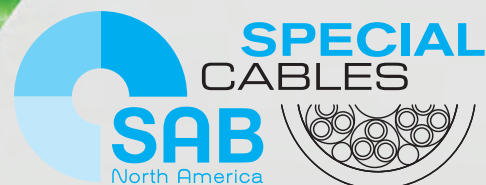


# ASSEMBLIES CABLES WITH OVERMOLDED CONNECTORS



[www.sabcable.com](http://www.sabcable.com)  
866-722-2974 ■ [info@sabcable.com](mailto:info@sabcable.com)



## About Us



SAB North America is a focused supplier for the automation, aerospace, medical, high temperature, and robotics industries, providing cable and thermocouple solutions that meet, exceed, and set new standards in the flexible cable market. In addition to flexible cable products, we offer an extensive inventory of high-quality cable accessories, including cord grips, grounding glands and other accessories that complement our flexible control and automation cables.

Whatever the need may be, look to SAB North America for Special Cables that can, for example, help minimize maintenance costs and increase productivity, reduce downtime, and solve specific problems. Here is a small sample of some of the challenges that Special Cables from SAB North America can help address:

- Hybrid designs for multiple functions
- Harsh environments
- Difficult applications
- Industry-specific requirements



SAB can manufacture overmolded cable assemblies which provide better bend protection. The connection between the cable and connector significantly minimizes the risk of compression, crushing, tensile stress and even system failure even with long-term flexible use. These types of solutions are used in the following applications: tactical communication, food and beverage, medical, and environmental technology.

Overmolded assemblies can be manufactured with a variety of materials such as thermoplastics including PUR and TPE as well as silicone. Designs are customer-specific, considering the end user requirements - even in small quantities.

SAB's level of speed and service as a supplier is unmatched. SAB lives up to its name in not only flexible cable but also flexible manufacturing.



## SAB Advantage...We make it Easy

- Engineering & technical assistance
- Cut to length with no cut charges
- Prepaid freight within US for orders over \$2,500
- Specialty cable designs (1500 ft minimum)
- No minimum on orders from stock
- Free drop shipments (no surcharges)
- 24-hour shipments from stock
- Cord Grips for securing and grounding cables

## Production possibilities

### Flexible cables and wires “Made in Germany”

As a leading manufacturer we develop and produce cables for industrial purposes.

Our wide range of materials offer a lot of possibilities for your individual product requirement.

The following survey shows an extract of our production possibilities:

#### Conductor Materials:

- ✓ bare copper
- ✓ tinned copper
- ✓ silver plated copper
- ✓ nickel plated copper
- ✓ nickel
- ✓ nickel pure
- ✓ compensating cable alloys

#### Insulation and Jacketing Materials:

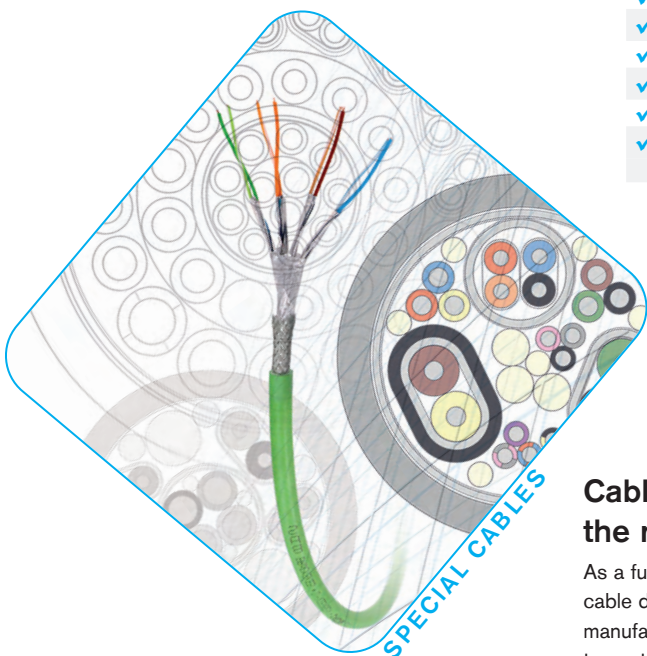
- ✓ PVC
- ✓ Polyethylene
- ✓ Polypropylene
- ✓ Polyurethane
- ✓ TPE
- ✓ SABIX® (zero halogen)
- ✓ Besilen® - Silicone
- ✓ FEP, ETFE, PFA, PTFE
- ✓ PI foil
- ✓ Fiberglass

#### Temperature Ranges:

- Thermoplastic Elastomers
- ✓ -50°C up to +145°C
- SABIX®
- ✓ -50°C up to +220°C
- Besilen® - Silicone
- ✓ -40°C up to +220°C
- FEP, ETFE, PFA
- ✓ -90°C up to +260°C
- Fiberglass
- ✓ up to +600°C

#### Conductors:

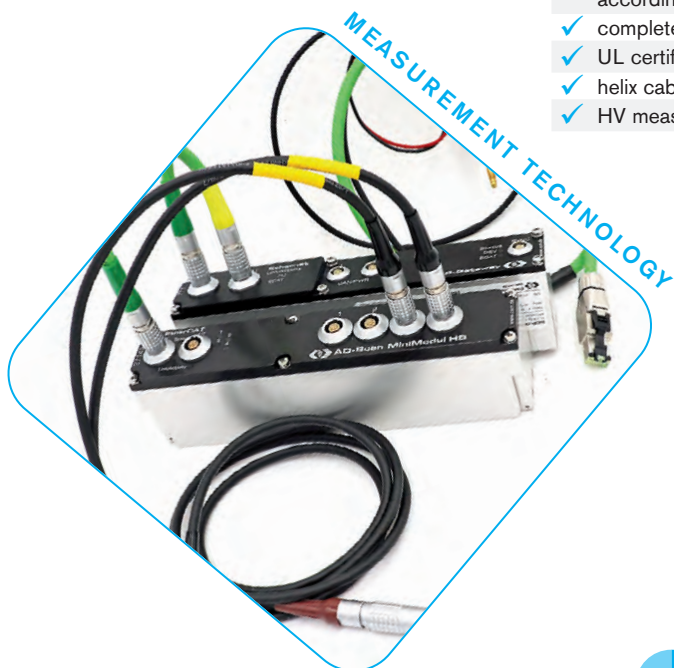
- ✓ cross sections 0.055 - 300 mm<sup>2</sup>
- ✓ unshielded and shielded over 100 conductors



### Cable assemblies directly from the manufacturer SAB:

As a full service partner, we are able to offer cable design and production as well as the manufacturing of cable assemblies according to customer's request. Please trust on our experience for decades in the treatment of cables and connectors.

- ✓ cable assemblies according to customer's demands
- ✓ complete cable assemblies
- ✓ UL certified assemblies
- ✓ helix cables
- ✓ HV measuring assemblies



### Measuring technology for industrial applications

Manufacturer of temperature sensors for industrial applications with 75 years of experience!

- ✓ mineral insulated thermocouples
- ✓ mineral insulated resistance thermometers
- ✓ temperature sensors
- ✓ mobile high voltage measuring technology
- ✓ temperature sensors for vehicle testing

# Overmolded Ethernet Assemblies

## CATLine CAT 6A S - IE connection cable

Industrial Ethernet cable, suitable for cable tracks,  
with molded M12 connector and mounted RJ45 connector



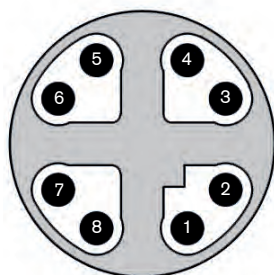
**Application:** CAT 6 A S Industrial Ethernet connection cable for continuous flex applications in cable tracks.

### Technical Data:

<b>Temperature range:</b>	-40°C to +70°C
<b>Voltage:</b>	48 V
<b>Protection class:</b>	IP67 (M12, in stretched condition), IP20 (RJ45)
<b>Connection side 1:</b>	M12 X-coded, male connector, straight, molded with vibration seal
<b>Connection side 2:</b>	RJ45 connector, mounted, CAT. 6A, 8-pole with cable gland
<b>Marking:</b>	yellow marking tube with marking: item number - order number - length - certification mark

### Cable characteristics:

<b>SAB item no.:</b>	L1677-4631
<b>Dimension:</b>	4 x 2 x 26 AWG
<b>Conductor:</b>	bare copper strands, fine wires
<b>Insulation:</b>	special polymer
<b>Shielding:</b>	alu foil and tinned copper braiding
<b>Outer jacket:</b>	PUR, green (similar RAL 6018)
<b>Outer diameter:</b>	approx. 7.1 mm
<b>Approvals:</b>	UL/CSA
<b>Oil resistance:</b>	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Min. bending radius</b>	
<i>free movement:</i>	5 x O.D.
<i>continuously flexible:</i>	15 x O.D.



connection diagram		
side 1	TIA 568-B	side 2
M12 connector	conductor	M12 connector
pin 1	white-orange	pin 1
pin 2	orange	pin 2
pin 3	white-green	pin 3
pin 4	green	pin 4
pin 5	white-brown	pin 5
pin 6	brown	pin 6
pin 7	white-blue	pin 7
pin 8	blue	pin 8
housing	shield	housing

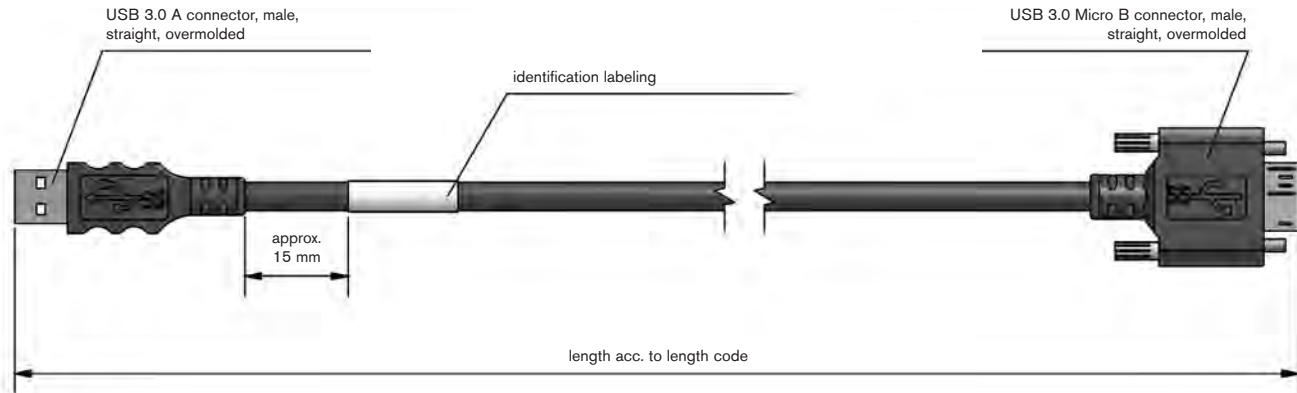
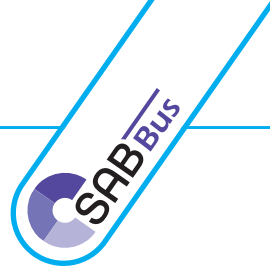


item no. with length code	
length	item no.:
0.5 m	S1677-4027-00050
1.0 m	S1677-4027-00100
2.0 m	S1677-4027-00200
3.0 m	S1677-4027-00300
5.0 m	S1677-4027-00500
7.5 m	S1677-4027-00750
10.0 m	S1677-4027-01000
15.0 m	S1677-4027-01500
20.0 m	S1677-4027-02000
25.0 m	S1677-4027-02500

# Overmolded USB Assemblies

## USB 3.0 Cable

with USB A and USB Micro B connector, overmolded



**Application:** USB 3.0 connection cable for PC's and 3D cameras, suitable for continuous flex applications and cable track.

### Technical Data:

Temperature range:	-30°C to +80°C
Voltage range:	max. 350 V
Connection side 1:	USB 3.0 A connector, male, straight
Connection side 2:	USB 3.0 Micro B connector, male, straight

### Cable characteristics:

SAB item no.:	L0604-9004
Dimension:	3x(2x30 AWG)ST + 2 x 24 AWG
Conductor:	silver-plated or tinned copper strands, fine wires
Insulation:	SABIX®
Shielding:	alu foil with drain wire as well as tinned copper braiding
Outer jacket:	PUR, black (similar RAL 9005)
Outer diameter:	approx. 6.4 mm

### Outstanding Features:



- mechanically very rugged
- PUR cable suitable for cable tracks

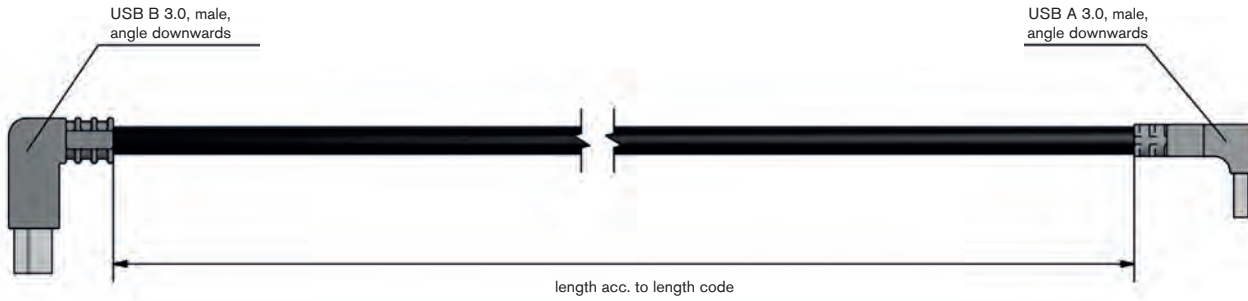
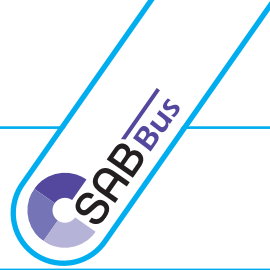
item no. with length code	
length	item no.:
0.24 m	S0604-4004-00024
0.5 m	S0604-4004-00050
1.0 m	S0604-4004-00100
2.0 m	S0604-4004-00200
3.0 m	S0604-4004-00300
5.0 m	S0604-4004-00500
7.5 m	S0604-4004-00750
10.0 m	S0604-4004-01000
15.0 m	S0604-4004-01500
20.0 m	S0604-4004-02000
25.0 m	S0604-4004-02500



# Overmolded USB Assemblies

## USB 3.0 Cable

with USB A and USB B connector, overmolded (angle downwards)



### Technical Data:

Temperature range:	-30°C to +80°C
Voltage range:	0 – 5 V
Connection side 1:	USB-B connector, angled male
Connection side 2:	USB-A connector, angled male

### Cable characteristics:

SAB item no.:	L0604-9004
Dimension:	3x(2x30 AWG)ST + 2 x 24 AWG
Conductor:	silver-plated or tinned copper strands, fine wires
Insulation:	SABIX®
Shielding:	alu foil with drain wire as well as tinned copper braiding
Outer jacket:	PUR, black (similar RAL 9005)
Outer diameter:	approx. 6.4 mm

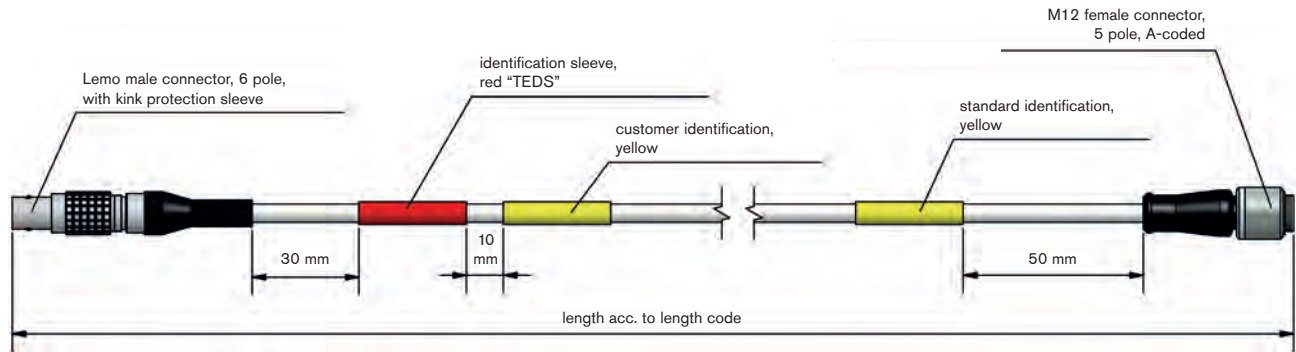
item no. with length code	
length	item no.:
0.24 m	S3600-4103-00024
0.5 m	S3600-4103-00050
1.0 m	S3600-4103-00100
2.0 m	S3600-4103-00200
3.0 m	S3600-4103-00300
5.0 m	S3600-4103-00500
7.5 m	S3600-4103-00750
10.0 m	S3600-4103-01000
15.0 m	S3600-4103-01500
20.0 m	S3600-4103-02000
25.0 m	S3600-4103-02500



# Overmolded Data Assemblies

## Data Cable

with 6 pole male connector and M12 female connector



### Technical Data:

Temperature range:	-40°C to +80°C
Voltage range:	0 – 60 V
Connection side 1:	M12 female connector, 5 pole, overmolded
Connection side 2:	Lemo male connector, 6 pole

### Cable characteristics:

SAB item no.:	L3833-0522
Dimension:	5 x AWG 22/7
Conductor:	tinned copper strands, fine wires
Insulation:	FEP
Shielding:	tinned copper braiding
Outer jacket:	FEP, white (similar RAL 1013)
Outer diameter:	approx. 4.2 mm

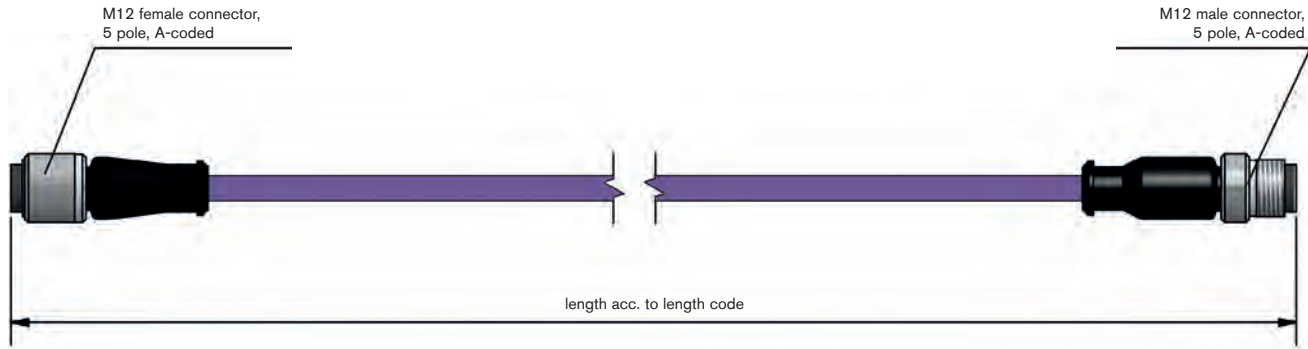
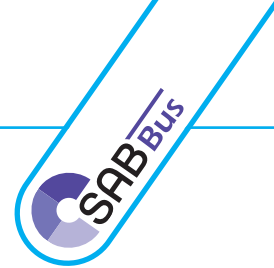
item no. with length code	
length	item no.:
0.5 m	S3833-4284-00050
1.0 m	S3833-4284-00100
2.0 m	S3833-4284-00200
3.0 m	S3833-4284-00300
5.0 m	S3833-4284-00500
7.5 m	S3833-4284-00750
10.0 m	S3833-4284-01000
15.0 m	S3833-4284-01500
20.0 m	S3833-4284-02000
25.0 m	S3833-4284-02500

connection diagram/pin assignment			
Lemo male connector	conductor		M12 female connector
pin 1	yellow		pin 4
pin 2	green		pin 3
pin 3	grey		pin 5
pin 4	white		pin 2
pin 5	brown		pin 3
pin 6	---		pin 1
housing	shield		housing

# Overmolded DeviceNet Assemblies

## DeviceNet™ Cable

with 5 pole M12 female connector and M12 male connector











### Technical Data:

Temperature range:	-40°C to +90°C
Voltage range:	max. 350 V
Connection side 1:	M12 female connector, 5 pole, A-coded
Connection side 2:	M12 male connector, 5 pole, A-coded

### Cable characteristics:

SAB item no.:	L0656-9004
Dimension:	2 x 0.34 mm <sup>2</sup> + 2 x 0.34 mm <sup>2</sup>
Conductor:	bare copper strands, fine wires
Insulation:	FEP
Shielding:	tinned copper braiding
Outer jacket:	PUR, redlilac (similar RAL 4001)
Outer diameter:	approx. 7.5 mm

item no. with length code	
length	item no.:
0.5 m	S0656-4003-00050
1.0 m	S0656-4003-00100
2.0 m	S0656-4003-00200
3.0 m	S0656-4003-00300
5.0 m	S0656-4003-00500
7.5 m	S0656-4003-00750
10.0 m	S0656-4003-01000
15.0 m	S0656-4003-01500
20.0 m	S0656-4003-02000
25.0 m	S0656-4003-02500

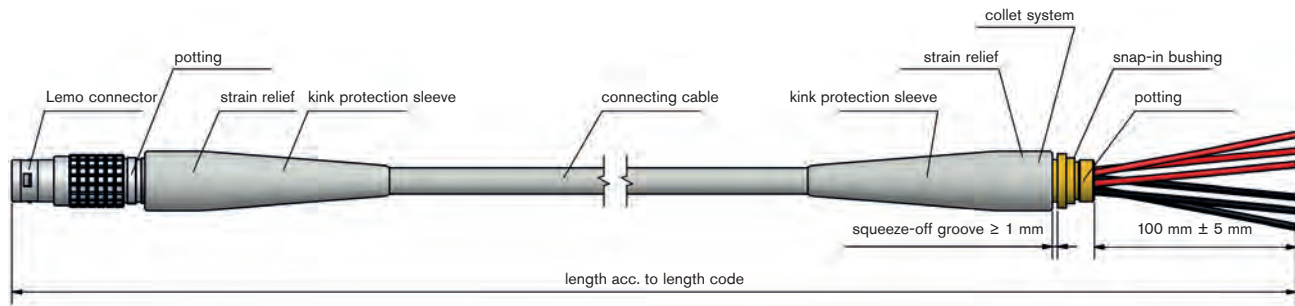
connection diagram/pin assignment		
M12 female connector	conductor	M12 male connector
pin 1	drain wire	pin 4
pin 2	 red 	pin 3
pin 3	 black 	pin 5
pin 4	 white 	pin 2
pin 5	 blue 	pin 3
housing	shield	housing



# Overmolded Medical Assemblies

## SABmed S-cable

with connector and silicone overmolded kink protection sleeve, 4 m



### Technical Data:

Temperature range:	-25°C to +180°C
Voltage range:	0 – 12 V
Connection side 1:	Lemo male connector, 6 pole, overmolded
Connection side 2:	mounted snap-in bushing, overmolded

### Cable characteristics:

SAB item no.:	L3900-0032
Dimension:	6 x 1.0 mm <sup>2</sup>
Conductor:	silver-plated copper strands, fine wires
Insulation:	FEP
Shielding:	tinned copper braiding
Outer jacket:	Smed S, grey (similar RAL 7004)
Outer diameter:	approx. 7.5 mm

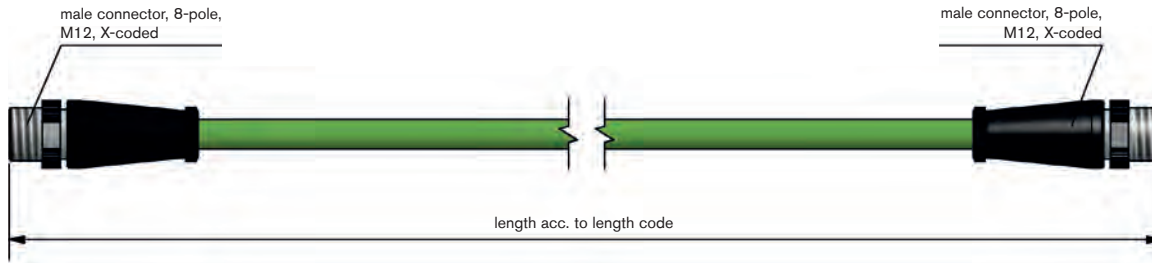
item no. with length code	
length	item no.:
0.5 m	S3600-4103-00050
1.0 m	S3600-4103-00100
2.0 m	S3600-4103-00200
3.0 m	S3600-4103-00300
5.0 m	S3600-4103-00500
7.5 m	S3600-4103-00750
10.0 m	S3600-4103-01000
15.0 m	S3600-4103-01500
20.0 m	S3600-4103-02000
25.0 m	S3600-4103-02500

connection diagram/pin assignment	
connector	conductor
pin 1	black
pin 2	red
pin 3	red
pin 4	black
pin 5	white
housing	shield

# Overmolded Ethernet Assemblies

## CATLine CAT 6A S - IE connection cable

Industrial Ethernet cable, suitable for cable tracks,  
with molded M12 male connector assembly at both sides



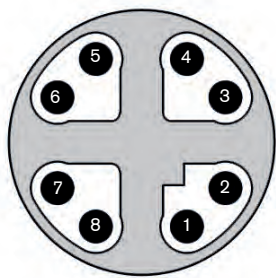
**Application:** Industrial Ethernet connection cable for continuous flex applications in cable track

### Technical Data:

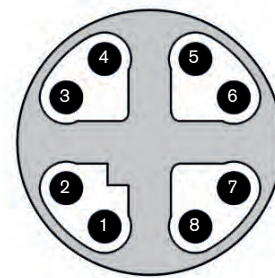
<b>Temperature range:</b>	-40 °C to +19 °C
<b>Voltage range:</b>	max. 90 V
<b>Connection side 1:</b>	male connector, 8-pole, M12, X-coded
<b>Connection side 2:</b>	male connector, 8-pole, M12, X-coded

### Cable characteristics:

<b>SAB item no.:</b>	L1677-4631
<b>Dimension:</b>	4 x 2 x 26 AWG
<b>Conductor:</b>	bare copper strands, fine wires
<b>Insulation:</b>	special polymer
<b>Shielding:</b>	alu foil and tinned copper braiding
<b>Outer jacket:</b>	PUR, green (similar RAL 6018)
<b>Outer diameter:</b>	approx. 7.1 mm
<b>Approvals:</b>	UL/CSA
<b>Oil resistance:</b>	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
<b>Min. bending radius</b>	
<i>free movement:</i>	10 x O.D.
<i>continuously flexible:</i>	15 x O.D.



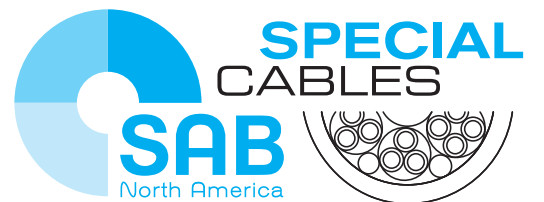
connection diagram		
side 1	1:1	side 2
M12 connector	conductor	M12 connector
pin 1	white-orange	pin 1
pin 2	orange	pin 2
pin 3	white-green	pin 3
pin 4	green	pin 4
pin 5	white-brown	pin 5
pin 6	brown	pin 6
pin 7	white-blue	pin 7
pin 8	blue	pin 8
housing	shield	housing



item no. with length code	
length	item no.:
0.5 m	S1677-4020-00050
1.0 m	S1677-4020-00100
2.0 m	S1677-4020-00200
3.0 m	S1677-4020-00300
5.0 m	S1677-4020-00500
7.5 m	S1677-4020-00750
10.0 m	S1677-4020-01000
15.0 m	S1677-4020-01500
20.0 m	S1677-4020-02000
25.0 m	S1677-4020-02500



August 2024



344 Kaplan Drive  
Fairfield, NJ 07004  
Toll Free: 866-722-2974  
[www.sabcable.com](http://www.sabcable.com)  
[info@sabcable.com](mailto:info@sabcable.com)