial® Type A  
RJ45



Cable

### Features

- Miniaturised Ethernet data interface suitable for industry in acc. to IEC 61076-3-124 type A
- Robust industrial design
- 360° shielding
- Category of transmission Cat. 6A
- 5000 mating cycles
- Flexible, space saving
- Suitable for all PoE versions

### Technical characteristics

Number of cores	8
Core structure	4x 2x AWG 28/7
Connector 1	HARTING ix Industrial®, Type A
Connector 2	RJ45
Limiting temperature	-40 ... +80 °C
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s
Material (cable)	PVC
Colour (cable)	Yellow
RoHS	compliant

### Specifications and approvals

IEC 61076-3-124



### Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
HARTING ix Industrial®, RJ45, Copper cable (round), Pre-assembled on both sides	0.2 m	09 48 261 2749 002	
	0.3 m	09 48 261 2749 003	
	0.4 m	09 48 261 2749 004	
	0.5 m	09 48 261 2749 005	
	0.7 m	09 48 261 2749 007	
	1 m	09 48 261 2749 010	
	1.5 m	09 48 261 2749 015	
	2 m	09 48 261 2749 020	
	2.5 m	09 48 261 2749 025	
	3 m	09 48 261 2749 030	
	5 m	09 48 261 2749 050	
	7.5 m	09 48 261 2749 075	
	10 m	09 48 261 2749 100	



4x 2x AWG 28/7  
 HARTING ix Industrial® Type A  
 HARTING ix Industrial® Type A

Cable



## Features

- Miniaturised Ethernet data interface suitable for industry in acc. to IEC 61076-3-124 type A
- Robust industrial design
- 360° shielding
- Category of transmission Cat. 6A
- 5000 mating cycles
- Flexible, space saving
- Suitable for all PoE versions

## Technical characteristics

Number of cores	8
Core structure	4x 2x AWG 28/7
Connector 1	HARTING ix Industrial®, Type A
Connector 2	HARTING ix Industrial®, Type A
Limiting temperature	-40 ... +80 °C
Transmission characteristics	Cat. 6A, Class E <sub>A</sub> up to 500 MHz
Data rate	10 Mbit/s, 100 Mbit/s, 1 Gbit/s, 2.5 Gbit/s, 5 Gbit/s, 10 Gbit/s
Material (cable)	PVC
Colour (cable)	Yellow
RoHS	compliant

## Specifications and approvals

IEC 61076-3-124



## Details

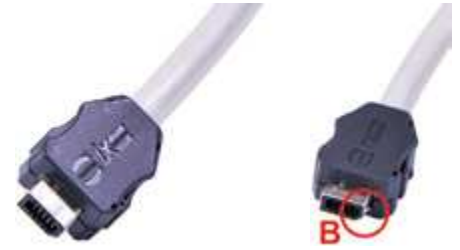
Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
HARTING ix Industrial®, Copper cable (round), Pre-assembled on both sides	0.2 m	09 48 262 6749 002	
	0.3 m	09 48 262 6749 003	
	0.4 m	09 48 262 6749 004	
	0.5 m	09 48 262 6749 005	
	0.7 m	09 48 262 6749 007	
	1 m	09 48 262 6749 010	
	1.5 m	09 48 262 6749 015	
	2 m	09 48 262 6749 020	
	2.5 m	09 48 262 6749 025	
	3 m	09 48 262 6749 030	
	5 m	09 48 262 6749 050	
7.5 m	09 48 262 6749 075		
10 m	09 48 262 6749 100		

New  
8-8



10x AWG 26  
 HARTING ix Industrial® Type B  
 HARTING ix Industrial® Type B



Cable

## Features

- Miniaturised interface for signals and bus systems in acc. to IEC 61076-3-124 type B, suitable for industrial use
- Robust industrial design
- 360° shielding
- 5000 mating cycles
- Flexible, space saving

## Technical characteristics

Number of cores	10
Core structure	10x AWG 26
Connector 1	HARTING ix Industrial®, Type B
Connector 2	HARTING ix Industrial®, Type B
Rated current	1.5 A
Rated voltage	50 V AC, 60 V DC
Limiting temperature	-30 ... +80 °C, -40 ... +80 °C
Material (cable)	PVC, PUR (polyurethane)
Colour (cable)	Grey

## Specifications and approvals

IEC 61076-3-124



## Details

Other cable lengths on request!

Identification	Cable length	Part number	Drawing (dimensions in mm)
HARTING ix Industrial®, Copper cable (round), Pre-assembled on both sides, PVC, -30 °C ... +80 °C	0.2 m	33 48 111 1A20 002	<p>Technical drawing showing dimensions (9.2, 16.3, 17.5, 22.5, 23.5, 3.2, 6.5) and core color coding (Shield, White, Brown, Green, Yellow, Grey, Pink, Blue, Red, Black, Violet).</p>
	0.3 m	33 48 111 1A20 003	
	0.4 m	33 48 111 1A20 004	
	0.5 m	33 48 111 1A20 005	
	0.7 m	33 48 111 1A20 007	
	1 m	33 48 111 1A20 010	
	1.5 m	33 48 111 1A20 015	
	2 m	33 48 111 1A20 020	
	2.5 m	33 48 111 1A20 025	
	3 m	33 48 111 1A20 030	
	5 m	33 48 111 1A20 050	
7.5 m	33 48 111 1A20 075		
10 m	33 48 111 1A20 100		
HARTING ix Industrial®, Copper cable (round), Pre-assembled on both sides, PUR (polyurethane), -40 °C ... +80 °C	0.2 m	33 48 111 1A21 002	<p>Technical drawing showing dimensions (9.2, 16.3, 17.5, 22.5, 23.5, 3.2, 6.5) and core color coding (Shield, White, Brown, Green, Yellow, Grey, Pink, Blue, Red, Black, Violet).</p>
	0.3 m	33 48 111 1A21 003	
	0.4 m	33 48 111 1A21 004	
	0.5 m	33 48 111 1A21 005	
	0.7 m	33 48 111 1A21 007	
	1 m	33 48 111 1A21 010	
	1.5 m	33 48 111 1A21 015	
	2 m	33 48 111 1A21 020	
	2.5 m	33 48 111 1A21 025	
	3 m	33 48 111 1A21 030	
	5 m	33 48 111 1A21 050	
7.5 m	33 48 111 1A21 075		
10 m	33 48 111 1A21 100		