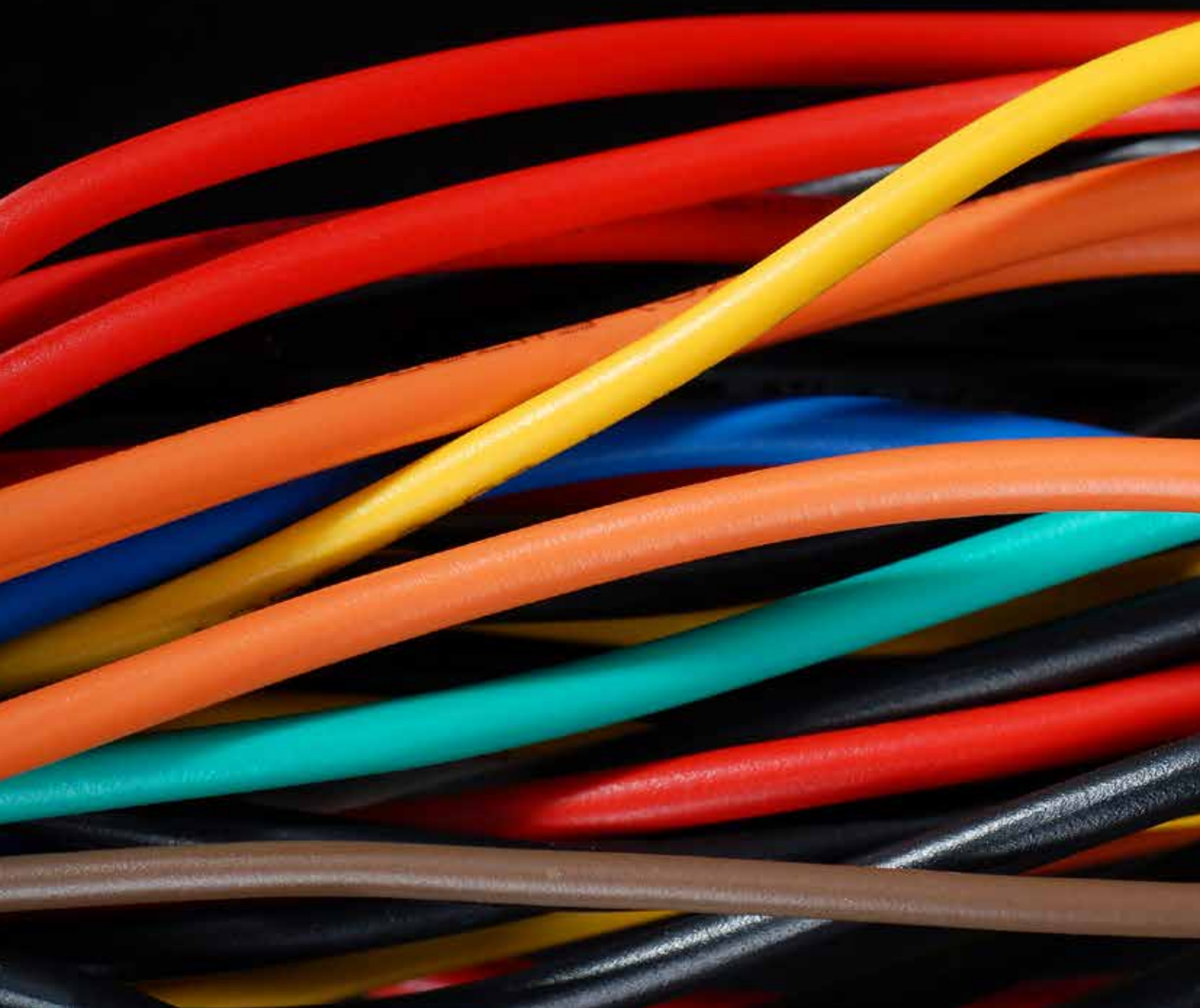
OUR CABLE PROGRAMME

B+B SENSORS



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TEMPERATURE | HUMIDITY | PRESSURE
INNOVATIVE CABLES FOR INDUSTRIAL APPLICATIONS!

CONTENT

B+B Thermo-Technik GmbH offers you the solution for your temperature, humidity or pressure measurement!

B+B is located in Donaueschingen a town in the southwest of Germany. From there the quality products are sold worldwide.

A clear proof of our Quality Management Policy which you can trust is our Quality Management System according to DIN EN ISO 9001:2008 and DIN EN ISO 13485:2012

Take advantage of B+B Thermo-Technik GmbH´s long-term experience in temperature- and humidity measurement.

In this brochure you can find our standard cables which can be used in your temperature measuring application.

Thermocouple cables type K and J up to +260 °C

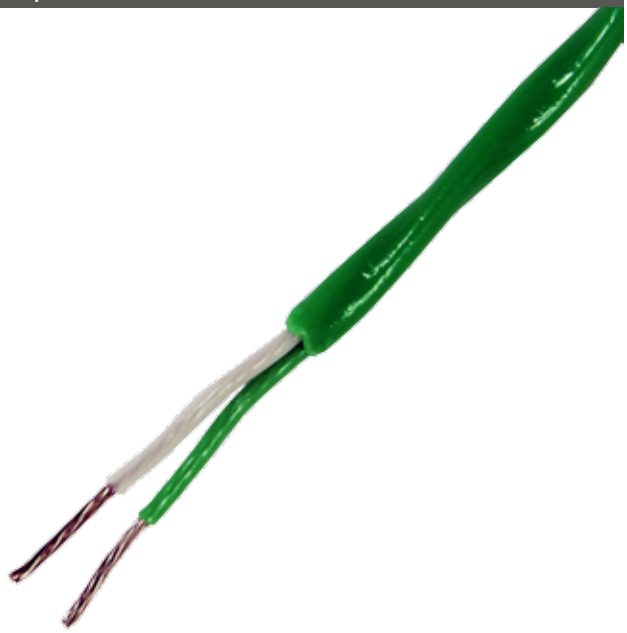
Thermocouple cables are very important for transfering thermoelectric voltage from thermocouple to reference point. They are different to compensating cables due to the characteristics of the material. For themocables, original thermomaterial compliant to IEC 584-3 (0 to 200 °C) with the accuracy class 1 (±1,5 °C) is used.
The shielded versions prevent the transfer of electromagnetic disturbances from the outside to the measuring signal.

Teflon®-insulated thermocouple cables are applicable for extreme applications in the temperature range of -190 to +260 °C. They are resistant against many chemical influences and distinguish themselves through their high mechanical strength.

Note:
Teflon® is a registered trademark of DuPont.

Thermocouple cable type K
FEP/FEP

Description



Technical data

Electrical characteristics:	
Operating temperature	-65...+200 °C
Operating voltage	Max. 300 V
Voltage test	500 V
Voltage test sheath	1000 V
Construction:	
Conductor	Thermoconductor type KX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Diameter	0,95 ±0,05 mm
Wire colours	Green (+), white (-)
Sheath material	FEP
Sheath colour	Green
Outer diameter	2,40 mm ±0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type K, FEP/FEP	0230 0010

Features:
- Insulation material for cables with the highest temperature range
- between -65 and +200 °C
- Permanently elastic with low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

Areas of application:
- Connection cable between thermocouple and measurement device
- Mechanical and plant engineering
- Transportation technology
- Lighting industry
- Construction of measurement devices
- Chemical industry

Dimensions

Thermocouple cable type K
FEP/Shield/FEP

Description

Technical data

Electrical characteristics:	
Operating temperature	-100...+205 °C
Operating voltage	Max. 600 V
Voltage test	3400 V
Voltage test sheath	3000 V
Construction:	
Conductor	Thermoconductor type KX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Diameter	1,10 ±0,10 mm
Wire colours	Green (+), white (-)
Shielding	Copper wires tin-plated, Coverage approx. 80%
Sheath material	FEP
Sheath colour	Green
Outer diameter	3,30 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type K, FEP/Shield/FEP	0230 0010-20

Features:
- Insulation material for cables with the highest temperature range between -100 and +205 °C
- Permanently elastic with low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Connection cable between thermocouple and measurement device
- Mechanical and plant engineering
- Transportation technology
- Lighting industry
- Construction of measurement devices
- Chemical industry

Dimensions

Thermocouple cable type K
PTFE/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...260 °C
Operating voltage	Max. 600 V
Voltage test	3400 V
Voltage test sheath	3000 V
Construction:	
Conductor	Thermoconductor type KX (IEC 60584-3, Class 1)
Cross section	2x0,50 mm²
Conductor construction	16x0,20 mm
Wire insulation	PTFE
Diameter	1,45 ±0,10 mm
Wire colours	Green (+), white (-)
Sheath material	PTFE
Sheath colour	Green
Outer diameter	3,50 mm ±0,10 mm (non-round)
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type K, PTFE/PTFE	0230 0015-10

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Beverage and food industry

Dimensions

Thermocouple cable type K
PTFE/Shield/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...+260 °C
Operating voltage	Max. 600 V
Voltage test	3400 V
Voltage test sheath	3000 V
Construction:	
Conductor	Thermoconductor type KX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	PTFE
Diameter	1,10 ±0,10 mm
Wire colours	Green (+), white (-)
Shielding	Copper wires nickel-plated, Coverage approx. 85%
Sheath material	PTFE
Sheath colour	Green
Outer diameter	3,90 mm ±0,10 mm (non-round)
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type K, PTFE/Shield/PTFE	0230 0009-20

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Beverage and food industry

Dimensions

Thermocouple cable type J
FEP/Silicone

Description

Technical data

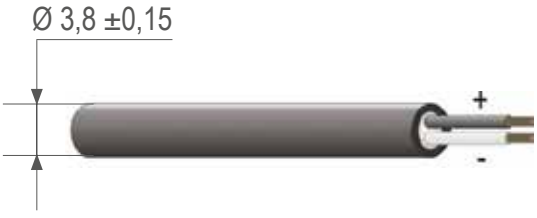
Electrical characteristics:	
Operating temperature	-50...+180 °C
Voltage test	1000 V
Voltage test sheath	1000 V
Construction:	
Conductor	Thermoconductor type JX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Diameter	1,00 ±0,05 mm
Wire colours	Black (+), white (-)
Sheath material	Silicone
Sheath colour	Black
Outer diameter	3,80 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type J, FEP/Silicone	0230 0036

Features:
- Insulation material for cables with the highest temperature range between -50 and +180 °C
- Permanently elastic with low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

Areas of application:
- Glass- and ceramic plants, in electric motors, ship and aircraft construction
- In autoclaves, sterilizers and extruders
- In radiators and lighting fixtures, bakery machines and on oil burners
- In sauna facilities

Dimensions



Thermocouple cable type J
PTFE/Shield/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...+260 °C
Operating voltage	Max. 600 V
Voltage test	3400 V
Voltage test sheath	3400 V
Construction:	
Conductor	Thermoconductor type JX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	PTFE
Diameter	1,00 ±0,10 mm
Wire colours	Black (+), white (-)
Shielding	Copper wires nickel-plated, Coverage approx. 85 %
Sheath material	PTFE
Sheath colour	Black
Outer diameter	3,50 mm ±0,20 mm (non-round)
General:	
Environmental data	RoHS compliant

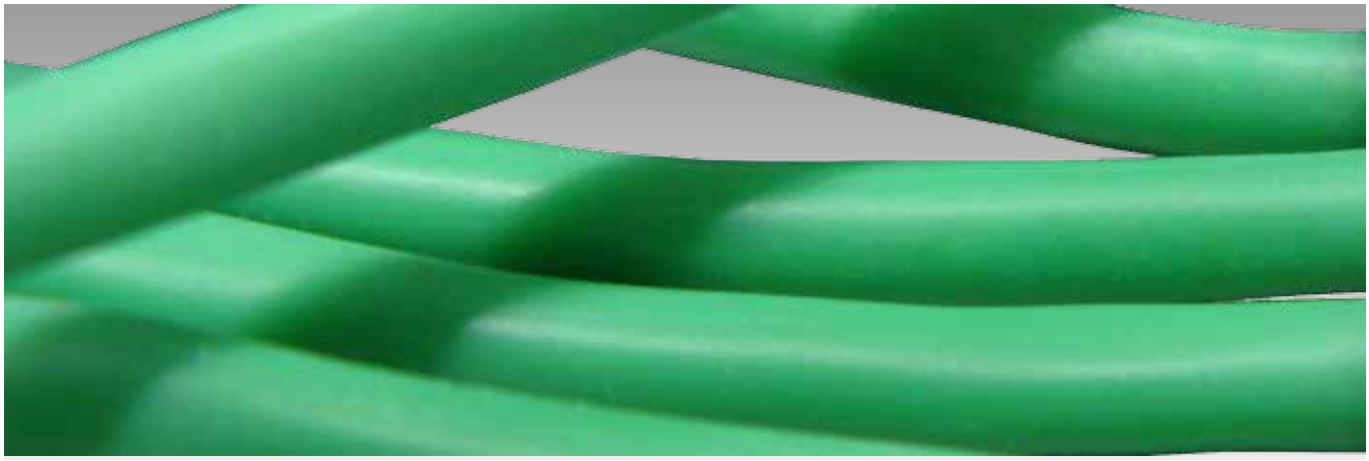
Article	Art.-no.
Thermocouple cable type J, PTFE/Shield/PTFE	0230 0253-10

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Use in damp rooms and tropical conditions
- Plastics industry

Dimensions



Compensation cables type K and J up to +260 °C

Compensation cables are made of so-called substitute materials, which have another chemical composition than the materials of the associated thermocouple. They are designated according to DIN EN 60584-3 (Accuracy class 2 (±2,5 °C) with the letter "C". The substitute materials have the same thermo-electrical features as the associated thermocouple, in the temperature range which is permitted for the compensation cable. The shielded versions prevent the transfer of electromagnetic disturbances from the outside to the measuring signal.

Teflon®-insulated thermocouple cables are applicable for extreme applications in the temperature range of -90 to +260 °C. They are resistant against many chemical influences and distinguish themselves through their high mechanical strength.
Heat-resistant PVC-insulated compensation cables withstand temperatures up to max. +105 °C. The insulation and the sheath have good electrical and mechanical values and a very good heat-resistance.

Silicone-insulated compensation cables dinstinguish themselves through a high temperature resistance up to +180 °C.
They are highly flexible, halogen-free, flame-retardant and have a reduced smoke density in the case of fire.

Note:
Teflon® is a registered trademark of DuPont.

Compensation cable type K
PVC/PVC

Description

Technical data

Electrical characteristics:	
Operating temperature	-50...+90 °C
Test voltage	1000 V
Construction:	
Conductor	Compensation alloy NiCr-Ni type KCA (IEC 60584-3, Class 2)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	PVC
Diameter	1,20 mm ± 0,05 mm
Wire colours	Green (+), white (-)
Sheath material	PVC
Sheath colour	Green
Outer diameter	3,85 mm ± 0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Compensation cable type K, PVC/PVC	0230 0191

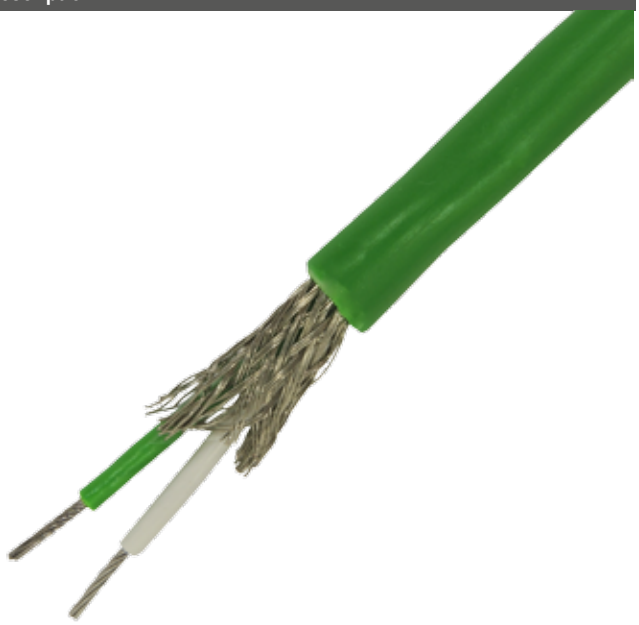
Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Areas of application:
- Flexible connecting cable for measuring and control technology
- For controlling and monitoring of industrial plants, machines and work processes
- Use in humid environments

Dimensions

Compensation cable type K
PVC/AShield/PVC

Description



Technical data

Electrical characteristics:	
Operating temperature	-10...+80 °C
Operating voltage	Max. 300 V
Voltage test	2500 V
Voltage test sheath	2500 V
Construction:	
Conductor	Compensation alloy NiCr-Ni type KCA (IEC 60584-3, Class 2)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	PVC
Diameter	1,30 mm ±0,10 mm
Wire colours	Green (+), white (-)
Banding	Polyester-foil
Shielding	Tin-plated copper wires
Sheath material	PVC
Sheath colour	Green
Outer diameter	4,70 mm± 0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Compensation cable type K, PVC/Shield/PVC	0230 0186-10

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Flexible connecting cable for measuring and control technology
- For controlling and monitoring of industrial plants, machines and work processes
- Use in humid environments

Dimensions

Compensation cable type K
FEP/Silicone

Description

Technical data

Electrical characteristics:	
Operating temperature	-50...+180 °C
Operating voltage	Max. 600 V
Voltage test	3400 V
Voltage test sheath	5000 V
Construction:	
Conductor	Compensation alloy NiCr-Ni type KCA (IEC 60584-3, Class 2)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Diameter	1,10 mm ±0,10 mm
Wire colours	Green (+), white (-)
Sheath material	Silicone
Sheath colour	Green
Outer diameter	3,80 mm± 0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Compensation cable type K, FEP/Silicone	0230 0209

Features:
- Insulation material for cables with the highest temperature range between -50 and +180 °C
- Permanently elastic with low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

Areas of application:
- Glass- and ceramic plants, in electric motors, ship and aircraft construction
- In Autoclaves, sterilizers and extruders
- In radiators and lighting fixtures, bakery machines and on oil burners
- In sauna facilities
- Transportation technology

Dimensions

Compensation cable type J
PVC/PVC

Description

Technical data

Electrical characteristics:	
Operating temperature	-10...+105 °C
Operating voltage	200 V
Voltage test	2500 V
Voltage test sheath	3000 V
Construction:	
Conductor	Compensation alloy Fe-CuNi type JC (IEC 60584-3, Class 2)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	PVC
Diameter	1,13 mm ± 0,10 mm
Wire colours	Black (+), white (-)
Sheath material	PVC
Sheath colour	Black
Outer diameter	3,60 mm ±0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Compensation cable type K, PVC/PVC	0230 0215

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Areas of application:
- Flexible connecting cable for measuring and control technology
- For controlling and monitoring of industrial plants, machines and work processes
- Use in humid environments
- Plastics industry

Dimensions

Compensation cable type J
FEP/Shield/Silicone

Description

Technical data

Electrical characteristics:	
Operating temperature	-60...+200 °C
Operating voltage	Max. 300 V
Voltage test wire-insulation	2000 V
Voltage test sheath	1000 V
Construction:	
Conductor	Compensation alloy Fe-CuNi type JC (IEC 60584-3, Class 2)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Diameter	1,10 mm ±0,07 mm
Wire colours	Black (+), white (-)
Shielding	Tin-plated copper wires
Sheath material	Silicone
Sheath colour	Black
Outer diameter	4,50 mm ±0,10 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Compensation cable type J, FEP/Shield/Silicone	0230 0036-10

Features:
- Insulation material for cables with the highest temperature range between -60 and +200 °C
- Permanently elastic with low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Mechanical and plant engineering
- Transportation technology
- Lighting industry
- Construction of measuring devices
- Chemical industry
- Plastics industry

Dimensions

2-/ 4-wire copper cables up to +105 °C

The B+B Copper cables are used as control, connection and measuring cables. They distinguish themselves through a good mechanical and chemical resistance.
The shielded versions prevent the transfer of electromagnetic disturbances from the outside to the measuring signal.

Heat-resistant PVC-insulated copper cables withstand temperatures up to max. +105 °C. The insulation and the sheath have good electrical and mechanical values and a very good heat-resistance.

Teflon®-insulated thermocouple cables are applicable for extreme applications in the temperature range of -90 to +260 °C. They are resistant against many chemical influences and distinguish themselves through their high mechanical strength.

Note:
Teflon® is a registered trademark of DuPont.

Copper cable
PVC/PVC

Description

Technical data

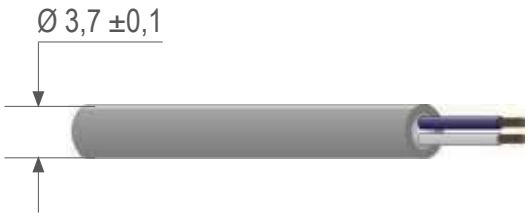
Electrical characteristics:	
Temperature range resting	-40...+105 °C
Temperature range moving	-5...+105 °C
Operating voltage	500 V
Voltage test wire insulation	1500 V
Voltage test sheath	1500 V
Construction:	
Conductor	Copper strands
Cross section	2x0,25 mm²
Wire insulation	PVC
Wire colours	White and blue
Sheath material	PVC
Sheath colour	Grey, RAL7000
Outer diameter	3,70 mm ±0,10 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PVC/PVC	0230 0190-10

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Areas of application:
- Flexible connecting cable for measuring and control technology
- In the electronics as an impulse and data transmission line
- For controlling and monitoring of industrial plants, machines and work processes
- In the building automation

Dimensions



Copper cable
PVC/Shield/PVC

Description

Technical data

Electrical characteristics:	
Temperature range resting	-30...+105 °C
Temperature range moving	-15...+105 °C
Operating voltage	300 V
Voltage test wire insulation	1500 V
Voltage test sheath	1500 V
Construction:	
Conductor	Copper strands
Cross section	2x0,5 mm²
Wire insulation	PVC
Wire colours	White and blue
Shielding	Tin-plated copper wires, Coverage approx. 85%
Sheath material	PVC-UL according to DIN VDE 0207-05
Sheath colour	Silver-grey, RAL7001
Outer diameter	5,10 mm ±0,10 mm
General:	
Environmental data	RoHS compliant

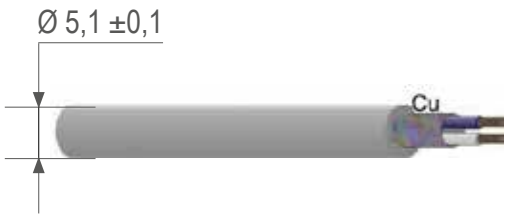
Article	Art.-no.
Copper cable PVC/Shield/PVC	0230 0013-10

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Flexible connecting cable for measuring and control technology
- In the electronics as an impulse and data transmission line
- For controlling and monitoring of industrial plants, machines and work processes

Dimensions



Copper cable
PVC/Shield/PVC

Description

Technical data

Electrical characteristics:	
Temperature range resting	-30...+80 °C
Temperature range moving	-5...+80 °C
Operating voltage	300 V
Voltage test wire insulation	2000 V
Voltage test sheath	3000 V
Construction:	
Conductor	Tin-plated copper strand
Cross section	2x0,22 mm²
Conductor construction	7x0,22 mm, AWG 32
Wire insulation	PVC
Wire colours	Brown and white
Shielding	Aluminium-covered polyester film, Coverage approx.100%
Sheath material	PVC
Sheath colour	Grey, RAL7035
Outer diameter	4,60 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PVC/Shield/PVC	0230 0177-30

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Flexible connecting cable for measuring and control technology
- In the electronics as an impulse and data transmission line
- For controlling and monitoring of industrial plants, machines and work processes

Dimensions

Copper cable
FEP/Silicone

Description

Technical data

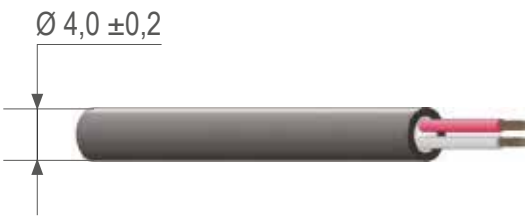
Electrical characteristics:	
Operating temperature	-35...+180 °C
Operating voltage	100 V
Voltage test wire insulation	2000 V
Voltage test sheath	3000 V
Construction:	
Conductor	Nickel-plated copper conductor
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Wire colours	Red and white
Sheath material	Silicone
Sheath colour	Black
Outer diameter	4,00 mm ±0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable FEP/Silicone	0230 0238

Features:
- Permanently elastic at strong temperature differences
- Resistant against vegetable and animal fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

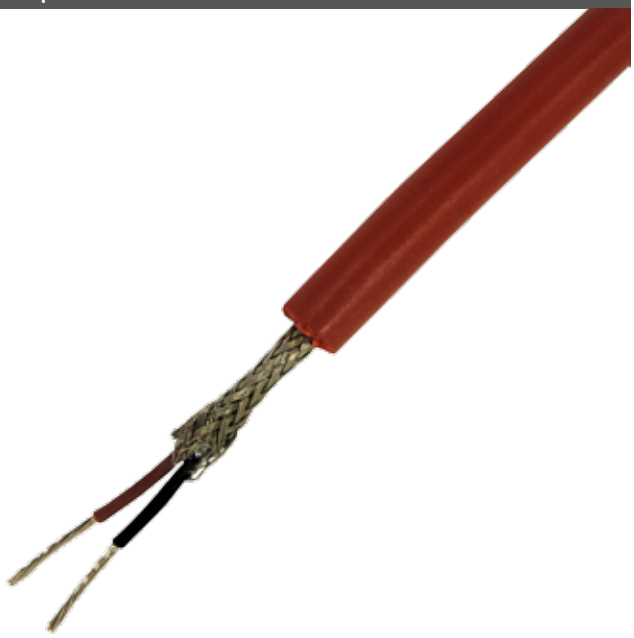
Areas of application:
- Glass- and ceramic plants, in electric motors, ship and aircraft construction
- In Autoclaves, sterilizers and extruders
- In radiators and lighting fixtures, bakery machines and on oil burners
- In sauna facilities

Dimensions



Copper cable
PTFE/Shield/Silicone

Description



Technical data

Electrical characteristics:	
Operating temperature	-50...+180 °C
Operating voltage	Max. 250 V
Voltage test wire-insulation	1500 V
Voltage test sheath	2500 V
Construction:	
Conductor	Nickel-plated copper strand
Cross section	2x0,14 mm²
Conductor construction	AWG 26 (7x0,16 mm)
Wire insulation	PTFE
Wire colours	Brown and black
Shielding	Copper wires, Coverage approx. 85%
Sheath material	Silicone
Sheath colour	Red-brown
Outer diameter	3,80 mm ±0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PTFE/Shield/Silicone	0230 0278

Features:
- Good resistance against fats, oils, salts, acids and organic and inorganic compounds
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable
- Wires temperature-resistant up to +300 °C

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Mechanical and plant engineering
- Transportation technology
- Construction of measuring devices
- Lighting industry
- Chemical industry

Dimensions

Copper cable
PTFE/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...+260 °C
Operating voltage	Max. 600 V
Voltage test wire-insulation	3400 V
Voltage test sheath	2500 V
Construction:	
Conductor	Nickel-plated copper
Cross section	2x0,35 mm²
Conductor construction	14x0,15 mm
Wire insulation	PTFE
Wire colours	Red and white
Sheath material	PTFE
Sheath colour	White
Outer diameter	3,50 mm ±0,20 mm (non-round)
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PTFE/PTFE	0230 0022-11

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Use in damp rooms and tropical conditions
- Beverage and food industry

Dimensions

Copper cable
PTFE/Shield/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...+260 °C
Operating voltage	Max. 600 V
Voltage test wire-insulation	2500 V
Voltage test sheath	1500 V
Construction:	
Conductor	Copper, nickel-plated
Cross section	2x AWG24
Conductor construction	19x0,127 mm
Wire insulation	PTFE
Wire colours	Red and white
Shielding	Nickel-plated copper wires, Coverage approx. 85%
Sheath material	PTFE
Sheath colour	White
Outer diameter	3,00 mm ±0,15/0,20 mm (non-round)
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PTFE/Shield/PTFE	0230 0004

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

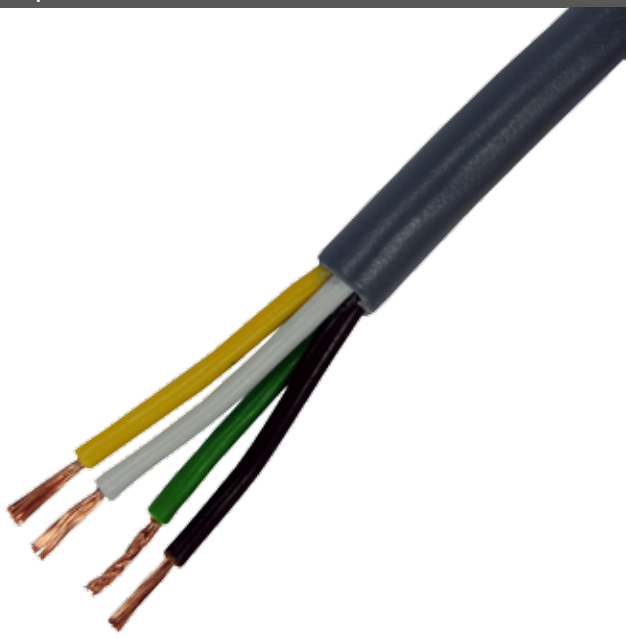
Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Use in damp rooms and tropical conditions
- Beverage and food industry

Dimensions

Copper cable
PVC/PVC

Description



Technical data

Electrical characteristics:	
Operating temperature	-30...+105 °C
Operating voltage	Max. 500 V
Voltage test wire-insulation	1500 V
Voltage test sheath	1500 V
Construction:	
Conductor	Copper strands
Cross section	4x0,25 mm²
Conductor construction	14x0,15 mm
Wire insulation	PVC
Wire colours	White/brown/green/yellow
Sheath material	PVC
Sheath colour	Grey, RAL7000
Outer diameter	4,20 mm ±0,10 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PVC/PVC	0230 0008

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

Areas of application:
- Flexible connecting cable for measuring and control technology
- In the electronics as an impulse and data transmission line
- For controlling and monitoring of industrial plants, machines and work processes

Dimensions

Copper cable
PVC/Shield/PVC

Description

Technical data

Electrical characteristics:	
Temperature range resting	-30...+105 °C
Temperature range moving	-15...+105 °C
Operating voltage	500 V
Voltage test wire-insulation	1500 V
Construction:	
sConductor	Copper strand
Cross section	4x0,25 mm²
Conductor construction	14x0,15 mm
Wire insulation	PVC
Wire colours	White/brown/green/yellow
Shielding	Tin-plated copper wires, Coverage approx. 85%
Sheath material	PVC
Sheath colour	Grey, RAL7001
Outer diameter	5,00 mm ±0,20 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PVC/Shield/PVC	0230 0226-20

Features:
- Largely oil and petrol-resistant
- Good insulating properties
- High metereological, ozone- and UV-resistance (normal light conditions)
- Hardly inflammable

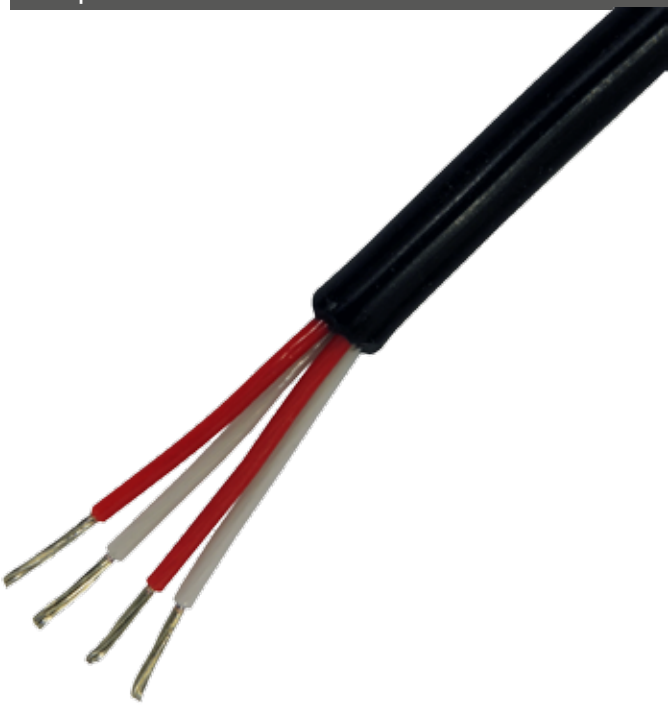
Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Flexible connecting cable for measuring and control technology
- In the electronics as an impulse and data transmission line
- For controlling and monitoring of industrial plants, machines and work processes

Dimensions

Copper cable
FEP/Silicone

Description



Technical data

Electrical characteristics:	
Operating temperature	-25...+180 °C
Operating voltage	200 V
Voltage test wire-insulation	2000 V
Voltage test sheath	2000 V
Construction:	
Conductor	Tin-plated copper strands
Cross section	4x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Wire colours	2x red and 2x white
Sheath material	Silicone
Sheath colour	Black
Outer diameter	4,00 mm ±0,10 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable FEP/Silicone	0230 0201

Features:
- Insulation material for cables at the highest temperature range between -25 and +180 °C
- Permanently elastic at low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- High flashpoint

Areas of application:
- Glass- and ceramic plants, in electric motors, ship and aircraft construction
- In Autoclaves, sterilizers and extruders
- In radiators and lighting fixtures, bakery machines and on oil burners
- In sauna facilities

Dimensions

Copper cable
FEP/Shield/Silicone

Description

Technical data

Electrical characteristics:	
Operating temperature	-25...+180 °C
Operating voltage	120 V
Voltage test wire-insulation	1500 V
Voltage test sheath	2000 V
Construction:	
Conductor	Copper conductor, tin-plated
Cross section	4x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	FEP
Wire colours	2x red, 2x white
Shielding	Tin-plated copper wires, Coverage approx. 80%
Sheath material	Silicone
Sheath colour	Black
Outer diameter	4,00 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable FEP/shield/Silicone	0230 0243-10

Features:
- Insulation material for cables with the highest temperature range between -25 and +180 °C
- Permanently elastic at low and high temperatures
- Resistant against animal and vegetable fats
- High metereological, ozone- and UV-resistance (normal light conditions)
- Non-flammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Glass- and ceramic plants, in electric motors, ship and aircraft construction
- In Autoclaves, sterilizers and extruders
- In radiators and lighting fixtures, bakery machines and on oil burners
- In sauna facilities

Dimensions

Copper cable
PTFE/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...+260 °C
Operating voltage	250 V
Voltage test wire-insulation	2000 V
Voltage test sheath	2000 V
Construction:	
Conductor	Nickel-plated copper
Cross section	4x0,22 mm²
Conductor construction	AWG24 (7x0,20 mm)
Wire insulation	PTFE
Wire colours	White, red, yellow, black
Sheath material	PTFE
Sheath colour	White
Outer diameter	2,60 mm ±0,20 mm (non-round)
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable PTFE/PTFE	0230 0022-16

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Use in damp rooms and tropical conditions
- Beverage and food industry

Dimensions

Copper cable
PTFE/Shield/PTFE

Description

Technical data

Electrical characteristics:	
Operating temperature	-190...+260 °C
Operating voltage	Max. 600 V
Voltage test wire-insulation	3400 V
Voltage test sheath	3400 V
Construction:	
Conductor	Copper nickel-plated
Cross section	4x0,22 mm²
Conductor construction	AWG 24 (7x0,20 mm)
Wire insulation	PTFE
Wire colours	Red, red/blue, white, white/blue
Shielding	Nickel-plated copper wires, Coverage approx. 85%
Sheath material	PTFE
Sheath colour	Black
Outer diameter	3,80 mm ±0,20 mm (non-round)
General:	
Environmental data	RoHS compliant

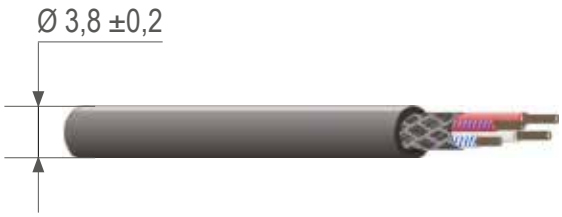
Article	Art.-no.
Copper cable PTFE/Shield/PTFE	0230 0009

Features:
- High temperature resistance up to +260 °C
- Extremely water- and dirt-repellent,
- Very good metereological, ozone- and UV-resistance
- Resistant against acids and lyes, solvents, fuels, mineral oils, synthetic fluids etc.
- High elasticity and tensile strength
- Non-flammable

Electromagnetic conductivity:
- Meshy tin-plated copper-wires for interference-free transmission of signals

Areas of application:
- Mechanical and plant engineering
- Medical engineering
- Transportation technology
- Construction of measuring devices
- Chemical industry
- Use in damp rooms and tropical conditions

Dimensions



Glass fibre insulated, heat-resistant thermo- and copper cables up to +350 °C

Heat-resistant, glass fibre insulated special cables are perfectly suitable use under extreme temperature conditions, where the use of insulation materials like silicone or Teflon® is not possible. They are robust and distinguish themselves by their high temperature resitantance through their excellent electrical and mechanical features.
The stainless steel braid offers additional protection from mechanical damage.
Glass fibre insulated cables can be used in a temperature range from -50...+350 °C.

Note:
Teflon® is a registered trademark of DuPont.

Thermocouple cable type K

Glassfibre/glassfibre/steel overbraid

Description

Technical data

Electrical characteristics:	
Operating temperature	-60...+350 °C
Voltage test wire-insulation	1000 V
Voltage test sheath	1000 V
Construction:	
Conductor	Thermoconductor type KX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	Fibre glass braid
Wire colours	Green (+), white (-)
Shielding	Textile glass overbraid
Sheath material	Stainless steel wire braids with green marker thread
Sheath colour	Silver
Outer diameter	3,50 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type K, Glassfibre/Glassfibre/steel overbraid	0230 0017

Features:

- High temperature and humidity resistance
- Flame-retarding and self-extinguishing
- High mechanical strength
- Excellent insulating properties
- Resistant against aggressive media
- Shielding against radiation influence - EMC (electromagnetic conductivity)

Areas of application:

- Aluminium and steel works
- Furnace and power plant construction
- Extruding lines and drying plants
- Glass melts

Dimensions

Thermocouple cable type J

Glassfibre/glassfibre/steel overbraid

Description

Technical data

Electrical characteristics:	
Operating temperature	-60...+350 °C
Voltage test wire-insulation	1000 V
Voltage test sheath	1000 V
Construction:	
Conductor	Thermoconductor type JX (IEC 60584-3, Class 1)
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	Fibre glass braid
Wire colours	Black (+), white (-)
Shielding	Textile glass overbraid
Sheath material	Stainless steel wire braid with black marker thread
Sheath colour	Silver
Outer diameter	3,50 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Thermocouple cable type J, Glassfibre/Glassfibre/steel overbraid	0230 0192

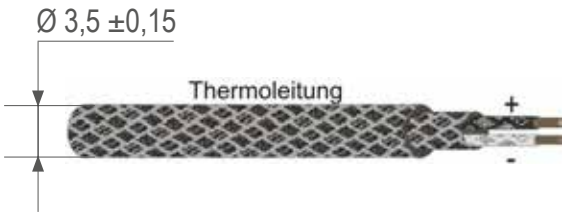
Features:

- High temperature and humidity resistance
- Flame-retarding and self-extinguishing
- High mechanical strength
- Excellent insulating properties
- Resistant against aggressive media
- Shielding against radiation influence - EMC (electromagnetic conductivity)

Areas of application:

- Aluminium and steel works
- Furnace and power plant construction
- Extruding lines and drying plants
- Glass melts

Dimensions



Copper cable

Glassfibre/glassfibre/steel overbraid

Description

Technical data

Electrical characteristics:	
Operating temperature	-60...+300 °C
Voltage test wire-insulation	1000 V
Voltage test sheath	1000 V
Construction:	
Conductor	Copper nickel-plated
Cross section	4x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	Fibre glass braid
Wire colours	2x red and 2x white
Shielding	Textile glass overbraid
Sheath material	Braid with Stainless steel wire
Sheath colour	Silver
Outer diameter	3,50 mm ±0,15 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable Glassfibre/Glassfibre/steel overbraid	0230 0025

Features:

- High temperature and humidity resistance
- Flame-retarding and self-extinguishing
- High mechanical strength
- Excellent insulating properties
- Resistant against aggressive media
- Shielding against radiation influence - EMC (electromagnetic conductivity)

Areas of application:

- Aluminium and steel mills
- Furnace and power plant construction
- Extruding lines and drying plants
- Glass melts

Dimensions

Copper cable

Glassfibre/glassfibre/steel overbraid

Description

Technical data

Electrical characteristics:	
Operating temperature	-60...+300 °C
Voltage test wire-insulation	1000 V
Voltage test sheath	1000 V
Construction:	
Conductor	Copper nickel-plated
Cross section	2x0,22 mm²
Conductor construction	7x0,20 mm
Wire insulation	Fibre glass braid
Wire colours	Red and white
Shielding	Textile glass overbraid
Sheath material	Braid with Stainless steel wire
Sheath colour	Silver
Outer diameter	3,20 mm ±0,2 mm
General:	
Environmental data	RoHS compliant

Article	Art.-no.
Copper cable Glassfibre/Glassfibre/steel overbraid	0230 0237-10

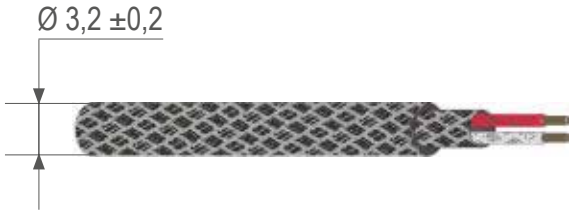
Features:

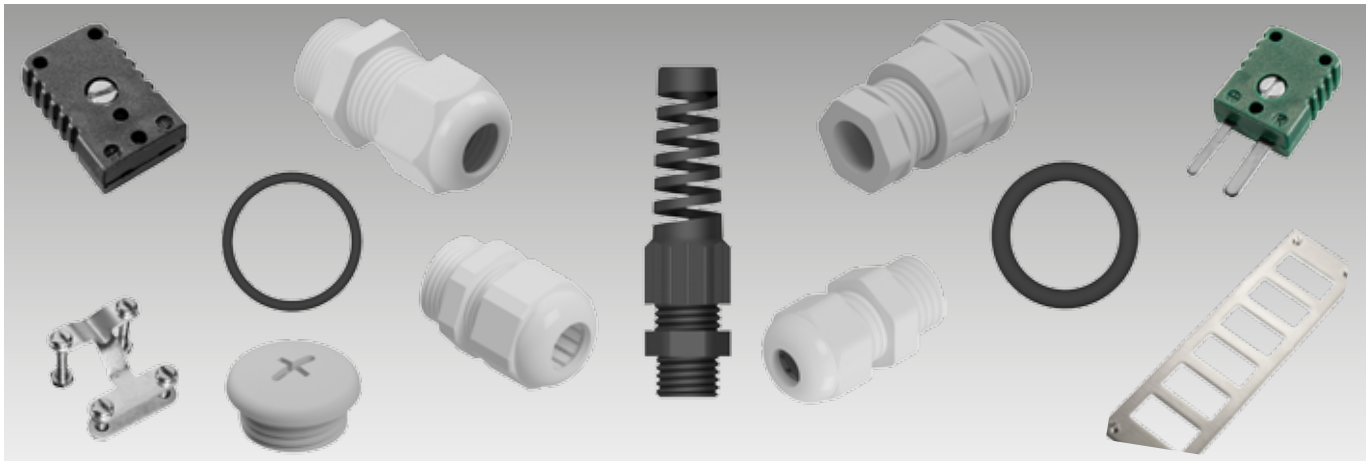
- High temperature and humidity resistance
- Flame-retarding and self-extinguishing
- High mechanical strength
- Excellent insulating properties
- Resistant against aggressive media
- Shielding against radiation influence - EMC (electromagnetic conductivity)

Areas of application:

- Aluminium and steel mills
- Furnace and power plant construction
- Extruding lines and drying plants
- Glass melts

Dimensions





Accessories

Cable gland, metric

Features:
- Integrated strain relief
- Big sealing and clamping range
- Easy to assemblel
- RoHS compliant

Areas of application:
- Industry (Mechanical and plant engineering)
- Transport & traffic (Shipbuilding, rail vehicles)
- Food industry
- Lighting and tunnel construction
- Sewage technology
- Nuclear energy
- Chemistry and petrochemistry
- High functional reliability

Cable gland with metric thread according to DIN EN 50262	
Temperature range	-20...+80 °C
Thread	M12 x 1,5 mm, Length 8 mm
Clamping range	3,0...6,5 mm
Material	Polyamide PA6
Sealing ring	SBR
Colour	Light grey RAL 7035
Protection class	IP68
Approval	VDE approved, UL, CSA
Article no.	0241 0036-30

Cable gland with metric thread according to DIN EN 60423	
Temperature range	-30...+100 °C
Thread	M20 x 1,5 mm, Length 9 mm
Clamping range	6,0...12,0 mm
Material	Polyamide PA6
Sealing ring	Neoprene
Colour	Light grey RAL 7035
Protection class	IP68
Approval	VDE approved, UL, CSA
Article no.	0241 0066

Cable gland with metric thread according to DIN EN 60423	
Temperature range	-30...+100 °C
Thread	M16 x 1,5 mm, Length 8 mm
Clamping range	4,5...10,0 mm
Material	Polyamide PA6
Sealing ring	Neoprene
Colour	Light grey RAL 7035
Protection class	IP68
Approval	VDE approved, UL, CSA
Article no.	0241 0069

Cable gland PG

Features:

- Optimum strain relief by means of clamping plates
- Easy to assemble
- Wide clamping ranges
- RoHS compliant

Areas of application:

- Mechanical and plant engineering
- Robot construction
- Automation technology
- Vehicle and ship construction
- Railway technology
- Installation technology
- Control cabinet construction
- High functional reliability

Cable gland with PG-thread according to DIN EN 46320	
Temperature range	-20...+100 °C
Thread	PG9, Length 8 mm
Clamping range	4,5...7,0 mm
Material	Polyamide PA6
Sealing ring	SBR/ NBR
Colour	Light grey RAL 7035
Protection class	IP54
Approval	VDE approved, CE
Article no.	0241 0044

Cable gland with PG-thread according to DIN EN 50262	
Temperature range	-20...+100 °C
Thread	PG 11, Length 8 mm
Clamping range	4,5...10,0 mm
Material	Polyamide PA6
Sealing ring	SBR/ NBR
Colour	Light grey RAL 7035
Protection class	IP54
Approval	VDE approved, CE
Article no.	0241 0050

Cable gland with PG-thread according to DIN EN 50262	
Temperature range	-20...+100 °C
Thread	PG 16, Length 10 mm
Clamping range	6,0...12,0 mm
Material	Polyamide PA6
Sealing ring	SBR/ NBR
Colour	Silver grey RAL 7001
Protection class	IP54
Approval	VDE approved, CE
Article no.	0241 0051-10

Note: To achieve protection class IP68 you need an additional O-ring.

O-Rings

Features:

- Very good aging and abrasion resistance,
- Petrol, benzene,
- Diesel oil, oils
- Paraffin
- Chemical resistance
- RoHS compliant

O-Ring according to DIN 3771	
Temperature range	-30...+100 °C
Chordal thickness	2 mm
Inner diameter	20 mm
Material	NBR Perbunan®
Article no.	0135 0020

O-Ring according to DIN 3771	
Temperature range	-30...+100 °C
Chordal thickness	1,5 mm
Inner diameter	8 mm
Material	NBR Perbunan®
Article no.	0135 0033-10

O-Ring according to DIN 3771	
Temperature range	-30...+100 °C
Chordal thickness	2 mm
Inner diameter	10 mm
Material	NBR Perbunan®
Article no.	0135 0049

O-Ring according to DIN 3771	
Temperature range	-30...+100 °C
Chordal thickness	2 mm
Inner diameter	14 mm
Material	NBR Perbunan®
Article no.	0135 0050-10

Note: Perbunan® is a registered trademark of BAYER AG.

Locking screws

Features:
- RoHS compliant
- Chemical resistance:
- Petrol, benzene
- Diesel oil, oils
- Fats
- Solvents for paints and lacquers

Areas of application:
- For safely locking of unused threaded or through holes..

Locking screw with metric thread according to DIN EN 60423	
Temperature range	-20...+80 °C
Thread	M20 x 1,5, Length 6 mm
Head diameter	24 mm
Material	Polyamide, glass fibre reinforced
Colour	Light grey RAL 7035
Protection classs	IP54
Article no.	0241 0072

Locking screw with metric thread according to DIN EN 60423	
Temperature range	-20...+80 °C
Thread	M16 x 1,5, Length 6 mm
Head diameter	20 mm
Material	Polyamide, glass fibre reinforced
Colour	Light grey RAL 7035
Protection classs	IP54
Article no.	57116

Cable gland, metric

Cable screw with bend protection and metric thread according to DIN EN 50262	
Temperature range	-20...+80 °C
Thread	M12 x 1,5 mm, Length 8 mm
Clamping range	3,0...7,0 mm
Material	Polyamide PA6
Sealing ring	Neoprene
Colour	Deep black RAL 9005
Protection class	IP68
Approval	VDE approved, UL, CSA, SEV
Article no.	45112

Protective sleeves, thermocouple connectors

Further accessories like our protective sleeves or the thermocouple connectors are available for you in our online-shop:

shop.bb-sensors.com

or please contact us with your enquiry.

B+B Thermo-Techik GmbH
Heinrich-Hertz-Straße 4
D-78166 Donaueschingen

Fon +49 771 83160
Fax +49 771 8316-50

info@bb-sensors.com
www.bb-sensors.com

Questionnaire for quotation request for cables

Please copy these pages and insert your specifications so we can make an accurate offer.

Please fill in and forward to: info@bb-sensors.com	
Company	**Fon No.**
Name	**Fax No.**
Department	**E-Mail**
Street	**Date**
ZIP code/ city	**Signature**

Questionnaire for quotation request for cables

1. Required quantity

2. Cable type

3. Intended purpose

3.1. Which demands (thermical, mechanical, chemical,...) must be met ?

4. Construction

4.1. Cross section

4.2. Core	❑ strand	❑ wire	❑ blanc	❑ **tin-wired**	❑ nickel-wired

4.3. Number of cores

Insulation

Shielding	❑ tin.wire	❑ mesh	❑ foil

4.4. Other cores

4.5. Colour code

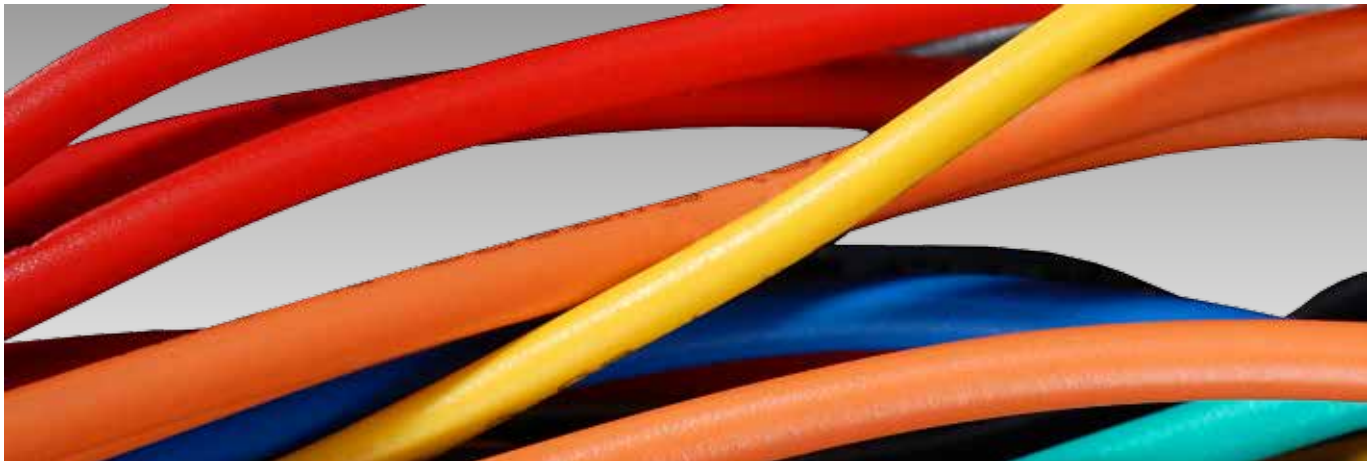
4.6. Outer sheath (insulation)

5. Outer diameter

6. Technical data

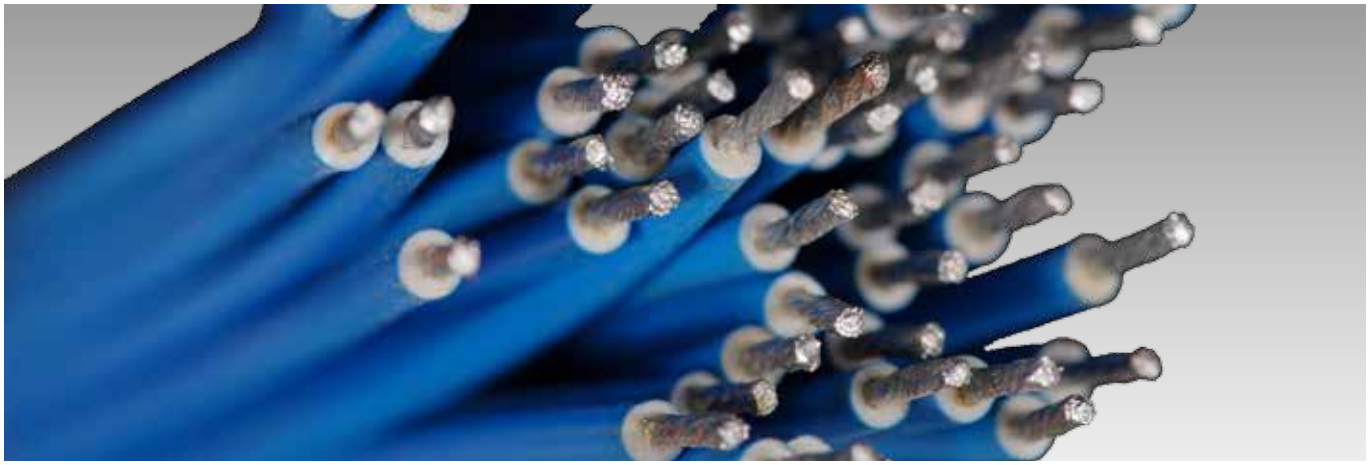
6.1. Electrical features	Conductor resistance	Insulation resistance	Nominal voltage	Test voltage

6.2. Other features



Colour codes for themocouples

International IEC 584-3	International IEC 584-3 intrinsically safe	Typ	Comments Environment	Alloy Combination		Maximum useable temperature range	Limits of error (whichever is greater)
				+ Lead	- Lead		
		K	Clean Oxidising and Inert. Limited use in Vacuum or Reducing. Wide Temperature range most popular calibration.	NiCr	Ni (magnetic)	-200 to 1250°C Therm. cable 0 to 200°C Extension cable	**-200 to 1250°C** Kl. 1 -240… + 1000°C: ±0,0045 x t or ±1,5K Kl. 2 -240… + 1250°C: ±0,0075 x t or ±2,5K Kl. 3 -200… + 1240°C: ±0,0155 x t or ±2,5K
		J	Reducing, Vacuum, Inert. Limited Use in Oxidising at high Temperatures not recommended for low Temperatures.	Fe (magnetic)	CuNi	0 to 750°C Therm. cable 0 to 200°C Extension cable	**-40 to 750°C** Kl. 1 -240… + 1750°C: ±0,0045 x t or ±1,5K Kl. 2 -240… + 1750°C: ±0,0075 x t or ±2,5K Kl. 3
		S	Oxidising or Inert. Do not insert in metal tubes. Beware of Contamination. High Temperature.	Pt10% Rh	Pt	0 to 1450°C Therm. cable 0 to 150°C Extension cable	**-40 to 1600°C** Kl. 1 -240… + 1600°C: ±[1+(t-1100) x 0,003] or ±1,0K Kl. 2 -240… + 1600°C: ±0,0025 x t or ±1,5K Kl. 3
		T	Mild Oxidising, Reducing Vacuum or Inert. Good where moisture is present, low Temperature and cryogenic applications.	Cu	CuNi	-200 to 350°C Therm. cable -60 to 100°C Extension cable	**-200 to 350°C** Kl. 1 -240… + 1350°C: ±0,0045 x t or ±0,5K Kl. 2 -240… + 1350°C: ±0,0075 x t or ±1,0K Kl. 3 -200… + 1240°C: ±0,0155 x t or ±1,0K
		N	Alternative to Type K. More stable at high temperatures.	NiCrSi	NiSi	-270 to 1300°C Therm. cable 0 to 200°C Extension cable	**-270 to 1300°C** Kl. 1 -240… + 1000°C: ±0,0045 x t or ±1,5K Kl. 2 -240… + 1300°C: ±0,0075 x t or ±2,5K Kl. 3 -270… + 1240°C: ±0,0155 x t or ±2,5K
		R	Oxidising or Inert. Do not insert in metal tubes. Beware of contamination. High temperature.	Pt13% Rh	Pt	0 to 1450°C Therm. cable 0 to 150°C Extension cable	**-40 to 1600°C** Kl. 1 -240… + 1600°C: ±[1+(t-1100) x 0,003] or ±1,0K Kl. 2 -240… + 1600°C: ±0,0025 x t or ±1,5K Kl. 3
		E	Oxidising or Inert. Do not insert in metal tubes. Beware of contamination. High Temperature. Common use in glass industry.	NiCr	CuNi	-200 to 900°C Therm. cable 0 to 200°C Extension cable	**-200 to 900°C** Kl. 1 -240… + 1800°C: ±0,0045 x t or ±1,5K Kl. 2 -240… + 1900°C: ±0,0075 x t or ±2,5K Kl. 3 -200… + 1240°C: ±0,0155 x t or ±2,5K



Conversion table AWG <-> mm/qmm

AWG stands for American Wire Gauge and is an American degree for wire sizes. It is derived from the number of drawing dies which are needed to create a certain cross section. The more the cable is pulled, the smaller is the wire diameter and the higher is the AWG-number.

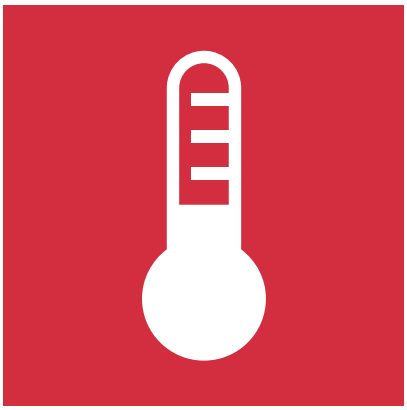
Table AWG-solid conductors (wires)

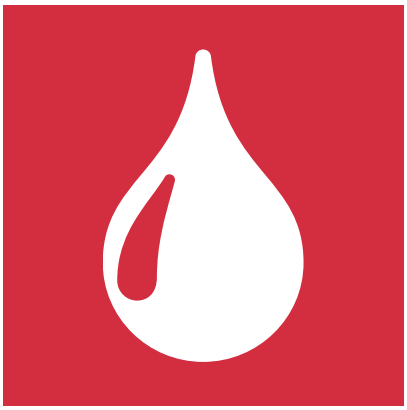
AWG-no.	AWG-name.	d inchl	A inch²	d mm	A mm²	R Ω/km	Metric (mm²)
1		0,2893	0,06573	7,348	**42,41**	0,42	50
2		0,2576	0,05212	6,543	**33,62**	0,53	35
3		0,2294	0,04133	5,827	**26,67**	0,67	
4		0,2043	0,03278	5,189	**21,15**	0,84	25
5		0,1819	0,02599	4,620	**16,77**	1,06	
6		0,1620	0,02061	4,115	**13,30**	1,34	16
7		0,1443	0,01636	3,665	**10,55**	1,69	
8		0,1285	0,01297	3,264	**8,367**	2,13	10
9		0,1144	0,01028	2,906	**6,632**	2,68	
10		0,1019	0,008155	2,588	**5,261**	3,38	6
11		0,09074	0,006467	2,305	**4,172**	4,27	
12		0,08081	0,005129	2,052	**3,309**	5,38	4
13		0,07196	0,004067	1,828	**2,624**	6,78	
14		0,06408	0,003225	1,628	**2,081**	8,55	2,5
15		0,05707	0,002558	1,450	**1,650**	10,79	
16		0,05082	0,002028	1,291	**1,309**	13,60	1,5
17		0,04526	0,001609	1,150	**1,038**	17,15	
18		0,04030	0,001276	1,024	**0,8229**	21,63	1
19		0,03589	0,001012	0,9116	**0,6527**	27,27	0,75

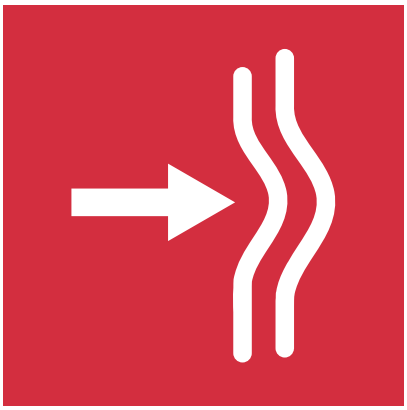
20		0,03196	0,0008022	0,8118	**0,5176**	34,39	0,75
21		0,02846	0,0006362	0,7229	**0,4104**	43,37	0,5
22		0,02535	0,0005047	0,6439	**0,3256**	54,66	0,34
23		0,02257	0,0004001	0,5733	**0,2581**	68,96	
24		0,02010	0,0003173	0,5105	**0,2047**	86,95	0,25
25		0,01790	0,0002517	0,4547	**0,1624**	109,6	
26		0,01594	0,0001996	0,4049	**0,1288**	138,3	0,14
27		0,01420	0,0001584	0,3607	**0,1022**	174,2	
28		0,01264	0,0001255	0,3211	**0,08096**	219,9	0,09
29		0,01126	0,00009958	0,2860	**0,06425**	277,1	
30		0,01003	0,00007901	0,2548	**0,05098**	349,2	
31		0,008928	0,00006260	0,2268	**0,04039**	440,7	
32		0,007950	0,00004964	0,2019	**0,03203**	555,8	
33		0,007080	0,00003937	0,1798	**0,02540**	700,8	
34		0,006305	0,00003122	0,1601	**0,02014**	883,7	
35		0,005615	0,00002476	0,1426	**0,01598**	1114	
36		0,005000	0,00001964	0,1270	**0,01267**	1405	
37		0,004453	0,00001557	0,1131	**0,01005**	1771	
38		0,003965	0,00001235	0,1007	**0,007966**	2234	
39		0,003531	0,000009792	0,089697	**0,006318**	2817	
40		0,003145	0,000007768	0,07988	**0,005012**	3551	
41		0,002800	0,000006158	0,07112	**0,003973**	4480	
42		0,002490	0,000004870	0,06325	**0,003142**	5665	
43		0,002220	0,000003871	0,05639	**0,002497**	7127	
44		0,001970	0,000003048	0,05004	**0,001967**	9051	
45		0,001760	0,000002433	0,04470	**0,001570**	11340	
46		0,001570	0,000001936	0,03988	**0,001249**	14251	
47		0,001396	0,000001531	0,03546	**0,0009877**	18021	
48		0,001243	0,000001214	0,03158	**0,0007832**	22725	
49		0,001107	0,0000009628	0,02812	**0,0006211**	28657	
50		0,000986	0,0000007635	0,02504	**0,0004926**	36136	

Table AWG-Cables (strands)
For AWG-strand cables the number of wires and their AWG-standard is stated.
Example AWG26: 7/34 = the cable consists of 7 AWG34-wires.

Our product range


TEMPERATUR


HUMIDITY


PRESSURE


Brightness/Motion


Air quality


Fill level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Our quality assurance

B+B Thermo-Technik has been manufacturing top-quality products since 1984.

Certificates

Certificate DIN EN ISO 9001 : 2008
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VDE
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ESD Certificate
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We constantly examine the quality of our products to meet the requirements of our customers.

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