

COMPENSATING AND EXTENSION CABLES

FEP insulated cables A 18 L · A 18-022 L A 19 L · A 19-022 L with overall copper screen



A 18 L · A 18-022 L



A 19 L · A 19-022 L

Construction:

Insulation:	FEP
Stranding:	2 cores together
Wrapping:	A 18 L, A 18-022 L: PETP foil
Screen:	A 19 L, A 19-022 L: tinned copper braiding
Sheath material:	FEP
Shape:	round
Conductor construction:	strand

Technical data:

Min. bending radius:	12 x d
Radiation resistance:	1 x 10 ⁷ cJ/kg
Temperature range of insulation:	fixed laying: -90/+180 °C flexible application: -55/+180 °C
Insulation resistance:	> 1MΩ x km
Fire performance:	no flame propagation acc. to IEC 60332 + EN 60332 Cat. C resp. D (see page N/19). Flame retardant and self-extinguishing IEC 60332-1-2 + EN 60332-1-2
Chem. resistance:	very good against fats, oils, salts and acids
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/17

Type:	A 18 L	A 18-022 L	A 19 L	A 19-022 L
Conductor cross section:	1,5 mm ²	0,22 mm ²	1,5 mm ²	0,22 mm ²
Outer diameter:	approx. 4,8 mm	approx. 2,5 mm	approx. 5,4 mm	approx. 3,0 mm
Weight/100m:	approx. 4,2 kg	approx. 1,0 kg	approx. 5,6 kg	approx. 1,9 kg

DIN IEC 584

for thermocouple	EMK at 100 °C in mV	cable type	A 18 L item no.	A 18-022 L item no.	A 19 L item no.	A 19-022 L item no.
Type T	4,28	TX	04338958	04331958	04358958	04351958
Type J	5,27	JX	04338952	04331952	04358952	04351952
Type K	4,10	KCA	04338995	04331995	04358995	04351995
Type K	4,10	KCB	04338999	04331999	04358999	04351999
Type K	4,10	KX	04338954	04331954	04358954	04351954
Type E	6,32	EX	04338953	04331953	04358953	04351953
Type R/S	0,65	R/SCB	04338997	04331997	04358997	04351997
Type N	2,77	NC	04338991	04331991	04358991	04351991

We also manufacture compensating and extension cables colour coded to DIN VDE 43714 – 06/79 and the basic values laid down in DIN VDE 43710 which was withdrawn in April 1994.

DIN 43710 / 43714 (not valid for type B)

for thermocouple	EMK at 100 °C in mV	cable type	A 18 L item no.	A 18-022 L item no.	A 19 L item no.	A 19-022 L item no.
Type L	5,37	LX	04338992	04331992	04358992	04351992
Type K	4,10	KCA	04338994	04331994	04358994	04351994
Type R/S	0,65	R/SCB	04338996	04331996	04358996	04351996
Type U	4,25	UX	04338998	04331998	04358998	04351998
*Type B	0,00	BC-100	04338901	04331901	04358901	04351901
*Type B	0,033	BC-200	04338902	04331902	04358902	04351902

*Not standardized compensating cable for thermocouples type B with application temperatures up to 100°C resp. 200 °C.
C = compensating cables · X = extension cables

COMPENSATING AND EXTENSION CABLES

Fibre-glass insulated extension cables for thermocouples

Th LGS with fibre-glass braiding and steel wire armouring
Th LRS with special fibre-glass braiding and steel wire armouring



Th LGS · Th LRS

Construction:

Insulation:	Th LGS: fibre-glass Th LRS: special fibre-glass
Stranding:	cores together
Braiding:	Th LGS: fibre-glass Th LRS: special fibre-glass
Armouring:	galvanized steel wire armouring with tracer
Shape:	round

Technical data:

Min. bending radius:	12 x d
Temperature range of insulation:	Th LGS: max. 250 °C Th LRS: max. 400 °C
Halogen-free:	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Fire performance:	no flame propagation acc. to IEC 60332 + EN 60332 Cat. C resp. D (see page N/19). Flame retardant and self-extinguishing IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/17

Type:	Th LGS	Th LRS
Conductor construction:	0,22 mm ² = 7 x 0,20 mm ø 0,50 mm ² = 16 x 0,20 mm ø 1,00 mm ² = 32 x 0,20 mm ø	0,22 mm ² = 7 x 0,20 mm ø 0,50 mm ² = 16 x 0,20 mm ø 1,00 mm ² = 32 x 0,20 mm ø

Th LGS

item no.	type	no. of cores x cross section n x mm ²	for thermo- couple	approx. outer-ø mm	approx. cable weight kg/100 m
047110...*	Th 20 LGS	2 x 0,22	Fe-CuNi	3,1	2,0
047111...*	Th 50 LGS	2 x 0,50	Fe-CuNi	3,7	3,9
047112...*	Th 100 LGS	2 x 1,00	Fe-CuNi	4,5	4,3
047113...*	Th 20-4 LGS	4 x 0,22	Fe-CuNi	3,5	2,9
047114...*	Th 50-4 LGS	4 x 0,50	Fe-CuNi	4,2	4,3
047115...*	Th 100-4 LGS	4 x 1,00	Fe-CuNi	5,4	7,0
047110...*	Th 20 LGS	2 x 0,22	NiCr-Ni	3,1	2,0
047111...*	Th 50 LGS	2 x 0,50	NiCr-Ni	3,7	3,2
047112...*	Th 100 LGS	2 x 1,00	NiCr-Ni	4,5	4,3
047113...*	Th 20-4 LGS	4 x 0,22	NiCr-Ni	3,5	2,9
047114...*	Th 50-4 LGS	4 x 0,50	NiCr-Ni	4,2	4,3
047115...*	Th 100-4 LGS	4 x 1,00	NiCr-Ni	5,4	7,0

Th LRS

item no.	type	no. of cores x cross section n x mm ²	for thermo- couple	approx. outer-ø mm	approx. cable weight kg/100 m
047210...*	Th 20 LRS	2 x 0,22	Fe-CuNi	3,1	1,9
047211...*	Th 50 LRS	2 x 0,50	Fe-CuNi	3,7	3,9
047212...*	Th 100 LRS	2 x 1,00	Fe-CuNi	4,5	5,2
047213...*	Th 20 -4 LRS	4 x 0,22	Fe-CuNi	3,5	2,9
047214...*	Th 50 -4 LRS	4 x 0,50	Fe-CuNi	4,2	5,1
047215...*	Th 100-4 LRS	4 x 1,00	Fe-CuNi	5,4	7,5
047210...*	Th 20 LRS	2 x 0,22	NiCr-Ni	3,1	1,9
047211...*	Th 50 LRS	2 x 0,50	NiCr-Ni	3,7	3,9
047212...*	Th 100 LRS	2 x 1,00	NiCr-Ni	4,5	5,2
047213...*	Th 20 -4 LRS	4 x 0,22	NiCr-Ni	3,5	2,9
047214...*	Th 50 -4 LRS	4 x 0,50	NiCr-Ni	4,2	5,1
047215...*	Th 100-4 LRS	4 x 1,00	NiCr-Ni	5,4	7,5

Thermocouple code see page L/5

COMPENSATING AND EXTENSION CABLES

PFA insulated extension cables for thermocouples

Th LTS with steel wire armouring
Th LTV stainless steel wire armouring



Th LTS



Th LTV

Construction:

Insulation:	PFA
Stranding:	cores together
Braiding:	fibre-glass
Armouring:	Th LTS: galvanized steel wire armouring with tracer Th LTV: stainless steel wire armouring (VA) with tracer
Shape:	round

Technical data:

Min. bending radius:	12 x d
Temperature range of insulation:	
flexible application:	max. +250 °C
fixed laying:	max. +250 °C
limited time of use:	+260 °C
Insulation resistance:	> 1MΩ x km
Fire performance:	no flame propagation acc. to IEC 60332 + EN 60332 Cat. C resp. D (see page N/19). Flame retardant and self-extinguishing IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/17

Type:	Th LTS	Th LTV
Conductor construction:	0,22 mm ² = 7 x 0,20 mm ø 0,50 mm ² = 16 x 0,20 mm ø 1,00 mm ² = 32 x 0,20 mm ø	0,22 mm ² = 7 x 0,20 mm ø 0,50 mm ² = 16 x 0,20 mm ø 1,00 mm ² = 32 x 0,20 mm ø

Th LTS

item no.	type	no. of cores x cross section n x mm ²	for thermo- couple	approx. outer-ø mm	approx. cable weight kg/100 m
047310...*	Th 20 LTS	2 x 0,22	Fe-CuNi	3,3	2,1
047311...*	Th 50 LTS	2 x 0,50	Fe-CuNi	4,1	3,9
047312...*	Th 100 LTS	2 x 1,00	Fe-CuNi	4,9	5,2
047313...*	Th 20-4 LTS	4 x 0,22	Fe-CuNi	3,7	3,2
047314...*	Th 50-4 LTS	4 x 0,50	Fe-CuNi	4,7	5,1
047315...*	Th 100-4 LTS	4 x 1,00	Fe-CuNi	5,6	7,5
047310...*	Th 20 LTS	2 x 0,22	NiCr-Ni	3,3	2,1
047311...*	Th 50 LTS	2 x 0,50	NiCr-Ni	4,1	3,9
047312...*	Th 100 LTS	2 x 1,00	NiCr-Ni	4,9	5,2
047313...*	Th 20-4 LTS	4 x 0,22	NiCr-Ni	3,7	3,2
047314...*	Th 50-4 LTS	4 x 0,50	NiCr-Ni	4,7	5,1
047315...*	Th 100-4 LTS	4 x 1,00	NiCr-Ni	5,6	7,5

Th LTV

item no.	type	no. of cores x cross section n x mm ²	for thermo- couple	approx. outer-ø mm	approx. cable weight kg/100 m
047350...*	Th 20 LTV	2 x 0,22	Fe-CuNi	3,2	1,9
047351...*	Th 50 LTV	2 x 0,50	Fe-CuNi	4,1	3,9
047352...*	Th 100 LTV	2 x 1,00	Fe-CuNi	4,9	5,2
047353...*	Th 20 -4 LTV	4 x 0,22	Fe-CuNi	3,6	2,9
047354...*	Th 50 -4 LTV	4 x 0,50	Fe-CuNi	4,7	5,1
047355...*	Th 100-4 LTV	4 x 1,00	Fe-CuNi	5,6	7,5
047350...*	Th 20 LTV	2 x 0,22	NiCr-Ni	3,2	1,9
047351...*	Th 50 LTV	2 x 0,50	NiCr-Ni	4,1	3,9
047352...*	Th 100 LTV	2 x 1,00	NiCr-Ni	4,9	5,2
047353...*	Th 20 -4 LTV	4 x 0,22	NiCr-Ni	3,6	2,9
047354...*	Th 50 -4 LTV	4 x 0,50	NiCr-Ni	4,7	5,1
047355...*	Th 100-4 LTV	4 x 1,00	NiCr-Ni	5,6	7,5

Thermocouple code see page L/5

COMPENSATING AND EXTENSION CABLES

RTD sensor cable connection cables for RTD



BROCKSKES · D-VIERSEN · RTD sensor cable 180 TW 4x26/7 AWG 3820-

Marking for RTD sensor cable 180 TW 3820-0043:
SAB BRÖCKSKES · D-VIERSEN · RTD sensor cable 180 TW 4x26/7 AWG 3820-0043

Technical data:

Peak operating voltage:	48 V		
Testing voltage:	core/core	600 V	
	core/screen	600 V	
Min. bending radius			
<i>fixed laying:</i>	5 x d		
<i>flexible application:</i>	10 x d		
Temperature range	180 flex	180 C flex	180 highflex
	180 C highflex	180 TW	250 TW
		180 C TW	250 C TW
<i>fixed laying:</i>	-40/+180 °C	-90/+180 °C	-90/+250 °C
<i>flexible application:</i>	-25/+180 °C	-55/+180 °C	-55/+250 °C
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/17		

Outstanding features:

- ‰ high temperature resistant
- ‰ small diameter

type item no.	no. of cores x cross section	conductor	insulation	colour code	screen	sheath material	sheath colour	outer-ø approx. mm	copper figure kg/km	cable weight ≈ kg/km
RTD sensor cable 180 TW										
38200023	2 x 26/7 AWG	tinned copper	FEP	● ○		FEP		1,9	2,8	6,1
38200033	3 x 26/7 AWG	tinned copper	FEP	● ● ○		FEP		2,0	4,2	8,0
38200043	4 x 26/7 AWG	tinned copper	FEP	● ● ● ○		FEP		2,2	5,6	10,1
RTD sensor cable 180 C TW										
38201023	2 x 26/7 AWG	tinned copper	FEP	● ○	tinned copper	FEP		2,5	9,8	12,7
38201033	3 x 26/7 AWG	tinned copper	FEP	● ● ○	tinned copper	FEP		2,6	11,3	14,7
38201043	4 x 26/7 AWG	tinned copper	FEP	● ● ● ○	tinned copper	FEP		2,8	15,9	19,0
RTD sensor cable 180 flex										
38202023	2 x 26/7 AWG	tinned copper	FEP	● ○		Besilen®		2,5	2,8	8,7
38202033	3 x 26/7 AWG	tinned copper	FEP	● ● ○		Besilen®		2,6	4,2	10,5
38202043	4 x 26/7 AWG	tinned copper	FEP	● ● ● ○		Besilen®		2,8	5,6	12,7
RTD sensor cable 180 C flex										
38203023	2 x 26/7 AWG	tinned copper	FEP	● ○	tinned copper	Besilen®		3,0	9,8	14,1
38203033	3 x 26/7 AWG	tinned copper	FEP	● ● ○	tinned copper	Besilen®		3,1	11,3	16,1
38203043	4 x 26/7 AWG	tinned copper	FEP	● ● ● ○	tinned copper	Besilen®		3,3	15,9	20,4
RTD sensor cable 250 TW										
38204023	2 x 26/7 AWG	nickel-plated copper	PFA	● ○		PFA		1,9	2,8	6,1
38204033	3 x 26/7 AWG	nickel-plated copper	PFA	● ● ○		PFA		2,0	4,2	8,0
38204043	4 x 26/7 AWG	nickel-plated copper	PFA	● ● ● ○		PFA		2,2	5,6	10,1
RTD sensor cable 250 C TW										
38205023	2 x 26/7 AWG	nickel-plated copper	PFA	● ○	tinned copper	PFA		2,5	9,8	12,9
38205033	3 x 26/7 AWG	nickel-plated copper	PFA	● ● ○	tinned copper	PFA		2,6	11,3	14,9
38205043	4 x 26/7 AWG	nickel-plated copper	PFA	● ● ● ○	tinned copper	PFA		2,8	15,9	19,3
RTD sensor cable 180 highflex										
38206023	2 x 26/7 AWG	tinned copper	Besilen®	● ○		Besilen®		3,2	2,8	12,1
38206033	3 x 26/7 AWG	tinned copper	Besilen®	● ● ○		Besilen®		3,3	4,2	14,0
38206043	4 x 26/7 AWG	tinned copper	Besilen®	● ● ● ○		Besilen®		3,6	5,6	16,8
RTD sensor cable 180 C highflex										
38207023	2 x 26/7 AWG	tinned copper	Besilen®	● ○	tinned copper	Besilen®		3,6	13,1	19,2
38207033	3 x 26/7 AWG	tinned copper	Besilen®	● ● ○	tinned copper	Besilen®		3,8	14,6	21,4
38207043	4 x 26/7 AWG	tinned copper	Besilen®	● ● ● ○	tinned copper	Besilen®		4,1	19,4	27,0

Other dimensions and colours are possible on request.

COMPENSATING AND EXTENSION CABLES

PFA insulated connection cables for resistance thermometers

TGV with fibre-glass braiding and
stainless steel wire armouring



TGV

Construction:

Conductor:	nickel-plated copper strands
Insulation:	PFA
Braiding:	fibre-glass
Stranding:	cores together
Armouring:	stainless steel wire armouring (VA) with tracer
Shape:	round

Technical data:

Min. bending radius:	12 x d
Temperature range of insulation:	
flexible application:	max. + 250 °C
fixed laying:	max. + 250 °C
limited time of use:	+ 260 °C
Insulation resistance:	> 1MΩ x km
Fire performance:	no flame propagation acc. to IEC 60332 + EN 60332 Cat. C resp. D (see page N/19). Flame retardant and self-extinguishing IEC 60332-1-2 + EN 60332-1-2
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/17

TGV

item no.	no. of cores x cross section n x mm ²	construction of strands n x wire ø	approx. outer-ø mm	approx. cable weight kg/km
04700218	2 x 0,18	10 x 0,15	3,4	2,1
04700318	3 x 0,18	10 x 0,15	3,6	2,3
04700418	4 x 0,18	10 x 0,15	4,0	2,7
04700618	6 x 0,18	10 x 0,15	4,8	3,8


SAB colour code:

2-cores red-white
3-cores red-red-white
4-cores red-red-white-white
6-cores red-red-white-white-black-black

COMPENSATING AND EXTENSION CABLES

Connection cables for resistance thermometers, special and hybrid cables



SAB identification	Figure	Insulation	Cross section	Outer diameter	Temperature range of insulation
Connection cables for resistance thermometers					
TTL		PFA	0,12 - 0,18 mm ²	2,3 - 2,5 mm	fixed laying: max. +250°C limited time of use: max. +260°C
Th LTS Th LTV		fibre-glass/ fibre-glass	0,18 mm ²	2,9 mm	fixed laying: max. +250°C
LiYY LiYCY BiHF-J BiHF/Cu/Bi-J		PVC Besilen®	0,14 - 1,5 mm ²	3,1 - 8,4 mm 3,6 - 9,3 mm (braid) 4,3 - 18,6 mm 6,4 - 17,0 mm (braid)	fixed laying: -30°C to +70°C fixed laying: -40°C to +180°C
TGV		PFA fibre-glass (braid)	0,18 mm ²	3,4 - 4,8 mm	fixed laying: +250°C
Special and hybrid cables					
SAB Type	Figure	Insulation	Cross section	Outer diameter	Temperature range of insulation
Type J ***		Core: PVC Sheath: PUR	3 x 2 x 0,5 mm ² JX + 8 x 6 mm ²	18,8 mm	fixed laying: -25°C to +70°C
Type K Type J Type L ***	  particularly appropriate for helix cables	Core: TPE Sheath: PUR	0,22 mm ²	3,0 mm	flexible application: -40°C to +90°C
Type K Type J Type L ***		PI-foil PI-foil	0,20 mm ²	0,9 x 0,5 mm	fixed laying: -40°C to +250°C

*** Type T, E, R/S, N on request!






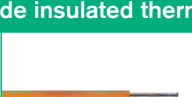



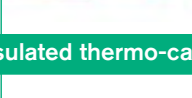
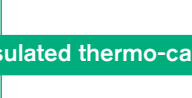



For all cables possible on request:

%o heat resistant PVC up to +105°C

%o notch resistant Besilen® sheath (EWKF)

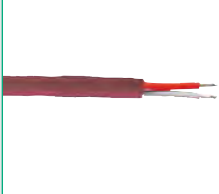


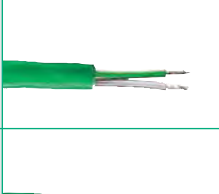
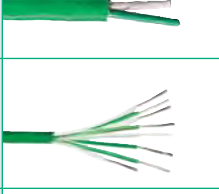
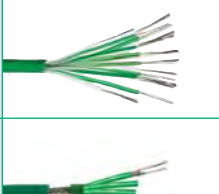
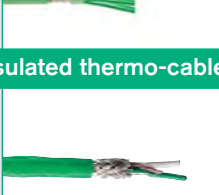
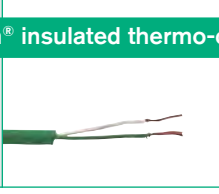

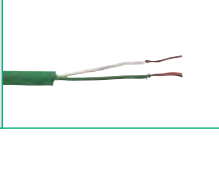
COMPENSATING AND EXTENSION CABLES

Compensating and Extension Cables for the automotive industry

SAB item no.	Picture	Cable type	T/C type	Insulation	Section	Cond.	Form	Outer-Ø	Temp.-range of insulation	thermoelectric voltage
fibre-glass insulated thermo-cables (wire)										
0489-9002		thermo cable	type K	GL/GL	2 x 0,2 mm	wire	oval	approx. 0,8 x 1,3 mm	flexible: -25°C upto +200°C fixed: -25°C upto +200°C	DIN IEC 584 class 1, tolerance +/- 1,5°C
0489-2144		thermocouple-cable	type K	GL/GL	2 x 0,5 mm	wire	oval	approx. 1,9 x 1,1 mm	flexible: -40°C upto +250°C fixed: -40°C upto +250°C	DIN IEC 584 class 1
0489-9003		thermo-cable	type K	GL/GL	2 x 0,8 mm	wire	oval	approx. 2,5 x 1,4 mm	flexible: -25°C upto +200°C fixed: -25°C upto +200°C	DIN IEC 584 class 1
0490-9016		thermo-couple-cable	type K	GL/GL	2 x 0,5 mm	wire	oval	approx. 2,0 x 1,2 mm	flexible: max. +400°C fixed: max. +400°C	DIN IEC 584 class 1
polyimide insulated thermo-cables (wire)										
0433-9138		thermo-couple-cable	type K	KN-polyimide KP-blank/ polyimide	2 x 0,2 mm	wire	oval	approx. 0,9 x 0,5 mm	flexible: -40°C upto +250°C fixed: -40°C upto +250°C	DIN IEC 584 class 1, tolerance +/- 1,5°C
0433-9186		thermo-couple-cable	type K	KN-polyimide KP-blank/ polyimide	2 x 0,2 mm	wire	oval	approx. 0,7 x 0,5 mm	flexible: -40°C upto +250°C fixed: -40°C upto +250°C	DIN IEC 584 class 1, tolerance +/- 1,5°C
0433-9149		thermo-couple-cable	type K	polyimide + PTFE/ polyimide	2 x 0,3 mm	wire	oval	approx. 0,9 x 1,7 mm	flexible: -40°C upto +250°C fixed: -40°C upto +250°C	DIN IEC 584 class 1, tolerance +/- 1,5°C
0433-9168		thermo-couple-cable	type K	KN-polyimide KP-PTFE/ polyimide	2 x 0,2 mm	wire	oval	approx. 1,0 x 0,8 mm	flexible: -40°C upto +250°C fixed: -40°C upto +250°C	DIN IEC 584 class 1
polyimide/PFA insulated thermo-cables (wire)										
0433-9196		thermo-couple-cable	type K	KN-polyimide KP blank/ polyimide/ PFA	2 x 0,2 mm	wire	round	max. 1,0 mm	flexible: -40°C upto +250°C fixed: -40°C upto +250°C	DIN IEC 584 class 1
FEP insulated thermo-cables (wire)										
0433-9152		thermo-couple-cable	type K	FEP/FEP	2 x 0,2 mm	wire	oval	approx. 1,7 x 1,1 mm	flexible: -40°C upto +180°C fixed: -40°C upto +180°C	DIN IEC 584 class 1
TPE insulated thermo-cable (strands)										
0433-9177		thermo-couple-cable	type K	TPE/TPE	2 x 0,2 mm ²	strands	round	approx. 3,0 mm	flexible: -40°C upto +90°C fixed: -40°C upto +90°C	DIN IEC 584 class 1
FEP/Besilen® insulated thermo-cables (strands)										
0433-9193		thermo-cable	type K	FEP/FEP/ Bi	2 x 0,2 mm ²	strands	round	approx. 3,8 mm	flexible: -25°C upto +180°C fixed: -40°C upto +180°C	DIN IEC 584 class 2





































COMPENSATING AND EXTENSION CABLES

Compensating and Extension Cables for the automotive industry

SAB item no.	Picture	Cable type	T/C type	Insulation	Section	Cond.	Form	Outer-Ø	Temp.-range of insulation	thermoelectric voltage
FEP/Besilen® connection cables for resistance thermometers (strands)										
0470-9224		connection cable	tinned copper strands copper figure: 2,7 kg/km	FEP/Bi	2 x 0,14 mm ²	strands	round	approx. 2,8 mm	flexible: -25°C upto +180°C fixed: -40°C upto +180°C	
0470-0423		connection cable	tinned copper strands copper figure: 8,4 kg/km	FEP/Bi	4 x 0,22 mm ²	strands	round	approx. 3,9 mm	flexible: -25°C upto +180°C fixed: -40°C upto +180°C	
3833-9132		connection cable	tinned copper strands copper figure: 19,3 kg/km	FEP/C/ FEP	4 x 0,22 mm ²	strands	round	approx. 3,0 mm	flexible: -55°C upto +180°C fixed: -90°C upto +180°C	
FEP insulated thermo-cables (strands)										
0433-9157		thermo-cable	type K	FEP/FEP	2 x 0,22 mm ²	strands	oval	approx. 2,5 x 1,5 mm	flexible: -25°C upto +180°C fixed: -25°C upto +180°C	DIN IEC 584, tolerance +/- 1°C
0433-9137		thermo-cable	type K	FEP/FEP	2 x 0,22 mm ²	strands	round	approx. 2,0 mm	flexible: -25°C upto +180°C fixed: -25°C upto +180°C	DIN IEC 584, tolerance +/- 1°C
0433-9154		thermo-cable	type K	FEP/FEP	8 x 2 x 0,22 mm ²	strands	round	approx. 6,4 mm	flexible: -25°C upto +180°C fixed: -25°C upto +180°C	DIN IEC 584 class 2
0433-9135		thermo-cable	type K	FEP/FEP	16 x 2 x 0,22 mm ² twisted pairs	strands	round	approx. 7,7 mm	flexible: -25°C upto +180°C fixed: -25°C upto +180°C	DIN IEC 584 class 2
0435-9085		thermo-couple-cable	type K	FEP-F-ZF-D(B)- FEP/F-C(B)-FEP	8 x (2 x 0,5 mm)D	strands	round	approx. 11,0 mm	flexible: -55°C upto +180°C fixed: -90°C upto +180°C	DIN IEC 584 class 1
FEP insulated thermo-cables with screening (strands)										
0435-9037		thermo-cable	type K	FEP/C/ FEP	2 x 0,22 mm ²	strands	round	approx. 2,6 mm	flexible: -25°C upto +180°C fixed: -25°C upto +180°C	DIN IEC 584, tolerance +/- 1,5°C
Besilen® insulated thermo-cables (strands)										
0451-9019		thermo-cable	type K	GL/ Silicone	2 x 0,22 mm ²	strands	round	approx. 3,2 mm	flexible: -25°C upto +200°C fixed: -25°C upto +200°C	DIN IEC 584 class 1

COMPENSATING AND EXTENSION CABLES

Colour code and temperature range for compensating and extension cables

THERMOCOUPLE						
Code	Material ⊕ ⊖	DIN IEC 584	DIN 43710*	ANSI MC 96.1	BS 4937	NF C 42-324
		Identification THL AGL	Identification THL AGL	Identification THL AGL	Identification THL AGL	Identification THL AGL
T	Cu - Cu Ni	 TX -25° to +100°C		 0° to +100°C	 0° to +100°C	 -25° to +200°C
U	Cu - Cu Ni		 UX 0° to +200°C			
J	Fe - Cu Ni	 JX -25° to +200°C		 0° to +200°C	 0° to +200°C	 -25° to +200°C
L	Fe - Cu Ni		 LX 0° to +200°C			
E	Ni Cr - Cu Ni	 EX -25° to +200°C		 0° to +200°C	 0° to +200°C	 -25° to +200°C
K	Ni Cr - Ni	 KX -25° to +200°C		 0° to +200°C	 0° to +200°C	 -25° to +200°C
K	Ni Cr - Ni	 KCA 0° to +150°C				 0° to +150°C
K	Ni Cr - Ni	 KCB 0° to +100°C			 0° to +100°C	 0° to +100°C
N	Ni Cr Si - Ni Si	 NX -25° to +200°C	 NC 0° to +150°C			
R S	Pt Rh 13 - Pt Pt Rh 10 - Pt	 RCB/ SCB 0° to +200°C		 0° to +200°C	 0° to +200°C	 0° to +200°C
B	Pt Rh 30 - Pt Rh 6			 0° to +100°C		 0° to +100°C

The application temperature range of the cable is limited by the highest application temperature of the insulating material or the application temperature range of the conductor material. In all cases the respective lower figure is valid. The compensating cable for the thermocouple type B can also be manufactured, deviating from the corresponding standards, for a temperature range from 0 to +200°C (SAB-Type BC-200). Variant colour codes can be manufactured for a minimum order quantity.

* The standard 43710 was withdrawn in April 1994.
Therefore, the element types "U" and "L" are not standardized anymore.

THL = extension cable · AGL = compensating cable