MURR ELEKTRONIK

stay connected

BULK CABLES

by Murrelektronik

- Sensor/actuator cables
  - Unshielded
  - Shielded
- Fieldbus cables
- Accessory

STANDARD CABLE TYPES IN 3 COLORS

Any combination is possible! Contact us for a individual quote...

MURRELEKTRONIK'S BULK CABLES

Murrelektronik has a wide variety of sensor and actuator cables on drums in lengths from 100 m to 500 m which are all available immediately. Murrelektronik's ongoing relationship with many premium cable manufacturers worldwide ensures that you will receive a quality product at a fair price. You can choose from different jacket materials, colors, a cross sections and you will always get the right cable for your application.

You need a cable with UL/CSA approval? No problem! You can find many UL approved cables in our range. You can find field-wireable connectors for these cables in our online shop.

Ordering system

Create your article number in 3 easy steps:

1 Type of drum — **05**

Choose a drum:

- **large drum (up to 500 m)**

2 Cable length — **03**

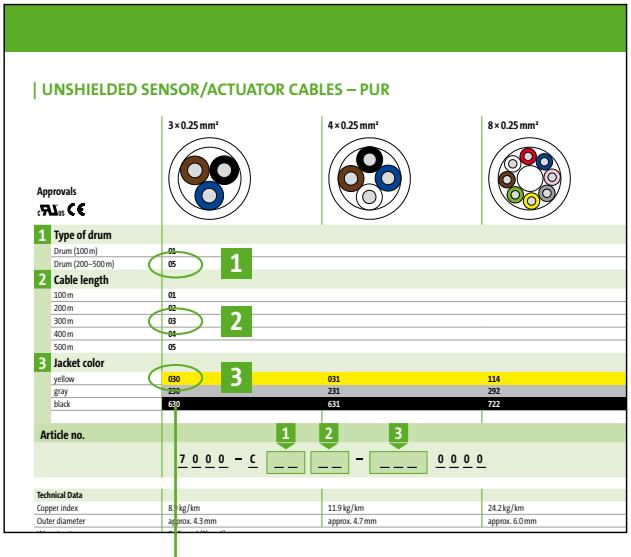
Choose a cable length:

- **300 m cable**

3 Jacket color — **010**

Choose a jacket color:

- **Yellow**



Your article number

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| STANDARD CABLE TYPES

Murrelektronik has an extensive variety of cables for your application:

- **5 standardized cable types for your application solution** – you can definitely find the right cable!
- **3 cable colors (Yellow, Gray and Black)** – individually designed to meet your requirements
- **Meets the highest quality requirements** – certified, application approved and successfully tested with many aggressive media (oil and lubricants)

For ordinary environments

PVC

Applications

Suitable for medium mechanical demands like packaging machines, assembly and production lines.

Also ideal for limited-motion applications, which means they are suitable for open, non-recurring movements without tensile stress or mechanical feeds (not suitable for C-tracks).

Features

- outer jacket is easy to strip off
- high chemical resistance
- limited resistance to oil and lubricants
- cost-effective
- cable with UL approval

For rugged environments

PUR/PVC

Applications

Flexible control line for higher mechanical demands inside or outside; used in handling and packaging machines, assembly lines as well as production lines.

C-track data robot data

Bending radius for flexible applications: min. 10 × cable Ø

Movement speed: max. 3.3 m/s
(stroke length 5 m, acceleration 5 m/s²)

Number of bending cycles: max. 2 M

Features

- outer jacket is easy to strip off
- high chemical resistance
- high resistance to temporary contact with oil and lubricants
- high resistance to abrasion
- UV resistant
- cable with UL approval

For demanding areas

PUR-UL/CSA

Applications

Continually flexible control line for use in extremely demanding areas like machine tools, swivel tables and metal cutting. If the cable is installed properly, it is ideal for C-tracks.

C-track data robot data

Bending radius for flexible applications: min. 10 × cable Ø

Movement speed: max. 3.3 m/s
(stroke length 5 m, acceleration 5 m/s²)

Number of bending cycles: max. 5 M

Torsion: ± 180 °/m

Features

- suitable for C-tracks, halogen-free, silicone- and PVC-free
- highly resistant to oil, lubricants, coolants, many chemicals as well as other aggressive media
- Flame retardant acc. to VDE 0472
- withstands high mechanical demands, high resistance to abrasion
- hydrolysis and UV-resistant
- cable with UL approval

For extreme applications

PUR
welding spark resistant

Applications

Continually flexible control line for extremely demanding areas like robotics, special welding robots, high-speed C-tracks, machine tools, assembly lines and metal cutting.

C-track data robot data

Bending radius for flexible applications: min. 10 × cable Ø

Movement speed: max. 3.3 m/s
(stroke length 5 m, acceleration 5 m/s²)

Number of bending cycles: max. 10 M

Torsion: ± 360 °/m

Features

All the PUR qualities listed above, including:

- high temperature resistance
- welding spark resistant
- suitable for robots
- cable with UL approval

North American Market

TPE

Applications

UL-listed approved flexible control cable for machine wiring according to NFPA 79 and for installation in cable racks according to NEC (NFPA70).

C-track data robot data

Bending radius for flexible applications: min. 10 × cable Ø

Movement speed: max. 3.3 m/s
(stroke length 5 m, acceleration 5 m/s²)

Number of bending cycles: max. 2 M

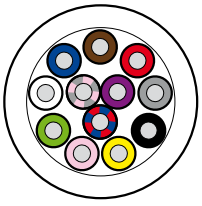
Torsion: ± 180 °/m

Features

- high flame resistance CSA FT4
- UL-listed approved cable
- meets requirement of NEPA79/NEC (NFPA70)
- highly flexible
- welding spark resistant

| UNSHIELDED SENSOR/ACTUATOR CABLES – PVC

12 × 0.14 mm²



Approvals

1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Gray	**209**
	Black	**609**

Article no.

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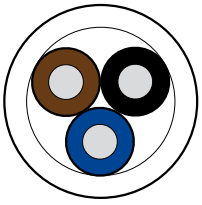
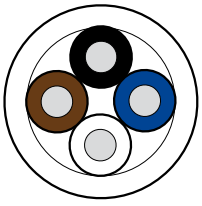
Technical Data	
Copper index	20.3 kg/km
Outer diameter	approx. 6.0 mm
Wire structure	0.14 mm² (Class 5)
Wire insulation	PVC
Outer jacket	PVC
Resistance	high resistance to oil and chemicals
	silicone-free, cadmium-free, lead-free, CFC-free, flame retardant
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–5 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø

UNSHIELDED SENSOR/ACTUATOR CABLES – PVC

	3 × 0.25 mm²	4 × 0.25 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Yellow	**010**	**011**
Gray	**210**	**211**
Black	**610**	**611**

Article no.

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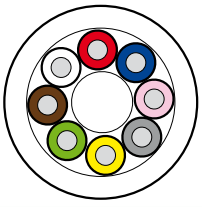
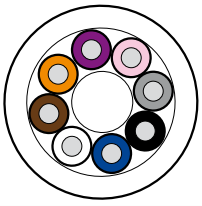
Technical Data		
Copper index	9.1 kg/km	12.1 kg/km
Outer diameter	approx. 4.5 mm	approx. 4.8 mm
Wire structure	0.25 mm² (Class 5)	
Wire insulation	PVC	
Outer jacket	PVC	
Resistance	high resistance to oil and chemicals	
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free	
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–30 ... +80°C	
Flexible installation	–5 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	

| UNSHIELDED SENSOR/ACTUATOR CABLES – PVC

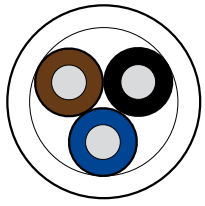
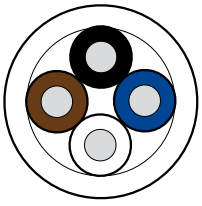
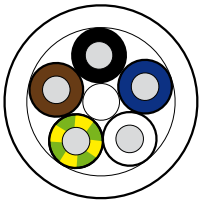
	8 × 0.25 mm²	8 × 0.25 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Gray	**207**	**208**
Black	**607**	**608**

Article no.

7000 – C	1 __	2 __	3 – __ __ __	0000

Technical Data	
Copper index	24.2 kg/km
Outer diameter	approx. 6.0 mm
Wire structure	0.25 mm² (Class 5)
Wire insulation	PVC
Outer jacket	PVC
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–5 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø

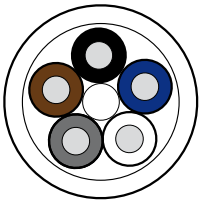
UNSHIELDED SENSOR/ACTUATOR CABLES – PVC

	3 × 0.34 mm²	4 × 0.34 mm²	5 × 0.34 mm²
Approvals			
1 Type of drum			
Drum (100 m)	01		
Drum (200–500 m)	05		
2 Cable length			
100 m	01		
200 m	02		
300 m	03		
400 m	04		
500 m	05		
3 Jacket color			
Yellow	013	014	015
Gray	213	214	215
Black	613	614	615
Article no.	7000 – C [1] [2] – [3] 0000		

Technical Data			
Copper index	12.0 kg/km	16.0 kg/km	20.0 kg/km
Outer diameter	approx. 4.6 mm	approx. 5.0 mm	approx. 5.2 mm
Wire structure	0.34 mm² (Class 5)		
Wire insulation	PVC		
Outer jacket	PVC		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free		
Electrical data			
Nominal voltage	300 V		
Test voltage	2000 V		
Temperature range			
Fixed installation	–30 ... +80°C		
Flexible installation	–5 ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		

| UNSHIELDED SENSOR/ACTUATOR CABLES – PVC

5 × 0.34 mm²



Approvals

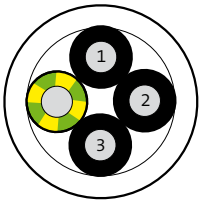
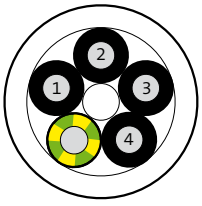
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Gray	**219**
	Black	**619**

Article no.

1	2	3	
7000 – C	__	__ –	___ 0000

Technical Data	
Copper index	20.0 kg/km
Outer diameter	approx. 5.2 mm
Wire structure	0.34 mm² (Class 5)
Wire insulation	PVC
Outer jacket	PVC
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–5 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø

UNSHIELDED SENSOR/ACTUATOR CABLES – PVC

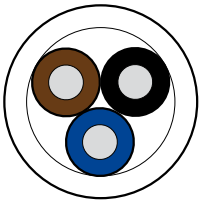
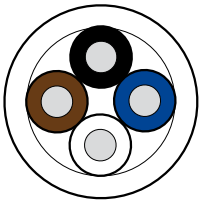
	3 × 0.75 mm²	4 × 0.75 mm²	5 × 0.75 mm²
Approvals CE			
1 Type of drum			
Drum (100 m)	**01**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Yellow	**016**	**017**	**018**
Gray	**216**	**217**	**218**
Black	**616**	**617**	**618**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data			
Copper index	26.1 kg/km	35.1 kg/km	43.6 kg/km
Outer diameter	approx. 5.9 mm	approx. 6.5 mm	approx. 7.0 mm
Wire structure	0.75 mm² (Class 5)		
Wire insulation	PVC		
Outer jacket	PVC		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, CFC-free		
Electrical data			
Nominal voltage	300 V		
Test voltage	3000 V		
Temperature range			
Fixed installation	–30 ... +70°C		
Flexible installation	–5 ... +70°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR/PVC

	3 × 0.25 mm²	4 × 0.25 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Yellow	**020**	**021**
Gray	**220**	**221**
Black	**620**	**621**

Article no.

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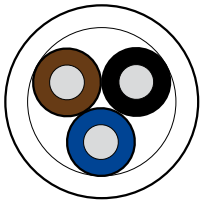
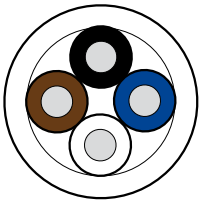
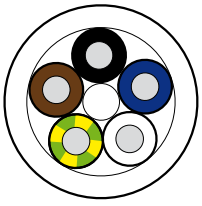
Technical Data		
Copper index	9.1 kg/km	12.1 kg/km
Outer diameter	approx. 4.5 mm	approx. 4.8 mm
Wire structure	0.25 mm² (Class 6)	
Wire insulation	PVC	
Outer jacket	PUR/PVC	
Resistance	limited resistance to oil and very high resistance to chemicals	
	silicone-free, cadmium-free, lead-free, CFC-free	
	resistant to microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–30 ... +80°C	
Flexible installation	–5 ... +80°C	
Bend radius		
Fixed installation	10 × outer Ø	
Flexible installation	15 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 2 M	

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR/PVC

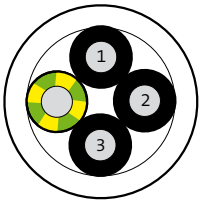
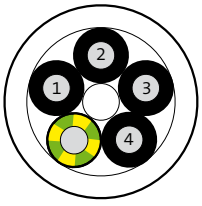
	3 × 0.34 mm²	4 × 0.34 mm²	5 × 0.34 mm²
Approvals			
1 Type of drum			
Drum (100 m)	01		
Drum (200–500 m)	05		
2 Cable length			
100 m	01		
200 m	02		
300 m	03		
400 m	04		
500 m	05		
3 Jacket color			
Yellow	023	024	025
Gray	223	224	225
Black	623	624	625

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data			
Copper index	12.7 kg/km	16.9 kg/km	21.2 kg/km
Outer diameter	approx. 4.9 mm	approx. 5.2 mm	approx. 5.9 mm
Wire structure	0.34 mm² (Class 6)		
Wire insulation	PVC		
Outer jacket	PUR/PVC		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, CFC-free		
	resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2000 V		
Temperature range			
Fixed installation	–30 ... +80°C		
Flexible installation	–5 ... +80°C		
Bend radius			
Fixed installation	10 × outer Ø		
Flexible installation	15 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 2 M		

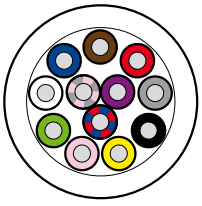
| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR/PVC

	3 × 0.75 mm²	4 × 0.75 mm²	5 × 0.75 mm²
Approvals			
			
1 Type of drum			
Drum (100 m)	01		
Drum (200–500 m)	05		
2 Cable length			
100 m	01		
200 m	02		
300 m	03		
400 m	04		
500 m	05		
3 Jacket color			
Yellow	026	027	028
Gray	226	227	228
Black	626	627	628
Article no.	7000 – C [1] [2] – [3] 0000		

Technical Data			
Copper index	26.7 kg/km	35.1 kg/km	43.6 kg/km
Outer diameter	approx. 5.9 mm	approx. 6.5 mm (cable 227: approx. 7.0 mm)	approx. 7.0 mm
Wire structure	0.75 mm² (Class 6)		
Wire insulation	PVC		
Outer jacket	PUR/PVC		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, CFC-free		
	resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2000 V		
Temperature range			
Fixed installation	–30 ... +80°C		
Flexible installation	–5 ... +80°C		
Bend radius			
Fixed installation	10 × outer Ø		
Flexible installation	15 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 2 M		

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

12 × 0.14 mm²



Approvals

cULus CE

1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**705**

Article no.

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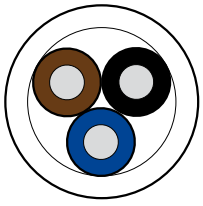
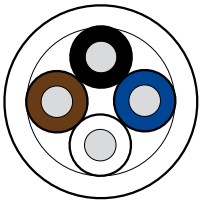
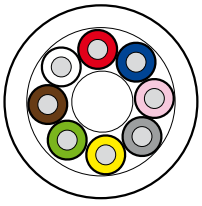
Technical Data	
Copper index	19.6 kg/km
Outer diameter	approx. 6.0 mm
Wire structure	0.14 mm² (Class 6)
Wire insulation	TPM/PP
Outer jacket	PUR
Resistance	limited resistance to oil and very high resistance to chemicals
	cadmium-free, lead-free, CFC-free, halogen-free, flame retardant
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	1500 V
Temperature range	
Fixed installation	–40 ... +85°C
Flexible installation	–25 ... +85°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 2 M
Robot data	
Torsion	± 180°/m

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

	3 × 0.25 mm²	4 × 0.25 mm²	8 × 0.25 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**01**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Yellow	**030**	**031**	**114**
Gray	**230**	**231**	**292**
Black	**630**	**631**	**722**

Article no.

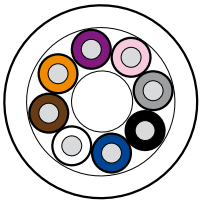
7 0 0 0 – C [1] [2] – [3] 0 0 0 0

Technical Data			
Copper index	8.9 kg/km	11.9 kg/km	24.2 kg/km
Outer diameter	approx. 4.3 mm	approx. 4.7 mm	approx. 6.0 mm
Wire structure	0.25 mm² (Class 6)		
Wire insulation	PP		
Outer jacket	PUR		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free		
	resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2500 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–25 ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 5 M		
Robot data			
Torsion	± 180°/m (max. 2 M cycles)		

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

Approvals

8 × 0.25 mm²



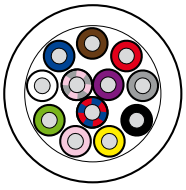
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Gray	**295**

Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

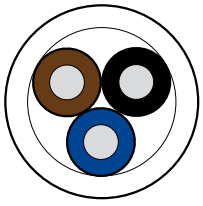
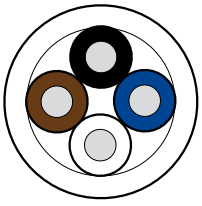
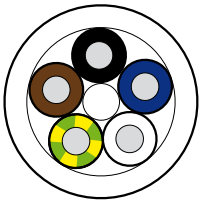
Technical Data	
Copper index	23.2 kg/km
Outer diameter	approx. 6.0 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

	12 × 0.25 mm²
Approvals	
1 Type of drum	
Drum (100 m)	**01**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Gray	**301**
Article no.	7000 – C [1] [2] – [3] 0000

Technical Data	
Copper index	34.8 kg/km
Outer diameter	approx. 6.9 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	1500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–20 ... +80°C
Bend radius	
Fixed installation	10 × outer Ø
Flexible installation	15 × outer Ø
C-track data	
Movement speed	max. 2 m/s (stroke length 5 m, acceleration 10 m/s²)
Number of bending cycles	max. 3 M

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

	3 × 0.34 mm²	4 × 0.34 mm²	5 × 0.34 mm²
Approvals			
1 Type of drum			
Drum (100 m)	01		
Drum (200–500 m)	05		
2 Cable length			
100 m	01		
200 m	02		
300 m	03		
400 m	04		
500 m	05		
3 Jacket color			
Yellow	033	034	035
Gray	233	234	235
Black	633	634	635

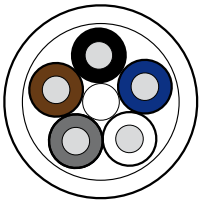
Article no.

7000	–	C	1	2	–	3	0000
			__	__		___	

Technical Data			
Copper index	12.2 kg/km	16.3 kg/km	20.4 kg/km
Outer diameter	approx. 4.3 mm	approx. 4.7 mm	approx. 5.0 mm
Wire structure	0.34 mm² (Class 6)		
Wire insulation	PP		
Outer jacket	PUR		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free		
	resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2500 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–25 ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 5 M		
Robot data			
Torsion	± 180°/m (max. 2 M cycles)		

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

5 × 0.34 mm²



Approvals

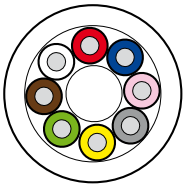
1 Type of drum	
Drum (100 m)	**01**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Yellow	**126**
Gray	**354**
Black	**732**

Article no.

1	2		3	
7000 – C	__	__	–	___ 0000

Technical Data	
Copper index	20.5 kg/km
Outer diameter	approx. 5.0 mm
Wire structure	0.34 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, CFC-free, halogen-free, flame retardant
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

	8 × 0.34 mm²
Approvals	

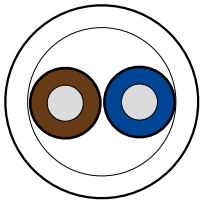
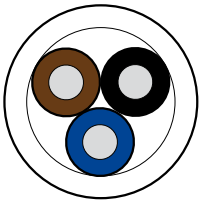
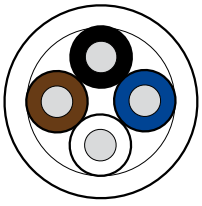
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Gray	**376**

Article no.

1	2		3	
7000 – C	__	__	–	___ 0000

Technical Data	
Copper index	35.2 kg/km
Outer diameter	approx. 6.2 mm
Wire structure	0.34 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

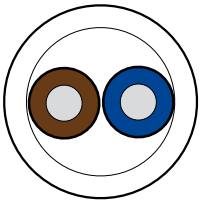
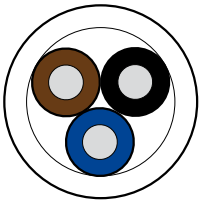
	2 × 0.5 mm²	3 × 0.5 mm²	4 × 0.5 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**01**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Gray	**414**	**428**	
Black			**737**

Article no.

7	0	0	0	–	C	1	2	–	3			0	0	0	0
						_	_		_	_	_				

Technical Data			
Copper index	12.2 kg/km	17.4 kg/km	24.6 kg/km
Outer diameter	approx. 4.4 mm	approx. 4.6 mm	approx. 4.9 mm
Wire structure	0.5 mm² (Class 6)	0.5 mm² (Class 5)	0.5 mm² (Class 6)
Wire insulation	PP		
Outer jacket	PUR		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free		
	resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2500 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–25 ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 5 M		
Robot data			
Torsion	± 180°/m (max. 2 M cycles)		

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

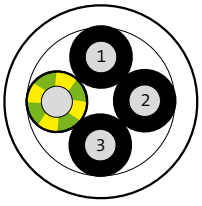
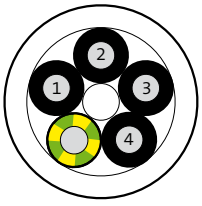
	2 × 0.75 mm²	3 × 0.75 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Yellow	**145**	
Black	**754**	**564**

Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

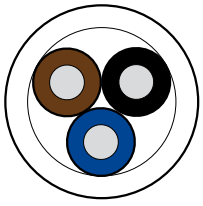
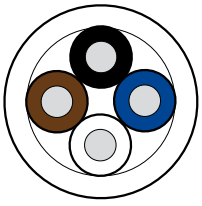
Technical Data		
Copper index	17.4 kg/km	26.5 kg/km
Outer diameter	approx. 5.0 mm	approx. 5.9 mm
Wire structure	0.75 mm² (Class 6)	
Wire insulation	PP	
Outer jacket	PUR	
Resistance	limited resistance to oil and very high resistance to chemicals	
	silicone-free, cadmium-free, lead-free, CFC-free, halogen-free, flame retardant	
	resistant to microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2500 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 5 M	
Robot data		
Torsion	± 180°/m (max. 2 M cycles)	

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR

	3 × 0.75 mm²	4 × 0.75 mm²	5 × 0.75 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**01**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Yellow	**036**	**037**	**038**
Gray	**236**	**237**	**238**
Black	**636**	**637**	**638**
Article no.	7 0 0 0 – C [1] [2] – [3] 0 0 0 0		

Technical Data			
Copper index	26.1 kg/km	34.8 kg/km	43.6 kg/km
Outer diameter	approx. 5.9 mm	approx. 6.5 mm	approx. 7.0 mm
Wire structure	0.75 mm² (Class 6)		
Wire insulation	PP		
Outer jacket	PUR		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free		
	resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2500 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–25 ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 5 M		
Robot data			
Torsion	± 180°/m (max. 2 M cycles)		

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

	3 × 0.25 mm²	4 × 0.25 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Yellow	**050**	**051**
Gray	**250**	**251**
Black	**650**	**651**

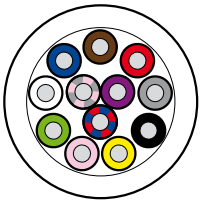
Article no.

1	2	3	
7000 – C	__	__ –	___ 0000

Technical Data		
Copper index	9.1 kg/km	12.1 kg/km
Outer diameter	approx. 4.3 mm	approx. 4.7 mm
Wire structure	0.25 mm² (Class 6)	
Wire insulation	PP	
Outer jacket	PUR welding spark resistant	
Resistance	limited resistance to oil and very high resistance to chemicals	
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free	
	resistant to welding sparks, microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2500 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 10 M	
Robot data		
Torsion	± 360°/m (max. 1 M cycles)	

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

12 × 0.25 mm²



Approvals

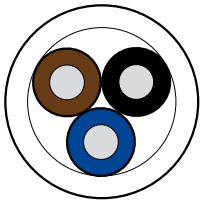
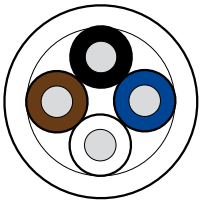
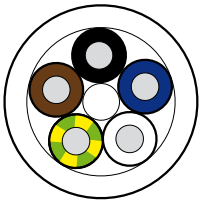
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Gray	**302**

Article no.

1	2		3								
7	0	0	0	–	C	_	_	_	_	–	_	_	_	0	0	0	0

Technical Data	
Copper index	36.5 kg/km
Outer diameter	approx. 6.9 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR welding spark resistant
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free
	resistant to welding sparks, microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 1 M cycles)

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

	3 × 0.34 mm²	4 × 0.34 mm²	5 × 0.34 mm²
Approvals			
1 Type of drum			
Drum (100 m)	01		
Drum (200–500 m)	05		
2 Cable length			
100 m	01		
200 m	02		
300 m	03		
400 m	04		
500 m	05		
3 Jacket color			
Yellow	053	054	055
Gray	253	254	255
Black	653	654	655

Article no.

7000 – C	1	2	–	3	0000
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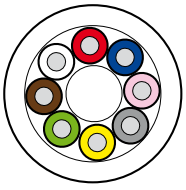
Technical Data			
Copper index	12.2 kg/km	16.3 kg/km	20.4 kg/km
Outer diameter	approx. 4.3 mm	approx. 4.7 mm	approx. 5.0 mm
Wire structure	0.34 mm² (Class 6)		
Wire insulation	PP		
Outer jacket	PUR welding spark resistant		
Resistance	limited resistance to oil and very high resistance to chemicals		
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free		
	resistant to welding sparks, microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	2500 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–25 ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 10 M		
Robot data			
Torsion	± 360°/m (max. 1 M cycles)		

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

Approvals

8 × 0.34 mm²



1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Gray	**377**

Article no.

7000 – C	1	2	–	3	0000
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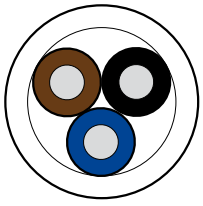
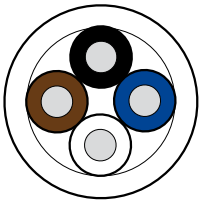
Technical Data	
Copper index	32.8 kg/km
Outer diameter	approx. 6.2 mm
Wire structure	0.34 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR welding spark resistant
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free
	resistant to welding sparks, microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 1 M cycles)

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

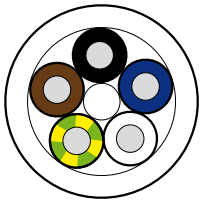
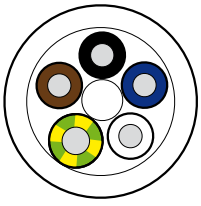
	3 × 0.34 mm²	4 × 0.34 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
orange	**845**	**846**

Article no.

1	2	3	
7000 – C	__	__ –	___ 0000

Technical Data		
Copper index	12.2 kg/km	16.3 kg/km
Outer diameter	approx. 4.3 mm	approx. 4.7 mm
Wire structure	0.34 mm² (Class 6)	
Wire insulation	PP	
Outer jacket	PUR welding spark resistant	
Resistance	limited resistance to oil and very high resistance to chemicals	
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free	
	resistant to welding sparks, microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2500 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 10 M	
Robot data		
Torsion	± 360°/m (max. 1 M cycles)	

| UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

	5 × 0.34 mm²	4 × 0.34 mm² + 1 × 0.5mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
orange	**847**	**852**

Article no.

7	0	0	0	–	C	1 __	2 __	–	3 ___	0	0	0	0

Technical Data		
Copper index	20.4 kg/km	22.4 kg/km
Outer diameter	approx. 5.0 mm	approx. 5.2 mm
Wire structure	0.34 mm² (Class 6)	
Wire insulation	PP	
Outer jacket	PUR welding spark resistant	
Resistance	limited resistance to oil and very high resistance to chemicals	
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free	
	resistant to welding sparks, microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2500 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 10 M	
Robot data		
Torsion	± 360°/m (max. 1 M cycles)	

UNSHIELDED SENSOR/ACTUATOR CABLES – PUR WELDING SPARK RESISTANT

Approvals

cULus CE

3 × 0.75 mm²

1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Yellow	**056**
	Gray	**256**
	Black	**656**

Article no.

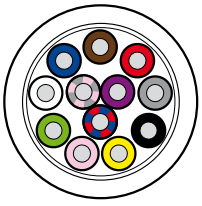
1	2		3	
7000 – C	__	__	–	___ 0000

Technical Data	
Copper index	26.1 kg/km
Outer diameter	approx. 5.2 mm
Wire structure	0.75 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR welding spark resistant
Resistance	limited resistance to oil and very high resistance to chemicals
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free
	resistant to welding sparks, microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 10 M
Robot data	
Torsion	± 360°/m (max. 1 M cycles)

| SHIELDED SENSOR/ACTUATOR CABLES – PVC

Approvals

12 × 0.14 mm²



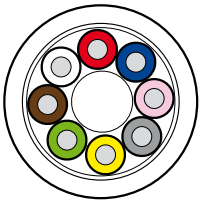
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**703**

Article no.

1	2	3	
7000 – C	__	__ –	___ 0000

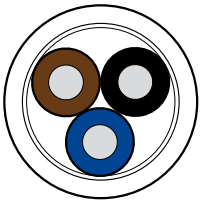
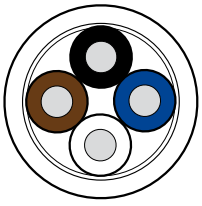
Technical Data	
Copper index	36.3 kg/km
Outer diameter	approx. 6.5 mm
Wire structure	0.14 mm² (Class 5)
Wire insulation	PVC
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece
Outer jacket	PVC
Resistance	limited resistance to oil and very high resistance to chemicals
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–5 ... +80°C
Bend radius	
Fixed installation	10 × outer Ø

SHIELDED SENSOR/ACTUATOR CABLES – PVC

	8 × 0.25 mm²	8 × 0.25 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Gray	**204**	**205**
Article no.	7000 – C [1] [2] – [3] 0000	

Technical Data	
Copper index	38.1 kg/km
Outer diameter	approx. 7.0 mm
Wire structure	0.25 mm² (Class 5)
Wire insulation	PVC
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece
Outer jacket	PVC
Resistance	limited resistance to oil and very high resistance to chemicals
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–5 ... +80°C
Bend radius	
Fixed installation	10 × outer Ø

| SHIELDED SENSOR/ACTUATOR CABLES – PVC

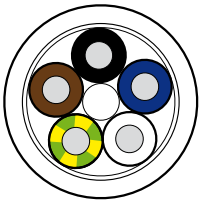
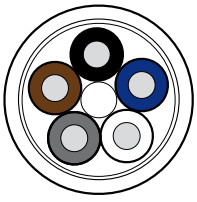
	3 × 0.34 mm²	4 × 0.34 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Gray	**200**	**201**
Black	**600**	**601**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data		
Copper index	28.1 kg/km	32.5 kg/km
Outer diameter	approx. 5.0 mm	approx. 5.3 mm
Wire structure	0.34 mm² (Class 5)	
Wire insulation	PVC	
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece	
Outer jacket	PVC	
Resistance	limited resistance to oil and very high resistance to chemicals	
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant	
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–30 ... +80°C	
Flexible installation	–5 ... +80°C	
Bend radius		
Fixed installation	10 × outer Ø	

SHIELDED SENSOR/ACTUATOR CABLES – PVC

	5 × 0.34 mm²	5 × 0.34 mm²
Approvals		
1 Type of drum		
Drum (100 m)	02	
Drum (200–500 m)	05	
2 Cable length		
100 m	01	
200 m	02	
300 m	03	
400 m	04	
500 m	05	
3 Jacket color		
Gray	202	203
Black	602	603

Article no.

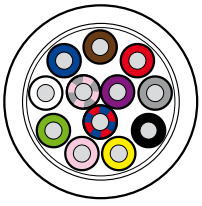
7 0 0 0 – C [1] [2] – [3] 0 0 0 0

Technical Data	
Copper index	38.2 kg/km
Outer diameter	approx. 5.6 mm
Wire structure	0.34 mm² (Class 5)
Wire insulation	PVC
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece
Outer jacket	PVC
Resistance	limited resistance to oil and very high resistance to chemicals
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–5 ... +80°C
Bend radius	
Fixed installation	10 × outer Ø

| SHIELDED SENSOR/ACTUATOR CABLES – PUR

Approvals

12 × 0.14 mm²



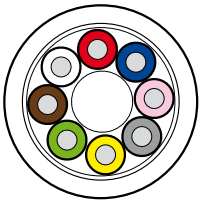
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**706**

Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

Technical Data	
Copper index	38.7 kg/km
Outer diameter	approx. 6.5 mm
Wire structure	0.14 mm² (Class 6)
Wire insulation	PP
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece
Outer jacket	PUR
Resistance	high resistance to oil and very high resistance to chemicals
	CFC-free, silicone-free, cadmium-free, lead-free, limited flame retardant, halogen-free
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 30°/m (max. 2 M cycles)

SHIELDED SENSOR/ACTUATOR CABLES – PUR

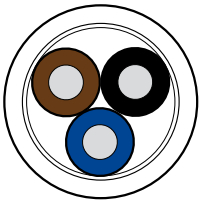
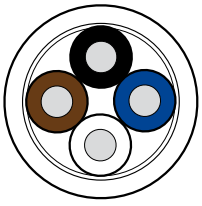
	8 × 0.25 mm²		8 × 0.25 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**02**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Gray	**291**		**294**
Black		**717**	**715**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data		
Copper index	43.6 kg/km	39.1 kg/km
Outer diameter	approx. 7.0 mm	
Wire structure	0.25 mm² (Class 6)	
Wire insulation	PP	
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece	
Outer jacket	PUR	
Resistance	high resistance to oil and very high resistance to chemicals	
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant, halogen-free	
	resistant to microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 5 M	
Robot data		
Torsion	± 30°/m (max. 2 M cycles)	

| SHIELDED SENSOR/ACTUATOR CABLES – PUR

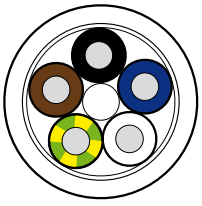
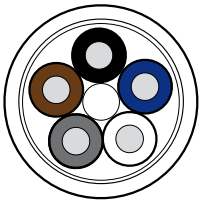
	3 × 0.34 mm²	4 × 0.34 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Gray	**240**	**241**
Black	**640**	**641**

Article no.

7 0 0 0 – C [1: _ _] [2: _ _] – [3: _ _ _] 0 0 0 0

Technical Data		
Copper index	21.9 kg/km	28.4 kg/km
Outer diameter	approx. 5.0 mm	approx. 5.3 mm
Wire structure	0.34 mm² (Class 6)	
Wire insulation	PP	
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece	
Outer jacket	PUR	
Resistance	high resistance to oil and very high resistance to chemicals	
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant, halogen-free	
	resistant to microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 5 M	
Robot data		
Torsion	± 30°/m (max. 2 M cycles)	

SHIELDED SENSOR/ACTUATOR CABLES – PUR

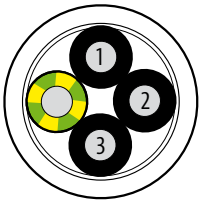
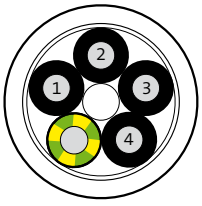
	5 × 0.34 mm²	5 × 0.34 mm²
Approvals		
1 Type of drum		
Drum (100 m)	02	
Drum (200–500 m)	05	
2 Cable length		
100 m	01	
200 m	02	
300 m	03	
400 m	04	
500 m	05	
3 Jacket color		
Gray	242	243
Black	642	643

Article no.

7 0 0 0 – C [1] [2] – [3] 0 0 0 0

Technical Data	
Copper index	32.5 kg/km
Outer diameter	approx. 5.6 mm
Wire structure	0.34 mm² (Class 6)
Wire insulation	PP
Shielding	polyester foil, screen tinned copper wire braid (approx. 80 % covering), polyester fleece
Outer jacket	PUR
Resistance	high resistance to oil and very high resistance to chemicals
	CFC-free, silicone-free, cadmium-free, lead-free, flame retardant, halogen-free
	resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–25 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 30°/m (max. 2 M cycles)

| SHIELDED SENSOR/ACTUATOR CABLES – PUR

	3 × 0.75 mm²	4 × 0.75 mm²	5 × 0.75 mm²
Approvals CE			
1 Type of drum			
Drum (100 m)	**02**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Gray	**492**	**508**	**518**

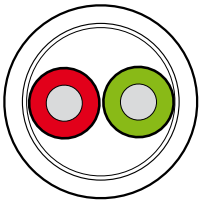
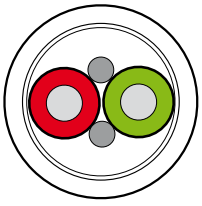
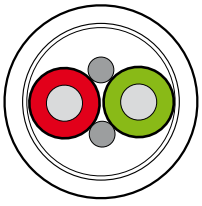
Article no.

7	0	0	0	–	C	1	1	2	2	–	3	3	3	0	0	0	0

Technical Data			
Copper index	62.9 kg/km	56.9 kg/km	85.9 kg/km
Outer diameter	approx. 6.1 mm	approx. 6.5 mm	approx. 7.4 mm
Wire structure	0.75 mm² (Class 5)		
Wire insulation	PVC		
Shielding	polyester foil, screen tinned copper wire braid (approx. 85 % covering), polyester fleece		
Outer jacket	PUR		
Resistance	high resistance to oil and very high resistance to chemicals		
	CFC-free, cadmium-free		
	lead-free, silicone-free, halogen-free		
	resistant to microbes, hydrolysis and abrasion	–	resistant to microbes, hydrolysis and abrasion
Electrical data			
Nominal voltage	300 V		
Test voltage	3000 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–5 ... +80°C		
Bend radius			
Fixed installation	10 × outer Ø		
Flexible installation	15 × outer Ø	–	15 × outer Ø

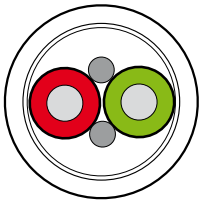
| NOTES

| SHIELDED FIELDBUS CABLES – PUR

PROFIBUS	1 × 2 × 0.25 mm²	1 × 2 × 0.25 mm²	1 × 2 × 0.25 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**02**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Violet	**840**	**841**	**843**
Article no.	7000 – C [1] [2] – [3] 0000		

Technical Data			
Copper index	27.8 kg/km	26.6 kg/km	32.7 kg/km
Outer diameter	approx. 7.8 mm	approx. 7.7 mm	approx. 8.0 mm
Wire structure	0.25 mm² (Class 5)		
Wire insulation	PE		
Shielding	polyester fleece, screen tinned copper wire braid, aluminum foil		
Outer jacket	PUR		
Resistance	halogen-free, labs-free, flame retardant, CFC-free, silicone-free, heat-resistant		flame retardant, heat-resistant, halogen-free
	oil resistance in compliance with IEC 60811-2-1, ICEA S-82-552 and ASTM-Oil 1 Standard requirements		
	mud resistance in compliance with NEK 606 Standard requirement; ozone resistance in compliance with VDE 0472 §1 Standard requirements		
	microbe resistance in compliance with VDE 282/10 Standard requirements		
	UV-resistant acc. to UL 1581 §1200 Standard Reqs.	–	
Electrical data			
Nominal voltage	250 V	300 V	
Test voltage	1500 V		
Temperature range			
Fixed installation	–40 ... +80°C		
Flexible installation	–20 ... +60°C		–20°C ... +50°C
Bend radius			
Fixed installation	10 × outer Ø	7.5 × outer Ø	8 × outer Ø
Flexible installation	12 × outer Ø		
C-track data			
Movement speed	max. 3.0 m/s (stroke length 5 m, acceleration 5 m/s²)		–
Number of bending cycles	max. 5 M		–
Robot data			
Torsion	–		± 360°/m (max. 1 M cycles)
Transmission characteristics			
Characteristic impedance	150 ± 10 Ohm bei 20 MHz	150 ± 10 Ohm bei 1 MHz	150 ± 10 Ohm bei 1–20 MHz
Conductor resistance	max. 78 Ohm/km	max. 72.2 Ohm/km	max. 66.5 Ohm/km
Insulation resistance	min. 5 GOhm × km		

SHIELDED FIELDBUS CABLES – PVC

PROFIBUS	**1 × 2 × 0.25 mm²**
Approvals	

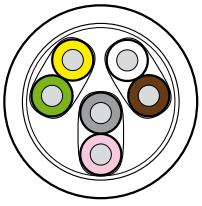
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Violet	**850**

Article no.

1	2	3	
7000 – C	__	__ –	___ 0000

Technical Data	
Copper index	24.0 kg/km
Outer diameter	approx. 7.8 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PE
Shielding	aluminum foil, screen tinned copper wire braid (approx. 70 % covering), polyester fleece
Outer jacket	PVC
Resistance	flame retardant
Electrical data	
Nominal voltage	30 V
Test voltage	1500 V
Temperature range	
Fixed installation	–20 ... +70°C
Flexible installation	–20 ... +60°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	max. 3.0 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 2 M
Transmission characteristics	
Characteristic impedance	150 ± 15 Ohm bei 3–20 MHz
Conductor resistance	max. 68 Ohm/km
Insulation resistance	min. 1 GOhm × km

SHIELDED FIELDBUS CABLES – PUR

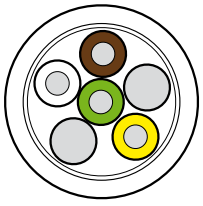
PROFIBUS	**3 × 2 × 0.25 mm²**
Approvals CE	
1 Type of drum	
Drum (100 m)	**02**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Violet	**799**

Article no.

7	0	0	0	–	C	1 __	2 __	–	3 ___	0	0	0	0

Technical Data	
Copper index	41.1 kg/km
Outer diameter	approx. 7.7 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PE
Shielding	polyester fleece, screen tinned copper wire braid (approx. 85 % covering), polyester fleece
Outer jacket	PUR
Resistance	halogen-free, cadmium-free, silicone-free und CFC-free, flame retardant
	very good oil resistance according to VDE 0472 Part 1 and VDE 0249
Electrical data	
Nominal voltage	250 V
Test voltage	1500 V
Temperature range	
Fixed installation	–40 ... +70°C
Flexible installation	–30 ... +60°C
Bend radius	
Fixed installation	10 × outer Ø
Flexible installation	15 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 2 M
Transmission characteristics	
Conductor resistance	max. 96 Ohm/km
Insulation resistance	–

SHIELDED FIELDBUS CABLES – PUR

CANopen	**2 × 2 × 0.25 mm²**
Approvals	
CE	

1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Violet	**801**

Article no.

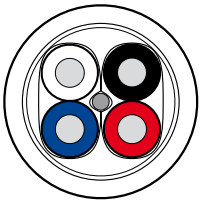
7000	–	C	1 __	2 __	–	3 ___	0000

Technical Data	
Copper index	35.1 kg/km
Outer diameter	approx. 6.8 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PP
Shielding	polyester fleece, screen tinned copper wire braid (approx. 85 % covering), polyester fleece
Outer jacket	PUR
Resistance	halogen-free, cadmium-free, silikon- und CFC-free
	very good oil resistance according to VDE 0250 Part 1 Part 407
	good resistance to acids, bases and solvents
Electrical data	
Nominal voltage	350 V
Test voltage	1500 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–20 ... +80°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	–
Number of bending cycles	–
Transmission characteristics	
Data rate	Category 5
Characteristic impedance	120 ± 15 Ohm 1 MHz
Conductor resistance	max. 76 Ohm/km
Insulation resistance	min. 5 GOhm × km

| SHIELDED FIELDBUS CABLES – PUR

CANopen/DeviceNet

2 × 0.25 mm² + 2 × 0.34 mm²



Approvals

c UL us CE

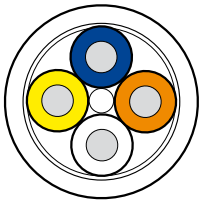
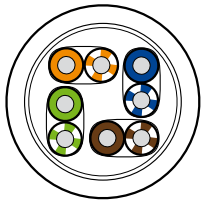
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Violet	**803**
	Green	**809**
	Blue	**834**
	Black	**838**

Article no.

7000	–	C	1	2	–	3	0000
			__	__		___	

Technical Data	
Copper index	39.9 kg/km
Outer diameter	approx. 6.9 mm
Wire structure	2 × 0.25 mm² + 2 × 0.34 mm²
Wire insulation	PE
Shielding	polyester foil, screen tinned copper wire braid (approx. 65 % covering), aluminum foil
Outer jacket	PUR
Resistance	halogen-free, labs-free, flame retardant, CFC-free, silicone-free
	mud resistance in compliance with NEK 606 Standard requirement
	ozone resistance in compliance with VDE 0472 §1 Standard requirements
	microbe resistance in compliance with VDE 282/10 Standard requirements
	UV resistance in compliance with UL 1581 §1200 Standard requirements
Electrical data	
Nominal voltage	300 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–20 ... +60°C
Bend radius	
Fixed installation	8 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	max. 3.0 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	–
Transmission characteristics	
Characteristic impedance	120 ± 10 Ohm 1 MHz
Conductor resistance	max. 78 Ohm/km
Insulation resistance	min. 5 GOhm × km

SHIELDED FIELDBUS CABLES – PUR

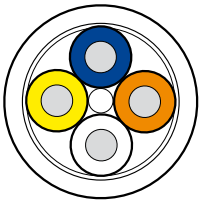
PROFINET	1 × 4 × 0.14 mm²	4 × 2 × 0.14 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Green	**791**	**790**
Article no.	7000 – C [1] [2] – [3] 0000	

Technical Data		
Copper index	19.4 kg/km	30.3 kg/km
Outer diameter	approx. 4.9 mm	approx. 6.4 mm
Wire structure	19 strands, 1 × 4 × AWG 26/19 (1 × 4 × 0.14 mm²)	7 strands, 4 × 2 × AWG 26/7 (4 × 2 × 0.14 mm²)
Wire insulation	PE	
Shielding	polyester fleece, aluminum foil, screen tinned copper wire braid (approx. 85 % covering), polyester fleece	
Outer jacket	PUR	
Resistance	halogen-free, flame retardant, CFC-free, silicone-free	halogen-free, labs-free, flame retardant, CFC-free, silicone-free
	high resistance to oil, fuel and chemicals	oil resistance in compliance with IEC 60811-2-1, ICEA S-82-552, ASTM-Oil 1 Standard requirements
		UV resistance in compliance with UL 1581 §1200 Standard requirements
		mud resistance in compliance with NEK 606 Standard requirement
		ozone resistance in compliance with VDE 0472 §1 Standard requirements
		microbe resistance in compliance with VDE 282/10 Standard requirements
Electrical data		
Nominal voltage	60 V	
Test voltage	1000 V	
Temperature range		
Fixed installation	–20 ... +80°C	–30 ... +80°C
Flexible installation	–20 ... +50°C	
Bend radius		
Fixed installation	7.5 × outer Ø	8 × outer Ø
Flexible installation	12 × outer Ø	
C-track data		
Movement speed	max. 5 m/s (stroke length 5 m, acceleration 5 m/s²)	–
Number of bending cycles	max. 5 M	–
Transmission characteristics		
Data rate	Category 7	
Characteristic impedance	100 ± 15 Ohm 1–100 MHz	100 ± 15 Ohm 1–250 MHz
Conductor resistance	max. 140 Ohm/km	max. 143 Ohm/km
Insulation resistance	max. 5 GOhm × km	max. 5 GOhm × km

| SHIELDED FIELDBUS CABLES – PUR

Industrial Ethernet

2 × 2 × 0.25mm²



Approvals

1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Green	**585**

Article no.

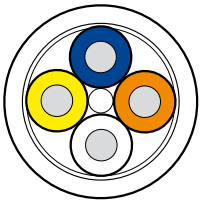
1	2	3		
7000 – C	__	__	– ___	0000

Technical Data	
Copper index	36.3 kg/km
Outer diameter	approx. 6.0 mm
Wire structure	2 × 2 × AWG24/7 (2 × 2 × 0.25 mm²)
Wire insulation	PE
Shielding	polyester fleece, screen tinned copper wire braid (max. 85 % covering), polyester fleece
Outer jacket	PUR
Resistance	halogen-free, flame retardant, high resistance to oil and fuel
	mud resistance in compliance with NEK 606 Standard requirement; ozone resistance in compliance with VDE 0472 §1 Standard requirements
	microbe resistance in compliance with VDE 282/10 Standard requirements; UV resistance in compliance with UL 1581 §1200 Standard requirements
Electrical data	
Nominal voltage	60 V
Test voltage	300 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–30 ... +70°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)
Number of bending cycles	max. 2 M
Transmission characteristics	
Data rate	Category 5
Characteristic impedance	100 ± 15 Ohm 1–100 MHz
Conductor resistance	max. 87 Ohm/km
Insulation resistance	min. 5 GOhm × km

SHIELDED FIELDBUS CABLES – PUR

Industrial Ethernet

2 × 2 × 0.34 mm²



Approvals

cULus CE

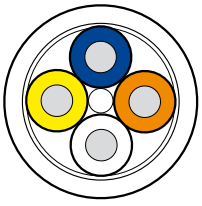
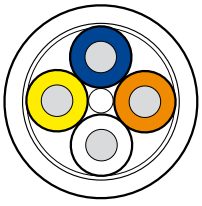
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Yellow	**675**
	Blue	**677**
	Green	**796**
	Violet	**798**

Article no.

1	2		3	
7000 – C	__	__	–	___ 0000

Technical Data	
Copper index	37.9 kg/km
Outer diameter	approx. 6.7 mm
Wire structure	7 strands, 2 × 2 × AWG 22/7 (2 × 2 × 0.34 mm²)
Wire insulation	PE
Shielding	polyester fleece, aluminum foil, screen tinned copper wire braid (approx. 85 % covering), polyester fleece
Outer jacket	PUR
Resistance	halogen-free, labs-free, flame retardant, CFC-free, silicone-free
	oil resistance in compliance with IEC 60811-2-1, ICEA S-82-552 and ASTM-Oil 1 Standard requirements
	UV resistance in compliance with UL 1581 §1200 Standard requirements, mud resistance in compliance with NEK 606 Standard requirement
	ozone resistance in compliance with VDE 0472 §1 Standard requirements, microbe resistance in compliance with VDE 282/10 Standard requirements
Electrical data	
Nominal voltage	60 V
Test voltage	1000 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–30 ... +70°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)
Number of bending cycles	max. 3 M
Transmission characteristics	
Data rate	Category 5
Characteristic impedance	100 ± 15 Ohm 1–100 MHz
Conductor resistance	max. 55 Ohm/km
Insulation resistance	max. 5 GOhm × km

SHIELDED FIELDBUS CABLES – PUR

Industrial Ethernet	2 × 2 × 0.34 mm²	2 × 2 × 0.34 mm²
Approvals		

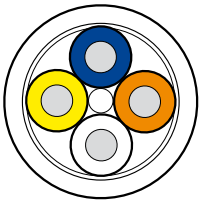
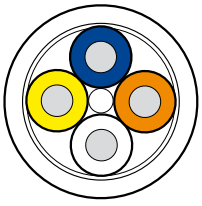
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
rot	**792**	
Black		**851**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data		
Copper index	39.9 kg/km	37.9 kg/km
Outer diameter	approx. 6.7 mm	
Wire structure	7 strands, 2 × 2 × AWG 22/7 (2 × 2 × 0.34 mm²)	
Wire insulation	PE	
Shielding	polyester foil, screen tinned copper wire braid (approx. 85 % covering), polyester fleece	
Outer jacket	PUR	
Resistance	halogen-free, labs-free, flame retardant, CFC-free, silicone-free	
	oil resistance in compliance with IEC 60811-2-1, ICEA S-82-552 and ASTM-Oil 1 Standard requirements	
	mud resistance in compliance with NEK 606 Standard requirement; ozone resistance in compliance with VDE 0472 §1 Standard requirements	
	microbe resistance in compliance with VDE 282/10 Standard requirements; UV resistance in compliance with UL 1581 §1200 Standard requirements	
Electrical data		
Nominal voltage	60 V	
Test voltage	1000 V	
Temperature range		
Fixed installation	–40 ... +80°C	–40 ... +80°C
Flexible installation	–30 ... +70°C	–20 ... +60°C
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	12 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 3 m/s²)	
Number of bending cycles	max. 3 M	
Transmission characteristics		
Data rate	Category 5	
Characteristic impedance	100 ± 15 Ohm 1–100 MHz	
Conductor resistance	max. +55 Ohm/km	
Insulation resistance	min. 5 GOhm × km	

SHIELDED FIELDBUS CABLES – PUR

Industrial Ethernet	1 × 4 × 0.34 mm²	2 × 2 × 0.34 mm²
Approvals		

1	**Type of drum**		
	Drum (100 m)	**02**	
	Drum (200–500 m)	**05**	
2	**Cable length**		
	100 m	**01**	
	200 m	**02**	
	300 m	**03**	
	400 m	**04**	
	500 m	**05**	
3	**Jacket color**		
	Green	**793**	**794**

Article no.

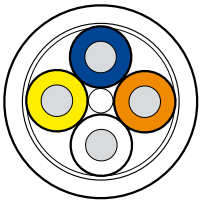
7	0	0	0	–	C	1 __	2 __	–	3 ___	0	0	0	0

Technical Data		
Copper index	41.1 kg/km	39.9 kg/km
Outer diameter	approx. 6.5 mm	approx. 6.7 mm
Wire structure	19 strands, 1 × 4 × AWG 22/19 (1 × 4 × 0.34 mm²)	7 strands, 2 × 2 × AWG 22/7 (2 × 2 × 0.34 mm²)
Wire insulation	PE	
Shielding	polyester fleece, aluminum foil, screen tinned copper wire braid (approx. 85 % covering)	
Outer jacket	PUR	
Resistance	halogen-free, labs-free, flame retardant, CFC-free, silicone-free	
	oil resistance in compliance with IEC 60811-2-1, ICEA S-82-552 and ASTM-Oil 1 Standard requirements	
	ozone resistance in compliance with VDE 0472 §1 Standard requirements	
	microbe resistance in compliance with VDE 282/10 Standard requirements; UV resistance in compliance with UL 1581 §1200 Standard requirements	
	mud resistance in compliance with NEK 606 Standard requirement	
Electrical data		
Nominal voltage	60 V	
Test voltage	1000 V	
Temperature range		
Fixed installation	–40 ... +80°C	–40 ... +80°C
Flexible installation	–20 ... +60°C	–20 ... +60°C
Bend radius		
Fixed installation	8 × outer Ø	6 × outer Ø
Flexible installation	12 × outer Ø	12 × outer Ø
Robot data		
Torsion	± 180°/m (max. 1 M cycles)	–
Transmission characteristics		
Data rate	Category 5	
Characteristic impedance	100 ± 15 Ohm bei 100 MHz	
Conductor resistance	max. 60 Ohm/km	max. 55 Ohm/km
Insulation resistance	min. 5 GOhm × km	

SHIELDED FIELDBUS CABLES – PVC

Industrial Ethernet

2 × 2 × 0.34 mm²



Approvals

cULus CE

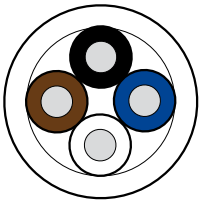
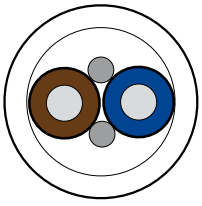
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Green	**800**

Article no.

1	2		3	
7000 – C	__	__	– ___	0000

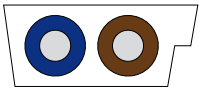
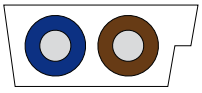
Technical Data	
Copper index	38.7 kg/km
Outer diameter	approx. 6.5 mm
Wire structure	7 strands, 2 × 2 × AWG 22/7 (2 × 2 × 0.34 mm²)
Wire insulation	PE
Shielding	polyester fleece, aluminum foil, screen tinned copper wire braid (approx. 85 % covering)
Outer jacket	PVC
Resistance	labs-free, flame retardant, CFC-free, silicone-free
	Oil-resistant according to IEC 60811-2-1 and ICEA S-82-55
	ozone resistance in compliance with VDE 0472 §1 Standard requirements
	microbe resistance in compliance with VDE 282/10 Standard requirements; UV resistance in compliance with UL 1581 §1200 Standard requirements
	mud resistance in compliance with NEK 606 Standard requirement
Electrical data	
Nominal voltage	60 V
Test voltage	1000 V
Temperature range	
Fixed installation	–30 ... +80°C
Flexible installation	–10 ... +70°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	15 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)
Number of bending cycles	max. 2 M
Transmission characteristics	
Data rate	Category 5
Characteristic impedance	100 ± 15 Ohm bei 100 MHz
Conductor resistance	max. 55 Ohm/km
Insulation resistance	min. 5 GOhm × km

UNSHIELDED FIELDBUS CABLES – PUR

ASI	4 × 0.75 mm²	2 × 1.5 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Gray	**862**	**588**
Article no.	7000 – C [1] [2] – [3] 0000	

Technical Data		
Copper index	34.9 kg/km	35.1 kg/km
Outer diameter	approx. 6.5 mm	approx. 8.0 mm
Wire structure	0.75 mm² (Class 6)	1.5 mm² (Class 5)
Wire insulation	PP	
Outer jacket	PUR	
Resistance	limited resistance to oil and very high resistance to chemicals	
	silicone-free, cadmium-free, lead-free, flame retardant, CFC-free, halogen-free	
	resistant to microbes, hydrolysis and abrasion	
Electrical data		
Nominal voltage	300 V	
Test voltage	2500 V	2000 V
Temperature range		
Fixed installation	–40 ... +80°C	–50 ... +80°C
Flexible installation	–25 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	10 × outer Ø
Flexible installation	10 × outer Ø	15 × outer Ø
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5m, acceleration 5 m/s²)	max. 2 m/s (stroke length 5m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M	
Robot data		
Torsion	± 180°/m (max. 2 M cycles)	–

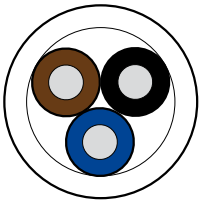
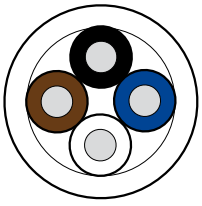
| UNSHIELDED FIELDBUS CABLES – PUR

ASI	2 × 1.5 mm²	2 × 2.5 mm²
		
Approvals		
cULus		
1 Type of drum		
Drum (500, 1000, 3000 m)	**99**	
2 Cable length		
500 m	**05**	
1000 m	**10**	
3 Jacket color		
Yellow	**166**	**178**
Black	**784**	**779**
Article no.	7000 – C [1] [2] – [3] 0000	

Technical Data		
Copper index	35.1 kg/km	58.1 kg/km
Outer diameter	Profilkabel	
Wire structure	1.5 mm² (Class 6)	2.5 mm² (Class 6)
Wire insulation	PP	
Outer jacket	PUR	
Resistance	resistance to oil, fuel and chemicals, halogen-free, flame retardant, FRNC, silicone-free	
Electrical data		
Nominal voltage	32 V	
Test voltage	1500 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–40 ... +80°C	
Bend radius		
Fixed installation	3 × outer Ø	6 × outer Ø
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 3 m/s²)	
Number of bending cycles	max. 2 M	

| NOTES

600 V CABLES – PUR

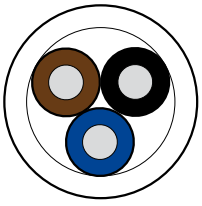
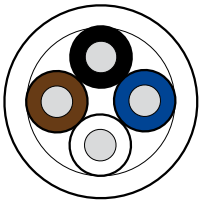
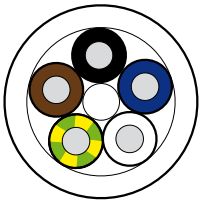
	3 × 0.25 mm²	4 × 0.25 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Black	**644**	**645**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data		
Copper index	9.1 kg/km	12.1 kg/km
Outer diameter	ca. 4.6 mm	ca. 5.0 mm
Wire structure	0.25 mm² (Class 6)	
Wire insulation	PP	
Outer jacket	PUR	
Resistance	high resistance to oil, fuel and chemicals, resistant to microbes and hydrolysis	
	halogen-free, silicone-free, cadmium-free, lead-free, flame retardant	
Electrical data		
Nominal voltage	600 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–40°C ... +80°C	
Flexible installation	–25°C ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 5 M	
Robot data		
Torsion	± 180°/m (max. 2 M cycles)	

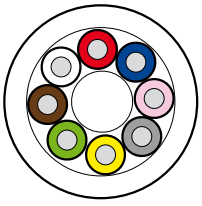
600 V CABLES – PUR

	3 × 0.34 mm²	4 × 0.34 mm²	5 × 0.34 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**01**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Black	**646**	**661**	**647**
Article no.	7000 – C [1] [2] – [3] 0000		

Technical Data			
Copper index	11.9 kg/km	16.3 kg/km	19.7 kg/km
Outer diameter	ca. 4.8 mm	ca. 5.1 mm	ca. 5.6 mm
Wire structure	0.34 mm² (Class 6)		
Wire insulation	PP		
Outer jacket	PUR		
Resistance	high resistance to oil, fuel and chemicals, resistant to microbes and hydrolysis		
	halogen-free, silicone-free, cadmium-free, lead-free, flame retardant		
Electrical data			
Nominal voltage	600 V		
Test voltage	2000 V		
Temperature range			
Fixed installation	–40°C ... +80°C		
Flexible installation	–25°C ... +80°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)		
Number of bending cycles	max. 5 M		
Robot data			
Torsion	± 180°/m (max. 2 M cycles)		

600 V CABLES – PUR

8 × 0.34 mm²



Approvals

cULus CE

1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**664**

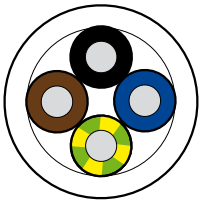
Article no.

1	2		3	
7000 – C	__	__	–	___ 0000

Technical Data	
Copper index	32.9 kg/km
Outer diameter	ca. 6.9 mm
Wire structure	0.34 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	high resistance to oil, fuel and chemicals, resistant to microbes and hydrolysis
	halogen-free, silicone-free, cadmium-free, lead-free, flame retardant
Electrical data	
Nominal voltage	600 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40°C ... +80°C
Flexible installation	–25°C ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

600 V CABLES – PUR

4 × 0.5 mm²



Approvals

cULus CE

1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**667**

Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

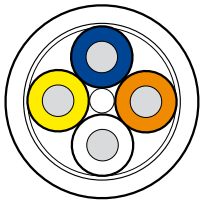
Technical Data	
Copper index	24.6 kg/km
Outer diameter	ca. 5.6 mm
Wire structure	0.5 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	high resistance to oil, fuel and chemicals, resistant to microbes and hydrolysis
	halogen-free, silicone-free, cadmium-free, lead-free, flame retardant
Electrical data	
Nominal voltage	600 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40°C ... +80°C
Flexible installation	–25°C ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

600 V CABLES – PUR

	3 × 0.75 mm²
Approvals	
1 Type of drum	
Drum (100 m)	**01**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Black	**648**
Article no.	7000 – C [1] [2] – [3] 0000

Technical Data	
Copper index	26.4 kg/km
Outer diameter	ca. 6.0 mm
Wire structure	0.75 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	high resistance to oil, fuel and chemicals, resistant to microbes and hydrolysis
	halogen-free, silicone-free, cadmium-free, lead-free, flame retardant
Electrical data	
Nominal voltage	600 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40°C ... +80°C
Flexible installation	–25°C ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

600 V CABLES – PUR

Industrial Ethernet	**1 × 4 × 0.34 mm²**
Approvals	

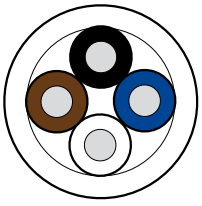
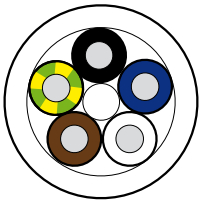
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Green	**659**

Article no.

1	2		3		
7000 – C	__	__	–	___	0000

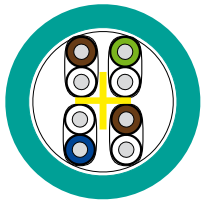
Technical Data	
Copper index	41.1 kg/km
Outer diameter	ca. 7.4 mm
Wire structure	7 strands 1 × 4 × AWG22/7 (1 × 4 × 0.34 mm²)
Wire insulation	PE
Shielding	polyester foil, inner sheath made of TPE-V, screen tinned copper wire braid (85 % covering)
Outer jacket	PUR
Resistance	halogen-free, labs-free, flame retardant, CFC-free, silicone-free
	mud resistance in compliance with NEK 606 Standard requirement
	ozone resistance in compliance with VDE 0472 §1 Standard requirements
	microbe resistance in compliance with VDE 282/10 Standard requirements
	UV resistance in compliance with UL 1581 §1200 Standard requirements
Electrical data	
Nominal voltage	600 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40°C ... +80°C
Flexible installation	–30°C ... +70°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)
Number of bending cycles	max. 2 M
Transmission characteristics	
Data rate	Category 5
Characteristic impedance	100 ± 15 Ohm 100 MHz
Conductor resistance	max. 55 Ohm/km
Insulation resistance	min. 5 Gohm × km

| NORTH AMERICAN MARKET – TPE

	4 × 0.75 mm²	5 × 0.75 mm²
		
Approvals UL Listed, CSA ITC, PLTC		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Yellow	**150**	**161**
		162 *core 5 in Gray*
Article no.	7700 – C [1] [2] – [3] 0000	

Technical Data		
Copper index	36.9 kg/km	46.3 kg/km
Outer diameter	ca. 6.6 mm	ca. 7.1 mm
Wire structure	0.75 mm² (Class 6)	
Wire insulation	PVC	
Outer jacket	TPE	
Resistance	resistant to UV, oil and welding sparks	
	flame retardant	
Electrical data		
Nominal voltage	300 V	
Test voltage	1500 V	
Temperature range		
Fixed installation	–40 ... +105°C	
Flexible installation	–20 ... +105°C	
Bend radius		
Fixed installation	10 × outer Ø	
Flexible installation	15 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 2 M	

NORTH AMERICAN MARKET – TPE

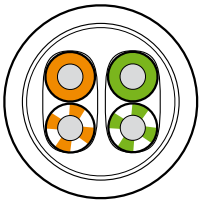
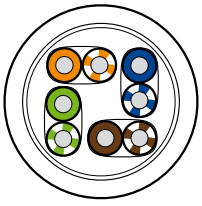
Industrial Ethernet	**4 × 2 × 0.14 mm²**
Approvals	
UL Listed, CSA **CMX Outdoor, CMR**	
1 Type of drum	
Drum (100 m)	**02**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Blue	**S4X**

Article no.

7700	–	C	1 __	2 __	–	3 ___	0000

Technical Data	
Copper index	30.3 kg/km
Outer diameter	ca. 7.4 mm
Wire structure	0.14 mm² (Class 5)
Wire insulation	HDPE
Shielding	4 pairs stranded around cross-shaped insulator, PP foil, aluminum/polyester, screen tinned copper wire braid (ca. 75 % covering)
Outer jacket	TPE
Resistance	resistant to UV, oil and welding sparks
Electrical data	
Nominal voltage	600 V
Test voltage	1000 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–20 ... +80°C
Bend radius	
Fixed installation	10 × outer Ø
Flexible installation	20 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)
Number of bending cycles	max. 1 M
Robot data	
Torsion	± 180°/m (max. 3 M cycles)
Transmission characteristics	
Data rate	Category 5

NORTH AMERICAN MARKET – TPE

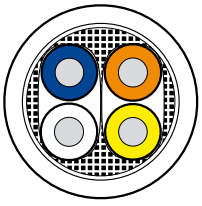
Industrial Ethernet	2 × 2 × 0.25 mm²	4 × 2 × 0.25 mm²
Approvals		
UL Listed, CSA CMX Outdoor		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Blue	**S4U**	**S4W**

Article no.

7 7 0 0 – C [1] [2] – [3] 0 0 0 0

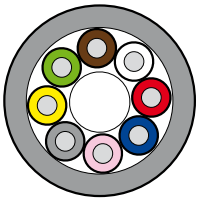
Technical Data		
Copper index	36.3 kg/km	50.7 kg/km
Outer diameter	ca. 6.6 mm	ca. 7.6 mm
Wire structure	7 strands, 2 × 2 × AWG24/7 (Class 5)	7 strands, 4 × 2 × AWG24/7 (Class 5)
Wire insulation	HDPE	
Shielding	polyester foil, screen tinned copper wire braid (ca. 75 % covering), aluminum/polyester fleece	
Outer jacket	TPE	
Resistance	resistant to UV, oil and welding sparks	
Electrical data		
Nominal voltage	600 V	
Test voltage	1000 V	
Temperature range		
Fixed installation	–40 ... +80°C	
Flexible installation	–20 ... +80°C	
Bend radius		
Fixed installation	5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)	
Number of bending cycles	max. 1 M	
Robot data		
Torsion	± 180°/m (max. 3 M cycles)	
Transmission characteristics		
Data rate	Category 5	

NORTH AMERICAN MARKET – TPE

Industrial Ethernet	**2 × 2 × 0.34 mm²**
Approvals	
UL Listed, CSA ITC, PCTC, CMX Outdoor	
1 Type of drum	
Drum (100 m)	**02**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Green	**S7V**
Article no.	7700 – C [1] [2] – [3] 0000

Technical Data	
Copper index	36.3 kg/km
Outer diameter	ca. 7.8 mm
Wire structure	19 strands, 2 × 2 × AWG22/19 (Class 5)
Wire insulation	HDPE
Shielding	polyester foil, screen tinned copper wire braid (75 % covering), aluminum/polyester fleece
Outer jacket	TPE
Resistance	resistant to UV, oil and welding sparks
Electrical data	
Nominal voltage	600 V
Test voltage	1000 V
Temperature range	
Fixed installation	–40 ... +80°C
Flexible installation	–20 ... +80°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 2 m/s²)
Number of bending cycles	max. 1 M
Robot data	
Torsion	± 180°/m (max. 3 M cycles)
Transmission characteristics	
Data rate	Category 5

| RAIL CABLES ACCORDING TO EN 45545 – UNSHIELDED

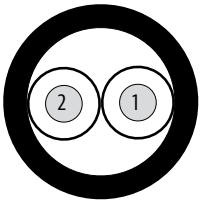
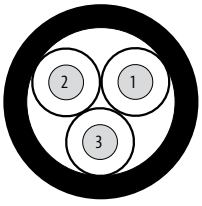
SABIX	**8 × 0.25 mm²**
	
Approvals	
CE DIN EN 45545	
1 Type of drum	
Drum (100 m)	**01**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Gray	**R42**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

Technical Data	
Copper index	23.2 kg/km
Outer diameter	ca. 5.2 mm
Wire structure	0.25 mm² (Class 5)
Wire insulation	SABIX
Outer jacket	SABIX
Resistance	halogen-free, flame retardant, self-extinguishing
Electrical data	
Nominal voltage	500 V
Test voltage	1500 V
Temperature range	
Fixed installation	–40 ... +90°C
Flexible installation	–30 ... +90°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø

RAIL CABLES ACCORDING TO EN 45545 – UNSHIELDED

RADOX EM 104	2 × 0.5 mm²	3 × 0.5 mm²
		
Approvals		
CE DIN EN 45545		

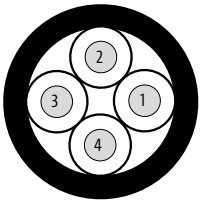
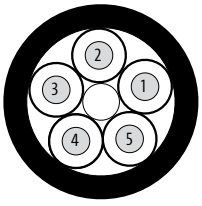
1	**Type of drum**		
	Drum (100 m)	**01**	
	Drum (200–500 m)	**05**	
2	**Cable length**		
	100 m	**01**	
	200 m	**02**	
	300 m	**03**	
	400 m	**04**	
	500 m	**05**	
3	**Jacket color**		
	Black	**R01**	**R02**

Article no.

7000 – C	1 __	2 __	–	3 ___	0000

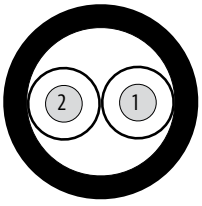
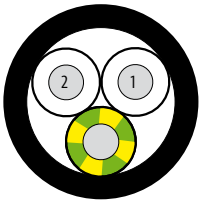
Technical Data		
Copper index	11.6 kg/km	17.4 kg/km
Outer diameter	ca. 4.4 mm	ca. 4.6 mm
Wire structure	0.5 mm² (Class 5)	
Wire insulation	RADOX EI 303	
Outer jacket	RADOX EM 104	
Resistance	high resistance to oil and fuel	
	halogen-free, flame retardant	
Electrical data		
Nominal voltage	600/1000 V	
Test voltage	3500 V	
Temperature range		
Fixed installation	–50 ... +120°C	
Flexible installation	–25 ... +90°C	
Bend radius		
Fixed installation	3 × outer Ø	
Flexible installation	4 × outer Ø	

RAIL CABLES ACCORDING TO EN 45545 – UNSHIELDED

RADOX EM 104	4 × 0.5 mm²	5 × 0.5 mm²
		
Approvals		
CE DIN EN 45545		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Black	**R03**	**R04**
Article no.	7 0 0 0 – C [1] [2] – [3] 0 0 0 0	

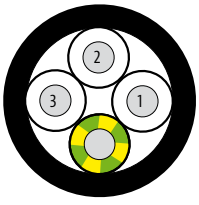
Technical Data		
Copper index	23.2 kg/km	29.0 kg/km
Outer diameter	ca. 5.0 mm	ca. 5.5 mm
Wire structure	0.5 mm² (Class 5)	
Wire insulation	RADOX EI 303	
Outer jacket	RADOX EM 104	
Resistance	high resistance to oil and fuel	
	halogen-free, flame retardant	
Electrical data		
Nominal voltage	600/1000 V	
Test voltage	3500 V	
Temperature range		
Fixed installation	–50 ... +120°C	
Flexible installation	–25 ... +90°C	
Bend radius		
Fixed installation	3 × outer Ø	
Flexible installation	4 × outer Ø	

RAIL CABLES ACCORDING TO EN 45545 – UNSHIELDED

RADOX EM 104	2 × 0.75 mm²	3 × 0.75 mm²
		
Approvals		
CE DIN EN 45545		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Black	**R21**	**R26**
Article no.	7 0 0 0 – C [1] [2] – [3] 0 0 0 0	

Technical Data		
Copper index	17.4 kg/km	26.1 kg/km
Outer diameter	ca. 4.75 mm	ca. 5.15 mm
Wire structure	0.75 mm² (Class 5)	
Wire insulation	RADOX EI 303	
Outer jacket	RADOX EM 104	
Resistance	high resistance to oil and fuel	
	halogen-free, flame retardant	
Electrical data		
Nominal voltage	600/1000 V	
Test voltage	3500 V	
Temperature range		
Fixed installation	–50 ... +120°C	
Flexible installation	–25 ... +90°C	
Bend radius		
Fixed installation	3 × outer Ø	
Flexible installation	4 × outer Ø	

RAIL CABLES ACCORDING TO EN 45545 – UNSHIELDED

RADOX EM 104	**4 × 0.75 mm²**
Approvals	
CE DIN EN 45545	

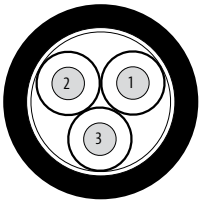
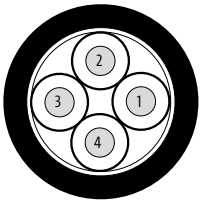
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**R27**

Article no.

7	0	0	0	–	C	1	2	–	3	0	0	0	0
						_ _	_ _		_ _ _				

Technical Data	
Copper index	34.9 kg/km
Outer diameter	ca. 5.6 mm
Wire structure	0.75 mm² (Class 6)
Wire insulation	RADOX EI 303
Outer jacket	RADOX EM 104
Resistance	high resistance to oil and fuel
	halogen-free, flame retardant
Electrical data	
Nominal voltage	600/1000 V
Test voltage	3500 V
Temperature range	
Fixed installation	–50 ... +120°C
Flexible installation	–25 ... +90°C
Bend radius	
Fixed installation	3 × outer Ø
Flexible installation	4 × outer Ø

RAIL CABLES ACCORDING TO EN 45545 – SHIELDED

RADOX EM 104	3 × 0.5 mm²	4 × 0.5 mm²
		
Approvals		
CE DIN EN 45545		

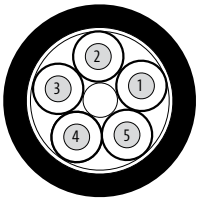
1	**Type of drum**		
	Drum (100 m)	**02**	
	Drum (200–500 m)	**05**	
2	**Cable length**		
	100 m	**01**	
	200 m	**02**	
	300 m	**03**	
	400 m	**04**	
	500 m	**05**	
3	**Jacket color**		
	Black	**R12**	**R13**

Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

Technical Data		
Copper index	37.5 kg/km	58.1 kg/km
Outer diameter	ca. 5.3 mm	ca. 5.4 mm
Wire structure	0.5 mm² (Class 5)	
Wire insulation	RADOX EI 303	
Shielding	polyester foil, screen tinned copper wire braid (ca. 85 % covering), polyester fleece	
Outer jacket	RADOX EM 104	
Resistance	high resistance to oil and fuel	
	halogen-free, flame retardant	
Electrical data		
Nominal voltage	600/1000 V	
Test voltage	3500 V	
Temperature range		
Fixed installation	–50 ... +120°C	
Flexible installation	–25 ... +90°C	
Bend radius		
Fixed installation	3 × outer Ø	
Flexible installation	4 × outer Ø	

RAIL CABLES ACCORDING TO EN 45545 – SHIELDED

RADOX EM 104	**5 × 0.5 mm²**
	
Approvals	
CE DIN EN 45545	
1 Type of drum	
Drum (100 m)	**02**
Drum (200–500 m)	**05**
2 Cable length	
100 m	**01**
200 m	**02**
300 m	**03**
400 m	**04**
500 m	**05**
3 Jacket color	
Black	**R14**

Article no.

7 0 0 0 – C [1] [2] – [3] 0 0 0 0

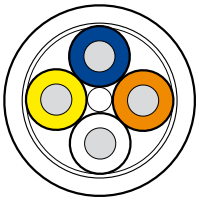
Technical Data	
Copper index	67.6 kg/km
Outer diameter	ca. 6.2 mm
Wire structure	0.5 mm² (Class 6)
Wire insulation	RADOX EI 303
Shielding	polyester foil, screen tinned copper wire braid (ca. 85 % covering), polyester fleece
Outer jacket	RADOX EM 104
Resistance	high resistance to oil and fuel
	halogen-free, flame retardant
Electrical data	
Nominal voltage	600/1000 V
Test voltage	3500 V
Temperature range	
Fixed installation	–50 ... +120°C
Flexible installation	–25 ... +90°C
Bend radius	
Fixed installation	3 × outer Ø
Flexible installation	4 × outer Ø

RAIL CABLES ACCORDING TO EN 45545 – SHIELDED

Industrial Ethernet

RADOX EM 104

4 × 0.34 mm²



Approvals

CE **DIN EN 45545**

1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**R64**

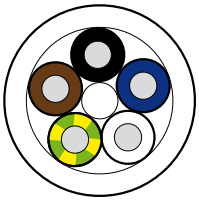
Article no.

1	2	3		
7000 – C	__	__	– ___	0000

Technical Data	
Copper index	39.9 kg/km
Outer diameter	ca. 6.6 mm
Wire structure	0.34 mm² (Class 6)
Wire insulation	RADOX COM
Shielding	aluminum foil, screen tinned copper wire braid (ca. 85 % covering), aluminum foil
Outer jacket	RADOX EM 104
Resistance	high resistance to oil and fuel
	halogen-free, flame retardant
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–50 ... +90°C
Flexible installation	–40 ... +90°C
Bend radius	
Fixed installation	6 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 20 m/s (acceleration 3 m/s²)
Number of bending cycles	max. 5 M
Transmission characteristics	
Data rate	Category 5
Characteristic impedance	100 ± 5 Ohm bei 100 MHz
Conductor resistance	max. 54.4 Ohm/km

UNSHIELDED SENSOR/ACTUATOR CABLES – FEP

Hochtemperaturleitung **5 × 0.34 mm²**



Approvals

CE

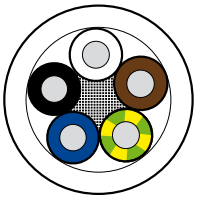
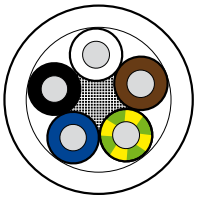
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Black	**828**

Article no.

7000 – C	1	2	–	3	0000
	__	__		___	

Technical Data	
Copper index	21.2 kg/km
Outer diameter	approx. 4.2 mm
Wire structure	0.34 mm² (Class 5)
Wire insulation	FEP
Outer jacket	FEP
Resistance	resistant to UV, oil and welding sparks
	flame retardant
Electrical data	
Nominal voltage	600 V
Test voltage	2000 V
Temperature range	
Fixed installation	–190 ... +180°C
Flexible installation	–190 ... +180°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	15 × outer Ø

POWER CABLES UNSHIELDED – PUR

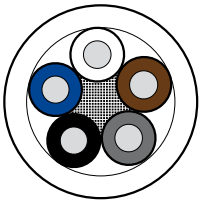
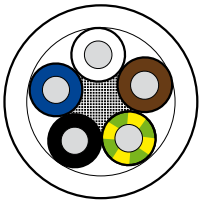
	5 × 1.5 mm²	5 × 2.5 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Gray	**961**	**962**

Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

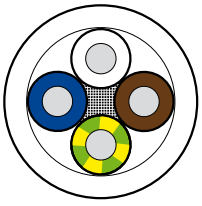
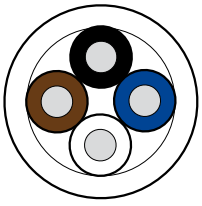
Technical Data		
Copper index	87.1 kg/km	145.2 kg/km
Outer diameter	approx. 8.7 mm	approx. 9.7 mm
Wire structure	1.5 mm² (Class 6)	2.5 mm² (Class 6)
Wire insulation	PP	
Outer jacket	PUR	
Resistance	resistance to oil, fuel and chemicals	
	resistant to microbes, hydrolysis and abrasion, halogen-free, flame retardant, silicone-free, cadmium-free, lead-free, CFC-free	
Electrical data		
Nominal voltage	1000 V	600 V
Test voltage	10 kV	3000 V
Temperature range		
Fixed installation	–50 ... +80°C	
Flexible installation	–20 ... +80°C	
Bend radius		
Fixed installation	7.5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)	
Number of bending cycles	max. 5 M	
Robot data		
Torsion	± 180°/m (max. 2 M cycles)	

| POWER CABLES UNSHIELDED – PUR

	5 × 1.5 mm²	5 × 1.5 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Black	**P04**	**P05**
Article no.	1 2 3	
	7 0 0 0 – C __ __ – ___	0 0 0 0

Technical Data	
Copper index	87.1 kg/km
Outer diameter	approx. 8.7 mm
Wire structure	1.5 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	resistance to oil, fuel and chemicals
	resistant to microbes, hydrolysis and abrasion, halogen-free, flame retardant, silicone-free, cadmium-free, lead-free, CFC-free
Electrical data	
Nominal voltage	600 V
Test voltage	3300 V
Temperature range	
Fixed installation	–50 ... +80°C
Flexible installation	–20 ... +80°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

POWER CABLES UNSHIELDED – PUR

	4 × 1.5 mm²	4 × 1.5 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**01**	
Drum (200–500 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
400 m	**04**	
500 m	**05**	
3 Jacket color		
Black	**P06**	**P07**

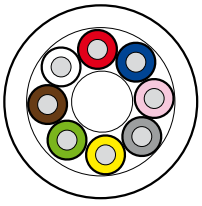
Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

Technical Data	
Copper index	69.7 kg/km
Outer diameter	approx. 7.7 mm
Wire structure	1.5 mm² (Class 6)
Wire insulation	PP
Outer jacket	PUR
Resistance	resistance to oil, fuel and chemicals
	resistant to microbes, hydrolysis and abrasion, halogen-free, flame retardant, silicone-free, cadmium-free, lead-free, CFC-free
Electrical data	
Nominal voltage	600 V
Test voltage	3300 V
Temperature range	
Fixed installation	–50 ... +80°C
Flexible installation	–20 ... +80°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3.3 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

F&B CABLES – PP-LINE

8 × 0.25 mm²



Approvals

cULus CE ECOLAB FDA

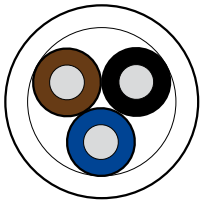
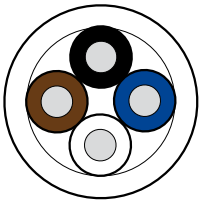
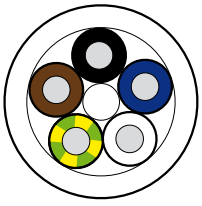
1	**Type of drum**	
	Drum (100 m)	**01**
	Drum (200–500 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
	400 m	**04**
	500 m	**05**
3	**Jacket color**	
	Ice Blue	**312**

Article no.

7	0	0	0	–	C	1 __	2 __	–	3 ___	0	0	0	0

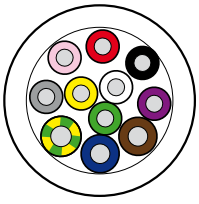
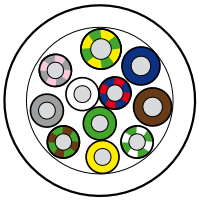
Technical Data	
Copper index	24.4 kg/km
Outer diameter	approx. 6.0 mm
Wire structure	0.25 mm² (Class 6)
Wire insulation	PP
Outer jacket	TPE
Resistance	good resistance to acidic and alkaline detergents and disinfectants in the food and beverage industry
	CFC-free, halogen-free, cadmium-free, silicone-free, lead-free, resistant to microbes, hydrolysis and abrasion
Electrical data	
Nominal voltage	300 V
Test voltage	3000 V
Temperature range	
Fixed installation	–40 ... +105°C
Flexible installation	–25 ... +105°C
Bend radius	
Fixed installation	5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 3 m/s (stroke length 10 m, acceleration 10 m/s²)
Number of bending cycles	max. 4 M
Robot data	
Torsion	± 180°/m (max. 2 M cycles)

F&B CABLES – PP-LINE

	3 × 0.34 mm²	4 × 0.34 mm²	5 × 0.34 mm²
Approvals			
1 Type of drum			
Drum (100 m)	**01**		
Drum (200–500 m)	**05**		
2 Cable length			
100 m	**01**		
200 m	**02**		
300 m	**03**		
400 m	**04**		
500 m	**05**		
3 Jacket color			
Ice Blue	**315**	**321**	**339**
Article no.	7000 – C [1] [2] – [3] 0000		

Technical Data			
Copper index	11.9 kg/km	15.9 kg/km	19.9 kg/km
Outer diameter	approx. 4.3 mm	approx. 4.7 mm	approx. 5.0 mm
Wire structure	0.34 mm² (Class 6)		
Wire insulation	PP		
Outer jacket	TPE		
Resistance	good resistance to acidic and alkaline detergents and disinfectants in the food and beverage industry		
	CFC-free, halogen-free, cadmium-free, silicone-free, lead-free, resistant to microbes, hydrolysis and abrasion		
Electrical data			
Nominal voltage	300 V		
Test voltage	3000 V		
Temperature range			
Fixed installation	–40 ... +105°C		
Flexible installation	–25 ... +105°C		
Bend radius			
Fixed installation	5 × outer Ø		
Flexible installation	10 × outer Ø		
C-track data			
Movement speed	max. 3 m/s (stroke length 10 m, acceleration 10 m/s²)		
Number of bending cycles	max. 4 M		
Robot data			
Torsion	± 180°/m (max. 2 M cycles)		

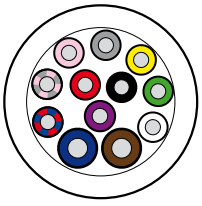
| DISTRIBUTOR LEADS UNSHIELDED – PUR/PVC

	8 × 0.34 mm² + 3 × 0.75 mm²	8 × 0.34 mm² + 3 × 0.75 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–300 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
3 Jacket color		
Gray	**362**	**363**
Article no.	7000 – C [1] [2] – [3] 0000	

Technical Data		
Copper index	57.7 kg/km	57.8 kg/km
Outer diameter	ca. 8.1 mm	
Wire structure	0.34 mm² / 0.75 mm² (Class 5)	
Wire insulation	PVC	
Outer jacket	PUR/PVC	
Resistance	high resistance to oil, fuel and chemicals	
	resistant to microbes, hydrolysis and abrasion, flame retardant	
		halogen-free, silicone-free, cadmium-free, lead-free, labs-free, CFC-free, self-extinguishing
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–30°C ... +80°C	
Flexible installation	–5°C ... +60°C	
Bend radius		
Fixed installation	7.5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 2 m/s (stroke length 5 m, acceleration 10 m/s²)	
Number of bending cycles	max. 2 M	
Application		
	8-way distributors, 4-pole	4-way distributors, 5-pole

DISTRIBUTOR LEADS UNSHIELDED – PUR

10 × 0.34 mm² + 2 × 0.75 mm²



Approvals

cULus CE

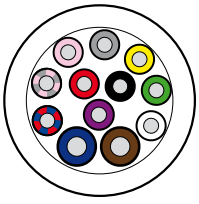
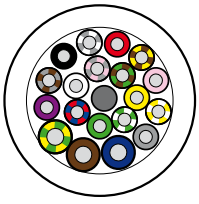
1	**Type of drum**	
	Drum (100 m)	**02**
	Drum (200–300 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
3	**Jacket color**	
	Gray	**384**

Article no.

1	2		3	
7000 – C	__	__	–	___ 0000

Technical Data	
Copper index	56.9 kg/km
Outer diameter	ca. 9.3 mm
Wire structure	0.34 mm² / 0.75 mm² (Class 5)
Wire insulation	TPE
Outer jacket	PUR
Resistance	high resistance to oil, fuel and chemicals
	resistant to microbes, hydrolysis and abrasion, flame retardant, halogen-free, silicone-free, cadmium-free, lead-free, labs-free, CFC-free,
	self-extinguishing
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40°C ... +80°C
Flexible installation	–5°C ... +60°C
Bend radius	
Fixed installation	7.5 × outer Ø
Flexible installation	10 × outer Ø
C-track data	
Movement speed	max. 2 m/s (stroke length 5 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Application	
	10-way distributors, 3-pole

| DISTRIBUTOR LEADS UNSHIELDED – PUR/PVC

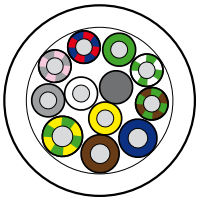
	10 × 0.34 mm² + 2 × 0.75 mm²	16 × 0.34 mm² + 3 × 0.75 mm²
Approvals		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–300 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
3 Jacket color		
Gray	**385**	**398**

Article no.

7 0 0 0 – C [1] [2] – [3] 0 0 0 0

Technical Data		
Copper index	56.9 kg/km	89.3 kg/km
Outer diameter	ca. 8.3 mm	ca. 10 mm
Wire structure	0.34 mm² / 0.75 mm² (Class 5)	
Wire insulation	PVC	
Outer jacket	PUR/PVC	
Resistance	high resistance to oil, fuel and chemicals	
	resistant to microbes and hydrolysis, flame retardant, halogen-free, silicone-free, cadmium-free, lead-free, CFC-free	
		resistant to abrasion, self-extinguishing, labs-free
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–30°C ... +80°C	
Flexible installation	–5°C ... +60°C	
Bend radius		
Fixed installation	7.5 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 2 m/s (stroke length 5 m, acceleration 10 m/s²)	
Number of bending cycles	max. 2 M	
Application		
	10-way distributors, 3-pole	8-way distributors, 5-pole

DISTRIBUTOR LEADS UNSHIELDED – PUR

	8 × 0.5 mm² + 3 × 1.0 mm²	16 × 0.5 mm² + 3 × 1.0 mm²
Approvals		
		
1 Type of drum		
Drum (100 m)	**02**	
Drum (200–300 m)	**05**	
2 Cable length		
100 m	**01**	
200 m	**02**	
300 m	**03**	
3 Jacket color		
Gray	**448**	**452**

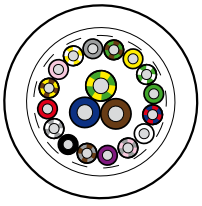
Article no.

7000	–	C	1 __	2 __	–	3 ___	0000

Technical Data		
Copper index	81.3 kg/km	127.8 kg/km
Outer diameter	ca. 9.0 mm	ca. 11.5 mm
Wire structure	0.5 mm² / 1.0 mm² (Class 6)	
Wire insulation	TPE	
Outer jacket	PUR	
Resistance	high resistance to oil, fuel and chemicals	
	resistant to microbes, hydrolysis and abrasion, flame retardant, halogen-free, silicone-free, cadmium-free, CFC-free	
	lead-free	self-extinguishing, labs-free
Electrical data		
Nominal voltage	300 V	
Test voltage	2000 V	
Temperature range		
Fixed installation	–40°C ... +80°C	
Flexible installation	–20°C ... +80°C	–5°C ... +80°C
Bend radius		
Fixed installation	8 × outer Ø	
Flexible installation	10 × outer Ø	
C-track data		
Movement speed	max. 2 m/s (stroke length 1.8 m, acceleration 5 m/s²)	
Number of bending cycles	max. 5 M	
Application		
	4-way distributors, 5-pole	6-way distributors, 5-pole

| DISTRIBUTOR LEADS SHIELDED – PUR

16 × 0.34 mm² + 3 × 0.75 mm²



Approvals

c UL us CE

1	**Type of drum**	
	Drum (100–300 m)	**05**
2	**Cable length**	
	100 m	**01**
	200 m	**02**
	300 m	**03**
3	**Jacket color**	
	Gray	**401**

Article no.

7	0	0	0	–	C	1 __	2 __	–	3 ___	0	0	0	0

Technical Data	
Copper index	133.1 kg/km
Outer diameter	ca. 11.7 mm
Wire structure	0.34 mm² / 0.75 mm² (Class 6)
Wire insulation	TPE
Shielding	polyester fleece, screen tinned copper wire braid (ca. 80 % covering), polyester foil
Outer jacket	PUR
Resistance	high resistance to oil, fuel and chemicals
	resistant to microbes, hydrolysis and abrasion, halogen-free, labs-free, silicone-free, cadmium-free, lead-free, CFC-free
Electrical data	
Nominal voltage	300 V
Test voltage	2000 V
Temperature range	
Fixed installation	–40°C ... +90°C
Flexible installation	–40°C ... +90°C
Bend radius	
Fixed installation	10 × outer Ø
Flexible installation	12 × outer Ø
C-track data	
Movement speed	max. 2 m/s (stroke length 1.8 m, acceleration 5 m/s²)
Number of bending cycles	max. 5 M
Application	
	8-way distributors, 5-pole

| NOTES

MURRELEKTRONIK CABLE GLANDS

Murrelektronik offers Premium cable glands and cable entries – Made in Germany – as cable accessories. No matter whether plastic or the EMC version, metric or PG, Murrelektronik has them all from M12 to M63 and from PG7 to PG48.

Your advantage: EVERYTHING FROM A SINGLE SOURCE!

Cable gland PA

- integrated strain relief
- large sealing and clamping area
- easy to assemble
- M12 to M63, PG7 to PG48

Cable gland brass

- integrated strain relief
- large sealing and clamping area
- easy to assemble
- anti-twist protection
- M12 to M63, PG7 to PG48

EMV2

- for cables with shielding
- contact spring for clean shield support
- integrated strain relief
- large sealing and clamping area
- M16 to M63

EMV1

- for cables with shielding
- integrated strain relief
- large sealing and clamping area
- anti-twist protection
- M12 to M63 / PG7 to PG29

Ordering system

Your order number can be defined according to your components. It only takes 4 simple steps.

Here an example:

1	2	3	4
7000-910	01	– 1	00	07

1 Category — 01
- **01** Gland
- **02** Locknut

2 Design — 00
- **00** Plastic PA (RAL 7035)
- **10** Brass
- **20** EMV Variant 1
- **21** EMV Variant 2

3 Thread — 1
- **0** Metric
- **1** PG

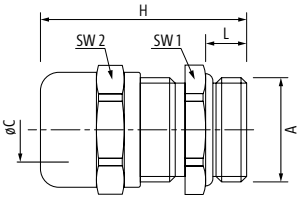
4 Thread size e.g. — 07
- **16** M16
- **07** PG7

CABLE GLAND

PA Cable gland metric

- **integrated strain relief**
- **large sealing and clamping area**
- **easy to assemble**

Dimension drawing



Ordering data

	Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
	M12×1.5	3 – 6	8	15	15	31	100	**7000-91001-0001200**
	M16×1.5	5 – 10	8	20	20	35.5	100	**7000-91001-0001600**
	M20×1.5	8 – 13	8	24	24	36	100	**7000-91001-0002000**
	M25×1.5	11 – 17	8	29	29	43	50	**7000-91001-0002500**
Flat sealing ring	M32×1.5	15 – 21	10	36	36	50	25	**7000-91001-0003200**
	M40×1.5	19 – 28	10	46	46	51	10	**7000-91001-0004000**
	M50×1.5	27 – 35	12	55	55	61.5	5	**7000-91001-0005000**
	M63×1.5	32 – 42	12	68	68	65.5	5	**7000-91001-0006300**

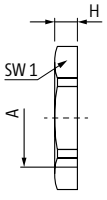
Structure	
Cap nut	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Intermediate nozzle	polyamide
Connecting thread	metric, according to EN 60423
General data	
Temperature range	–20°C ... +100°C
Protection class	IP68
Testing standard	EN 50262, UL 514B
Color	gray

CABLE GLAND

PA counter nut metric

- **secure fastening of cable glands and accessories**

Dimension drawing



Ordering data

	Variant (A)	SW 1 (mm)	Height (mm)	Pieces (PU)	Art. No.
non-glass-fiber-reinforced	M12×1.5	17	5	100	**7000-91002-0001200**
	M16×1.5	22	5	100	**7000-91002-0001600**
	M20×1.5	27	6	100	**7000-91002-0002000**
	M25×1.5	32	6	100	**7000-91002-0002500**
	M32×1.5	41	7	100	**7000-91002-0003200**
	M40×1.5	50	7	50	**7000-91002-0004000**
	M50×1.5	60	8	50	**7000-91002-0005000**
	M63×1.5	75	8	50	**7000-91002-0006300**

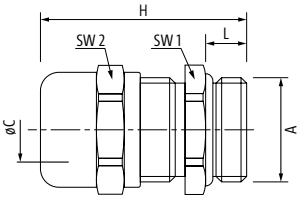
Structure	
Hexagonal nut	polyamide
Connecting thread	metric, according to EN 60423
General data	
Temperature range	–20°C ... +100°C
Color	gray

CABLE GLAND

Brass cable gland metric

- **integrated strain relief**
- **large sealing and clamping area**
- **easy to assemble**
- **anti-twist protection**

Dimension drawing



Ordering data

	Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
	M12×1.5	3 – 6	5	14	14	25	100	**7000-91001-0101200**
	M16×1.5	5 – 9	5	17	17	30	100	**7000-91001-0101600**
	M20×1.5	9 – 13	6	22	22	33.5	100	**7000-91001-0102000**
	M25×1.5	11 – 16	7	27	27	36.5	50	**7000-91001-0102500**
	M32×1.5	14 – 21	8	34	34	38	25	**7000-91001-0103200**
	M40×1.5	19 – 27	8	43	43	41	10	**7000-91001-0104000**
Seal ring	M50×1.5	24 – 35	9	55	55	49.5	5	**7000-91001-0105000**
	M63×1.5	32 – 42	10	65	65	52.5	5	**7000-91001-0106300**

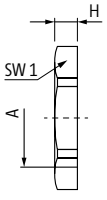
Structure	
Cap nut	nickel-plated brass
Lamellar insert	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Intermediate nozzle	nickel-plated brass
Seal ring	nitrile rubber
Connecting thread	metric, according to EN 60423
General data	
Temperature range	–20°C ... +100°C
Protection class	IP68
Testing standard	EN 50014, EN 50019

CABLE GLAND

Brass cable gland metric

- **secure fastening of cable glands and accessories**

Dimension drawing



Ordering data

Variant (A)	SW 1 (mm)	Height (mm)	Pieces (PU)	Art. No.
M12×1.5	15	2.8	100	**7000-91002-0101200**
M16×1.5	19	2.8	100	**7000-91002-0101600**
M20×1.5	24	3	100	**7000-91002-0102000**
M25×1.5	30	3.5	100	**7000-91002-0102500**
M32×1.5	36	4	100	**7000-91002-0103200**
M40×1.5	46	5	50	**7000-91002-0104000**
M50×1.5	60	5	50	**7000-91002-0105000**
M63×1.5	70	6	50	**7000-91002-0106300**

Structure

Hexagonal nut	nickel-plated brass
Connecting thread	metric, according to EN 60423 and ISO 965

General data

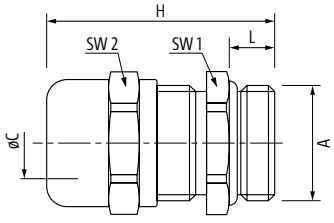
Temperature range	–60°C ... +200°C

CABLE GLAND

Cable gland
EMV1 metric

- **for cables with shielding**
- **integrated strain relief**
- **large sealing and clamping area**
- **anti-twist protection**

Dimension drawing



Ordering data

Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
M12×1.5	3 – 6	5	14	14	25	100	**7000-91001-0201200**
M16×1.5	5 – 9	5	17	17	30	100	**7000-91001-0201600**
M20×1.5	9 – 13	6	22	22	33.5	100	**7000-91001-0202000**
M25×1.5	11 – 16	7	27	27	36.5	50	**7000-91001-0202500**
M32×1.5	14 – 21	8	34	34	38	25	**7000-91001-0203200**
M40×1.5	19 – 27	8	43	43	41	10	**7000-91001-0204000**
M50×1.5	24 – 35	9	55	55	49.5	5	**7000-91001-0205000**
M63×1.5	32 – 42	10	65	65	52.5	5	**7000-91001-0206300**

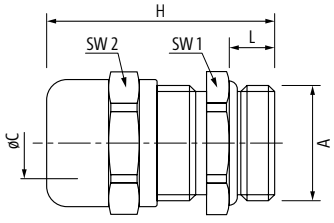
Structure	
Cap nut	nickel-plated brass
Lamellar insert	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Intermediate nozzle	nickel-plated brass
Seal ring	nitrile rubber
Connecting thread	metric, according to EN 60423
General data	
Temperature range	–20°C ... +100°C
Protection class	IP68
Testing standard	EN 50262

CABLE GLAND

Cable gland
EMV2 metric

- **for cables with shielding**
- **integrated strain relief**
- **large sealing and clamping area**
- **anti-twist protection**

Dimension drawing



Ordering data

Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
M16×1.5	5 – 9	5	17	17	30	100	**7000-91001-0211600**
M20×1.5	9 – 13	6	22	22	33.5	100	**7000-91001-0212000**
M25×1.5	11 – 16	7	27	27	36.5	50	**7000-91001-0212500**
M32×1.5	14 – 21	8	34	34	38	25	**7000-91001-0213200**
M40×1.5	19 – 27	8	43	43	41	10	**7000-91001-0214000**
M50×1.5	24 – 35	9	55	55	49.5	5	**7000-91001-0215000**
M63×1.5	32 – 42	10	65	65	52.5	5	**7000-91001-0216300**

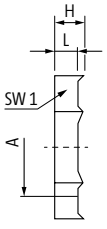
Structure	
Cap nut	nickel-plated brass
Lamellar insert	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Contact spring	stainless steel
Intermediate nozzle	nickel-plated brass
Seal ring	nitrile rubber
Connecting thread	metric, according to EN 60423
General data	
Temperature range	–20°C ... +100°C
Protection class	IP68
Testing standard	UL 514B

CABLE GLAND

Brass locknut
EMV metric

- **for secure fastening of EMV cable glands**
- **lacquer layers or powder coatings**
- **vibration resistance**

Dimension drawing



Ordering data

Variant (A)	L (mm)	SW 1 (mm)	Height (mm)	Pieces (PU)	Art. No.
M12×1.5	4.5	15	5.5	100	**7000-91002-0201200**
M16×1.5	4.5	19	5.5	100	**7000-91002-0201600**
M20×1.5	4.5	24	5.5	100	**7000-91002-0202000**
M25×1.5	4.5	30	5.5	100	**7000-91002-0202500**
M32×1.5	4.5	36	5.5	100	**7000-91002-0203200**
M40×1.5	5	46	6	50	**7000-91002-0204000**
M50×1.5	5	60	6	50	**7000-91002-0205000**
M63×1.5	6	70	7	50	**7000-91002-0206300**

Structure

Hexagonal nut	nickel-plated brass
Connecting thread	metric, according to EN 60423

General data

Temperature range	–60°C ... +200°C

Other

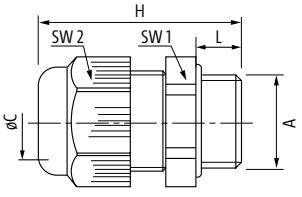
	cutting edge

CABLE GLAND

PA Cable gland metric

- **integrated strain relief**
- **large sealing and clamping area**
- **easy to assemble**

Dimension drawing



Ordering data

Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
PG 7	3 – 6.5	8	15	15	30.5	100	**7000-91001-1000700**
PG 9	4 – 8	8	19	19	34	100	**7000-91001-1000900**
PG 11	5 – 10	8	22	22	37	100	**7000-91001-1001100**
PG 13	6 – 12	9	24	24	39	100	**7000-91001-1001300**
PG 16	10 – 14	10	27	27	42.5	50	**7000-91001-1001600**
PG 21	13 – 18	11	33	33	47.5	50	**7000-91001-1002100**
PG 29	18 – 25	11	42	42	53	25	**7000-91001-1002900**
PG 36	22 – 32	13	53	53	61	10	**7000-91001-1003600**
PG 42	30 – 38	13	60	60	65	5	**7000-91001-1004200**
PG 48	34 – 44	14	65	65	67	5	**7000-91001-1004800**

Seal ring

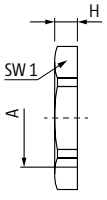
Structure	
Cap nut	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Intermediate nozzle	polyamide
Seal ring	nitrile rubber
Connecting thread	PG, according to DIN 40430
General data	
Temperature range	–20°C ... +100°C
Protection class	IP68
Testing standard	UL 514B
Color	gray

CABLE GLAND

PA Locknut
PG

- **secure fastening of cable glands and accessories**

Dimension drawing



Ordering data

Variant (A)	SW 1 (mm)	Height (mm)	Pieces (PU)	Art. No.
PG 7	19	5	100	**7000-91002-1000700**
PG 9	22	5	100	**7000-91002-1000900**
PG 11	24	5	100	**7000-91002-1001100**
PG 13	27	6	100	**7000-91002-1001300**
PG 16	30	6	100	**7000-91002-1001600**
PG 21	36	7	100	**7000-91002-1002100**
PG 29	46	7	100	**7000-91002-1002900**
PG 36	60	8	50	**7000-91002-1003600**
PG 42	65	8	50	**7000-91002-1004200**
PG 48	70	8	50	**7000-91002-1004800**

Structure

Hexagonal nut	polyamide
Connecting thread	metric, according to DIN 40430

General data

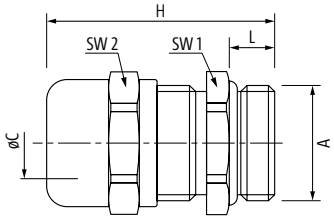
Temperature range	–20°C ... +100°C
Color	gray

| CABLE GLAND

Brass cable gland
PG

- **integrated strain relief**
- **large sealing and clamping area**
- **easy to assemble**
- **anti-twist protection**

Dimension drawing



Ordering data

Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
PG 7	3 – 6.5	5	14	14	24	100	**7000-91001-1100700**
PG 9	4 – 8	6	17	17	29	100	**7000-91001-1100900**
PG 11	5 – 10	6	20	20	29.5	50	**7000-91001-1101100**
PG 13	6 – 12	6.5	22	22	31.5	50	**7000-91001-1101300**
PG 16	10 – 14	6.5	24	24	31.5	50	**7000-91001-1101600**
PG 21	13 – 18	7	30	30	34	50	**7000-91001-1102100**
PG 29	18 – 25	8	40	40	39	25	**7000-91001-1102900**
PG 36	24 – 32	9	50	50	45	10	**7000-91001-1103600**
PG 42	30 – 38	10	57	57	49	5	**7000-91001-1104200**
PG 48	34 – 44	10	64	64	52	5	**7000-91001-1004800**

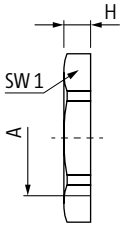
Structure	
Cap nut	nickel-plated brass
Lamellar insert	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Intermediate nozzle	nickel-plated brass
Seal ring	nitrile rubber
Connecting thread	PG, according to DIN 40430
General data	
Temperature range	–20°C ... +100°C
Protection class	IP68

CABLE GLAND

Brass locknut
PG

- **secure fastening of cable glands and accessories**

Dimension drawing



Ordering data

Variant (A)	SW 1 (mm)	Height (mm)	Pieces (PU)	Art. No.
PG 7	15	2.8	100	**7000-91002-1100700**
PG 9	18	2.8	100	**7000-91002-1100900**
PG 11	21	3	100	**7000-91002-1101100**
PG 13	23	3	100	**7000-91002-1101300**
PG 16	26	3	100	**7000-91002-1101600**
PG 21	32	3.5	100	**7000-91002-1102100**
PG 29	41	4	100	**7000-91002-1102900**
PG 36	51	5	50	**7000-91002-1103600**
PG 42	60	5	50	**7000-91002-1104200**
PG 48	64	5.5	50	**7000-91002-1104800**

Structure

Hexagonal nut	nickel-plated brass
Connecting thread	PG, according to DIN 40430

General data

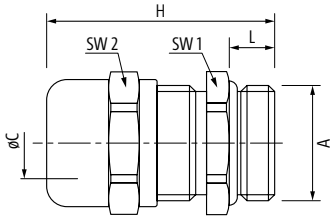
Temperature range	–60°C ... +200°C

CABLE GLAND

Cable gland
EMV1 PG

- **for cables with shielding**
- **integrated strain relief**
- **large sealing and clamping area**
- **anti-twist protection**

Dimension drawing



Ordering data

Variant (A)	Terminal ØC (mm)	Thread length L (mm)	SW 1 (mm)	SW2 (mm)	Height (mm)	Pieces (PU)	Art. No.
PG 7	3 – 6.5	5	14	14	24	100	**7000-91001-1200700**
PG 9	4 – 8	6	17	17	29	100	**7000-91001-1200900**
PG 11	5 – 10	6	20	20	29.5	100	**7000-91001-1201100**
PG 13	6 – 12	6.5	22	22	31.5	50	**7000-91001-1201300**
PG 16	10 – 14	6.5	24	24	31.5	50	**7000-91001-1201600**
PG 21	13 – 18	7	30	30	34	25	**7000-91001-1202100**
PG 29	18 – 25	8	40	40	39	25	**7000-91001-1202900**

Structure

Cap nut	nickel-plated brass
Lamellar insert	polyamide
Sealing ring	polychloroprene/nitrile rubber CR/NBR
Intermediate nozzle	nickel-plated brass
Seal ring	nitrile rubber
Connecting thread	PG, according to DIN 40430

General data

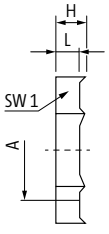
Temperature range	–20°C ... +100°C
Protection class	IP68

CABLE GLAND

Brass Locknut
EMV PG

- **for secure fastening of EMV cable glands**
- **for cutting paint layers or powder coatings**
- **increased vibration resistance**

Dimension drawing



Ordering data

Variant (A)	L (mm)	SW 1 (mm)	Height (mm)	Pieces (PU)	Art. No.
PG 7	3.7	15	4.7	100	**7000-91002-1200700**
PG 9	3.7	18	4.7	100	**7000-91002-1200900**
PG 11	3.7	21	4.7	100	**7000-91002-1201100**
PG 13	3.7	23	4.7	100	**7000-91002-1201300**
PG 16	3.7	26	4.7	100	**7000-91002-1201600**
PG 21	4.2	32	5.2	100	**7000-91002-1202100**
PG 29	4.7	41	5.7	100	**7000-91002-1202900**
PG 36	5	51	6	50	**7000-91002-1203600**
PG 42	5	60	6	50	**7000-91002-1204200**
PG 48	5.5	64	6.5	50	**7000-91002-1204800**

Structure

Hexagonal nut	nickel-plated brass
Connecting thread	PG, according to DIN 40430

General data

Temperature range	–60°C ... +200°C

Other

	cutting edge

| CABLE ENTRY SYSTEM

Cable entry system rail

- uninterrupted cable entry
- use of pre-assembled cables
- to fit standard cut-outs
- degree of protection IP54
- up to 20 cables

Cable entry system plates

- maintenance-free rational connection technology
- for cable and pneumatic hoses
- alternative to cable gland
- to fit standard cut-outs
- degree of protection IP65

Cable entry system round

- metric M50 and M63 threads
- simple round hole cut-out
- simple snap on
- possible without fastening on opposite side
- degree of protection IP65

Information

Cables for data, control, bus and measurement signals and pre-assembled cables can be introduced uninterrupted into the cable entry system rails The introduction of pre-assembled cables has the advantage that completely checked and tested cables with plugs can be used right away. In the cable entry system plates, the cables are simply plugged into the cable entry holes. Suitable for applications with electric cables and pneumatic hoses.

CABLE ENTRY SYSTEM

Cable entry system	Designation	Description	Art. No.
	Sizes of rails 16	for 2 cables (2 large, 0 small)	4000-70103-000 2000
		for 4 cables (0 large, 4 small)	4000-70103-000 4000
		for 5 cables (1 large, 4 small)	4000-70103-010 4000
		for 8 cables (0 large, 8 small)	4000-70103-000 8000
	Sizes of rails 24	for 4 cables (2 large, 2 small)	4000-70103-020 2000
		for 7 cables (1 large, 6 small)	4000-70103-010 6000
		for 10 cables (0 large, 10 small)	4000-70103-001 0000
	Grommets small with cable binder eyelet	for cable diameters 3 ... 4 mm	4000-70403-000 1030
		for cable diameters 4 ... 5 mm	4000-70403-000 1040
		for cable diameters 5 ... 6 mm	4000-70403-000 1050
		for cable diameters 6 ... 7 mm	4000-70403-000 1060
		for cable diameters 7 ... 8 mm	4000-70403-000 1070
		for cable diameters 8 ... 9 mm	4000-70403-000 1080
		for cable diameters 9 ... 10 mm	4000-70403-000 1090
		for cable diameters 10 ... 11 mm	4000-70403-000 1100
		for cable diameters 11 ... 12 mm	4000-70403-000 1110
		for cable diameters 12 ... 13 mm	4000-70403-000 1120
		for cable diameters 13 ... 14 mm	4000-70403-000 1130
		for cable diameters 14 ... 15 mm	4000-70403-000 1140
		for cable diameters 15 ... 16 mm	4000-70403-000 1150
	Grommets large with cable binder eyelet	for cable diameters 16 ... 17 mm	4000-70403-010 0160
		for cable diameters 17 ... 18 mm	4000-70403-010 0170
		for cable diameters 18 ... 19 mm	4000-70403-010 0180
		for cable diameters 19 ... 20 mm	4000-70403-010 0190
		for cable diameters 20 ... 21 mm	4000-70403-010 0200
		for cable diameters 21 ... 22 mm	4000-70403-010 0210
		for cable diameters 22 ... 23 mm	4000-70403-010 0220
		for cable diameters 23 ... 24 mm	4000-70403-010 0230
		for cable diameters 24 ... 25 mm	4000-70403-010 0240
		for cable diameters 25 ... 26 mm	4000-70403-010 0250
		for cable diameters 26 ... 27 mm	4000-70403-010 0260
		for cable diameters 27 ... 28 mm	4000-70403-010 0270
		for cable diameters 28 ... 29 mm	4000-70403-010 0280
		for cable diameters 29 ... 30 mm	4000-70403-010 0290
		for cable diameters 30 ... 31 mm	4000-70403-010 0300
	Grommets special form	dummy sleeve small	4000-70503-000 1010
		dummy sleeve large	4000-70503-010 0010
		for 1 AS-Interface cable	4000-70503-000 1020
		for 2 AS-Interface cables	4000-70503-000 1030
		for 2 cables (diameter 5 mm)	4000-70503-000 1050
		for 2 cables (diameter 6 mm)	4000-70503-000 1060
		adapter for grommet	4000-70503-010 0020
Cable entry system plates	**Designation**	**Description**	**Art. No.**
	Size 24	for cable diameters 8 ... 12 mm (12 ×)	4000-70603-024 0120
		for cable diameters 3 ... 6.5 mm (6 ×), 5 ... 9.2 mm (4 ×), 9.6 ... 15.9 mm (4 ×)	4000-70603-024 0140
		for cable diameters 5 ... 9.2 mm (17 ×)	4000-70603-024 0170
		for cable diameters 3 ... 6.5 mm (16 ×), 5 ... 9.2 mm (4 ×), 8 ... 12.5 mm (2 ×)	4000-70603-024 0220
		for cable diameters 4.3 ... 8.1 mm (23 ×)	4000-70603-024 0230
		for cable diameters 3 ... 6.5 mm (29 ×)	4000-70603-024 0290
Cable entry systems round	**Designation**	**Description**	**Art. No.**
	M50	for cable diameters 6–10 mm (3 ×), 9.6–15.9 mm (1 ×)	4000-70703-050 0040
		for cable diameters 3–5.5 mm (1 ×), 5–9.2 mm (5 ×)	4000-70703-050 0060
		for cable diameters 3.5–6.5 mm (7 ×), 6–10 mm (1 ×)	4000-70703-050 0080
		locknut M50, plastic Black	4000-70704-050 0000
	M63	for cable diameters 3.5–6.5 mm (2 ×), 5–9.2 mm (4 ×), 9.6–15.9 mm (2 ×)	4000-70703-063 0080
		for cable diameters 3–5.5 mm (6 ×), 3.5–6.5 mm (6 ×), 6–10 mm (1 ×)	4000-70703-063 0130
		for cable diameters 3–5 mm (19 ×)	4000-70703-063 0190
		locknut M63, plastic Black	4000-70704-063 0000
Note			
	for sale only in packing units		

| PERFECTLY TUNED TOOL FOR YOUR APPLICATION!

When it comes to connectors, we have over 40 years of experience – and we want you to benefit from it. That's why we have compiled an assortment of tools that are perfect for working on our connectors and cables.

Our MURR Tools product family has all the tools you need for your electrical connections to work easily and practically. Our tools help you avoid making mistakes, which prevents downtimes due to poor connections. They also ensure outstanding efficiency.

Cutting

The cutting process is the first step when establishing an electrical connection. The cut must be of high quality to ensure that the subsequent processes run smoothly.

Cutting tools from Murrelektronik guarantee a smooth and straight cut. The conductor is not deformed or pinched in the process.

Maximum leverage and an ingenious cutting geometry allow you to work more efficiently, while being easy on the joints.

Stripping

The cutting process is followed by stripping. In this process, not only the cable is stripped of its jacket, but the insulation of the conductor is also removed up to a previously set length. During this process it must be avoided that the conductor is damaged.

The self-adjusting stripping pliers from Murrelektronik automatically adjust themselves to the conductor cross-section and the insulation thickness. This avoids the risk of damaging the conductor.

The handle of the Murrelektronik stripping tool is ergonomic in shape. It has a good grip and allows for non-slip and reliable working. Lockable spacers ensure consistently good results.

Crimping

The stripped cable ends are crimped with ferrule ends. The objective is to achieve a solder-free connection that is electrically and mechanically safe and cannot be undone.

The crimping tools from Murrelektronik are compact, allowing the ferrule ends to be reliably connected to the cable ends even in places of difficult access.

The ratcheting mechanism is designed for optimal crimping results. This avoids errors such as the ferrule end bursting open or crack formation at the longitudinal edges.

| PERFECTLY TUNED TOOL FOR YOUR APPLICATION!

Gripping

All Murrelektronik pliers are produced and tested according to DIN EN 60900.

The shape of the handle makes it easy to perform work that takes relatively long.

Accessories can be inserted into the system socket.

Accessory

The SoftGrip handles make the pliers from Murrelektrionik fit well in the palm of the hand. Their ergonomic shape and handle zones of different softness allow work to be performed over an extended period of time without tiring.

The system clip from Murrelektronik protects employees from accidents caused by accidentally falling tools. It is compatible with all pliers with the SoftGrip handle.

CABLE SHEARS

Ordering data		Art. No.
		7000-98100-0000000
General data		
	with straight, toothed cutting blade and wire cutter	
	readjustable screwed articulation	
	ergonomic multi-component handle for better handling	
	made of tool steel	
Technical Data		
Length	140 mm	
Cutting length	43 mm	
Weight	65 g	

CABLE CUTTERS AND SIDE-CUTTING PLIERS

Ordering data	Art. No.	Art. No.
	7000-98131-0000000	7000-98141-0000000
General data		
	precision-ground cutting blades with undulated profile for a smooth and clean cut	for cutting hard and soft wires
	long-lived cutting blade for stripping and cutting of jacketed copper and aluminum cables	cutting blades additionally hardened by induction (cutting blade hardness approx. 62 HRC)
	readjustable screwed articulation	power tool with optimum lever action for easy working without tiring
	ergonomische 3 Komponenten Griffhülle	
	ergonomic 3-component handle sleeve	precision cutting blades for ultrafine wires
Technical Data		
Length	160 mm	160 mm
Cutting value	16 mm cable Al + Cu multiconductor single- and multi-wire	6 mm soft wire for blade form up to 220 N/mm² Al, Cu, plastic
	50 mm² cable Al + Cu multiconductor single- and multi-wire	3.5 mm medium hard wire up to 750 N/mm² nail, wire nail
		2 mm hard wire up to 1800 N/mm² wire rope strand, steel wire
		11 mm cable Al + Cu multiconductor single- and multi-wire
Weight	185 g	210 g

| STRIPPING TOOL

Ordering data	Art. No.	Art. No.
	7000-98201-0000000	7000-98211-0000000
General data		
	for flush stripping, even in places of difficult access	defined locking positions for circular, longitudinal and spiral cuts
	slip-resistant and safe working thanks to an ergonomic handle shape	reduced risk of blade breakage thanks to autom. return of the blade to the starting position after stripping
		hook change without special tools
		ergonomic – rests for thumb, index and small fingers
Technical Data		
Length	140 mm	167 mm
Cable cross-section	min. 8 mm; max. 13 mm	min. 4.5 mm; max. 40 mm
Weight	45 g	116 g

| STRIPPING PLIERS

Ordering data	Art. No.	Art. No.
	7000-98301-0000000	7000-98311-0000000
General data		
	cassette with straight blade	pistol type handle
	largest possible stripping capacity of all tools of this type	
	long-lived integrated cutting function	
	fine adjustment feature for removing thin and thick insulations	
	after stripping, the stripping blades open and remain open – easy ejection of the removed jacket	
	robust, long-lived, user-friendly, ergonomic	
Technical Data		
Length	191 mm	144 mm
Cable cross-section	0.02 bis 10 mm² / AWG 34-8	
Insulation stripping length	3–18 mm	
Weight	136 g	165 g

CRIMPING PLIERS

Ordering data	Art. No.
	7000-98401-0000000
General data	
	ratchet (with emergency release) to ensure crimping according to specification
	slip-resistant and safe working thanks to ergonomic handles
	compact design for easier access even in places of difficult access
	crimp profile: hexagonal
Technical Data	
Length	176 mm
Cutting length	conductor cross-section: 0.14-10 mm²/AWG 26-8
Weight	371 g

POWER COMBINATION PLIERS AND NEEDLE-NOSE PLIERS

Ordering data	Art. No.	Art. No.
	7000-98151-0000000	7000-98161-0000000
General data		
	with nail & wire holder	for cutting hard and soft wires
	for cutting hard and soft wires	with cutting edge and burner hole
	gripping zones for flat and round materials	with long, flat-round jaws, gripping surfaces toothed
	with integrated ring wrench	
	power tool with optimum lever action for easy working without tiring	
Technical Data		
Length	180 mm	205 mm
Cutting value	5.2 mm soft wire up to 220 N/mm² Al, Cu, plastic	3.9 mm soft wire up to 220 N/mm² Al, Cu, plastic
	3.4 mm medium hard wire up to 750 N/mm² nail, wire nail	3.2 mm medium hard wire up to 750 N/mm² nail, wire nail
	2.2 mm soft wire up to 1800 N/mm² wire rope strand, steel wire	
	12 mm cable – Al + Cu multiconductor single- and multi-wire	–
Weight	260 g	190 g

| SYSTEM CLIP WITH LANYARD

Ordering data	Art. No.
	7000-98999-000000
General data	
	protects from accidents caused by accidentally falling tools
	the easy slip-on system clip (fastening adapter) produces a secure connection between pliers with SoftGrip handles and the security tape.
	compatible with all pliers with SoftGrip handles
	the system clip can be combined with existing tool falling safeguards and can be connected a snap hook or cord
	the adaptive system clip allows quick fastening and storage of the equipment
Technical Data	
Length	450 mm
Width	10 mm
Weight	10 g

| NOTES

| COPPER PRICE

In general, the cost of material for cables and wires is based on a copper price of €150.00/100 kg. At the time of invoicing, the difference between the general cost and the daily rate is calculated as copper surcharge.

The formula for calculating the copper surcharge is:

$$\textit{Copper surcharge EUR/km} = \textit{copper index (kg/km)} \times \frac{\textit{(DEL+1\% delivery costs)} - \textit{copper basis}}{100}$$

DEL

DEL (German Electrolytic High-Conductivity Copper) is the German stock exchange rate for 99.5% pure copper and can be found in EUR/100 kg in the business section of any newspaper.

Example: DEL rate = €194.29
The price for 100 kg copper is €194.29 plus
1% delivery costs added for cables.

Copper Basis

The prices stated in our general catalog include a certain copper percentage for almost all cables.

- Copper basis = €150.00/100 kg

Copper Index

The copper index is indicated in our general catalog. It is the weight of copper in a cable.

Example:
Jacket color/code 636 3 x 0.75 mm²
Copper index 23.8 kg/km

Calculation example for 636 3 x 0.75 mm²
DEL €194.29/100 kg (assumed value)
Copper basis = €150.00/100 kg
Copper index 23.8 kg/km

$$\textit{Copper surchage} = 23.8 \times \frac{(194.29 + 1.9429) - 150}{100}$$

= €11/km

The net price including copper is calculated with:

- Gross price
- Individual discount
- Copper surcharge

Note

In our invoices, the copper surcharge is shown separately.

WIRE STRUCTURE

DIN VDE 0295, IEC 60228 bzw. HD 383

Wire cross section in mm	Stranded wires		Four-strand wires		Fine-strand wires		Extra-fine strand wires							
	Class 2 DIN VDE 0295				Class 5 DIN VDE 0295		Class 6 DIN VDE 0295							
	Column 1		Column 2		Column 3		Column		Column 5		Column 6		Column 7	
	No. of strands	Single strand	No. of strands	Single strand	No. of strands	Single strand	No. of strands	Single strand	No. of strands	Single strand	No. of strands	Single strand	No. of strands	Single strand
0.14					18×0.10		18×0.10		18×0.1		36×0.07		72×0.5	
0.25					14×0.15		32×0.10		32×0.1		65×0.07		128×0.5	
0.34			7×0.25		19×0.15		42×0.10		42×0.1		88×0.07		174×0.5	
0.38			7×0.27		12×0.20		21×0.15		48×0.1		100×0.07		194×0.5	
0.5	7×0.30		7×0.30		16×0.20		28×0.15		64×0.1		131×0.07		256×0.5	
0.75	7×0.37		7×0.37		24×0.20		42×0.15		96×0.1		195×0.07		384×0.5	
1.0	7×0.43		7×0.30		32×0.20		56×0.15		128×0.1		260×0.07		512×0.5	
1.5	7×0.52		7×0.37		30×0.25		74×0.15		192×0.1		392×0.07		768×0.5	

CONVERSION AWG TO METRIC CROSS SECTIONS

AWG	mm²	AWG	mm²	AWG	mm²	kcmil	mm²
30	0.05	18	0.75	6	16	300	150
28	0.08	17	1	4	25	350	185
26	0.14	16	1.5	2	35	500	240
24	0.25	14	2.5	1	50	600	300
22	0.34	12	4	2/0	70	750	400
21	0.38	10	6	3/0	95	1000	500
20	0.5	8	10	4/0	120		

OVERVIEW OF INSULATION MATERIALS

Temperature range	Volume resistivity (Ω × cm)	Capacitivity (10^{-3})	Elongation %	Tensile strength N/mm²	Oil resistance	Fuel resistance	Weather resistance
Y = PV C (polyvinyl chloride) self-extinguishing							
−30 ... +70°C	10^{12}–10^{15}	4.0	150–300	10–25	moderate	high	moderate
11Y = PUR (polyurethane) / flammable							
−40 ... +90°C	10^{12}	4.0–6.0	300–600	30–45	high	high	very high
2Y = LDPE (high pressure polyethylene) / flammable							
−50 ... +70°C	10^{17}	2.3	500	20–30	low	moderate	high
2Y = HDPE (low pressure polyethylene) / flammable							
−50 ... +100°C	10^{17}	2.3	800	30	low	moderate	moderate
12Y = TPE-E (thermoplastic polyester elastomer) / flammable							
−70 ... +125°C	10^{12}	3.7–5.1	280–650	3–25	high	very high	very high
02Y = Cell-PE (cell polyethylene) / flammable							
−40 ... +70°C	10^{17}	1.6	350–450	8–12	low	moderate	high
9Y = PP (polypropylene) / flammable							
−40 ... +80°C	10^{16}	2.3–2.4	300	20–35	high	high	moderate

(All data are intended as guidelines only)

| CURRENT CAPACITY (DIN VDE 0298-4, 2003-08/ [1] VDE 0891-1)

of cables with nominal voltage up to 1000 V and heat resistant cables
at ambient temperature +30°C

	Single wire cables • Rubber insulation • PVC insulation • TPE insulation • Heat resistant	**Multiple wire cables for home and handheld devices** • Rubber insulation • PVC insulation • TPE insulation	**Multiple wire cables excluding home and handheld devices** • Rubber insulation • PVC insulation • TPE insulation • Heat resistant
Nominal cross section in mm²	**Capacity in [A]**	**Capacity in [A]**	**Capacity in [A]**
0.08[1]	1.5	-	1
0.14[1]	3	-	2
0.25[1]	5	-	4
0.34[1]	8	-	6
0.5	12	3	9
0.75	15	6	12
1	19	10	15
1.5	24	16	18
2.5	32	20	26

| CONVERSION FACTORS

for ambient temperatures different from 30°C referring to DIN VDE 0298-4, 2003-08. Permissible or recommended operation temperature on the conductor (see info temperature range on the previous product)

Ambient temperature in °C	**60°C**	**70°C**	**80°C**	**85°C**	**90°C**
	Conversion factors				
10	1.29	1.22	1.18	1.17	1.15
15	1.22	1.17	1.14	1.13	1.12
20	1.15	1.12	1.1	1.09	1.08
25	1.08	1.06	1.05	1.04	1.04
30	1.00	1.00	1.00	1.00	1.00
35	0.91	0.94	0.95	0.95	0.96
40	0.82	0.87	0.89	0.90	0.91
45	0.71	0.79	0.84	0.85	0.87
50	0.58	0.71	0.77	-	0.82
55	0.41	0.61	0.71	-	0.76
60	-	0.50	0.63	-	0.71
65	-	0.35	0.55	-	0.65
70	-	-	0.45	-	0.58
75	-	-	0.32	-	0.50
80	-	-	-	-	0.41
85	-	-	-	-	0.29

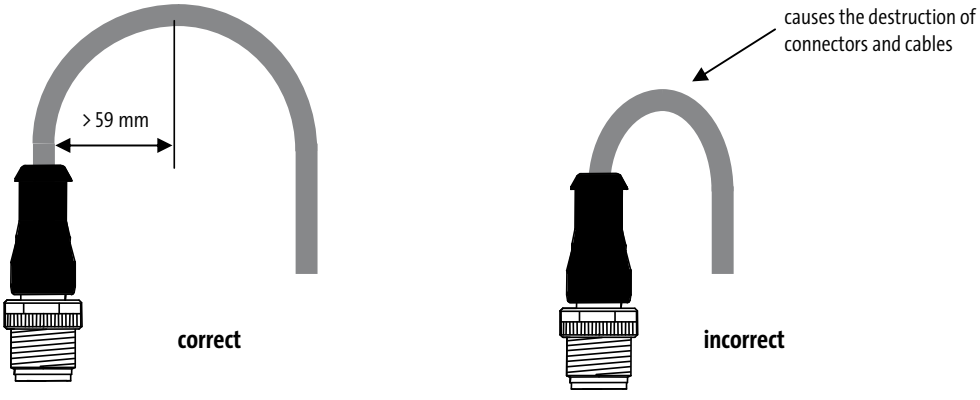
| INSTALLATION INSTRUCTIONS FOR SENSOR/ACTUATOR CONNECTORS

Professional installation guarantees the following:

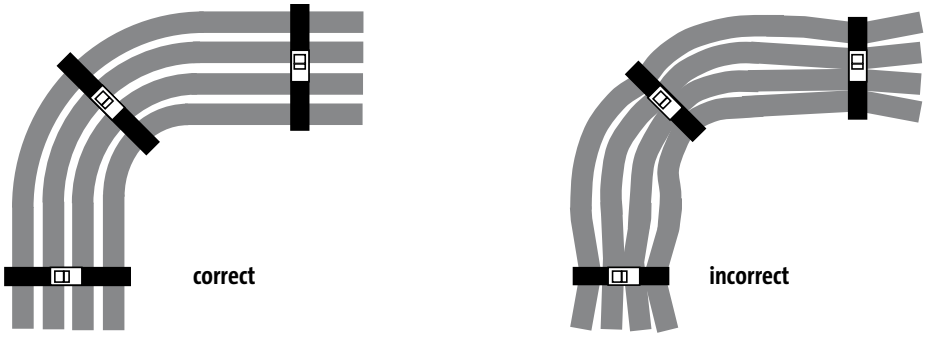
- reliable and safe electrical connections (even when exposed to chemical and mechanical influences)
- long system lifetime
- low maintenance and repair costs

Avoid the following common problems:

- apply the recommended amount of torque for the particular type of connector (use a torque wrench to be sure!).
- do not exceed the maximum bending radius when laying the cable (example: cable diameter = 5.9 mm, bending radius = min. 10x outer diameter, i.e. bending radius = min. 59 mm)



- If you use cable ties, make sure they do not cut into the cable jacket or deform the cable. This will help prevent short-circuits, line breaks and dips in dielectric strength.



| NOTES

| NOTES

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