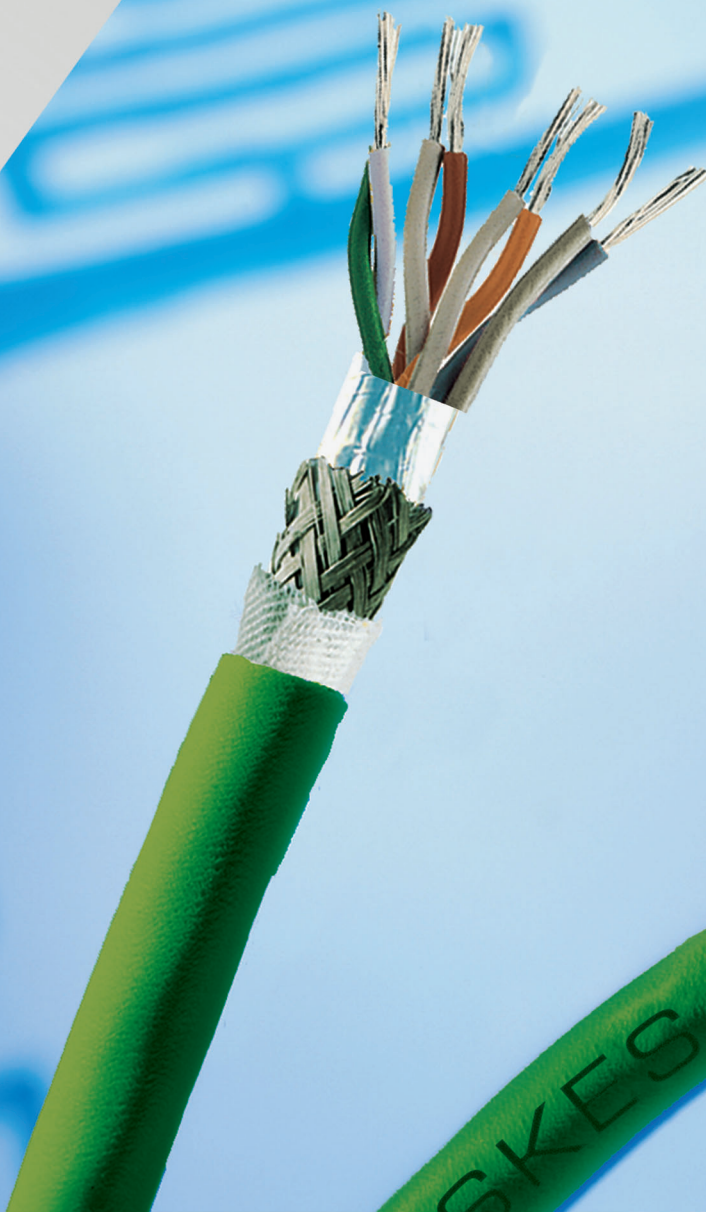


INDUSTRIAL ETHERNET CABLES



www.sab-cable.com





Industrial Ethernet Cables Profinet			
■ PN 662		PVC Profinet cable type B for flexible applications	4
■ PN 663	UL	PVC Profinet cable type B for flexible applications with UL recognition	4
■ S PN 668		PUR Profinet cable type C, continuously flexible, suitable for cable tracks	4
■ S PN 669	UL	PUR Profinet cable type C, continuously flexible, suitable for cable tracks with UL recognition	4
■ PN 654		PVC Profinet cable type A for fixed installation	5
■ PN 654 UL	UL	PVC Profinet cable type A for fixed installation with UL recognition	5
■ PN 660		halogen-free Profinet cable type B for flexible applications	5
■ PN 661	UL	halogen-free Profinet cable type B for flexible applications with UL recognition	5
■ S PN 667	UL CSA	Profinet type C, continuously flexible with UL recognition, CSA approval	6
Industrial Ethernet Cables CAT 5			
■ PN 678		PVC Ethernet cable type A for fixed installation, twisted pairs	7
■ PN 679		PUR Ethernet cable type B for flexible applications, twisted pairs	7
■ S PN 681		PUR Ethernet cable type C, continuously flexible, suitable for cable tracks, twisted pairs	7
■ DR PN 689 P Highflex		PUR reeling Profinet cable / CAT 5 cable	8
■ DR CB 689 P Highflex		PUR reeling CAN-Bus cable	8
■ S PN 668 Hybrid	UL	PUR Hybrid cable, continuously flexible, suitable for cable tracks with UL recognition	9
■ RT PN 668		PUR Profinet cable suitable for robots	9
Industrial Gigabit Ethernet Cables			
■ CATLine CAT 6 S	UL CSA	CAT 6 Gigabit Ethernet cable, suitable for cable tracks with UL recognition, CSA approval ..	10
■ CATLine CAT 6A S	UL CSA	CAT 6A Gigabit Ethernet cable, suitable for cable tracks with UL recognition, CSA approval ..	10
■ CATLine CAT 6 RT	UL CSA	CAT 6 Gigabit Ethernet cable, suitable for cable tracks and robots with UL recognition, CSA approval	10
■ CATLine CAT 6A RT	UL CSA	CAT 6A Gigabit Ethernet cable, suitable for cable tracks and robots with UL recognition, CSA approval	10
■ CATLine CAT 6A HT	UL	CAT 6A Gigabit Ethernet cable, high temperature resistant with UL recognition	11
■ CATLine CAT 7A S	UL CSA	CAT 7A Gigabit Ethernet cable, suitable for cable tracks with UL recognition, CSA approval ..	12
■ CATLine CAT 7A RT	UL CSA	CAT 7A Gigabit Ethernet cable, suitable for robots with UL recognition, CSA approval	12
■ CATLine CAT 5e DR		reeling CAT 5e Industrial Ethernet cable	13
■ CATLine CAT 6A DR		reeling CAT 6A Gigabit Ethernet cable	13
■ CATLine CAT 7A DR		reeling CAT 7A Gigabit Ethernet cable	13
Industrial Gigabit Ethernet Cables - Single-Pair-Ethernet Cables			
■ CATLine SPE C-Track	UL	Single-Pair-Ethernet cable, suitable for cable tracks with UL recognition	14
■ CATLine SPE Robot	UL	Single-Pair-Ethernet cable, suitable for robots with UL recognition	14
■ CATLine SPE HT	UL	Single-Pair-Ethernet cable, high temperature resistant with UL recognition	14
■ CATLine SPE Rugged		Single-Pair-Ethernet cable for robust indoor and outdoor use	15

NEW
NEW
NEW
NEW



- CATLine CAT 5e R
- CATLine CAT 6A R
- CATLine CAT 7A R
- CATLine CAT 5e R flex
- CATLine CAT 6A R flex
- CATLine CAT 7A R flex

Industrial Ethernet Cables especially for use in rail vehicles acc. to EN 45545-2

halogen-free CAT 5e Industrial Ethernet cable	16
halogen-free CAT 6A Gigabit Ethernet cable	16
halogen-free CAT 7A Gigabit Ethernet cable	16
halogen-free CAT 5e Industrial Ethernet cable, continuously flexible	17
halogen-free CAT 6A Gigabit Ethernet cable, continuously flexible	17
halogen-free CAT 7A Gigabit Ethernet cable, continuously flexible	17



- CATLine CAT 5e BL
- CATLine CAT 6A BL
- CATLine CAT 7A BL

Industrial Ethernet Cables especially for maritime use

ABS  halogen-free CAT 5e Industrial Ethernet cable with ABS Type Approval and UL recognition	18
ABS  halogen-free CAT 6A Gigabit Ethernet cable with ABS Type Approval and UL recognition	18
ABS  halogen-free CAT 7A Gigabit Ethernet cable with ABS Type Approval and UL recognition	18

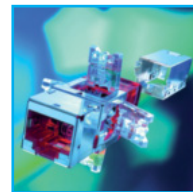
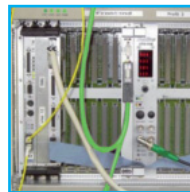


- **SAB^{clean}** CATLine CAT 5e S 
- **SAB^{clean}** CATLine CAT 6A S 
- **SAB^{clean}** CATLine CAT 7A S 

Industrial Ethernet Cables especially for clean room technology

CAT 5e Industrial Ethernet cable, suitable for cable tracks	19
CAT 6A Gigabit Ethernet cable, suitable for cable tracks	19
CAT 7A Gigabit Ethernet cable, suitable for cable tracks	19

Applications



Applications of Industrial ETHERNET cables

Industrial Ethernet is a quickly developing network technology. Ethernet with the worldwide accepted **TCP/IP** (Transmission Control Protocol/Internet Protocol) will be the future connection to the well established field bus or sensor / actuator level. Generally, the following transmission rates are divided into:

SHARED ETHERNET = 10 Mbit/s

FAST ETHERNET = 100 Mbit/s (CAT 5 requirements)

GIGABIT ETHERNET = 1000 Mbit/s (1 Gbit/s)

SAB Bröckskes developed a variety of cable solutions due to the strong innovative force of automation industry. Depending on the application, we are able to offer today CAT 5, CAT 6 and CAT 7 cable solutions for flexible and continuous flexible use, for chemical and thermal stress as well as special cable constructions for reeling purpose and robot operation.

Industrial Ethernet Cables Profinet

PN 662 Profinet type B, for flexible applications

PN 663 Profinet type B, for flexible applications with UL recognition

S PN 668 Profinet type C, continuously flexible

S PN 669 Profinet type C, continuously flexible with UL recognition



C 2x2x22AWG AWM Style 21198 80° 300V CE



Marking for S PN 669 06692202:

SAB BRÜCKSKES · D-VIERSEN · S PN 669 Profinet CAT 5 Typ C 2x2x22AWG AWM Style 21198 80° 300V CE

Construction:	PN 662 Profinet type B <i>flexible</i>	S PN 668 Profinet type C <i>continuously flexible</i>	PN 663 Profinet type B <i>flexible</i>	S PN 669 Profinet type C <i>continuously flexible</i>
Dimensions:	2 x 2 x 22 AWG			
Conductor:	tinned copper strands, fine wires with reference to VDE 0812	tinned copper strands, extra fine wires	tinned copper strands, fine wires with reference to VDE 0812	tinned copper strands, extra fine wires
Insulation:	PE, L/MD acc. to EN 50290-2-23	PE	PE, L/MD acc. to EN 50290-2-23	PE
Colour code:	blue, yellow, white, orange			
Stranding:	in layers			
Wrapping:	PETP foil			
Inner sheath:	thermoplastic material			
Wrapping:	alu foil			
Screen:	tinned copper braiding			
Wrapping:	---	non-woven tape	---	non-woven tape
Sheath material:	PVC	PUR	PVC	PUR
Sheath colour:	green (similar RAL 6018)			

Technical data:	PN 662 Profinet type B <i>flexible</i>	S PN 668 Profinet type C <i>continuously flexible</i>	PN 663 Profinet type B <i>flexible</i>	S PN 669 Profinet type C <i>continuously flexible</i>
Item numbers:	0662-2202	0668-2202	0663-2202	0669-2202
Peak operating voltage:	max. 350 V			
Voltage UL:	---		300 V	
Testing voltage core/core: core/screen:	1500 V 1200 V		2000 V 2000 V	
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d 10 x d	5 x d 10 x d 15 x d	5 x d 10 x d	5 x d 10 x d 15 x d
Temperature range VDE fixed laying: flexible application:	-30/+70 °C -5/+70 °C	-40/+70 °C -30/+70 °C	UL: up to +80 °C -30/+70 °C -5/+70 °C	UL: up to +80 °C -30/+70 °C -20/+70 °C
Halogen-free:	---	acc. to IEC 60754-1 + VDE 0482-754-1	---	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	acc. to internal standard	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	acc. to internal standard	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Characteristic impedance:	100Ω ± 5Ω, accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)			
Absence of harmful substances:	acc. to RoHS directive of the European Union			

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
06622202	PN 662	4	22	1,55	6,1	33,9	57	58,0
06682202	S PN 668	4	22	1,55	6,4	36,7	58	58,0
06632202	PN 663	4	22	1,55	6,5	36,2	66	58,0
06692202	S PN 669	4	22	1,55	6,9	36,7	69	58,0

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables Profinet

PN 654 Profinet type A, for fixed installation

PN 654 UL Profinet type A, for fixed installation UL recognition

PN 660 Profinet type B, for flexible applications

PN 661 Profinet type B, for flexible applications UL recognition



B 2x2x22AWG AWM Style 21080 75° 300V CE



Marking for PN 661 06612202:

SAB BRÜCKSKES · D-VIERSEN · S PN 661 Profinet CAT 5 Typ B 2x2x22AWG AWM Style 21080 80° 300V CE

with „Fast Connect“ construction



Construction:	PN 654 Profinet type A <i>fixed laying</i>	PN 654 UL Profinet type A <i>fixed laying</i>	PN 660 Profinet type B <i>flexible</i>	PN 661 Profinet type B <i>flexible</i>
Dimensions:	2 x 2 x 22 AWG			
Conductor:	bare copper wire		bare copper strands, fine wires with reference to VDE 0812	
Insulation:	PE, L/MD acc. to EN 50290-2-23	SABIX®	PE, L/MD acc. to EN 50290-2-23	
Colour code:	blue, yellow, white, orange			
Stranding:	star quad			
Wrapping:	PETP foil			
Inner sheath:	---	PVC	thermoplastic material	
Wrapping:	---	alu foil		
Screen:	tinned copper braiding			
Wrapping:	---		non-woven tape	
Sheath material:	PVC		SABIX®	
Sheath colour:	green (similar RAL 6018)			

Technical data:	PN 654 Profinet type A <i>fixed laying</i>	PN 654 UL Profinet type A <i>fixed laying</i>	PN 660 Profinet type B <i>flexible</i>	PN 661 Profinet type B <i>flexible</i>
Item numbers:	0654-2202	0654-9002	0660-2202	0661-2202
Peak operating voltage:	max. 350 V			
Voltage UL:	---	300 V	---	300 V
Testing voltage				
core/core:	1500 V	2000 V	1500 V	2000 V
core/screen:	1200 V	2000 V	1200 V	2000 V
Min. bending radius				
fixed laying:	5 x d		5 x d	
flexible application:			12 x d	
Temperature range VDE				
fixed laying:	-30/+70 °C	UL: up to +80 °C -30/+70 °C	-30/+70 °C	UL: up to +75 °C -40/+70 °C
flexible application:	-5/+70 °C	-5/+70 °C	-20/+70 °C	-30/+70 °C
Halogen-free:	---		acc. to IEC 60754-1 + VDE 0482-754-1	
Oil resistance:	acc. to internal standard		---	
Characteristic impedance:	100Ω ± 5Ω, accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)			
Absence of harmful substances:	acc. to RoHS directive of the European Union			

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
06542202	PN 654	4	22	1,55	5,3 ± 5%	28,0	43	54,1
06549002	PN 654 UL	4	22	1,55	6,5 ± 0,2 mm	32,2	66	54,1
06602202	PN 660	4	22	1,55	6,6 ± 5%	36,2	67	55,4
06612202	PN 661	4	22	1,55	6,6 ± 5%	36,2	70	55,4

Other dimensions and colours are possible on request.

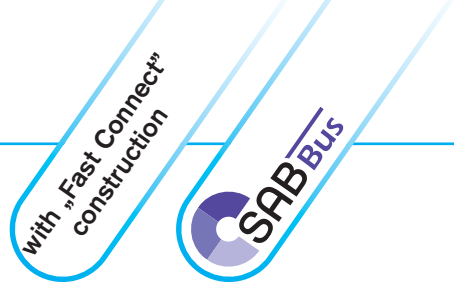
Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables Profinet

S PN 667

Profinet type C, continuously flexible with UL recognition, CSA approval



2198 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for S PN 667 06672202:

SAB BRÜCKSKES · D-VIERSEN · S PN 667 Industrial Ethernet FC Cat 5 Typ C 2x2x22AWG AWM Style 21198 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE

Construction:

Conductor:	tinned copper strands, 7 wires
Insulation:	special polymer
Colour code:	blue, yellow, white, orange
Stranding:	in layers
Wrapping:	PETP foil
Inner sheath:	thermoplastic material
Wrapping:	alu foil
Screen:	tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	PUR
Sheath colour:	green (similar RAL 6018)

Technical data:

Peak operating voltage:	max. 350 V
Voltage UL/CSA:	300 V
Testing voltage:	core/core 2000 V core/screen 2000 V
Min. bending radius	
fixed laying:	5 x d
flexible application:	10 x d
continuously flexible:	15 x d
Temperature range	UL/CSA: up to +80 °C
fixed laying:	-40/+70 °C
flexible application:	-40/+70 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1
Oil resistance:	PUR, TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2
Characteristic impedance:	100Ω ± 5Ω, accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173)
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
06672202	S PN 667	4	22	1,55	6,5 ± 0,2	33,8	60	58,8

Other dimensions and colours are possible on request.

For extreme bending stress - conductor construction 19 wires:

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
06679001	S PN 667	4	22	1,55	6,5 ± 0,2	33,8	58	58,8

Other dimensions and colours are possible on request.



short assembling time
by „Fast Connect“
construction (7 wires)

Also possible
as harnessed cable
with M12 or RJ 45 plug!

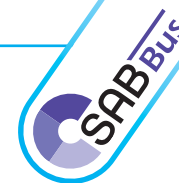


Industrial Ethernet Cables CAT 5

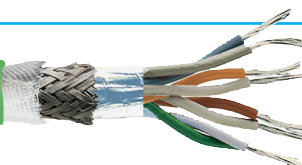
PN 678 Ethernet cable type A, for fixed installation

PN 679 Ethernet cable type B, for flexible applications

S PN 681 Ethernet cable type C, continuously flexible



D-VIERSEN · S PN 681 CAT 5 Typ C 4x2x26AWG CE



Marking for S PN 681 06812604:

SAB BRÖCKSKES · D-VIERSEN · S PN 681 CAT 5 Typ C 4x2x26AWG CE

Construction:	PN 678 Ethernet cable type A <i>fixed laying</i>	PN 679 Ethernet cable type B <i>flexible</i>	S PN 681 Ethernet cable type C <i>continuously flexible</i>
Dimensions:	4 x 2 x 26 AWG		
Conductor:	tinned copper wire	tinned copper strands, fine wires with reference to VDE 0812	tinned copper strands, extra fine wires
Insulation:	PE, L/MD acc. to EN 50290-2-23		SABIX®
Colour code:	white cores with numbers 1 - 4 + (blue, orange, green, brown)		
Stranding:	twisted to pairs and pairs together		
Wrapping:	alu foil	PETP foil + alu foil	non-woven tape + alu foil
Screen:	tinned copper braiding		
Wrapping:	---	non-woven tape	
Sheath material:	PVC	PUR	
Sheath colour:	green (similar RAL 6018)		

Technical data:	PN 678 Ethernet cable type A <i>fixed laying</i>	PN 679 Ethernet cable type B <i>flexible</i>	S PN 681 Ethernet cable type C <i>continuously flexible</i>
Item numbers:	0678-2604	0679-2604	0681-2604
Peak operating voltage:	max. 350 V		
Testing voltage core/core: core/screen:	1500 V 1200 V		
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d	5 x d 10 x d	5 x d 10 x d 12 x d
Temperature range VDE fixed laying: flexible application:	-30/+70 °C -5/+70 °C	-40/+70 °C -40/+70 °C	-40/+90 °C -30/+90 °C
Halogen-free:	---	acc. to IEC 60754-1 + VDE 0482-754-1	
Oil resistance:	acc. to internal standard	PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)		
Absence of harmful substances:	acc. to RoHS directive of the European Union		

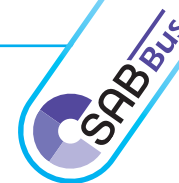
item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
06782604	PN 678	4	26	1,10	6,2	33,0	48	150
06792604	PN 679	4	26	1,05	6,9	35,0	54	148
06812604	S PN 681	4	26	1,10	7,2	35,5	58	145

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables CAT 5



DR PN 689 P Highflex reeling Profinet cable / CAT 5 cable

DR CB 689 P Highflex reeling CAN-Bus cable

SAB · D-VIERSEN · DR PN 689 P Highflex 2x2x22AWG CE



Marking for DR PN 689 P Highflex 06892202:

SAB BRÜCKSKES · D-VIERSEN · DR PN 689 P Highflex 2x2x22AWG CE

Construction:	DR PN 689 P Highflex reeling Profinet cable	DR PN 689 P Highflex reeling CAT 5 cable	DR CB 689 P Highflex reeling CAN-Bus cable
Dimensions:	2 x 2 x 22 AWG	4 x 2 x 26 AWG	2 x 2 x 0,50 mm ²
Conductor:	tinned copper strands, fine wires		bare copper strands
Insulation:	SABIX®		PE
Colour code:	blue, yellow, white, orange	blue, orange, green, brown + 4 white cores with consecutive numbers	acc. to DIN 47100
Stranding:	in layers	twisted to pairs and pairs together	
Wrapping:	PETP foil		non-woven tape
Inner sheath:	SABIX®		---
Wrapping:	alu foil		---
Screen:	tinned copper braiding		
Wrapping:	non-woven tape		---
Sheath material:	PUR / supporting braid / PUR		
Sheath colour:	green (similar RAL 6018)	black (similar RAL 9005)	

Technical data:	DR PN 689 P Highflex reeling Profinet cable	DR PN 689 P Highflex reeling CAT 5 cable	DR CB 689 P Highflex reeling CAN-Bus cable
Item numbers:	0689-2202	0689-9001	0689-9005
Peak operating voltage VDE:	max. 350 V		
Testing voltage core/core: core/screen:	1500 V 1200 V		
Min. bending radius	for laying and installation (fixed laying): for repeated winding action (flexible application): guided on pulleys (flexible application):	5 x d 10 x d 12 x d	for laying and installation (fixed laying): for repeated winding action (flexible application): guided on pulleys (flexible application):
Temperature range VDE fixed laying: flexible application:	-40/+90 °C -30/+90 °C		-40/+70 °C -40/+70 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)		120Ω (95 - 140Ω)
Absence of harmful substances:	acc. to RoHS directive of the European Union		

item no.	type	dimensions	outer-ø approx. mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km	tensile strength max. N	characteristic impedance
06892202	DR PN 689 P Highflex	2 x 2 x 22 AWG	8,2	36,2	83	58,8	200	100Ω
06899001	DR PN 689 P Highflex	4 x 2 x 26 AWG	8,7	34,3	85	139	200	100Ω
06899005	DR CB 689 P Highflex	2 x 2 x 0,50 mm ²	12,8	48,8	175	39,0	200	120Ω

Other dimensions and colours are possible on request.

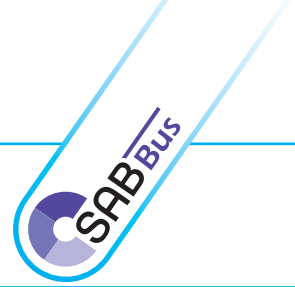
Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables CAT 5

S PN 668 Hybrid Hybrid cable with UL recognition

RT PN 668 Profinet cable suitable for robots



198 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for RT PN 668 06689001:

SAB BRÖCKSKES · D-VIERSEN · RT PN 668 Profinet 2x2x22AWG · Robot Cable · CE



Construction:	S PN 668 Hybrid <i>Hybrid cable type C</i> <i>continuously flexible</i>	RT PN 668 <i>Profinet cable</i> <i>suitable for robots</i>
Dimensions:	2 x 2 x 22 AWG + 4 x 1,5 mm ²	2 x 2 x 22 AWG
Conductor:	22 AWG: tinned copper strands, extra fine wires. 1,5 mm ² : bare copper strands acc. to IEC 60228, VDE 0295, class 6	tinned copper strands, extra fine wires
Insulation:	22 AWG: SABIX® 1,5 mm ² : TPE	PE
Colour code:	22 AWG: blue, yellow, white, orange. 1,5 mm ² : black cores with consecutive numbers acc. to EN 50334 + VDE 0293-334	blue, yellow, white, orange
Stranding:	22 AWG: in layers, together in layers	in layers
Wrapping:	22 AWG: PETP foil	netting tape, alu foil
Inner sheath:	22 AWG: SABIX®	---
Wrapping:	22 AWG: alu foil	---
Screen:	22 AWG: tinned copper braiding	---
Wrapping:	22 AWG: non-woven tape	---
Screen:	---	tinned copper braiding
Wrapping:	non-woven tape	
Sheath material:	PUR	
Sheath colour:	green (similar RAL 6018)	

Technical data:	S PN 668 Hybrid <i>Hybrid cable type C</i> <i>continuously flexible</i>	RT PN 668 <i>Profinet cable</i> <i>suitable for robots</i>
Item numbers:	0668-9010	0668-9001
Peak operating voltage:	max. 350 V	
Voltage UL:	300 V	---
Testing voltage core/core: core/screen:	2000 V 2000 V	1500 V 1200 V
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d 10 x d 12 x d	5 x d 10 x d
Torsion angle:	---	± 180°/m
Temperature range VDE fixed laying: flexible application:	UL: up to +80 °C -40/+90 °C -30/+90 °C	-40/+70 °C -30/+70 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 + VDE 0819-2-2 (CAT 5 acc. to EN 50173-1)	
Absence of harmful substances:	acc. to RoHS directive of the European Union	

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max.Ω/km
06689010	S PN 668 Hybrid	8	22 + 16	1,50 / 2,15	10,0	94,1	158	58,0 / 13,3
06689001	RT PN 668	4	22	1,50	7,0	36,3	62	58,0

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



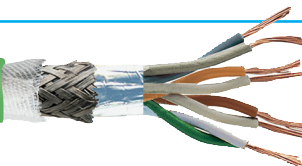
Industrial Ethernet Cables



CATLine CAT 6 S / CAT 6A S Gigabit Ethernet cable, suitable for cable tracks

CATLine CAT 6 RT / CAT 6A RT Gigabit Ethernet cable, suitable for cable tracks, suitable for robots

49 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for CATLine CAT 6 S 16774630:

SAB BRÖCKSKES · D-VIERSEN · **CATLine** Cat.6 S 4x2x26AWG 1677-4630 AWM Style 20549 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE

Construction:	CATLine CAT 6 S <i>suitable for cable tracks</i>	CATLine CAT 6A S <i>suitable for cable tracks</i>	CATLine CAT 6 RT <i>suitable for cable tracks/ suitable for robots</i>	CATLine CAT 6A RT <i>suitable for cable tracks/ suitable for robots</i>
Dimensions:	4 x 2 x 26 AWG			
Conductor:	bare copper strands, fine wires			
Insulation:	special polymer			
Colour code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown			
Stranding:	cores twisted to pairs, pairs together			
Wrapping:	non-woven tape			
Screen:	alu foil			
Screen:	tinned copper braiding			
Wrapping:	non-woven tape			
Sheath material:	PUR			
Sheath colour:	green (similar RAL 6018)			

Technical data:	CATLine CAT 6 S <i>suitable for cable tracks</i>	CATLine CAT 6A S <i>suitable for cable tracks</i>	CATLine CAT 6 RT <i>suitable for cable tracks/ suitable for robots</i>	CATLine CAT 6A RT <i>suitable for cable tracks/ suitable for robots</i>
Item numbers:	1677-4630	1677-4631	1687-4630	1687-4631
Peak operating voltage:	max. 90 V			
Voltage UL/CSA:	300 V			
Testing voltage core/core: core/screen:	2000 V 2000 V			
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d 10 x d 15 x d			
Torsion angle:	---		up to ± 180°/m	
Temperature range VDE fixed laying: flexible application:	UL/CSA: up to +80 °C -40/+70 °C -40/+70 °C			
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1			
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 UL Horizontal Flame Test FT2			
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2			
Characteristic impedance (100 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2 / CAT 6	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2 / CAT 6	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A
Flexibility:	very good			
Absence of harmful substances:	acc. to RoHS directive of the European Union			

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km
16774630	CATLine CAT 6 S	8	26	1,05	7,1	32,0	57
16774631	CATLine CAT 6A S	8	26	1,05	7,1	32,0	57
16874630	CATLine CAT 6 RT	8	26	1,05	7,1	32,0	57
16874631	CATLine CAT 6A RT	8	26	1,05	7,1	32,0	57

Other dimensions and colours are possible on request.



**+90°C
on request!**

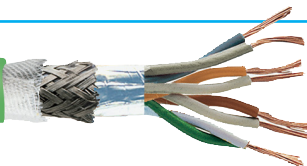
Also possible
as harnessed cable
with M12 or RJ 45 plug!



CATLine CAT 6A HT

Gigabit Ethernet cable – high temperature resistant

1631-4631  AWM Style 21618 150°C 600V 



Marking for CATLine CAT 6A HT 16314631:

SAB BRÜCKSKES · D-VIERSEN ·  Cat.6A HT 4x2x26AWG 1631-4631  AWM Style 21618 150°C 600V 

Construction:

Conductor:	bare copper strands, fine wires
Insulation:	FEP
Colour code:	white/blue, white/orange, white/green, white/brown
Stranding:	twisted to pairs
Wrapping:	PETP foil
Screen:	alu foil
Screen:	tinned copper braiding
Sheath material:	FEP
Sheath colour:	green (similar RAL 6018)

Outstanding features:



- high temperature resistant
- low temperature resistant
- flame retardant and self-extinguishing
- oil- and chemical resistant
- UL recognized

Technical data:

Peak operating voltage:	max. 90 V
Voltage UL:	600 V
Testing voltage:	core/core 2000 V core/screen 2000 V
Min. bending radius <i>fixed laying:</i> <i>flexible application:</i>	5 x d 10 x d
Temperature range <i>fixed laying:</i> <i>flexible application:</i>	UL: up to +150 °C -90/+180 °C -55/+180 °C
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, UL VW1
Oil resistance:	very good
Chemical resistance:	very good against acids, halogens, bases, chlorinated solvents as well as organic and inorganic compounds
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 (CAT 6A)
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km
16314631	CATLine CAT 6A HT	4 x 2	26	1,05	5,7	30,0	52

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



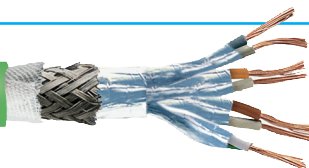
Industrial Ethernet Cables



CATLine CAT 7A S Gigabit Ethernet cable, suitable for cable tracks with UL recognition, CSA approval

CATLine CAT 7A RT Gigabit Ethernet cable, suitable for cable tracks, suitable for robots with UL recognition, CSA approval

20549 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE



Marking for CATLine CAT 7A S 17774631:

SAB BRÖCKSKES · D-VIERSEN · **CATLine** Cat. 7A S 4x2x26AWG 1777-4631 AWM Style 20549 80°C 300V CSA AWM I/II A/B 80°C 300V FT2 CE

Construction:		
	CATLine CAT 7A S <i>suitable for cable tracks</i>	CATLine CAT 7A RT <i>suitable for robots</i>
Dimensions:	4 x 2 x 26 AWG, 4 x 2 x 24 AWG	
Conductor:	bare copper strands, fine wires	
Insulation:	special polymer	
Colour code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown	
Stranding:	cores twisted to pairs, pairs screened with foil, pairs together	
Screen:	aluminized non-woven tape	
Screen:	tinned copper braiding	
Wrapping:	non-woven tape	
Sheath material:	PUR	
Sheath colour:	green (similar RAL 6018)	

Technical data:		
	CATLine CAT 7A S <i>suitable for cable tracks</i>	CATLine CAT 7A RT <i>suitable for robots</i>
Item numbers:	1777-4631, 1777-4431	1787-4631, 1787-4431
Peak operating voltage:	max. 90 V	
Voltage UL/CSA:	300 V	
Testing voltage		
core/core:	2000 V	
core/screen:	2000 V	
Min. bending radius		
fixed laying:	5 x d	5 x d
flexible application:	10 x d	10 x d
continuously flexible:	15 x d	
Torsion angle:	---	up to ± 180°/m
Temperature range VDE		
fixed laying:	UL/CSA: up to +80 °C	
flexible application:	-40/+70 °C	
	-40/+70 °C	
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1	
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 UL Horizontal Flame Test FT2	
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2	
Characteristic impedance (100 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 + VDE 0819-9-2 / CAT 7A	
Flexibility:	very good	
Absence of harmful substances:	acc. to RoHS directive of the European Union	

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈ kg/km
17774631	CATLine CAT 7A S	8	26	1,50	8,5	38,5	81
17774431	CATLine CAT 7A S	8	24	1,60	10,4	46,6	101
17874631	CATLine CAT 7A RT	8	26	1,50	8,9	38,5	83
17874431	CATLine CAT 7A RT	8	24	1,60	9,3	44,0	98

Other dimensions and colours are possible on request.



+90°C
on request!

Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables

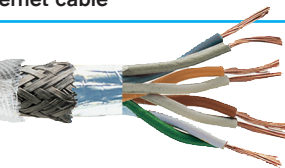
CATLine CAT 5e DR reeling CAT 5e Industrial Ethernet cable

CATLine CAT 6A DR reeling CAT 6A Gigabit Ethernet cable

CATLine CAT 7A DR reeling CAT 7A Gigabit Ethernet cable



EN · CATLine Cat.6A DR 4x2x26AWG 1639-4651



Marking for CATLine CAT 6A DR 16394651:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat.6A DR 4x2x26AWG 1639-4651

Construction:	CATLine CAT 5e DR reeling Ethernet cable	CATLine CAT 6A DR reeling Ethernet cable	CATLine CAT 7A DR reeling Ethernet cable
Dimensions:	4 x 2 x 26 AWG		
Conductor:	bare copper strands, fine wires		
Insulation:	special polymer		
Colour code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		
Stranding:	cores twisted to pairs, pairs together		cores twisted to pairs, pairs screened with foil, pairs together
Wrapping:	non-woven tape		—
Screen:	alu foil		aluminized non-woven tape
Screen:	tinned copper braiding		
Wrapping:	non-woven tape		
Sheath material:	PUR / supporting braid / PUR		
Sheath colour:	black (RAL 9005)		

Technical data:	CATLine CAT 5e DR reeling Ethernet cable	CATLine CAT 6A DR reeling Ethernet cable	CATLine CAT 7A DR reeling Ethernet cable
Item numbers:	1539-4651	1639-4651	1739-4651
Peak operating voltage:	max. 90 V		
Testing voltage core/core: core/screen:	750 V 750 V		
Min. bending radius	for laying and installation (fixed laying): for repeated winding action (flexible application): guided on pulleys (flexible application):		5 x d 10 x d 12 x d
Temperature range VDE fixed laying: flexible application:	-50/+90 °C -40/+90 °C		
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		
Oil resistance:	TMPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		
Characteristic impedance (100 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A
Weather resistance:	very good		
Absence of harmful substances:	acc. to RoHS directive of the European Union		

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	tensile strength max. N
15394651	CATLine CAT 5e DR	8	26	1,05	8,5	32,0	79	200
16394651	CATLine CAT 6A DR	8	26	1,05	8,5	32,0	81	200
17394651	CATLine CAT 7A DR	8	26	1,60	10,5	38,5	117	200

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables



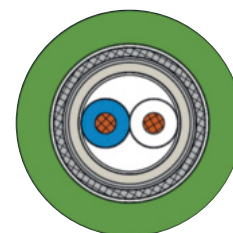
CATLine SPE C-Track Single-Pair-Ethernet cable, suitable for cable tracks UL recognition

CATLine SPE Robot Single-Pair-Ethernet cable, suitable for robots UL recognition

CATLine SPE HT Single-Pair-Ethernet cable, high temperature resistant UL recognition



1777-1630 AWM Style 20549 80°C 300V CE



Marking for CATLine SPE C-Track 17771630:

SAB BRÖCKSKES · D-VIERSEN · CATLine SPE C-Track 2xAWG26/7 1777-1630 AWM Style 20549 80°C 300V CE

Construction:	CATLine SPE C-Track <i>suitable for cable tracks</i>	CATLine SPE Robot <i>suitable for robots</i>	CATLine SPE HT <i>high temperature resistant</i>
Dimensions:	2 x 26 AWG		
Conductor:	bare copper strands, 7 wires		
Insulation:	special polymer		TPFP
Colour code:	white, blue		
Stranding:	twisted to pairs		
Inner sheath:	SABIX®		TPFP
Screen:	alu foil and tinned copper braiding		
Wrapping:	non-woven tape		---
Sheath material:	PUR		Besilen®
Sheath colour:	green (similar RAL 6018)		

Technical data:	CATLine SPE C-Track <i>suitable for cable tracks</i>	CATLine SPE Robot <i>suitable for robots</i>	CATLine SPE HT <i>high temperature resistant</i>
Item numbers:	1777-1630	1787-1630	1721-1620
Peak operating voltage:	max. 90 V		
Voltage UL:	300 V		600 V
Testing voltage core/core: core/screen:	2000 V 2000 V		
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d 10 x d 15 x d		5 x d 10 x d
Torsion angle:	---		up to ± 180°/m
Temperature range fixed laying: flexible application:	UL: up to +80 °C -40/+70 °C -40/+70 °C		UL: up to +150 °C -40/+180 °C -25/+180 °C
Temperature range conductor:	---		up to +180 °C
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1		---
Oil resistance:	very good - PUR, TPU acc. to EN 50363-10-2 + VDE 0207-363-10-2		---
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to CD IEC 61156-12 ED1 03/19. Bandwidth 1 - 600 MHz.		
Absence of harmful substances:	acc. to RoHS directive of the European Union		



Outstanding features C-Track / Robot:

- UL recognized
- low cabling effort
- short latency periods
- small outer diameter
- labs uncritical
(labs = enamel moisturing interfering substances)



Outstanding features SPE HT:

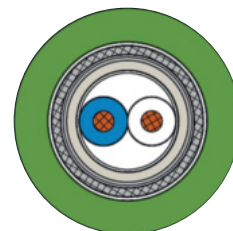
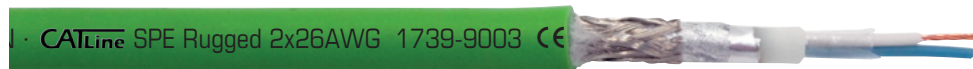
- UL recognized
- high temperature resistant
- flame retardant and self-extinguishing
- very easy installation

item no.	type	no. of conductors	cross section AWG	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
17771630	CATLine SPE C-Track	2	26/7	5,3	16,9	37	140,0
17871630	CATLine SPE Robot	2	26/7	5,3	16,9	37	140,0
17211620	CATLine SPE HT	2	26/7	4,9	14,3	37	140,0

Other dimensions and colours are possible on request.

CATLine SPE Rugged

Single-Pair-Ethernet cable for robust indoor and outdoor use



Marking for CATLine SPE Rugged 17399003:

SAB BRÖCKSKES · D-VIERSEN · CATLine SPE Rugged 2x26AWG 1739-9003 CE

Construction:

Conductor:	bare copper strands, 7 wires
Insulation:	TPFP
Colour code:	white, blue
Stranding:	twisted to pairs
Inner sheath:	TPFP
Screen:	alu foil and tinned copper braiding
Wrapping:	non-woven tape
Sheath material:	PUR 420 with mat surface
Sheath colour:	green (similar RAL 6018)

Outstanding features:



- flexible up to -45 °C
- absolutely weather resistant
- very easy installation
- small bending radius

Technical data:

Peak operating voltage:	max. 90 V
Testing voltage:	core/core 2000 V core/screen 2000 V
Min. bending radius	
fixed laying:	5 x d
flexible application:	12 x d
Temperature range	
fixed laying:	-50/+90 °C / +125 °C/2500 h
flexible application:	-45/+90 °C / +125 °C/2500 h
Temperature range conductor:	up to +180 °C
Oil resistance:	very good - TMPU acc. to EN 50363-10-2
Fuel resistance:	good
Battery acid resistance:	good
UV resistance:	acc. to HD 605 S1
Ozone resistance:	acc. to EN 50396
Saltwater resistance:	acc. to UL 1309
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to CD IEC 61156-12 ED1 03/19. Bandwidth 1 - 600 MHz.
Absence of harmful substances:	acc. to RoHS directive of the European Union

item no.	type	no. of conductors	cross section AWG	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
17399003	CATLine SPE Rugged	2	26/7	4,4	16,9	33	140,0

Other dimensions and colours are possible on request.

Industrial Ethernet Cables

CATLine CAT 5e R

CATLine CAT 6A R halogen-free Industrial Ethernet Cables
for Railway Technology

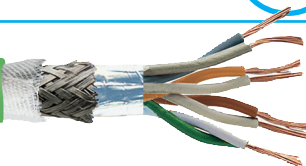
CATLine CAT 7A R

EN 45545-2

Flame retardant acc. to
UN/ECE R118



SEN · CATLine Cat. 7A R 4x2x24AWG 1767-4621 CE



Marking for CATLine CAT 7A R 17674621:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat. 7A R 4x2x24AWG 1767-4621 CE

Construction:	CATLine CAT 5e R <i>flexible</i>		CATLine CAT 6A R <i>flexible</i>	CATLine CAT 7A R <i>flexible</i>
Dimensions:	2 x 2 x 26 AWG 2 x 2 x 24 AWG 2 x 2 x 22 AWG	4 x 2 x 24 AWG	4 x 2 x 26 AWG	
Conductor:	bare copper strands, fine wires			
Insulation:	PE			
Colour code:	blue, yellow, white, orange	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		
Stranding:	star quad	cores twisted to pairs, pairs together		twisted to pairs with alu foil, pairs together
Wrapping:	foil			---
Screen:	alu foil und tinned copper braiding			tinned copper braiding
Sheath material:	special SABIX®			
Sheath colour:	green (similar RAL 6018)			

Technical data:	CATLine CAT 5e R <i>flexible</i>		CATLine CAT 6A R <i>flexible</i>	CATLine CAT 7A R <i>flexible</i>
Item numbers:	1567-2625 1567-9002 1567-9004	1567-4421	1667-4621	1767-4621
Peak operating voltage:	max. 90 V			
Testing voltage core/core: core/screen:	1500 V 1200 V			
Min. bending radius fixed laying: flexible application:	5 x d 12 x d			
Temperature range VDE fixed laying: flexible application:	-40/+70 °C -30/+70 °C			
Halogen-free:	acc. to EN 50306-1 + EN 50264-1. Development of HCl is ≤ 0,5% acc. to IEC 60754-1. pH-value is ≥ 4,3 acc. to IEC 60754-2. Conductivity is ≤ 10,0 µS/mm acc. to IEC 60754-2. Fluoric content ≤ 0,1% acc. to IEC 60684-2			
Fire performance:	no flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2			
Smoke density:	acc. to IEC 61034 + VDE 0482-1034			
Toxicity:	acc. to EN 50305 + VDE 0260-305			
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A	
Flexibility:	good			
Absence of harmful substances:	acc. to RoHS directive of the European Union			

item no.	type	no. of conductors	cross section AWG	max. core-ø mm	outer-ø mm	copper figure kg/km	cable weight ≈kg/km
15672625	CATLine CAT 5e R	4	26	1,05	4,0 ± 5%	16,4	25
15679002	CATLine CAT 5e R	4	24	1,30	5,2 ± 5%	22,7	41
15679004	CATLine CAT 5e R	4	22	1,60	5,9 ± 5%	29,1	52
15674421	CATLine CAT 5e R	8	24	1,30	8,0 ± 10%	41,2	70
16674621	CATLine CAT 6A R	8	26	1,05	6,8 ± 10%	31,9	55
17674621	CATLine CAT 7A R	8	26	1,60	7,8 ± 10%	38,5	75

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



CABLE
ASSEMBLY
POSSIBLE

Industrial Ethernet Cables

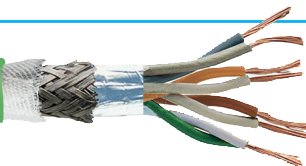
CATLine CAT 5e R flex CATLine CAT 6A R flex CATLine CAT 7A R flex

continuously flexible halogen-free
Industrial Ethernet Cables
for Railway Technology

EN 45545-2



CATLine Cat. 7A R flex 4x2x24AWG 1769-4431



Marking for CATLine CAT 7A R flex 17694431:

SAB BRÜCKSKES · D-VIERSEN · CATLine Cat. 7A R flex 4x2x24AWG 1769-4431

Application: Suitable for flexible and protected installation in the interior for door control or in protecting tubes for outdoor laying at the bogie. Appropriate for light and medium mechanical stress.

Construction:	CATLine CAT 5e R flex <i>continuously flexible</i>		CATLine CAT 6A R flex <i>continuously flexible</i>	CATLine CAT 7A R flex <i>continuously flexible</i>
Dimensions:	2 x 2 x 24 AWG 2 x 2 x 22 AWG	4 x 2 x 26 AWG 4 x 2 x 24 AWG	4 x 2 x 26 AWG / 4 x 2 x 24 AWG	
Conductor:	bare copper strands, fine wires			
Insulation:	PE			
Colour code:	blue, yellow, white, orange	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		
Stranding:	star quad	cores twisted to pairs, pairs together		twisted to pairs with alu foil, pairs together
Wrapping:	foil			---
Screen:	alu foil und tinned copper braiding			tinned copper braiding
Sheath material:	special SABIX®			
Sheath colour:	green (similar RAL 6018)			

Technical data:	CATLine CAT 5e R flex continuously flexible		CATLine CAT 6A R flex continuously flexible	CATLine CAT 7A R flex continuously flexible
Item numbers:	1569-2435 1569-2235	1569-4431 1569-4631	1669-4431 1669-4631	1769-4431 1769-4631
Peak operating voltage:	max. 90 V			
Testing voltage core/core: core/screen:	1500 V 1200 V			
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d 12 x d 15 x d			
Temperature range VDE fixed laying: flexible application:	-50/+90 °C -40/+90 °C			
Halogen-free:	acc. to EN 50306-1 + EN 50264-1. Development of HCl is ≤ 0,5% acc. to IEC 60754-1. pH-value is ≥ 4,3 acc. to IEC 60754-2. Conductivity is ≤ 10,0 µS/mm acc. to IEC 60754-2. Fluoric content ≤ 0,1% acc. to IEC 60684-2			
Fire performance:	no flame propagation acc. to IEC 60332-3-24 + VDE 0482-332-3-24 resp. IEC 60332-3-25 + VDE 0482-332-3-25 and EN 50305 + VDE 0260-305 section 9.1.2. Flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2			
Smoke density:	acc. to IEC 61034 + VDE 0482-1034			
Toxicity:	acc. to EN 50305 + VDE 0260-305			
Characteristic impedance:	100Ω ± 5Ω with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω with reference to EN 50288-9-2 / CAT 7A
Flexibility:	good			
Absence of harmful substances:	acc. to RoHS directive of the European Union			

item no.	type	no. of conductors	cross section AWG	core-ø approx. mm	outer-ø approx. mm	copper figure kg/km	cable weight ≈kg/km
15692435	CATLine CAT 5e R flex	4	24	1,25	5,1	22,8	40
15692235	CATLine CAT 5e R flex	4	22	1,55	5,8	29,2	53
15694431	CATLine CAT 5e R flex	8	24	1,29	7,8	42,3	81
15694631	CATLine CAT 5e R flex	8	26	0,99	6,5	29,7	55
16694431	CATLine CAT 6A R flex	8	24	1,29	7,9	42,2	80
16694631	CATLine CAT 6A R flex	8	26	0,99	6,5	29,7	56
17694431	CATLine CAT 6A R flex	8	24	1,71	9,7	46,6	109
17694631	CATLine CAT 6A R flex	8	26	1,45	8,6	35,8	92

Other dimensions and colours are possible on request.

Also possible
as harnessed cable
with M12 or RJ 45 plug!



Industrial Ethernet Cables

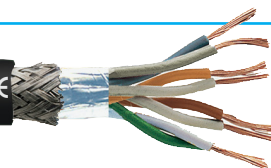
CATLine CAT 5e BL

CATLine CAT 6A BL halogen-free Ethernet cable for maritime use

CATLine CAT 7A BL



AWG 1747-4421 AWM Style 21080 75°C 300V CE



Marking for CATLine CAT 7A BL 17474421:

SAB BRÖCKSKES · D-VIERSEN · CATLine Cat.7A BL 4x2x24AWG 1747-4421 AWM Style 21080 75°C 300V CE

ABS

ABS

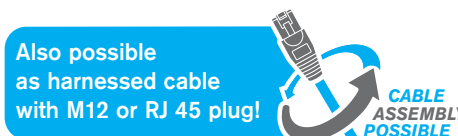
ABS

Construction:	CATLine CAT 5e BL		CATLine CAT 6A BL	CATLine CAT 7A BL
Dimensions:	2 x 2 x 24 AWG, 2 x 2 x 22 AWG	4 x 2 x 26 AWG	4 x 2 x 24 AWG, 4 x 2 x 26 AWG	
Conductor:	bare copper strands, fine wires			
Insulation:	special polymer			
Colour code:	blue, yellow, white, orange	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		
Stranding:	star quad	cores twisted to pairs, pairs together		cores twisted to pairs, pairs screened with foil, pairs together
Wrapping:	alu foil			---
Screen:	tinned copper braiding			
Sheath material:	special SABIX®			
Sheath colour:	black			

<u>Technical data:</u>	CATLine CAT 5e BL		CATLine CAT 6A BL	CATLine CAT 7A BL
Item numbers:	1547-9001, 1547-9002	1547-4621	1647-4621, 1647-4421	1747-4621, 1747-4421
Peak operating voltage:	max. 90 V			
Voltage UL:	300 V			
Testing voltage core/core: core/screen:	2000 V 2000 V			
Min. bending radius fixed laying: flexible application (only 7 wires):	5 x d 10 x d			
Temperature range VDE fixed laying: flexible application:	UL: up to +75 °C -40/+70 °C -30/+70 °C			
Halogen-free:	acc. to IEC 60754-1 + VDE 0482-754-1			
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2, no flame propagation acc. to IEC 60332-3-22 + VDE 0482-332-3-22 Cat. A, UL Horizontal Flame Test FT2, UL AWM Style 21080			
Corrosiveness of conflagration gases:	in compliance with IEC 60754-2 + VDE 0482-754-2 - no development of corrosive conflagration gases			
Smoke density:	acc. to IEC 61034 + VDE 0482-1034			
Characteristic impedance (100 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A	
Flexibility:	good			
Absence of harmful substances:	acc. to RoHS directive of the European Union			

item no.	type	no. of conductors	cross section AWG	core-ø mm	outer-ø ± 5% mm	copper figure kg/km	cable weight ≈kg/km
15479001	CATLine CAT 5e BL	4	24/7	approx. 1,25	5,7	22,7	48
15479002	CATLine CAT 5e BL	4	22/7	max. 1,60	6,4	29,7	61
15474621	CATLine CAT 5e BL	8	26/7	max. 1,05	7,3	31,9	64
16474621	CATLine CAT 6A BL	8	26/7	max. 1,05	7,3	31,9	64
16474421	CATLine CAT 6A BL	8	24/7	approx. 1,33	8,3	41,1	81
17474621	CATLine CAT 7A BL	8	26/7	max. 1,60	8,9	38,5	85
17474421	CATLine CAT 7A BL	8	24/7	approx. 1,60	10,5	65,0	116

Other dimensions and colours are possible on request.



Industrial Ethernet Cables

SAB^{clean} CATLine CAT 5e S

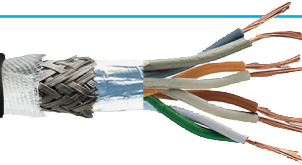
SAB^{clean} CATLine CAT 6A S

SAB^{clean} CATLine CAT 7A S

Industrial Ethernet Cable, suitable for cable tracks especially for clean room technology



G 1747-4421 AWM Style 21080 75°C 300V CE



Marking for SAB^{clean} CATLine CAT 7A S:

SAB BRÜCKSKES · D-VIERSEN · SAB Clean CATLine Cat.7A S 4x2x26AWG 1777-9003 AWM Style 20549 80°C 300V CE RoHS and current meter marking

			
<u>Construction:</u>	SAB _{clean} CATLine CAT 5e S	SAB _{clean} CATLine CAT 6A S	SAB _{clean} CATLine CAT 7A S
Dimension:	4 x 2 x 26 AWG		
Conductor:	bare copper strands, fine wire		
Insulation:	special polymer		
Colour code:	white-blue/blue, white-orange/orange, white-green/green, white-brown/brown		
Stranding:	cores twisted to pairs, pairs together		cores twisted to pairs, pairs screened with foil, pairs together
Screen:	alu foil		aluminized non-woven tap
Screen:	tinned copper braiding		
Wrapping:	non-woven tape		
Sheath material:	TPE		
Sheath colour:	black (RAL 9005)		

Technical data:	SAB ^{clean} CATLine CAT 5e S	SAB ^{clean} CATLine CAT 6A S	SAB ^{clean} CATLine CAT 7A S
Item numbers:	1577-9001	1677-9006	1777-9003
Peak operating voltage:	max. 90 V		
Voltage UL:	300 V		
Testing voltage core/core: core/screen:	2000 V 2000 V		
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x d 10 x d 15 x d		
Temperature range fixed laying: flexible application:	UL: up to +80 °C -40/+70 °C -30/+70 °C		
Fire performance:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + VDE 0482-332-1-2 UL Horizontal Flame Test FT2		
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 / CAT 5	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A
Oil resistance:	very good - Oil 60 °C acc. to UL 758		
Flexibility:	very good		
Air cleanliness class 1:	acc. to DIN EN 14644-1 US Federal Standard 209 E		
Absence of harmful substances:	acc. to RoHS directive of the European Union		

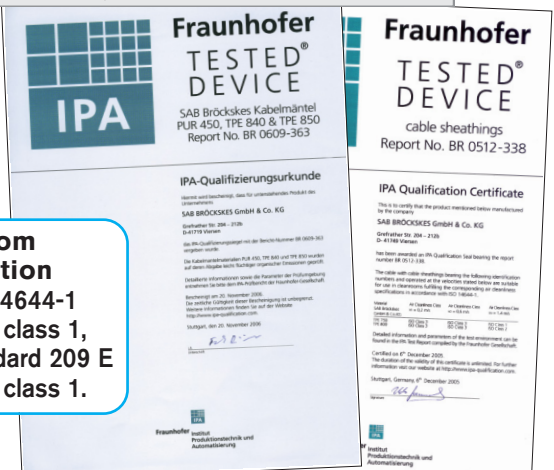
item no.	type	no. of cores	cross section AWG	outer-ø max. mm	copper figure kg/km	cable weight ≈kg/km
15779001	SAB Clean CATLine CAT 5e S	8	26	6,4	31,8	48
16779006	SAB Clean CATLine CAT 6A S	8	26	6,9	31,8	56
17779003	SAB Clean CATLine CAT 7A S	8	26	8,9	38,5	85

Other dimensions and colours are possible on request.

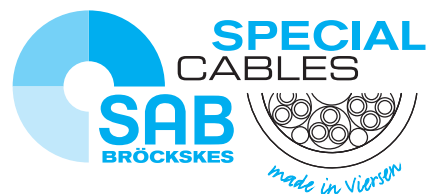
Also possible
as harnessed cable
with M12 or RJ 45 plug!



**Cleanroom
classification**
DIN EN ISO 14644-1
air cleanliness class 1,
US Federal Standard 209 E
air cleanliness class 1.



www.sab-cable.com



SAB BRÖCKSKES GMBH & CO. KG

GREFRATHER STR. 204 - 212 B

41749 VIERSEN · GERMANY

TEL.: +49/2162/898-0

FAX: +49/2162/898-101

WWW.SAB-WORLDWIDE.COM

INFO@SAB-BROECKSKES.DE