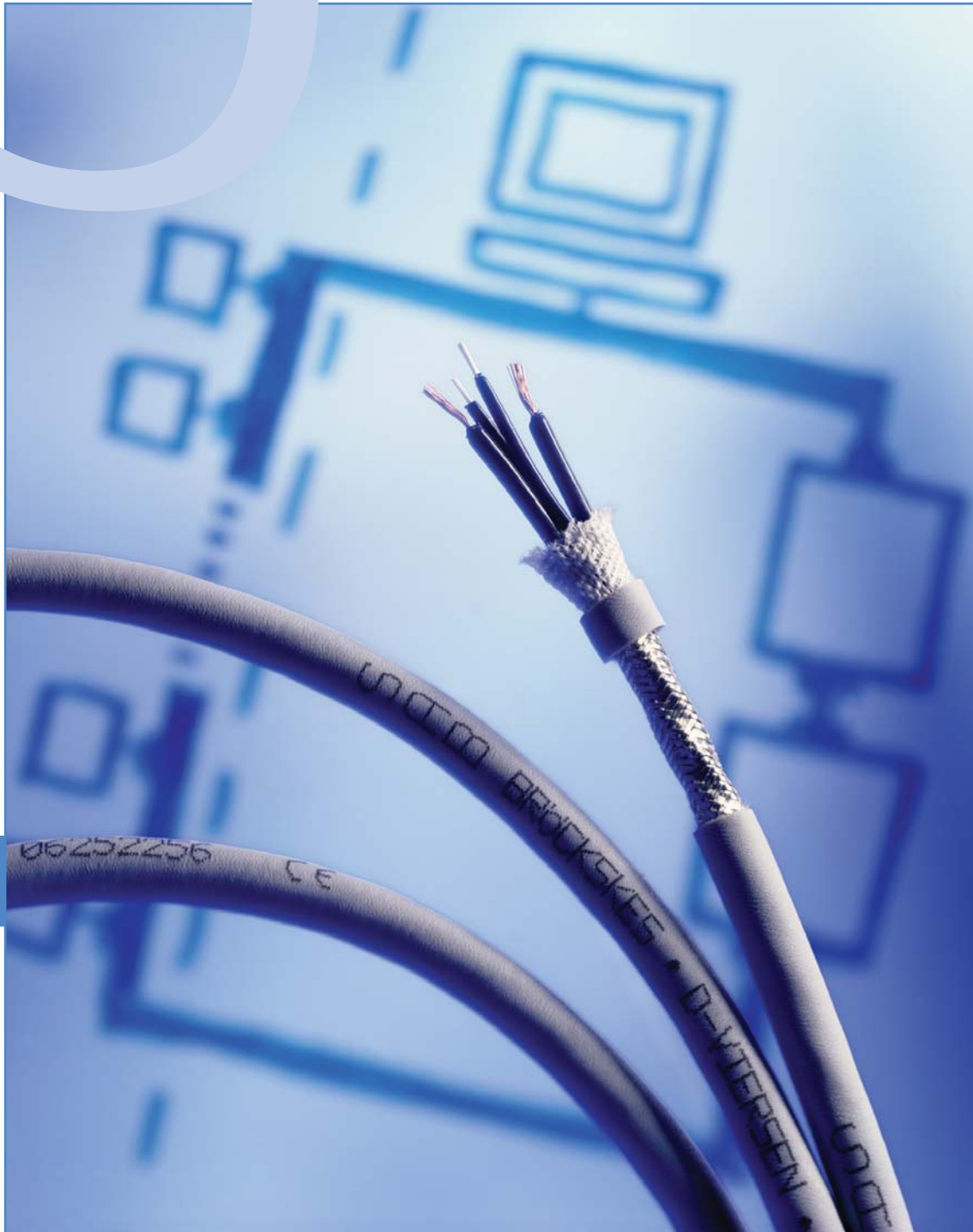


Bus Cables



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Web site: www.sabcable.com

Chapter

Item	Description	Page
Interbus-S cables remote bus cable		
IBS 612	PVC Interbus-S cable, CE	J 11
IBS 617	PVC Interbus-S cable, UL, CE	J 11
IBS 614	PVC Interbus-S cable, CE	J 11
S IBS 616	PUR Interbus-S cable track cable, CE	J 11
S IBS 618	PUR Interbus-S cable track cable, UL, CE	J 12
SABIX® IBS 610	Interbus-S cable, CE	J 12
SABIX® IBS 610 FRNC	Interbus-S cable, CE	J 12
Interbus-S cables remote installation bus cable		
IBS 612	PVC Interbus-S cable, CE	J 13
IBS 617	PVC Interbus-S cable, UL, CE	J 13
IBS 614	PVC Interbus-S cable, CE	J 13
S IBS 616	PUR Interbus-S cable track cable, CE	J 13
S IBS 618	PUR Interbus-S cable track cable, UL, CE	J 14
SABIX® IBS 610	Interbus-S cable, CE	J 14
SABIX® IBS 610 FRNC	Interbus-S cable, CE	J 14
Interbus-Loop cables		
SABIX® IBL 600 FRNC	Halogen free Interbus-Loop cable, CE	J 15
IBL 600	PVC Interbus-Loop cable, CE	J 15
SABIX® IBL 600	Halogen free Interbus-Loop cable, CE	J 15
S IBL 605	PUR Interbus-Loop cable track cable, CE	J 15
CAN-Bus cables		
S CB 626	CAN-Bus cable track cable, CE	J 16
S CB 625	Halogen free CAN-Bus cable track cable, CE	J 16
SABIX® CB 620	Halogen free CAN-Bus cable, CE	J 16
SABIX® CB 620 FRNC	Halogen free CAN-Bus cable, CE	J 16
CB 627	CAN-Bus cable, CE	J 17
S CB 628	Halogen free CAN-Bus cable track cable, UL, CE	J 17
DeviceNet cables		
DN 650	Shielded PVC DeviceNet™ cable, UL, CE	J 18
DN 651	Flexible PVC DeviceNet™ cable with a static screen, UL, CE	J 18
DN 656	Halogen free flexible DeviceNet™ cable with a static screen, UL, CE	J 19
DN 657	Halogen free flexible shielded DeviceNet™ cable, CE	J 19
DN 658	Highly flexible shielded DeviceNet™ cable, UL, CE	J 20
DN 659	Highly flexible DeviceNet™ cable with a static screen, UL, CE	J 20
DN 658 robot cable/Drop	Highly flexible shielded DeviceNet™ cable, suitable for robots, UL, CE	J 21











NEW

Chapter

Item	Description	Page
Profibus-DP cables		
SABIX® PB 630	Halogen free Profibus-DP cable, CE	J 22
SABIX® PB 630 FRNC	Halogen free Profibus-DP cable, CE	J 22
PB 630	PVC Profibus-DP cable, CE	J 22
PB 631	PE, Profibus-DP cable, CE	J 22
PB 636	PVC Profibus-DP cable, CE	J 23
PB 637	PVC Profibus-DP cable, UL, CE	J 23
PB 639	PVC Profibus-DP cable, CE	J 23
PB 635	PVC Profibus-DP cable, CE	J 23
S PB 634	PUR Profibus-DP cable, CE	J 24
PB 633	PE Profibus-DP cable, CE	J 24
PB 632	PVC Profibus-DP cable, CE	J 24
PB 640	Flexible PVC Profibus-DP cable, CE	J 25
PB 640 UL	Flexible PVC Profibus-DP cable, UL, CE	J 25
S PB 640	Highly flexible PUR Profibus-DP cable, CE	J 25
S PB 640 UL	Highly flexible PUR Profibus-DP cable, UL, CE	J 25
Profibus cables		
PB 642	PVC Profibus cable, CE	J 26
S PB 644	Halogen free Profibus cable, CE	J 26
SafetyBUS p cables		
SBP 680	SafetyBUS p cable for fixed installation, CE	J 27
S SBP 680 Move	SafetyBUS p cable for flexible applications, CE	J 27
Hybrid field bus cables		
S 670	PUR hybrid field bus control cable, suitable for cable tracks, UL, CSA, CE	J 28
S 671	PVC hybrid field bus control cable, suitable for cable tracks, UL, CSA, CE	J 28
USB 2.0 cables		
USB 2.0	flexible USB 2.0 cable, CE	J 29
USB 2.0	flexible USB 2.0 cable, UL, CE	J 29
USB 2.0 FRNC	halogen-free flexible USB 2.0 cable, CE	J 29
USB 2.0	USB 2.0 cable, continuously flexible, suitable for cable tracks, CE	J 30
USB 2.0	USB 2.0 cable, continuously flexible, suitable for cable tracks, UL, CSA, CE	J 30
USB 2.0	USB 2.0 continuously flexible, suitable for robots, UL, CSA, CE	J 30
Industrial Ethernet Cables CAT 5		
PN 662	PVC Profinet cable type B for flexible applications, CE	J 31
PN 663	PVC Profinet cable type B for flexible applications, UL, CE	J 31
S PN 668	PUR Profinet cable type C, continuously flexible, suitable for cable tracks, CE	J 31
S PN 669	PUR Profinet cable type C, continuously flexible, suitable for cable tracks, UL, CE	J 31



Chapter

Item	Description	Page
Industrial Ethernet Cables CAT 5		
PN 654	PVC Profinet cable type A for fixed installation, CE	J 32
PN 655	PVC Profinet cable type A for fixed installation, UL, CE	J 32
PN 660	Halogen-free Profinet cable type B for flexible applications, CE	J 32
PN 661	Halogen-free Profinet cable type B for flexible applications, UL, CE	J 32
PN 678	PVC Profinet cable type A for fixed installation, twisted pairs, CE	J 33
PN 679	PUR Profinet cable type B for flexible applications, twisted pairs, CE	J 33
S PN 681	PUR Profinet cable type C, continuously flexible, suitable for cable tracks, twisted pair, CE	J 33
S PN 667	PUR Profinet type C, continuously flexible, UL, CSA, CE	J 34
Special Industrial Ethernet Cables CAT 5		
DR PN 689 P Highflex	PUR reeling Profinet cable / CAT 5 cable, CE	J 35
DR CB 689 P Highflex	PUR reeling CAN-Bus cable, CE	J 35
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Industrial Gigabit Ethernet Cables CAT 6		
GE 691	CAT 6 Gigabit Ethernet cable, for flexible application, CE	J 37
S GE 696	CAT 6 Gigabit Ethernet cable, continuously flexible, CE	J 37
DR GE 698 P Highflex	reeling CAT 6 Gigabit Ethernet cable, CE	J 37
Special Industrial Gigabit Ethernet Cables CAT 6		
S GE 696 HT	high temperature, CAT 6 Gigabit Ethernet cable, for flexible applications, CE	J 38
RT GE 694	CAT 6 Gigabit Ethernet cable, suitable for robots, UL, CSA, CE	J 38
RT GE 694 Hybrid	CAT 6 Gigabit Ethernet cable, suitable for robots, CE	J 38
Industrial Gigabit Ethernet Cables CAT 6 and CAT 6A		
 CAT 6 S	CAT 6 Gigabit Ethernet cable, suitable for cable tracks, UL, CSA, CE	J 39
 CAT 6A S	CAT 6A Gigabit Ethernet cable, suitable for cable tracks, UL, CSA, CE	J 39
 CAT 6 RT	CAT 6 Gigabit Ethernet cable, suitable for robots, UL, CSA, CE	J 39
 CAT 6A RT	CAT 6A Gigabit Ethernet cable, suitable for robots, UL, CSA, CE	J 39
Industrial Gigabit Ethernet Cables CAT 7A		
 CAT 7A S	CAT 7A Gigabit Ethernet cable, suitable for cable tracks, UL, CSA, CE	J 40
 CAT 7A RT	CAT 7A Gigabit Ethernet cable, suitable for robots, UL, CSA, CE	J 40
Special Industrial Gigabit Ethernet Cables CAT 6A and CAT 7A		
 CAT 6A DR	reeling CAT 7A Gigabit Ethernet cable, CE	J 41
 CAT 7A DR	reeling CAT 7A Gigabit Ethernet cable, CE	J 41
Industrial Ethernet Cables CAT 5e and Industrial Gigabit Ethernet Cables CAT 6		
 SABIX® R 660 FRNC CAT 5e	SABIX® Rail CAT 5e, CE	J 42
 SABIX® R 691 FRNC CAT 6	SABIX® Rail CAT 6, CE	J 42



: especially for use in rail vehicles

Applications

■ Applications of INTERBUS-S cables · remote bus cables · installation remote bus cables

INTERBUS-S is an open sensor/actuator bus, which is mostly used for communication on the field level (e.g. sensors, actuators, controllers), but also for the information transmission between the field level and the above-lying control level (e.g. SPS). Therefore, the INTERBUS-S belongs to the category of the so-called field busses and particularly characterised as a fast sensor/actuator. It is mainly applied in production engineering, materials processing, transportation and storage technique, particularly in car manufacturing and automation industries.

■ Applications of Interbus-Loop cables

The two-conductor Interbus-Loop cable is to be applied as a data transmission cable as well as for the supply of sensors. The three-conductor Interbus-Loop cables is applied for supply of actuators. These cables are also suitable for Interbus-Loop 2.

■ Applications of CAN-bus cables

CAN-bus acc. to ISO 11898. CAN-bus cables are used for the exchange of digital information. Controller Area Network (CAN) for fast data transmission / exchange. Recommended as highly flexible data cables in cable tracks.

■ Applications of DeviceNet™ cables

DeviceNet is based on the proved CAN-bus technology for fast data exchange. Trunk cable and drop cable configurations. DeviceNet is a connection-mode network. Applications may require high flex bus cables for cable tracks.

■ Applications of Profibus-DP cables

This Profibus modification, optimized with respect to velocity and low installation cost, was especially developed for the communication between automation systems and decentralized peripheral units. Profibus-DP and Profibus-FMS apply the same transmission technology and a uniform bus access log. Therefore, both types can be used simultaneously on one cable. The cable type B (previously acc. to EN 50170) is only used to replace existing applications.

■ Applications of Profibus PA cables

Profibus PA acc. to IEC 61158-2

The transmission technology acc. to IEC 61158-2 section 12.8.2 (field bus type A) fulfills the requirements of chemical and petrochemical industries for process automation and makes possible the supply of field appliances via data conductors and the construction of intrinsically safe circuits.

Profibus type B acc. to EN 50170

Application especially developed for the communication between automation systems and decentralized peripheral units in the field level.

Profibus with „Fast Connect“ construction

The shape of this bus cables is radially symmetric and allows an insulation stripping tool to be used. This means that bus connectors can be assembled quickly and easily.

■ Applications of SafetyBUS p cables

SafetyBUS p is an open bus system for the serial transmission of safety directed data. The basic argument for SafetyBUS p is the safety by which it distinguishes itself from other bus systems in automation technique. Above all the users in many fields of machine and plant construction, automobile industry, and process engineering profit from this technique. SafetyBUS p accomplishes all demands for safety.

Applications

■ Applications of Hybrid field bus cables

S 670 and S 671 are flexible UL recognized and CSA approved hybrid field bus control cables, suitable for cable continuous flexing with fiber optic and copper conductors. The cable S 670 with its polyurethane outer jacket has a very good resistance against acids, alkalines, solvents hydraulic liquids and oil.

■ Application of USB 2.0 Cables

The robot cable USB 2.0 was developed for high frequency data transmission in industry. In the automobile industry intelligent image processing systems are very important. They are the key to more efficiency, precision and productivity with the installation and treatment by robots for the most different applications. Whether for the identification of parts and components, for visual inspection, welded seam control or for the collection of bar codes or type tests; wherever a quick and reliable collection and transmission of data from the camera to the industrial PC are absolutely important. Our highly flexible robot cable USB 2.0 was especially developed for this application. It guarantees excellent transmission characteristics as it is demanded for intelligent image processing with a transmission distance of up to 10 m without amplifier under extreme industrial application conditions.

■ Application of Industrial ETHERNET cables

Industrial Ethernet is a young and 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.

BUS CABLES

Selection index

		Cable type																
		IBS 612	IBS 617	IBS 614	S IBS 616	S IBS 618	SABIX® IBS 610	SABIX® IBS 610 FRNC	SABIX® IBL 600 FRNC	IBL 600	SABIX® IBL 600	S IBL 605	S CB 626	S CB 625	SABIX® CB 620	SABIX® CB 620 FRNC	CB 627	S CB 628
Application	Remote / Remote installation bus cable	x	x	x	x	x	x	x										
	Interbus-Loop cable								x	x	x	x						
	CAN-bus cable												x	x	x	x	x	x
	Inner jacket																	x
	Optical waveguide POF																	
Temperature range static*	Screened	x	x	x	x	x	x	x				x	x	x	x	x	x	x
	+ 250 °C																	
	+ 180 °C																	
	+ 90 °C																	
	+ 85 °C																	
	+ 80 °C																	
	+ 75 °C																	
	+ 70 °C																	
	- 30 °C																	
	- 40 °C																	
- 50 °C																		
Voltage	Voltage acc. to UL 30 V																	
	Voltage acc. to UL 50 V																	
	Voltage acc. to UL 300 V		x			x											x	x
	Voltage acc. to UL/CSA 600 V																	
	Peak operating voltage max. 350 V	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Nominal voltage Uo/U: 300/500 V																	
	Testing voltage: 1000 V								x	x	x	x						
	Testing voltage: 1500 V	x	x	x	x	x	x	x					x	x	x	x	x	x
Testing voltage: 2000 V																		
Testing voltage: 3000 V																		
Standards and approvals	Zero halogen acc. to DIN VDE + IEC				x	x	x	x		x	x		x	x	x			x
	Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D							x	x									
	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	x	x	x		x				x						x	x	x
	Burning characteristics: flame retardant and self-extinguishing + no flame propagation acc. to IEC + EN specially for the railway industry																	
	Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases				x	x	x	x	x		x	x		x	x	x		
	Smoke density: acc. to IEC 61034-1 and EN 61034-1, translucence > 60%																	
	Toxicity: FED ₅₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3																	
	UL recognized		x			x											x	x
CSA approved																		
Characteristics	Oil resistant acc. to internal standard	x		x														
	Oil resistant acc. to DIN VDE		x		x	x	x		x	x	x	x	x	x			x	x
	Good chemical resistance											x	x	x				x
	Weather resistance				x	x	x	x	x		x	x	x	x	x	x		x
	Application in cable tracks				x	x						x	x	x				x
	Flexibility	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x
	Continuously flexible application											x						
Direct burial	x																	

Temperature range:
 from  short time use
to

*The temperature range for flexing is mentioned on the particular catalog page

BUS CABLES

Selection index

		Cable type	DN 650	DN 651	DN 656	DN 657	DN 658	DN 659	DN 658 robot cable/Drop	SABIX® PB 630	SABIX® PB 630 FRNC	PB 630	PB 631	PB 636	PB 637	PB 639	PB 635	S PB 634	PB 633	PB 632	PB 640	PB 640 UL	S PB 640	S PB 640 UL		
Application	DeviceNet cable		x	x	x	x	x	x	x																	
	Profibus-DP cable									x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Inner jacket																									
	Optical waveguide POF																									
Temperature range static*	Screened		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	+ 250 °C																									
	+ 180 °C																									
	+ 90 °C																									
	+ 85 °C																									
	+ 80 °C																									
	+ 75 °C																									
	+ 70 °C																									
	- 30 °C																									
	- 40 °C																									
- 50 °C																										
Voltage	Voltage acc. to UL 30 V		x	x			x	x																		
	Voltage acc. to UL 50 V																									
	Voltage acc. to UL 300 V					x			x														x	x		
	Voltage acc. to UL/CSA 600 V																									
	Peak operating voltage max. 350 V		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Nominal voltage Uo/U: 300/500 V																									
	Testing voltage: 1000 V																									
	Testing voltage: 1500 V		x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
Testing voltage: 2000 V																										
Testing voltage: 3000 V																										
Standards and approvals	Zero halogen acc. to DIN VDE + IEC				x	x				x	x		x											x	x	
	Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D										x															
	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2										x	x		x	x	x	x			x	x	x	x	x	x	
	Burning characteristics: flame retardant and self-extinguishing + no flame propagation acc. to IEC + EN specially for the railway industry																									
	Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases										x	x		x						x						
	Smoke density: acc. to IEC 61034-1 and EN 61034-1, transluence > 60%																									
	Toxicity: FED ₅₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3																									
	UL recognized		x	x	x		x	x	x															x	x	
	CSA approved																									
	Characteristics	Oil resistant acc. to internal standard											x		x		x	x			x	x	x			
Oil resistant acc. to DIN VDE										x														x	x	
Good chemical resistance																										
Weather resistance										x	x		x	x		x	x	x	x							
Application in cable tracks													x	x										x	x	
Flexibility										x	x												x	x	x	
Continuously flexible application																										
Direct burial																										



Temperature range:
 from short time use
to

*The temperature range for flexing is mentioned on the particular catalog page

BUS CABLES

Selection index

		Cable type																				
		PB 642	S PB 644	SBP 680	S SBP 680 Move	S 670	S 671	USB 2.0	USB 2.0 - UL	USB 2.0 FRNC	USB 2.0 suitable for cable tracks	USB 2.0 suitable for cable tracks - UL/CSA	USB 2.0 suitable for robots - UL/CSA	PN 662	PN 663	S PN 668	S PN 669	PN 654	PN 655	PN 660	PN 661	
Application	Profibus cable	x	x																			
	SafetyBus p cable			x	x																	
	Hybrid field bus cable					x	x															
	USB 2.0 cable							x	x	x	x	x	x									
	Industrial Ethernet Cables													x	x	x	x	x	x	x	x	x
	Inner jacket													x	x	x	x					
	Optical waveguide POF					x	x															
Temperature range static*	Screened	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	+ 250 °C																					
	+ 180 °C																					
	+ 90 °C																					
	+ 85 °C																					
	+ 80 °C																					
	+ 75 °C																					
	+ 70 °C																					
	- 30 °C																					
Voltage	Voltage acc. to UL 30 V																					
	Voltage acc. to UL 50 V																					
	Voltage acc. to UL 300 V																					
	Voltage acc. to UL/CSA 600 V					x	x					x	x									
	Peak operating voltage max. 350 V	x	x	x	x			x	x	x	x	x	x	x	x	x	x	x	x	x	x	x
	Nominal voltage Uo/U: 300/500 V					x	x															
	Testing voltage: 1000 V																					
	Testing voltage: 1500 V	x	x	x	x			x						x	x	x	x	x	x	x	x	x
	Testing voltage: 2000 V								x			x	x									
Testing voltage: 3000 V					x	x																
Standards and approvals	Zero halogen acc. to DIN VDE + IEC			x	x					x	x	x				x	x				x	x
	Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D																					
	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2					x	x			x												
	Burning characteristics: flame retardant and self-extinguishing + no flame propagation acc. to IEC + EN specially for the railway industry																					
	Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases																					
	Smoke density: acc. to IEC 61034-1 and EN 61034-1, translucence > 60%																					
	Toxicity: FED ₅₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3																					
Characteristics	UL recognized					x	x		x			x	x		x		x		x		x	
	CSA approved					x	x					x	x									
	Oil resistant acc. to internal standard	x						x	x	x				x	x		x	x	x			
	Oil resistant acc. to DIN VDE		x	x	x	x																
	Good chemical resistance																					
	Weather resistance		x																			
	Application in cable tracks		x		x											x	x					
Flexibility	x	x					x	x	x	x	x	x	x	x			x	x	x	x	x	
Continuously flexible application				x												x	x					



Temperature range:
 from  short time use
to

*The temperature range for flexing is mentioned on the particular catalog page

BUS CABLES

Selection index

		Cable type																								
		PN 678	PN 679	S PN 681	S PN 665	S PN 667	DR PN 689 P Highflex	S PN 668 Hybrid	RT PN 668	GE 691	S GE 969	DR GE 698 P Highflex	S GE 696 HT	RT GE 694	RT GE 694 Hybrid	CATLine CAT 6 S	CATLine CAT 6A RT	CATLine CAT 6 S	CATLine CAT 6A RT	CATLine CAT 7A S	CATLine CAT 7A RT	CATLine CAT 7A DR	CATLine CAT 7A DR	SABIX® R 660 FRNC CAT 6e	SABIX® R 691 FRNC CAT 6	
Application	Industrial Ethernet Cables	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Inner jacket				x	x	x	x							x											
	Optical waveguide POF																									
Temperature range static*	Screened	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	+ 250 °C																									
	+ 180 °C																									
	+ 90 °C																									
	+ 85 °C																									
	+ 80 °C																									
	+ 75 °C																									
	+ 70 °C																									
	- 30 °C																									
Voltage	Voltage acc. to UL 300 V						x	x						x							x	x				
	Voltage acc. to UL/CSA 600 V																									
	Peak operating voltage max. 90 V																									
	Peak operating voltage max. 350 V	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Nominal voltage Uo/U: 300/500 V																									
	Testing voltage: 600 V																									
	Testing voltage: 1000 V																									
	Testing voltage: 1500 V	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	x	
	Testing voltage: 2000 V																									
	Testing voltage: 3000 V																									
Standards and approvals	Zero halogen acc. to DIN VDE + IEC		x	x	x	x	x	x	x	x	x	x	x	x		x	x	x	x	x	x	x	x			
	Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D																									
	Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2																x	x	x	x	x	x				
	Burning characteristics: flame retardant and self-extinguishing + no flame propagation acc. to IEC + EN specially for the railway industry																								x	x
	Burning characteristics: UL Horizontal Flame Test																					x	x			
	Smoke density: acc. to IEC 61034-1 and EN 61034-1, translucence > 60%																								x	x
	Toxicity: FED ₅₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3																								x	x
Characteristics	UL recognized					x	x							x							x	x				
	CSA approved													x							x	x				
	Oil resistant acc. to internal standard	x																								
	Oil resistant acc. to DIN VDE		x	x	x	x	x	x	x	x	x	x	x	x	x											
	Oil resistant acc. to EN																x	x	x	x	x	x				
	Good chemical resistance																									
	Weather resistance																							x	x	
	Application in cable tracks			x	x	x		x				x		x			x	x				x				
	Torsion up to ± 180°/m																		x	x		x				
	Flexibility	x	x				x		x	x		x		x	x				x	x		x			x	x
Continuously flexible application			x	x	x		x				x		x			x	x			x						
Reeling application																						x	x			

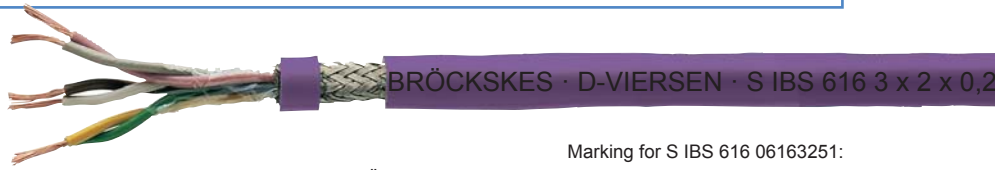
Temperature range:

 from  short time use
 to

*The temperature range for flexing is mentioned on the particular catalog page

REMOTE BUS CABLES

IBS 612 PVC Interbus-S cable
for indoor and outdoor installation
IBS 614 PVC Interbus-S cable

IBS 617 PVC Interbus-S cable with UL recognition
S IBS 616 PUR Interbus-S cable for cable tracks



Marking for S IBS 616 06163251:
SAB BRÖCKSKES · D-VIERSEN · S IBS 616 3 x 2 x 0,25 mm² CE

The Interbus-S communication cable 3 x 2 x 0.22 mm² is supposed to be applied as data cable in the sensor/actor level of industrial communication.

item no.	type	no. of pairs	AWG	nominal outer- inch	mm	cable weight ≈ lbs/mt
▶ 06123228	IBS 612	3	24 (≈ 14/34)	0.354	9.0	64
▶ 06173221	IBS 617	3	24 (≈ 14/34)	0.276	7.0	40
▶ 06143221	IBS 614	3	24 (≈ 14/34)	0.272	6.9	38
▶ 06163251	S IBS 616	3	24 (≈ 14/34)	0.315	8.0	43

Other dimensions and colors are possible on request.

General construction:

Conductor:	bare copper strands with reference to DIN VDE 0812
Insulation:	PE, 2Y11 acc. to DIN VDE 0207 part 2
Color code:	acc. to DIN VDE 47100
Stranding:	twisted to pairs
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D.
Characteristic impedance at 0.064 MHz:	120 Ω ± 20%
Characteristic impedance > 1 MHz:	100 Ω ± 15 Ω
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	IBS 612	IBS 617	IBS 614	S IBS 616*
▶ Wrapping:	PETP foil	PETP foil	PETP foil	non-woven tape
▶ Outer jacket:	PVC acc. to DIN VDE 0281 part 1 color: black	PVC, YÖ acc. to DIN VDE 0281 part 1 color: purple	PVC, YM1 acc. to DIN VDE 0281 part 1 color: purple	PUR, TMPU acc. to DIN VDE 0282 part 10 with rough surface color: purple
▶ Voltage acc. to UL:	–	300 V	–	–
▶ Radiation resistance:	8 x 10 ⁷ cJ/kg	8 x 10 ⁷ cJ/kg	8 x 10 ⁷ cJ/kg	5 x 10 ⁷ cJ/kg
▶ Temperature range <i>static:</i> <i>flexing:</i>	-30/+70°C -5/+70°C	UL: up to +80°C -30/+70°C -5/+70°C	-30/+70°C -5/+70°C	-40/+70°C -40/+70°C
▶ Zero halogen:	–	–	–	acc. to DIN VDE 0472 part 815 + IEC60754-1
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	X	X	X	–
▶ Oil resistance:	acc. to internal standard	very good - acc. to DIN VDE 0207 part 5	acc. to internal standard	very good - TMPU acc. to DIN VDE 0282 part 10
▶ Flexibility:	good	good	good	very good
▶ Application in cable tracks:	not recommended	not recommended	not recommended	recommended
▶ Weather resistance:	medium	medium	medium	very good
▶ Bending characteristics: number of bends acc. to. DIN VDE 0472 part 603 test method H	–	–	–	min. 1.000.000 single bendings
▶ Direct burial:	X	–	–	–
▶ UL Style:	–	2464-80°C	–	–

* Interbus-S remote bus cables 3 x 2 x 0.22 mm² or 3 x 2 x 0.25 mm² are used for the sensor/actuator level of industrial communication

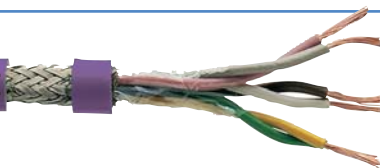
REMOTE BUS CABLES



S IBS 618 PUR Interbus-S cable
for cable tracks UL recognition
SABIX® IBS 610 FRNC halogen-free, flame retardant Interbus-S cable

SABIX® IBS 610 halogen-free Interbus-S cable

3 x 2 x 0,25 mm² AWM Style 20235 80°C CE



Marking for S IBS 618 06183251:

SAB BRÖCKSKES · D-VIERSEN · S IBS 618 3 x 2 x 0,25 mm² AWM Style 20235 80°C CE

The Interbus-S communication cable 3 x 2 x 0.22 mm² is supposed to be applied as data cable in the sensor/actor level of industrial communication.

item no.	type	no. of pairs	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
▶ 06183251	S IBS 618	3	24 (\approx 16/32)	0.335	8.5	55
▶ 56103221	SABIX® IBS 610	3	24 (\approx 16/32)	0.276	7.0	36
▶ 66103221	SABIX® IBS 610 FRNC	3	24 (\approx 16/32)	0.276	7.0	42

Other dimensions and colors are possible on request.

General construction:

Conductor:	bare copper strands with reference to DIN VDE 0812
Color code:	acc. to DIN VDE 47100
Stranding:	twisted to pairs
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D.
Zero halogen:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Characteristic impedance at 0.064 MHz:	120 Ω \pm 20%
Characteristic impedance > 1 MHz:	100 Ω \pm 15 Ω
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	S IBS 618*	SABIX® IBS 610	SABIX® IBS 610 FRNC
▶ Insulation:	PE, 2Y11 acc. to DIN VDE 0207 part 2	SABIX®	SABIX®
▶ Wrapping:	non-woven tape	PETP foil	PETP foil
▶ Outer jacket (purple):	PUR,TMPU acc. to DIN VDE DIN VDE 0282 part 10, with rough surface	SABIX®	SABIX®
▶ Voltage acc. to UL:	300 V	–	–
▶ Radiation resistance:	5 x 10 ⁷ cJ/kg	5 x 10 ⁶ cJ/kg	–
▶ Temperature range <i>static:</i> <i>flexing:</i>	UL: up to +80°C -40/+70°C -40/+70°C	-50/+90°C -40/+90°C	-40/+85°C -30/+85°C
▶ Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D	–	–	X
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	X	–	X
▶ Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases	X	X	X
▶ Smoke density:	–	–	acc. to IEC 61034 and EN 61034
▶ Oil resistance:	very good - TMPU acc. to DIN VDE 0282 part 10	very good - TM5 acc. to DIN VDE 0281 part 1	–
▶ Flexibility:	very good	very good	good
▶ Application in cable tracks:	recommended	not recommended	not recommended
▶ Weather resistance:	very good	good	good
▶ Bending characteristics: number of bends acc. to. DIN VDE 0472 part 603 test method H	min. 1.000.000 single bendings	–	–
▶ UL Style:	20235-80°C	–	–

* Interbus-S remote bus cables 3 x 2 x 0.22 mm² or 3 x 2 x 0.25 mm² are used for the sensor/actuator level of industrial communication

E-mail: info@sabcable.com



Web site: www.sabcable.com

INSTALLATION REMOTE BUS CABLES

IBS 612 PVC Interbus-S cable
for indoor and outdoor installation
IBS 614 PVC Interbus-S cable

IBS 617 PVC Interbus-S cable with UL recognition
S IBS 616 PUR Interbus-S cable for cable tracks



D-VIERSEN · IBS 612 3 x 2 x 0,22 mm² + 3 x 1,0 mm²

Marking for IBS 612 06126228:

SAB BRÖCKSKES · D-VIERSEN · IBS 612 3 x 2 x 0,22 mm² + 3 x 1,0 mm² CE

The Interbus-S communication cable 3 x 2 x 0.22 mm² + 3 x 1.0 mm² is supposed to be applied as data cable in the sensor/actor level of industrial communication where the power supply for the Bus logic of the subsequent participants is carried with.

item no.	type	no. of pairs	no. of power conductors	nominal outer- ϕ inch	nominal outer- ϕ mm	cable weight \approx lbs/ft
▶ 06126228	IBS 612	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 30/32)/3c	0.394	10.0	89
▶ 06176221	IBS 617	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 30/32)/3c	0.354	9.0	71
▶ 06146221	IBS 614	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 30/32)/3c	0.311	7.9	60
▶ 06166251	S IBS 616	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 56/34)/3c	0.315	8.0	68

Other dimensions and colors are possible on request.

General construction:

Insulation:	PE, 2Y11 acc. to DIN VDE 0207 part 2
Color code:	acc. to DIN VDE 47100 (pairs), 18 AWG: red, blue and green-yellow earth wire
Stranding:	twisted to pairs (\leq 24 AWG)
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D.
Characteristic impedance at 0.064 MHz:	120 Ω \pm 20%
Characteristic impedance at 1 MHz:	100 Ω \pm 15 Ω
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	IBS 612	IBS 617	IBS 614	S IBS 616*
▶ Conductor:	0.22 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5	0.22 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5	0.22 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5	0.25 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6
▶ Wrapping:	PETP foil	PETP foil	PETP foil	non-woven tape
▶ Outer jacket:	PVC acc. to DIN VDE 0281 part 1 color: black	PVC, YÖ acc. to DIN VDE 0281 part 1 color: purple	PVC, TM1 acc. to DIN VDE 0281 part 1 color: purple	PUR, TMPU acc. to DIN VDE 0282 part 10 with rough surface color: purple
▶ Voltage acc. to UL:	–	300 V	–	–
▶ Radiation resistance:	8 x 10 ⁷ cJ/kg	8 x 10 ⁷ cJ/kg	8 x 10 ⁷ cJ/kg	5 x 10 ⁷ cJ/kg
▶ Temperature range static: flexing:	-30/+70°C -5/+70°C	UL: up to +80°C -30/+70°C -5/+70°C	-30/+70°C -5/+70°C	-40/+70°C -40/+70°C
▶ Zero halogen:	–	–	–	acc. to DIN VDE 0472 part 815 + IEC60754-1
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	X	X	X	–
▶ Oil resistance:	acc. to internal standard	very good - acc. to DIN VDE 0207 part 5	acc. to internal standard	very good - TMPU acc. to DIN VDE 0282 part 10
▶ Flexibility:	good	good	good	very good
▶ Application in cable tracks:	not recommended	not recommended	not recommended	recommended
▶ Weather resistance:	medium	medium	medium	very good
▶ Bending characteristics: number of bends acc. to. DIN VDE 0472 part 603 test method H	–	–	–	min. 1,000,000 single bendings
▶ Direct burial:	X	–	–	–
▶ UL Style:	–	2464-80°C	–	–

* Interbus-S installation remote bus cables 3 x 2 x 0.22 mm² + 3 x 1.0 mm² or 3 x 2 x 0.25 mm² + 3 x 1.0 mm² are used for the sensor/actuator level of industrial communication

E-mail: info@sabcable.com



Web site: www.sabcable.com

INSTALLATION REMOTE BUS CABLES

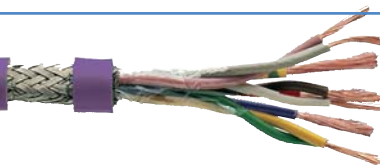


S IBS 618 PUR Interbus-S cable
for cable tracks UL recognition

SABIX® IBS 610 halogen-free Interbus-S cable

SABIX® IBS 610 FRNC halogen-free, flame retardant Interbus-S cable

5 mm² + 3 x 1,0 mm² AWM Style 20235 80°C CE



Marking for S IBS 618 06186251:

SAB BRÖCKSKES · D-VIERSEN · S IBS 618 3 x 2 x 0,25 mm² + 3 x 1,0 mm² AWM Style 20235 80°C CE

The Interbus-S communication cable 3 x 2 x 0.22 mm² + 3 x 1.0 mm² is supposed to be applied as data cable in the sensor/actor level of industrial communication where the power supply for the Bus logic of the subsequent participants is carried with.

item no.	type	no. of pairs	no. of power conductors	nominal outer- ϕ inch	mm	cable weight \approx lbs/mt
▶ 06186251	S IBS 618	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 56/34)/3c	0.335	9.2	81
▶ 56106221	SABIX® IBS 610	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 30/32)/3c	0.276	7.9*	56
▶ 66106221	SABIX® IBS 610 FRNC	24 AWG (\approx 14/34)/3pr	18 AWG (\approx 30/32)/3c	0.276	7.9*	63

* max. 8.0 mm

Other dimensions and colors are possible on request.

General construction:

Color code:	acc. to DIN VDE 47100 (pairs), 18 AWG: red, blue and green-yellow earth wire
Stranding:	twisted to pairs (\leq 24 AWG)
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D.
Zero halogen:	acc. to DIN VDE 0472 part 815 and IEC 60754-1
Characteristic impedance at 0.064 MHz:	120 Ω \pm 20%
Characteristic impedance > 1 MHz:	100 Ω \pm 15 Ω
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	S IBS 618*	SABIX® IBS 610	SABIX® IBS 610 FRNC
▶ Conductor:	0.25 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6	0.22 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5	0.22 mm ² : bare copper strands with reference to DIN VDE 0812 + 1.00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
▶ Insulation:	PE, 2Y11 acc. to DIN VDE 0207 part 2	SABIX®	SABIX®
▶ Wrapping:	non-woven tape	PETP foil	PETP foil
▶ Outer jacket (purple):	PUR, TMPU acc. to DIN VDE 0282 part 10, with rough surface	SABIX®	SABIX®
▶ Voltage acc. to UL:	300 V	–	–
▶ Radiation resistance:	5 x 10 ⁷ cJ/kg	5 x 10 ⁶ cJ/kg	–
▶ Temperature range <i>static:</i> <i>flexing:</i>	UL: up to +80°C -40/+70°C -40/+70°C	-50/+90°C -40/+90°C	-40/+85°C -30/+85°C
▶ Zero halogen:	acc. to DIN VDE 0472 part 815 and IEC 60754-1	acc. to DIN VDE 0472 part 815 and IEC 60754-1	acc. to DIN VDE 0472 part 815 and IEC 60754-1
▶ Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D	–	–	X
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	X	–	X
▶ Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases	X	X	X
▶ Smoke density:	–	–	acc. to IEC 61034 and EN 61034
▶ Oil resistance:	very good - TMPU acc. to DIN VDE 0282 part 10	very good - TM5 acc. to DIN VDE 0281 part 1	–
▶ Flexibility:	very good	very good	good
▶ Application in cable tracks:	recommended	not recommended	not recommended
▶ Weather resistance:	very good	good	good
▶ Bending characteristics: number of bends acc. to DIN VDE 0472 part 603 test method H	min. 1.000.000 single bendings	–	–
▶ UL Style:	20235-80°C	–	–

* Interbus-S installation remote bus cables 3 x 2 x 0.22 mm² + 3 x 1.0 mm² or 3 x 2 x 0.25 mm² + 3 x 1.0 mm² are used for the sensor/actuator level of industrial communication

E-mail: info@sabcable.com



Web site: www.sabcable.com

INTERBUS-LOOP CABLES

SABIX® IBL 600 FRNC Halogen-free, flame retardant Interbus-Loop cable

SABIX® IBL 600 FRNC Halogen-free Interbus-Loop cable

IBL 600 PVC Interbus-Loop cable

S IBL 605 PUR Interbus-Loop cable for cable tracks



Marking for IBL 600 06002853:

SAB BRÖCKSKES · D-VIERSEN · IBL 600 2 x 1,5 mm² with consecutive meter marking CE

The two conductors Interbus-Loop cable is supposed to be applied as data transmission cable and for the supply of sensors. The three conductors Interbus-Loop cable is applied for supply of actuators. These cables are also suitable for Interbus-Loop 2. Certificated by INTERBUS-CLUB.

item no.	type	no. of conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
▶ 66012853	SABIX® IBL 600 FRNC	2	16 (\approx 27-29/30)	0.272	6.9	52
▶ 66013853	SABIX® IBL 600 FRNC	3	16 (\approx 27-29/30)	0.295	7.5	63
▶ 06002853	IBL 600	2	16 (\approx 27-29/30)	0.272	6.9	50
▶ 06003853	IBL 600	3	16 (\approx 27-29/30)	0.295	7.5	63
▶ 56002853	SABIX® IBL 600	2	16 (\approx 27-29/30)	0.272	6.9	40
▶ 56003853	SABIX® IBL 600	3	16 (\approx 27-29/30)	0.295	7.5	50
▶ 06052853	S IBL 605	2	16 (\approx 84/34)	0.303	7.7	50
▶ 06053853	S IBL 605	3	16 (\approx 84/34)	0.319	8.1	60

Other dimensions and colors are possible on request.

General construction:

Conductor: bare copper strands with reference to IEC 60228, EN 60228, VDE 0295 class 5 S IBL 605 = class 6

Color code: colored acc. to HD 308 (VDE 0293 part 308); green-yellow earth wire from 3 conductors

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1000 V
Min. bending radius:	15 x O.D.
Characteristic impedance at 0,25 MHz - 10 MHz:	for two-conductor cables 75 Ω \pm 15%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	SABIX® IBL 600 FRNC	IBL 600	SABIX® IBL 600	S IBL 605
▶ Insulation:	SABIX®	PVC, TI2 acc. to DIN VDE 0281 part 1	SABIX®	TPE-E
▶ Stranding:	in layers	in layers	in layers	specialy adjusted layering with netting tape and one additional non-woven tape over the outer layer
▶ Outer jacket (purple):	SABIX®	PVC, YÖ acc. to DIN VDE 0281 part 1	SABIX®	PUR, TMPU acc. to DIN VDE 0282 part 10 with rough surface
▶ Radiation resistance:	–	8 x 10 ⁷ cJ/kg	5 x 10 ⁶ cJ/kg	5 x 10 ⁷ cJ/kg
▶ Temperature range <i>static:</i> <i>flexing:</i>	-40/+85°C -30/+85°C	-40/+70°C +5/+70°C	-50/+90°C -40/+90°C	-50/+90°C -40/+90°C
▶ Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC60754-1	–	acc. to DIN VDE 0472 part 815 + IEC60754-1	acc. to DIN VDE 0472 part 815 + IEC60754-1
▶ Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D	X	–	–	–
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	–	X	–	–
▶ Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases	X	–	X	X
▶ Smoke density:	acc. to IEC 61034 and EN 61034	–	–	–
▶ Oil resistance:	–	very good - acc. to DIN VDE 0207 part 5	very good - TM5 acc. to DIN VDE 0281 part 1	very good - TMPU acc. to DIN VDE 0282 part 10
▶ Flexibility:	good	–	very good	very good
▶ Chemical resistance: good against acids, alkalines, solvents, hydraulic liquids etc.	–	–	–	X
▶ Application in cable tracks:	not recommended	not recommended	not recommended	recommended
▶ Weather resistance:	good	medium	good	very good
▶ Continuously flexible application:	–	–	–	very good

E-mail: info@sabcable.com



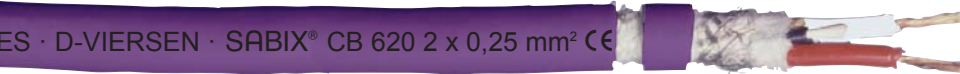
Web site: www.sabcable.com

CAN-BUS CABLES ACC. TO ISO 11898



S CB 626 CAN-Bus cable for cable tracks
S CB 625 Halogen-free CAN-Bus cable for cable tracks

SABIX® CB 620 Halogen-free CAN-Bus cable
SABIX® CB 620 FRNC Halogen-free, flame retardant CAN-Bus cable



Marking for SABIX® CB 620 56202251:
 SAB BRÖCKSKES · D-VIERSEN · SABIX® CB 620 2 x 0,25 mm² CE

CAN-Bus according to ISO 11898. The CAN-Bus cable is applied for the exchange of digital information, control apparatus net (CAN) for faster data transmission/exchange. Application in power supply cable tracks, highly flexible data cables.

item no.	type	no. of conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
▶ 06262251	S CB 626	2	24 (\approx 34/38)	0.248	6.3	37
▶ 06252251	S CB 625	2	24 (\approx 34/38)	0.319	8.1	50
▶ 56202251	SABIX® CB 620	2	24 (\approx 16/34)	0.224	5.7	24
▶ 66202251	SABIX® CB 620 FRNC	2	24 (\approx 16/34)	0.224	5.7	28

Other dimensions and colors are possible on request.

General construction:

Color code:	acc. to DIN VDE 47100
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D.
Characteristic impedance at 1 MHz:	120 Ω (95 - 140 Ω)
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

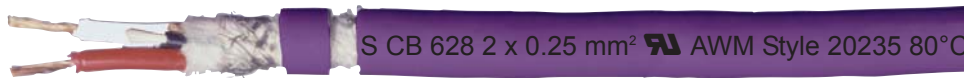
	S CB 626	S CB 625	SABIX® CB 620	SABIX® CB 620 FRNC
▶ Conductor:	bare copper strands extra fine wires	bare copper strands extra fine wires	bare copper strands acc. to DIN VDE 0812	bare copper strands acc. to DIN VDE 0812
▶ Insulation:	FEP	TPE-E	SABIX®	SABIX®
▶ Wrapping:	non-woven tape	non-woven tape	PETP foil	PETP foil
▶ Wrapping:	non-woven tape	non-woven tape	-	-
▶ Outer jacket (purple):	PUR, TMPU acc. to DIN VDE 0282 part 10 with rough surface	PUR, TMPU acc. to DIN VDE 0282 part 10 with rough surface	SABIX®	SABIX®
▶ Radiation resistance:	5 x 10 ⁷ cJ/kg	5 x 10 ⁷ cJ/kg	5 x 10 ⁶ cJ/kg	-
▶ Temperature range <i>static:</i> <i>flexing:</i>	-50/+90°C -40/+90°C	-50/+90°C -40/+90°C	-50/+90°C -40/+90°C	-40/+85°C -30/+85°C
▶ Zero halogen:	-	acc. to DIN VDE 0472 part 815 + IEC60754-1	acc. to DIN VDE 0472 part 815 + IEC60754-1	acc. to DIN VDE 0472 part 815 + IEC60754-1
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	-	-	-	X
▶ Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases	-	-	X	X
▶ Smoke density:	-	-	low	acc. to IEC 61034 and EN 61034
▶ Oil resistance:	very good - TMPU acc. to DIN VDE 0282 part 10	very good - TMPU acc. to DIN VDE 0282 part 10	very good - TM5 acc. to DIN VDE 0281 part 1	-
▶ Flexibility:	very good	very good	very good	good
▶ Application in cable tracks:	recommended	recommended	not recommended	not recommended
▶ Chemical resistance: good against acids, alkalines, solvents, hydraulic liquids etc.	X	X	-	-
▶ Weather resistance:	very good	very good	good	good
▶ Bending characteristics: number of bends acc. to. DIN VDE 0472 part 603 test method H	min. 250.000 single bendings	min. 500.000 single bendings	min. 60.000 single bendings	-

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CB 627 CAN-Bus cable with UL recognition

S CB 628 Halogen-free CAN-Bus cable for cable tracks with UL recognition



Marking for S CB 628 06282251:

SAB BRÖCKSKES · D-VIERSEN · S CB 628 2 x 0.25 mm² UL AWM Style 20235 80°C 300 V CE

CAN-Bus according to ISO 11898. The CAN-Bus cable is applied for the exchange of digital information, control apparatus net (CAN) for faster data transmission/exchange. Application in power supply cable tracks, highly flexible data cables.

item no.	type	no. of pairs/conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
▶ 06272251	CB 627	2	24 (\approx 16/34)	0.236	6.0	30
▶ 06272341	CB 627	2	22 (\approx 7/30)	0.252	6.4	32
▶ 06272501	CB 627	2	20 (\approx 17/32)	0.299	7.6	42
▶ 06272751	CB 627	2	19 (\approx 23/32)	0.378	9.6	62
▶ 06282251	S CB 628	2	24 (\approx 34/38)	0.311	7.9	48
▶ 06282341	S CB 628	2	22 (\approx 42/38)	0.327	8.3	52
▶ 06282501	S CB 628	2	20 (\approx 68/38)	0.343	8.7	50
▶ 06274251	CB 627	2 x 2	24 (\approx 16/34)	0.280	7.1	38
▶ 06274341	CB 627	2 x 2	22 (\approx 7/30)	0.303	7.7	44
▶ 06274501	CB 627	2 x 2	20 (\approx 17/32)	0.374	9.5	66
▶ 06274751	CB 627	2 x 2	19 (\approx 23/32)	0.531	13.5	117
▶ 06284251	S CB 628	2 x 2	24 (\approx 34/38)	0.358	9.1	60
▶ 06284341	S CB 628	2 x 2	22 (\approx 42/38)	0.378	9.6	65
▶ 06284501	S CB 628	2 x 2	20 (\approx 68/38)	0.417	10.6	63

Other dimensions and colors are possible on request.

General construction:

Color code:	acc. to DIN VDE 47100
Insulation:	PE 2Y11 acc. to DIN VDE 0207 part 2
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Voltage:	UL: 300 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D.
Burning characteristics:	flame retardant and extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2
Characteristic impedance at 1 MHz:	120 Ω (95 - 140 Ω)
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

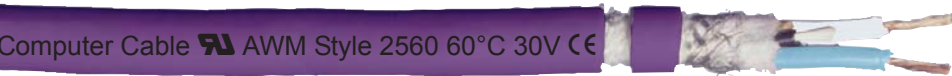
	CB 627	S CB 628
▶ Conductor:	bare copper strands acc. to DIN VDE 0812	bare copper strands, extra fine wires
▶ Wrapping:	PETP foil	non-woven tape
▶ Inner jacket (nature):	-	SABIX®
▶ Outer jacket (purple):	PVC, YÖ acc. to DIN VDE 0207 PUR, part 5	TPE outer jacket
▶ Radiation resistance:	8 x 10 ⁷ cJ/kg	5 x 10 ⁷ cJ/kg
▶ Temperature range <i>static:</i> <i>flexing:</i>	UL: up to +80°C -30/+70°C -5/+70°C	UL: up to +80°C -40/+70°C -40/+70°C
▶ Zero halogen:	-	acc. to DIN VDE 0472 part 815 + IEC 60754-1
▶ Oil resistance:	very good - acc. to DIN VDE 0207	very good acc. to DIN VDE 0282 part 10
▶ Flexibility:	good	very good
▶ Application in cable tracks:	not recommended	recommended
▶ Chemical resistance: good against acids, alkalines, solvents, hydraulic liquids etc.	-	X
▶ Weather resistance:	medium	very good

DEVICENET™ CABLES



DN 650 Shielded PVC DeviceNet™ cable with UL recognition

DN 651 Flexible PVC DeviceNet™ cable with a static screen and UL recognition



Marking for DN 650 06502241: SAB BRÖCKSKES · D-VIERSEN ·

DN 650 2x0,24mm² + 2x0,38mm² 06502241 24 AWG/1pr + 22 AWG/1pr Low Voltage Computer Cable AWM Style 2560 60°C 30V CE

DeviceNet™ is based on proven CAN-technology for rapid data exchange. Trunk Cable and Drop Cable configuration (Trunk Cable: main rope; Drop Cable: service cable). DeviceNet™ is a connection-oriented network. Application as highly flexible Bus cable.

item no.	type	no. of data conductors	no. of power conductors	nominal outer-ø inch	mm	cable weight ≈ lbs/mt
▶ 06502241	DN 650 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	50
▶ 06502781	DN 650 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	112
▶ 06512241	DN 651 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	38
▶ 06512781	DN 651 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	78

Other dimensions and colors are possible on request.

General construction:

Wrapping:	each pair wrapped with alu foil
Wrapping:	non-woven tape
Jacket material:	PVC, TM1 acc. to DIN VDE 0281 part 1
Jacket color:	purple

Technical data:

Voltage UL:	30 V
Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	fixed laying 7.5 x O.D. flexible application 15 x O.D.
Temperature range	DIN VDE UL: up to +60 °C <i>static:</i> -30/+70 °C <i>flexing:</i> -5/+70 °C
Characteristic impedance at 1 MHz:	120 Ω ± 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28



	DN 650 Drop Cable 2 x 0.24 mm ² + 2 x 0.38 mm ²	DN 650 Trunk Cable 2 x 0.96 mm ² + 2 x 1.53 mm ²	DN 651 Drop Cable 2 x 0.24 mm ² + 2 x 0.38 mm ²	DN 651 Trunk Cable 2 x 0.96 mm ² + 2 x 1.53 mm ²
▶ Conductor: 0.24 mm ² tinned copper strands 0.38 mm ² tinned copper strands	AWG 24/19 AWG 22/19	– –	AWG 24/19 AWG 22/19	– –
▶ Conductor: 0.96 mm ² tinned copper strands 1.53 mm ² tinned copper strands	– –	AWG 18/19 AWG 15/19	– –	AWG 18/19 AWG 15/19
▶ Insulation:	0.24 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 0.38 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1	0.96 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 1.53 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1	0.24 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 0.38 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1	0.96 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 1.53 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1
▶ Color code: 0.24 mm ² : data pair white and light blue 0.38 mm ² : supply pair black and red	X X	– –	X X	– –
▶ Color code: 0.96 mm ² : data pair white and light blue 1.53 mm ² : supply pair black and red	– –	X X	– –	X X
▶ Stranding: conductors 0.24 mm ² twisted to pair and conductors 0.38 mm ² twisted to pair	X X	– –	X X	– –
▶ Stranding: conductors 0.96 mm ² twisted to pair and conductors 1.53 mm ² twisted to pair	– –	X X	– –	X X
▶ Total stranding: pairs twisted together with tinned copper drain wire	AWG 22/19	AWG 18/19	AWG 22/19	AWG 18/19
▶ Screen:	tinned copper braiding	tinned copper braiding	alu foil	alu foil

DEVICENET™ CABLES

DN 656 Halogen-free, flexible DeviceNet™ cable with a static screen and UL recognition

DN 657 Halogen-free, flexible shielded DeviceNet™ cable



Marking for DN 656 06562241:

SAB BRÖCKSKES · D-VIERSEN · DN 656 2x0,24mm² + 2x0,38mm² 06562241 24 AWG/1pr + 22 AWG/1pr AWM Style 21080 75°C 300V CE

DeviceNet™ is based on proven CAN-technology for rapid data exchange. Trunk Cable and Drop Cable configuration (Trunk Cable: main rope; Drop Cable: service cable). DeviceNet™ is a connection-oriented network. Application as highly flexible Bus cable.

item no.	type	no. of data conductors	no. of power conductors	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 06562241	DN 656 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	38
▶ 06562781	DN 656 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	81
▶ 06572241	DN 657 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	50
▶ 06572781	DN 657 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	123

Other dimensions and colors are possible on request.

General construction:

Wrapping:	each pair wrapped with alu foil
Wrapping:	non-woven tape
Jacket material:	SABIX®
Jacket color:	purple

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	fixed laying 7.5 x O.D. flexible application 15 x O.D.
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC60754-1
Characteristic impedance at 1 MHz:	120 Ω ± 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28



	DN 656 Drop Cable 2 x 0.24 mm ² + 2 x 0.38 mm ²	DN 656 Trunk Cable 2 x 0.96 mm ² + 2 x 1.53 mm ²	DN 657 Drop Cable 2 x 0.24 mm ² + 2 x 0.38 mm ²	DN 657 Trunk Cable 2 x 0.96 mm ² + 2 x 1.53 mm ²
▶ Conductor: 0.24 mm ² tinned copper strands 0.38 mm ² tinned copper strands	AWG 24/19 AWG 22/19	– –	AWG 24/19 AWG 22/19	– –
▶ Conductor: 0.96 mm ² tinned copper strands 1.53 mm ² tinned copper strands	– –	AWG 18/19 AWG 15/19	– –	AWG 18/19 AWG 15/19
▶ Insulation:	0.24 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 0.38 mm ² : SABIX® 231	0.96 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 1.53 mm ² : SABIX® 231	0.24 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 0.38 mm ² : SABIX® 231	0.96 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 1.53 mm ² : SABIX® 231
▶ Color code: 0.24 mm ² : data pair white and light blue 0.38 mm ² : supply pair black and red	X X	– –	X X	– –
▶ Color code: 0.96 mm ² : data pair white and light blue Color code: 1.53 mm ² : supply pair black and red	– –	X X	– –	X X
▶ Stranding: conductors 0.24 mm ² twisted to pair and conductors 0.38 mm ² twisted to pair	X X	– –	X X	– –
▶ Stranding: conductors 0.96 mm ² twisted to pair and conductors 1.53 mm ² twisted to pair	– –	X X	– –	X X
▶ Total stranding: pairs twisted together with tinned copper drain wire	AWG 22/19	AWG 18/19	AWG 22/19	AWG 18/19
▶ Screen:	alu foil	alu foil	tinned copper braiding	tinned copper braiding
▶ Voltage UL:	300 V	300 V	–	–
▶ Temperature range <i>static:</i> <i>flexing:</i>	UL: up to 75 °C -40/+70°C -30/+70°C	UL: up to 75 °C -40/+70°C -30/+70°C	-40/+70°C -30/+70°C	-40/+70°C -30/+70°C

DEVICENET™ CABLES



DN 658 Highly flexible shielded DeviceNet™ cable

DN 659 Highly flexible DeviceNet™ cable with a static screen and UL recognition

r + 22 AWG/1pr AWM Style 20417 60°C 30V CE



Marking for DN 659 06592241:

SAB BRÖCKSKES · D-VIERSEN · DN 659 2x0,24mm² + 2x0,38mm² 06592241 24 AWG/1pr + 22 AWG/1pr AWM Style 20417 60°C 30V CE

DeviceNet™ is based on proven CAN-technology for rapid data exchange. Trunk Cable and Drop Cable configuration (Trunk Cable: main rope; Drop Cable: service cable). DeviceNet™ is a connection-oriented network. Application as highly flexible Bus cable.

item no.	type	no. of data conductors	no. of power conductors	nominal outer-ø inch	mm	cable weight ≈ lbs/ft
▶ 06582241	DN 658 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	51
▶ 06582781	DN 658 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	112
▶ 06592241	DN 659 (Drop Cable)	24 AWG/1pr	22 AWG/1pr	0.260	6.6	44
▶ 06592781	DN 659 (Trunk Cable)	18 AWG/1pr	15 AWG/1pr	0.449	11.4	77

Other dimensions and colors are possible on request.

General construction:

Wrapping:	each pair wrapped with alu foil
Wrapping:	non-woven tape
Outer jacket:	PUR, TPU acc. to DIN VDE 0282 part 10 with rough surface
Jacket color:	purple

Technical data:

Voltage UL:	30 V
Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	fixed laying 7.5 x O.D. flexible application 15 x O.D.
Temperature range	DIN VDE UL: up to +60°C
<i>static:</i>	-30/+70°C
<i>flexing:</i>	-5/+70°C
Characteristic impedance at 1 MHz:	120 Ω ± 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28



	DN 658 Drop Cable 2 x 0.24 mm ² + 2 x 0.38 mm ²	DN 658 Trunk Cable 2 x 0.96 mm ² + 2 x 1.53 mm ²	DN 659 Drop Cable 2 x 0.24 mm ² + 2 x 0.38 mm ²	DN 659 Trunk Cable 2 x 0.96 mm ² + 2 x 1.53 mm ²
▶ Conductor: 0.24 mm ² tinned copper strands 0.38 mm ² tinned copper strands	fine wires fine wires	– –	fine wires fine wires	– –
▶ Conductor: 0.96 mm ² tinned copper strands 1.53 mm ² tinned copper strands	– –	fine wires fine wires	– –	fine wires fine wires
▶ Insulation:	0.24 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 0.38 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1	0.96 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 1.53 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1	0.24 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 0.38 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1	0.96 mm ² : acc. to DIN VDE 0819 part 103 (02Y11) 1.53 mm ² : PVC, TI2 acc. to DIN VDE 0281 part 1
▶ Color code: 0.24 mm ² : data pair white and light blue 0.38 mm ² : supply pair black and red	X X	– –	X X	– –
▶ Color code: 0.96 mm ² : data pair white and light blue Color code: 1.53 mm ² : supply pair black and red	– –	X X	– –	X X
▶ Stranding: conductors 0.24 mm ² twisted to pair and conductors 0.38 mm ² twisted to pair	X X	– –	X X	– –
▶ Stranding: conductors 0.96 mm ² twisted to pair and conductors 1.53 mm ² twisted to pair	– –	X X	– –	X X
▶ Total stranding: pairs twisted together with tinned copper drain wire	AWG 22/19	AWG 18/19	AWG 22/19	AWG 18/19
▶ Screen:	tinned copper braiding	tinned copper braiding	alu foil	alu foil

DN 658 robot cable/Drop Highly flexible DeviceNet™ cable, suitable for robots with overall copper screen and UL recognition



Marking for DN 658 06589007:

SAB BRÖCKSKES · D-VIERSEN · DN 658 robot cable/Drop 2x0,24mm²+2x0,38mm² 24AWG/1pr+22AWG/1pr UL AWM Style 21198 80°C 300V 06589007 CE

DeviceNet™ is based on proven CAN-technology for rapid data exchange. Trunk Cable and Drop Cable configuration (Trunk Cable: main rope; Drop Cable: service cable). DeviceNet™ is a connection-oriented network. Application as highly flexible Bus cable.

item no.	no. of pairs	AWG	nominal inch	outer-ø mm	cable weight ≈ lbs/mft	ohmic resistance at 20°C max.Ω/km
▶ 06589007	1	24/19	0.240	6.1	43	83.3
	1	22 (= 38/38)	0.280	7.1		52.6

Other dimensions and colors are possible on request.

Construction:

Conductor:	tinned copper strands, fine wires
Insulation:	24 AWG: Foam-Skin 22 AWG: SABIX®
Color code:	24 AWG: white, blue 22 AWG: black, red
Wrapping:	each pair wrapped with alu foil
Stranding:	pairs in a specially adjusted layering, tinned copper drain wire in the conductor
Screen:	tinned copper braiding
Wrapping:	non-woven tape
Jacket material:	TPE outer jacket
Jacket color:	purple

Technical data:

Voltage UL:	300 V
Peak operating voltage:	max. 350 V
Testing voltage:	conductor/conductor 1500 V conductor/screen 1200 V
Min. bending radius <i>fixed installation:</i> <i>free movement:</i>	7.5 x O.D. 15 x O.D.
Temperature range <i>static:</i> <i>flexing:</i>	UL: up to +80 °C -40/+80 °C -30/+80 °C
Torsion angle:	up to ± 180°/m
Characteristic impedance at 1 MHz:	120 Ω ± 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

PROFIBUS-DP CABLES ACC. TO EN 50170



SABIX® PB 630 Halogen-free Profibus-DP cable
PB 630 PVC Profibus-DP cable for fixed installation

SABIX® PB 630 FRNC Halogen-free, flame retardant Profibus-DP cable
PB 631 Halogen-free PE Profibus-DP cable for fixed installation



Marking for SABIX® PB 630 FRNC 66302341:

SAB BRÖCKSKES · D-VIERSEN · SABIX® PB 630 FRNC 2 x 0,34 mm² CE

Profibus-DP: This Profibus variation, optimizing velocity and low installation costs, is especially developed for the communication between automation systems and decentralized peripheral equipment in the field area. Profibus-DP cable substitutes for conventional parallel transmission of signals with 24 V or 0-20 mA. The job profile for Profibus-DP type A according to EN 50170 is kept.

item no.	type	no. of conductors	AWG	nominal outer- \emptyset inch	mm	cable weight \approx lbs/ft
▶ 56302341	SABIX® PB 630	2	22 (\approx 7/30)	0.295	7.5	34
▶ 66302341	SABIX® PB 630 FRNC	2	22 (\approx 7/30)	0.295	7.5	42
▶ 06302331	PB 630	2	22	0.280	7.1	33
▶ 06312331	PB 631	2	22	0.280	7.1	30

Other dimensions and colors are possible on request.

General construction:

Insulation:	acc. to DIN VDE 0819 part 103 (02Y11)
Color code:	red, green
Stranding:	in layers
Wrapping:	alu foil
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	12 x O.D.
Characteristic impedance 3 - 20 MHz:	150 Ω \pm 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	SABIX® PB 630	SABIX® PB 630 FRNC	PB 630	PB 631
▶ Conductor:	bare copper strands acc. to DIN VDE 0812	bare copper strands acc. to DIN VDE 0812	bare copper wire AWG 22, solid wire	bare copper wire AWG 22, solid wire
▶ Outer jacket (purple):	SABIX®	SABIX®	PVC, YM1 acc. to DIN VDE 0207 part 5	PE, 2YM1 acc. to DIN VDE 0207 part 3
▶ Radiation resistance:	5 x 10 ⁸ cJ/kg	–	8 x 10 ⁷ cJ/kg	7 x 10 ⁸ cJ/kg
▶ Temperature range <i>static:</i> <i>flexing:</i>	-40/+80°C -40/+80°C	-40/+80°C -30/+80°C	-30/+70°C -5/+70°C	-40/+70°C -40/+70°C
▶ Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC60754-1	acc. to DIN VDE 0472 part 815 + IEC60754-1	–	acc. to DIN VDE 0472 part 815 + IEC60754-1
▶ Burning characteristics: no flame propagation acc. to IEC 60332-3 + EN 60332-3 Cat. C resp. D	–	X	–	–
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	–	X	X	–
▶ Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases	X	X	–	X
▶ Smoke density:	–	very low	–	low
▶ Oil resistance:	very good - TM5 acc. to DIN VDE 0281 part 1	–	acc. to internal standard	–
▶ For fixed installation:	X	X	X	X
▶ For flexible application:	X	–	–	–
▶ Weather resistance:	good	good	medium	good
▶ Outdoor installation:	–	–	–	–
▶ Direct burial:	–	–	–	–
▶ UL Style:	–	–	–	–

Profibus-DP and Profibus-FMS apply the same transmission technology and a uniform bus access log. Therefore, both types can be used simultaneously on one cable.

E-mail: info@sabcable.com



Web site: www.sabcable.com

PROFIBUS-DP CABLES ACC. TO EN 50170

PB 636 Flexible PVC Profibus-DP cable for outdoor installation

PB 637 PVC Profibus-DP cable with UL recognition

PB 639 PVC Profibus-DP cable applicable in ground

PB 635 PVC Profibus-DP cable for outdoor installation



Marking for PB 636 06362348:
SAB BRÖCKSKES · D-VIERSEN · PB 636 2 x 0,34 mm² CE

Profibus-DP: This Profibus variation, optimizing velocity and low installation costs, is especially developed for the communication between automation systems and decentralized peripheral equipment in the field area. Profibus-DP cable substitutes for conventional parallel transmission of signals with 24 V or 0-20 mA. The job profile for Profibus-DP type A according to EN 50170 is kept.

item no.	type	no. of conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mt
06362348	PB 636	2	22 (\approx 7/30)	0.346	8.8	54
06372331	PB 637	2	22	0.295	7.5	38
06392338	PB 639	2	22	0.362	9.2	63
06352338	PB 635	2	22	0.331	8.4	54

Other dimensions and colors are possible on request.

General construction:

Insulation:	acc. to DIN VDE 0819 part 103 (02Y11)
Color code:	red, green
Stranding:	in layers
Wrapping:	alu foil
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	12 x O.D.
Burning characteristics:	flame retardant and extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2
Characteristic impedance 3 - 20 MHz:	150 Ω \pm 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	PB 636	PB 637	PB 639	PB 635
► Conductor:	bare copper strands acc. to. DIN VDE 0812	bare copper wire AWG 22, solid wire	bare copper wire AWG 22, solid wire	bare copper wire AWG 22, solid wire
► Outer jacket (purple):	PVC, TM2 acc. to DIN VDE 0281 part 1	PVC, YOE acc. to DIN VDE 0281 part 1	PVC acc. to DIN VDE 0281 part 1	PVC, TM2 acc. to DIN VDE 0281 part 1
► Voltage acc. to UL:	–	30 V	–	–
► Temperature range <i>static:</i> <i>flexing:</i>	-30/+70°C -5/+70°C	UL: up to +60°C -30/+70°C -5/+70°C	-30/+70°C -5/+70°C	-30/+70°C -5/+70°C
► Oil resistance:	acc. to internal standard	very good - acc. to DIN VDE 0207 part 5	acc. to internal standard	acc. to internal standard
► For fixed installation:	X	X	X	X
► For flexible application:	X	–	–	–
► Weather resistance:	good	medium	very good	good
► Outdoor installation:	X	–	X	X
► Direct burial:	–	–	X	–
► UL Style:	–	2560 • 60°C	–	–

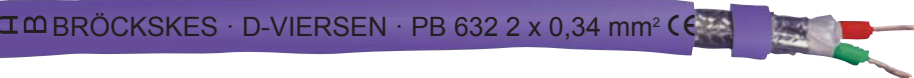
Profibus-DP and Profibus-FMS apply the same transmission technology and a uniform bus access log. Therefore, both types can be used simultaneously on one cable.



S PB 634 PUR Profibus-DP cable for cable tracks

PB 633 Halogen-free, flexible PE Profibus-DP cable

PB 632 Flexible PVC Profibus-DP cable



Marking for PB 632 06322341:

SAB BRÖCKSKES · D-VIERSEN · PB 632 2 x 0,34 mm² CE

Profibus-DP: This Profibus variation, optimizing velocity and low installation costs, is especially developed for the communication between automation systems and decentralized peripheral equipment in the field area. Profibus-DP cable substitutes for conventional parallel transmission of signals with 24 V or 0-20 mA. The job profile for Profibus-DP type A according to EN 50170 is kept.

item no.	type	no. of conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
▶ 06342341	S PB 634	2	22 (\approx 7/30)	0.299	7.6	39
▶ 06344341	S PB 634	2 + 3	22 (\approx 7/30) + 18 (\approx 56/34)	0.402	10.2	73
▶ 06332341	PB 633	2	22 (\approx 7/30)	0.295	7.5	34
▶ 06334341	PB 633	2 + 3	22 (\approx 7/30) + 18 (\approx 30/32)	0.398	10.1	68
▶ 06322341	PB 632	2	22 (\approx 7/30)	0.295	7.5	38
▶ 06324341	PB 632	2 + 3	22 (\approx 7/30) + 18 (\approx 30/32)	0.398	10.1	82

Other dimensions and colors are possible on request.

General construction:

Color code:	red, green (AWG 22); brown, light blue and green-yellow earth wire (AWG 18)
Screen of pairs:	tinned copper braiding
Jacket of pairs:	TPE
Stranding:	in layers

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	12 x O.D.
Characteristic impedance 3 - 20 MHz:	150 Ω \pm 10% (AWG 22)
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	S PB 634	PB 633	PB 632
▶ Conductor:	0,34 mm ² : bare copper strands acc. to DIN VDE 0812 1,00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6	0,34 mm ² : bare copper strands acc. to DIN VDE 0812 1,00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5	0,34 mm ² : bare copper strands acc. to DIN VDE 0812 1,00 mm ² : bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 5
▶ Wrapping of pairs:	non-woven tape/ alu foil, non-woven tape	alu foil, PETP foil	alu foil, PETP foil
▶ Insulation:	0,34 mm ² : DIN VDE 0819 part 103 (02Y11) 1,00 mm ² : TPE	0,34 mm ² : DIN VDE 0819 part 103 (02Y11) 1,00 mm ² : PE, 2Y11 acc. to DIN VDE 0207 part 2	0,34 mm ² : DIN VDE 0819 part 103 (02Y11) 1,00 mm ² : PVC, T12 acc. to DIN VDE 0281 part 1
▶ Outer jacket (purple):	TPE outer jacket	PE, 2YM1 acc. to DIN VDE 0207 part 3	PVC, YM1 acc. to DIN VDE 0207 part 5
▶ Temperature range <i>static:</i> <i>flexing:</i>	-40/+80°C -40/+80°C	-40/+70°C -40/+70°C	-5/+70°C -30/+70°C
▶ Burning characteristics: flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	-	-	X
▶ Corrosivity: in compliance with IEC 60754-2 and EN 50267-2-2 + VDE 0482 part 267-2-2 - no development of corrosive conflagration gases	-	X	-
▶ Oil resistance:	very good acc. to DIN VDE 0282 part 10	-	acc. to internal standard see page N/27
▶ For fixed installation:	X	X	X
▶ For flexible application:	X	X	X
▶ Suitable for cable tracks:	X	-	-
▶ Weather resistance:	very good	good	medium

Profibus-DP and Profibus-FMS apply the same transmission technology and a uniform bus access log. Therefore, both types can be used simultaneously on one cable.



PB 640 flexible PVC Profibus-DP cable
PB 640 UL flexible PVC Profibus-DP cable with UL recognition

S PB 640 UL highly flexible PUR Profibus-DP cable with UL recognition
S PB 640 highly flexible PUR Profibus-DP cable



BRÖCKSKES · D-VIERSEN · S PB 640 · 24 AWG/2c 06402

Marking for S PB 640 06402601:
 SAB BRÖCKSKES · D-VIERSEN · S PB 640 · 24 AWG/2c 06402601 CE

Profibus-DP: This Profibus variation, optimizing velocity and low installation costs, is especially developed for the communication between automation systems and decentralized peripheral equipment in the field area. Profibus-DP cable substitutes for conventional parallel transmission of signals with 24 V or 0-20 mA. The job profile for Profibus-DP type A according to EN 50170 is kept.

item no.	type	no. of conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
06402421	PB 640	2	24/19	0.315 \pm 0.016	8.0 \pm 0.4	42
06402631	PB 640 UL	2	24/19	0.315 \pm 0.016	8.0 \pm 0.4	42
06402601	S PB 640	2	24/19	0.315 \pm 0.016	8.0 \pm 0.4	38
06402611	S PB 640 UL	2	24/19	0.315 \pm 0.016	8.0 \pm 0.4	42

Other dimensions and colors are possible on request.

General construction:

Conductor:	bare copper strands AWG 24
Insulation:	acc. to DIN VDE 0819 part 103 (02Y11)
Color code:	red, green
Stranding:	in layers
Wrapping:	alu foil and tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	12 x O.D.
Burning characteristics:	flame retardant and extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2
Characteristic impedance 3 - 20 MHz:	150 Ω \pm 10%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

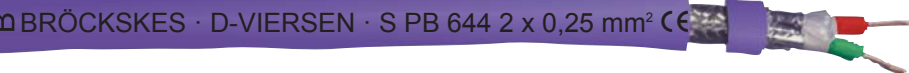


	PB 640	PB 640 UL	S PB 640	S PB 640 UL
▶ Inner jacket (nature):	PVC	PVC	SABIX®	SABIX®
▶ Outer jacket (purple):	PVC, TM2 acc. to DIN VDE 0281 part 1	PVC, TM2 acc. to DIN VDE 0281 part 1	PUR, TMPU acc. to DIN VDE 0282 part 10 with matt surface	PUR, TMPU acc. to DIN VDE 0282 part 10 with matt surface
▶ Voltage acc. to UL:	–	300 V	–	300 V
▶ Temperature range <i>static:</i> <i>flexing:</i>	-30/+70°C -5/+70°C	UL: up to +80°C -30/+70°C -5/+70°C	-40/+80°C -30/+80°C	UL: up to +80°C -40/+80°C -30/+80°C
▶ Zero halogen:	–	–	acc. to DIN VDE 0472 part 815 + IEC 60754-1	acc. to DIN VDE 0472 part 815 + IEC 60754-1
▶ Oil resistance:	acc. to internal standard	acc. to internal standard	very good - TMPU acc. to DIN VDE 0282 part 10	very good - TMPU acc. to DIN VDE 0282 part 10
▶ For fixed installation:	X	X	X	X
▶ For flexible application:	X	X	X	X
▶ Suitable for cable tracks:	–	–	X	X
▶ UL Style:	–	X	–	X



PB 642 PVC Profibus-cable

S PB 644 PUR Profibus-cable for cable tracks



Marking for S PB 644 06442251:

SAB BRÖCKSKES · D-VIERSEN · S PB 644 2 x 0,25 mm² CE

Profibus-DP: This Profibus variation, optimizing velocity and low installation costs, is especially developed for the communication between automation systems and decentralized peripheral equipment in the field area. Profibus-DP cable substitutes for conventional parallel transmission of signals with 24 V or 0-20 mA. The job profile for Profibus-DP type A according to EN 50170 is kept.

item no.	type	no. of conductors	AWG	nominal outer- \emptyset inch	mm	cable weight \approx lbs/100ft
▶ 06422221	PB 642 (purple)	2	24 (\approx 7/32)	0.173	4.4	17
▶ 06424221	PB 642 (purple)	2 x 2	24 (\approx 7/32)	0.244	6.2	30
▶ 06422251	PB 642 (purple)	2	24 (\approx 14/34)	0.193	4.9	20
▶ 06424251	PB 642 (purple)	2	24 (\approx 14/34)	0.264	6.7	35
▶ 06422767	PB 642 (blue)	2	18 (\approx 26/32)	0.287	7.3	46
▶ 06422768	PB 642 (black)	2	18 (\approx 26/32)	0.287	7.3	46
▶ 06442251	S PB 644 (purple)	2	24 (\approx 32/38)	0.205	5.2	22
▶ 06444251	S PB 644 (purple)	2 x 2	24 (\approx 32/38)	0.268	6.8	38

Other dimensions and colors are possible on request.

General construction:

Insulation:	PE, 2Y11 acc. to DIN VDE 0207 part 2
Color code:	red, green (PA) DIN 47100 (type B)
Stranding:	in layers
Wrapping:	PETP foil
Screen:	tinned copper braiding

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Min. bending radius:	7.5 x O.D. 12 x O.D. continuous flexing (S PB 644)
Characteristic impedance:	type B: at > 100 kHz 100 Ω - 130 Ω PA: at 31.25 kHz 100 Ω \pm 20%
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

	PB 642	S PB 644
▶ Conductor:	bare copper strands acc to. DIN VDE 0812	bare copper strands, extra fine wires
▶ Outer jacket:	PVC, TM1 acc. to DIN VDE 0281 part 1	PUR, TMPU acc. to DIN VDE 0282 part 10 with rough surface
▶ Temperature range <i>static:</i> <i>flexing:</i>	-30/+70°C -5/+70°C	-40/+70°C -40/+70°C
▶ Oil resistance:	acc. to internal standard see page N/27	very good TMPU acc. to DIN VDE 0282 part 10
▶ For fixed installation:	X	X
▶ For flexible application:	X	X
▶ Suitable for cable tracks:	-	X
▶ Weather resistance:	medium	very good

SAFETYBUS P CABLES

SBP 680 SafetyBUS p cable for fixed installation

S SBP 684 Move SafetyBUS p cable for flexible applications



Marking for SBP 680 06803754:

SAB BRÖCKSKES · D-VIERSEN · SafetyBUS p SBP 680 3 x 0,75 mm² CE with consecutive meter marking from 1 m up to 999 m

SafetyBUS p is an open bus system for the serial transmission of safety directed data. The basic argument for SafetyBUS p is the safety by which it distinguishes itself from other bus systems in automation technique. Above all the users in fields ranging from machine and plant construction, automobile industry, and process engineering benefit from this technique. SafetyBUS p accomplishes all demands for safety with highest flexibility.

item no.	type	no. of conductors	AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/ft
▶ 06803754	SBP 680	3	19 (\approx 24/32)	0.307 \pm 0.016	7.8 \pm 0.4	50
▶ 06843754	S SBP 684	3	19 (\approx 69/38)	0.307 \pm 0.016	7.8 \pm 0.4	50

Other dimensions and colors are possible on request.

General construction:

Insulation:	acc. to DIN VDE 0819 part 103 (02Y11)
Color code:	acc. to DIN VDE 47100
Wrapping:	non-woven tape
Screen:	tinned copper braid
Wrapping:	non-woven tape
Jacket material:	PUR
Jacket color:	signal yellow

Technical data:

Peak operating voltage:	max. 350 V
Testing voltage:	1500 V
Temperature range:	-40/+80 °C
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Oil resistance:	very good - TMPU acc. to DIN VDE 0282 part 10
Characteristic impedance at 1 MHz:	100 - 120 Ω
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

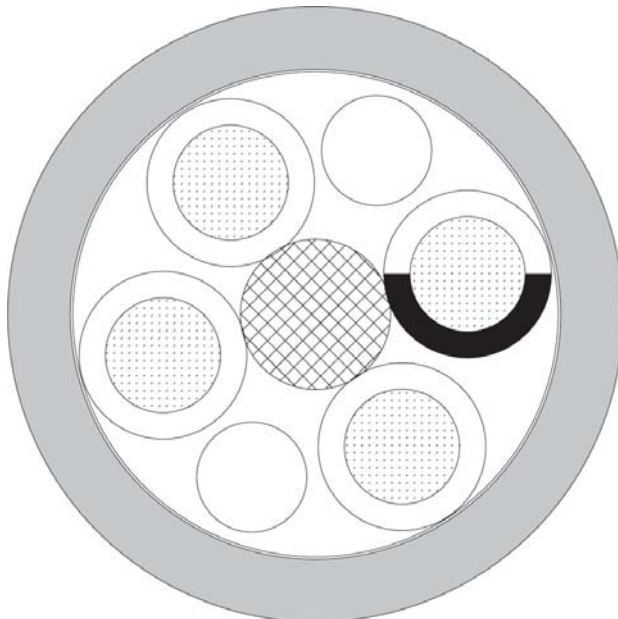
	SBP 680	S SBP 684 Move
▶ Conductor:	bare copper strands acc. to DIN VDE class 5	bare copper strands acc. to DIN VDE class 6
▶ Min. bending radius <i>fixed laying:</i> <i>flexible application:</i> <i>continuously flexible:</i>	5 x outer diameter 10 x outer diameter –	5 x outer diameter 10 x outer diameter 12 x outer diameter
▶ Application in cable tracks:	not recommended	recommended
▶ Continuously flexible stress:	–	very good

HYBRID FIELD BUS CABLES



S 670 PUR hybrid field bus control cable, suitable for cable tracks

S 671 PVC hybrid field bus control cable, suitable for cable tracks



optical waveguide + copper conductors

Marking for S 670 06701604:

SAB BRÖCKSKES · D-VIERSEN · S 670 4 x 1,5 mm² + 2 POF AWM Style 21060 80 °C 600V CSA AWM I/II A/B 80 °C 600V FT1 FT2 CE

Marking for S 671 06711802:

SAB BRÖCKSKES · D-VIERSEN · S 671 2 x 1,0 mm² + 2 POF AWM Style 21047 75 °C 600V CSA AWM I/II A/B 75 °C 600V FT1 FT2 CE

S 670 and S 671 are flexible UL recognized and CSA approved hybrid field bus control cables, suitable for cable continuous flexing with fiber optic and copper conductors. The cable S 670 with its polyurethane outer jacket has a very good resistance against acids, alkalines, solvents hydraulic liquids and oil.

Construction:

Conductor:	bare copper strands, extra fine wires
Insulation:	PVC, TI2 acc. to DIN VDE 0281 part 1
Color code:	black conductors with consecutive numbers acc. to EN 50334; green-yellow earth wire from 3 conductors
Optical waveguide:	POF (polymeric optical fibers)
Color code POF:	black
Stranding:	conductors and POF in specially adjusted layering
Wrapping:	non-woven tape
Jacket material:	S 670: PUR, TPU acc. to DIN VDE 0282 part 10 with mat surface S 671: PVC, TM2 acc. to DIN VDE 0281 part 1, reinforced wall-thickness
Jacket color:	acc. to customer' specification

Technical data:

Nominal voltage DIN VDE:	U ₀ /U 300/500 V	
Voltage UL/CSA:	600 V	
Testing voltage:	3000 V	
Min. bending radius		
<i>fixed installation:</i>	4 x O.D.	
<i>free movement:</i>	7.5 x O.D.	
<i>for continuous flexing:</i>	10 x O.D.	
Temperature range	S 670	S 671
	UL/CSA: up to +80 °C	UL/CSA: up to +75 °C
<i>fixed laying:</i>	-40/+70 °C	-40/+70 °C
<i>flexible application:</i>	+5/+70 °C	+5/+70 °C
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 and EN 60332-1-2	
Oil resistance:	PVC - acc. to internal standard see page N/27 PUR - very good	
Attenuation POF measured at 650 nm:	max. 10 dBm / 20 m	
Diameter:	PMMA: 1,0 mm · POF: 2,2 mm	
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28	

Outstanding features:

- optical waveguide
- copper conductors

PUR jacket

no. of conductors	nominal outer- \varnothing inch	nominal outer- \varnothing mm	cable weight \approx lbs/mft
▶ 16 AWG (\approx 84/34) • 1.50 mm²			
4	0.390	9.9	93
5	0.417	10.6	111
▶ 14 AWG (\approx 140/34) • 2.50 mm²			
4	0.484	12.3	139
5	0.520	13.2	167

each + 2 x POF (polymeric optical fibers)

Other dimensions are possible on request.

PVC jacket

no. of conductors incl. ground	nominal outer- \varnothing inch	nominal outer- \varnothing mm	cable weight \approx lbs/mft
▶ 18 AWG (\approx 56/34) • 1.00 mm²			
2	0.283	7.2	44
3	0.315	8.0	53
▶ 16 AWG (\approx 84/34) • 1.50 mm²			
2	0.303	7.7	54
5	0.409	10.4	110

each + 2 x POF (polymeric optical fibers)

Other dimensions are possible on request.

USB 2.0 CABLES

transmission length up to 10m!



USB 2.0 Cables flexible



USB 2.0 Leitung (2x0,22mm²) ST + 2x0,5mm² 0601-0122 C€

Marking for USB 2.0 cable 06010122:

SAB BRÖCKSKES · D-VIERSEN · USB 2.0 Leitung (2x0,22mm²) ST + 2x0,5mm² 0601-0122 C€

The robot cable USB 2.0 was developed for high frequency data transmission in industry. Whether for the identification of parts and components, for visual inspection, welded seam control or for the collection of bar codes or type tests; wherever a quick and reliable collection and transmission of data from the camera to the industrial PC are absolutely important. Our highly flexible robot cable USB 2.0 was especially developed for this application. It guarantees excellent transmission characteristics as it is demanded for intelligent image processing with a transmission distance of up to 10 m without amplifier under extreme industrial application conditions.

item no.	type	dimensions mm ²	nominal outer-ø inch	mm	cable weight ≈ lbs/ft
▶ 06010122	PVC	(2x0,22) ST + 2x0,50	0.268	6.8	40
▶ 06010222	PVC with UL	(2x0,22) ST + 2x0,50	0.276	7.0	42
▶ 06019001	SABIX®	(2x0,22) ST + 2x0,50	0.268	6.8	42

Other dimensions and colors are possible on request.



Construction:	USB 2.0 <i>flexible</i>	USB 2.0 with UL <i>flexible</i>	USB 2.0 FRNC <i>flexible</i>
Dimension:	(2 x 0,22 mm ²) ST + 2 x 0,5 mm ²		
Conductor:	bare copper strands (0,50 mm ²), silver-plated strands (0,22 mm ²)		
Insulation:	SABIX®		
Color code:	black, red (0,50 mm ²), white, green (0,22 mm ²)		
Stranding:	2 x 0,22 mm ² wrapped with alu foil, together with 0,5 mm ²		
Wrapping:	non-woven tape		
Screen:	tinned copper braiding		
Outer jacket:	PVC		SABIX®
Jacket color:	black (RAL 9005)		

Technical data:	USB 2.0 <i>flexible</i>	USB 2.0 with UL <i>flexible</i>	USB 2.0 FRNC <i>flexible</i>
Item number:	0601-0122	0601-0222	0601-9001
Peak operating voltage VDE:	max. 350 V		
Voltage: UL:	—	300 V	—
Testing voltage:	conductor/conductor 1500 V conductor/screen 1200 V	conductor/conductor 2000 V conductor/screen 2000 V	conductor/conductor 1500 V conductor/screen 1200 V
Temperature range VDE fixed laying: flexible application:	- 30°C / + 70°C - 5°C / + 70°C	UL: up to + 80°C - 30°C / + 70 °C - 5°C / + 70 °C	- 50°C / + 90 °C - 40°C / + 90 °C
Min. bending radius fixed laying: flexible application:	5 x O.D. 10 x O.D.		
Zero halogen:	—		acc. to DIN VDE 0472 part 815 + IEC 60754-1
Burning characteristics:	—		flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2
Oil resistance:	acc. to internal standard see page N/27		—
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28		

transmission length
up to 10m!

USB 2.0 CABLES



USB 2.0 Cables continuously flexible

Leitung (2x0,22mm²) ST + 2x0,5mm² 0601-0122 €



Marking for USB 2.0 cable 06010122:

SAB BRÖCKSKES · D-VIERSEN · USB 2.0 Leitung (2x0,22mm²) ST + 2x0,5mm² 0601-0122 €

The robot cable USB 2.0 was developed for high frequency data transmission in industry. Whether for the identification of parts and components, for visual inspection, welded seam control or for the collection of bar codes or type tests; wherever a quick and reliable collection and transmission of data from the camera to the industrial PC are absolutely important. Our highly flexible robot cable USB 2.0 was especially developed for this application. It guarantees excellent transmission characteristics as it is demanded for intelligent image processing with a transmission distance of up to 10 m without amplifier under extreme industrial application conditions.

item no.	type	dimensions mm ²	nominal outer-ø inch	mm	cable weight ≈ lbs/mft
▶ 06011022	PUR	(2x0,22) ST + 2x0,50	0.276	7.0	40
▶ 06011122	PUR with UL/CSA	(2x0,22) ST + 2x0,50	0.283	7.2	44
▶ 06012022	robot cable with UL/CSA	(2x0,22) ST + 2x0,50	0.276	7.0	43

Other dimensions and colors are possible on request.

Construction:	USB 2.0 <i>suitable for cable tracks</i>	USB 2.0 with UL/CSA <i>suitable for cable tracks</i>	USB 2.0 with UL/CSA <i>suitable for robots</i>
Dimension:	(2 x 0,22 mm ²) ST + 2 x 0,5 mm ²		
Conductor:	bare copper strands (0,50 mm ²), silver-plated strands (0,22 mm ²)		
Insulation:	SABIX®		
Color code:	black, red (0,50 mm ²), white, green (0,22 mm ²)		
Stranding:	2 x 0,22 mm ² wrapped with alu foil, together with 0,5 mm ²		
Wrapping:	non-woven tape	PTFE foil	
Screen:	tinned copper braiding	wrapping with tinned copper round wires	
Wrapping:	non-woven tape		
Outer jacket:	PUR		
Jacket color:	black (RAL 9005)		

Technical data:	USB 2.0 <i>suitable for cable tracks</i>	USB 2.0 with UL/CSA <i>suitable for cable tracks</i>	USB 2.0 with UL/CSA <i>suitable for robots</i>
Item number:	0601-1022	0601-1122	0601-2022
Peak operating voltage VDE:	max. 350 V		
Voltage UL/CSA:	—	300 V	
Testing voltage:	conductor/conductor 2000 V - conductor/screen 2000 V		
Temperature range VDE	UL/CSA: up to + 80°C		
fixed laying:	- 50°C / + 90 °C	- 50°C / + 90 °C	
flexible application:	- 40°C / + 90 °C	- 40°C / + 90 °C	
Min. bending radius			
fixed laying:	5 x O.D.		5 x O.D.
flexible application:	6 x O.D.		7,5 x O.D.
continuously flexible:	7.5 x O.D.		10 x O.D.
torsion angle:			up to +/- 180°/m
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1		—
Oil resistance:	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10		
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28		

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INDUSTRIAL ETHERNET CABLES CAT 5

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



D-VIERSEN · S PN 668 Profinet CAT 5 Typ C 2x2

Marking for S PN 668:

SAB BRÖCKSKES · D-VIERSEN · S PN 668 Profinet CAT 5 Typ C 2x2x22AWG CE

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensons AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω /km
▶ 06622202	PN 662	22 (\approx 7/30)/4c	0.240	6.1	38	58.0
▶ 06682202	S PN 668	22 (\approx 19/34)/4c	0.252	6.4	39	58.0
▶ 06632202	PN 663	22 (\approx 7/30)/4c	0.256	6.5	44	58.0
▶ 06692202	S PN 669	22 (\approx 19/34)/4c	0.272	6.9	46	58.0

Other dimensions and colors are possible on request.

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>
Dimension:	2 x 2 x 22 AWG			
Conductor:	tinned copper strands, fine wires acc. to VDE 0812	tinned copper strands, extra fine wires	tinned copper strands, fine wires acc. to VDE 0812	tinned copper strands, extra fine wires
Insulation:	PE, L/MD acc. to DIN VDE 0819 part 103	PE	PE, L/MD acc. to DIN VDE 0819 part 103	PE
Color code:	blue, yellow, white, orange			
Stranding:	in layers			
Wrapping:	PETP foil			
Inner jacket:	thermoplastic material			
Wrapping:	alu foil			
Screen:	tinned copper braiding			
Wrapping:	—	non-woven tape	—	non-woven tape
Outer jacket:	PVC	PUR	PVC	PUR
Jacket color:	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 number:	0662-2202	0668-2202	0663-2202	0669-2202
Peak operating voltage VDE:	max. 350 V			
Voltage UL:	—		300 V	
Testing voltage:	conductor/conductor 1500 V - conductor/screen 1200 V			
Temperature range VDE fixed laying: flexible application:	- 30°C / + 70°C - 5°C / + 70°C	- 40°C / + 70°C - 30°C / + 70°C	UL: up to + 80°C - 30°C / + 70 °C - 5°C / + 70 °C	UL: up to + 80°C - 30°C / + 70 °C - 20°C / + 70 °C
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x O.D. 10 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.
Characteristic impedance:	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)			
Zero halogen:	—	acc. to DIN VDE 0472 part 815 + IEC 60754-1	—	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Oil resistance:	acc. to internal standard see page N/27	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10	acc. to internal standard see page N/27	acc. to internal standard see page N/27
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28			

INDUSTRIAL ETHERNET CABLES CAT 5



PN 654 Profinet type A, for fixed installation

PN 660 Profinet type B, for flexible applications

PN 655 Profinet type A, for fixed installation with UL recognition

PN 661 Profinet type B, for flexible applications with UL recognition

PN 660 Profinet CAT 5 Typ B 2x2x22AWG CE



Marking for PN 660:

SAB BRÖCKSKES · D-VIERSEN · PN 660 Profinet CAT 5 Typ B 2x2x22AWG CE

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensions AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω /km
▶ 06542202	PN 654	22/4c	0.209	5.3	29	58.0
▶ 06602202	PN 660	22 (\approx 7/30)/4c	0.260	6.6	45	58.0
▶ 06552202	PN 655	22/4c	0.232	5.9	34	58.0
▶ 06612202	PN 661	22 (\approx 7/30)/4c	0.260	6.6	47	58.0

Other dimensions and colors are possible on request.

Construction:	PN 654 Profinet type A <i>fixed laying</i>	PN 660 Profinet type B <i>flexible</i>	PN 655 Profinet type A <i>fixed laying</i>	PN 661 Profinet type B <i>flexible</i>
Dimension:	2 x 2 x 22 AWG			
Conductor:	bare copper wire	bare copper strands, fine wires acc. to VDE 0812	bare copper wire	bare copper strands, fine wires acc. to VDE 0812
Insulation:	PE, L/MD acc. to DIN VDE 0819 part 103			
Color code:	blue, yellow, white, orange			
Stranding:	in layers			
Wrapping:	PETP foil			
Inner jacket:	—	thermoplastic material	—	thermoplastic material
Wrapping:	—	alu foil	—	alu foil
Screen:	tinned copper braiding			
Wrapping:	—	non-woven tape	—	non-woven tape
Outer jacket:	PVC	SABIX®	PVC	SABIX®
Jacket color:	green (similar RAL 6018)			

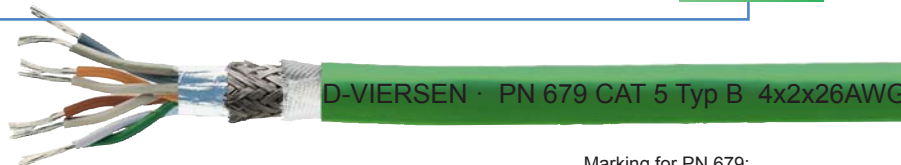
Technical data:	PN 654 Profinet type A <i>fixed laying</i>	PN 660 Profinet type B <i>flexible</i>	PN 655 Profinet type A <i>fixed laying</i>	PN 661 Profinet type B <i>flexible</i>
Item number:	0654-2202	0660-2202	0655-2202	0661-2202
Peak operating voltage VDE:	max. 350 V			
Voltage UL:	—		300 V	
Testing voltage:	conductor/conductor 1500 V - conductor/screen 1200 V			
Temperature range VDE fixed laying: flexible application:	- 30°C / + 70°C - 5°C / + 70°C	- 30°C / + 70°C - 20°C / + 70°C	UL: up to + 80°C - 30°C / + 70 °C - 5°C / + 70 °C	UL: up to + 75°C - 40°C / + 70 °C - 30°C / + 70 °C
Min. bending radius fixed laying: flexible application:	5 x O.D.	5 x O.D. 12 x O.D.	5 x O.D.	5 x O.D. 12 x O.D.
Characteristic impedance:	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)			
Zero halogen:	—	acc. to DIN VDE 0472 part 815 + IEC 60754-1	—	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Oil resistance:	acc. to internal standard see page N/27	—	acc. to internal standard see page N/27	—
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28			

INDUSTRIAL ETHERNET CABLES CAT 5

PN 678 Profinet type A, for fixed installation

PN 679 Profinet type B, for flexible applications

S PN 681 Profinet type C, continuously flexible



Marking for PN 679:

SAB BRÖCKSKES · D-VIERSEN · PN 679 CAT 5 Typ B 4x2x26AWG CE

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensions AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω /km
▶ 06782604	PN 678	26/4pr	0.244	6.2	33	150
▶ 06792604	PN 679	26 (\approx 7/34)/4pr	0.287	7.3	38	148
▶ 06812604	S PN 681	26 (\approx 19/38)/4pr	0.283	7.2	39	145

Other dimensions and colors are possible on request.

Construction:	PN 678 Profinet type A <i>fixed laying</i>	PN 679 Profinet type B <i>flexible</i>	S PN 681 Profinet type C <i>continuously flexible</i>
Dimension:	4 x 2 x 26 AWG		
Conductor:	tinned copper wire	tinned copper strands, fine wires acc. to VDE 0812	tinned copper strands, extra fine wires
Insulation:	PE, L/MD acc. to DIN VDE 0819 part 103	PE, L/MD acc. to DIN VDE 0819 part 103	SABIX®
Color code:	white conductors with numbers 1 - 4 (+ blue, orange, green, brown)		
Stranding:	twisted pairs		
Wrapping:	alu foil	PETP foil + alu foil	non-woven tapes + alu foil
Screen:	tinned copper braiding		
Wrapping:	—	non-woven tape	non-woven tape
Outer jacket:	PVC	PUR	PUR
Jacket color:	green (similar RAL 6018)		

Technical data:	PN 678 Profinet type A <i>fixed laying</i>	PN 679 Profinet type B <i>flexible</i>	S PN 681 Profinet type C <i>continuously flexible</i>
Item number:	0678-2604	0679-2604	0681-2604
Peak operating voltage VDE:	max. 350 V		
Testing voltage:	conductor/conductor 1500 V, conductor/screen 1200 V		
Temperature range VDE fixed laying: flexible application:	- 30°C / + 70°C - 5°C / + 70°C	- 40°C / + 70°C - 40°C / + 70°C	- 40°C / + 90°C - 30°C / + 90°C
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x O.D.	5 x O.D. 10 x O.D.	5 x O.D. 10 x O.D. 12 x O.D.
Characteristic impedance:	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)		
Zero halogen:	—	acc. to DIN VDE 0472 part 815 + IEC 60754-1	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Oil resistance:	acc. to internal standard see page N/27	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28		

with „Fast Connect“ construction

INDUSTRIAL ETHERNET CABLES CAT 5



S PN 667 PUR Profinet type C, continuously flexible with UL recognition and CSA approval



Marking for S PN 667: SAB BRÖCKSKES · 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

Industrial Ethernet is a young and 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. 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.

item no.	type	dimesions AWG	max. cond.-ø mm	nominal outer-ø inch ± 0.008	mm ± 0.2	cable weight ≈ lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
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► 06672202 S PN 667 22 (≈ 7/30)/4c 1.55 0.256 6.5 40 58.8
Other dimensions and colors are possible on request.

For extreme bending stress - conductor construction 19 wires:

item no.	type	dimesions AWG	max. cond.-ø mm	nominal outer-ø inch ± 0.008	mm ± 0.2	cable weight ≈ lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
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► 06679001 S PN 667 22 (≈ 19/34)/4c 1.55 0.256 6.5 39 58.8
Other dimensions and colors are possible on request.

Construction:

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

Technical data:

Voltage UL/CSA:	300 V
Peak operating voltage:	max. 350 V
Testing voltage:	conductor/conductor 1500 V conductor/screen 1200 V
Min. bending radius <i>fixed installation:</i> <i>free movement:</i> <i>continuously flexible:</i>	5 x O.D. 10 x O.D. 15 x O.D.
Temperature range <i>static:</i> <i>flexing:</i>	UL: up to +80 °C -40/+70 °C -30/+70 °C
Characteristic impedance:	120 Ω ± 5 Ω, accomplishes the electrical and transmission requirements with high frequency acc. to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1
Oil resistance:	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10
Absence of harmful substances:	acc. to RoHS directive of the European Union see page N/28

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

SPECIAL 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



D-VIERSEN · DR PN 689 P Highflex 2x2x22AWG

Marking for DR PN 689 P Highflex:
 SAB BRÖCKSKES · D-VIERSEN · DR PN 689 P Highflex 2x2x22AWG CE

Industrial Ethernet is a young and 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. 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.

item no.	type	dimesions AWG	nominal outer-ø inch	mm	cable weight ≈ lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km	tensile strength max. N	characteristic impedance
▶ 06892202	DR PN 689 P Highflex	22 (≈ 42/38)/2c	0.307	7.8	52	58.8	200	100Ω
▶ 06899001	DR PN 689 P Highflex	26 (≈ 18/38)/8c	0.343	8.7	57	139	200	100Ω
▶ 06899005	DR CB 689 P Highflex	20 (≈ 28/34)/4c	0.512	13.0	118	39.0	200	120Ω

Other dimensions and colors are possible on request.

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
Dimension:	2 x 2 x 22 AWG	4 x 2 x 26 AWG	2 x 2 x 20 AWG
Conductor:	tinned copper strands, fine wires		
Insulation:	SABIX®		PE
Color code:	blue, yellow, white, orange	blue, orange, green, brown + 4 white cores with consecutive numbers	acc. to DIN 47100
Stranding:	in layers	in pairs	
Wrapping:	PETP foli		non-woven tape
Inner jacket:	SABIX®		—
Wrapping:	alu foil		—
Screen:	tinned copper braiding		
Wrapping:	non-woven tape		—
Outer jacket:	PUR / supporting braid / PUR		
Jacket color:	green (similar RAL 6018)	black (similar RAL 9005)	

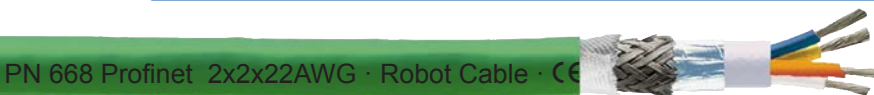
Technical data:	DR PN 689 P Highflex reeling Profinet cable	DR PN 689 P Highflex reeling CAT 5 cable	DR CB 689 P Highflex reeling CAN-Bus cable
Item number:	0689-2202	0689-9001	0689-9005
Peak operating voltage VDE:	max. 350 V		
Testing voltage:	conductor/conductor 1500 V, conductor/screen 1200 V		
Temperature range VDE fixed laying: flexible application:	- 40°C / + 90°C - 30°C / + 90°C		- 40°C / + 70°C - 40°C / + 70°C
Min. bending radius	for laying and installation (fixed laying): 5 x O.D. for repeated winding action (flexible): 10 x O.D. guided on deflection pulleys (flexible): 12 x O.D.		for laying and installation (fixed laying): 5 x O.D. for repeated winding action (flexible): 7,5 x O.D. guided on deflection pulleys (flexible): 10 x O.D.
Characteristic impedance:	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)		120Ω (95 - 140Ω) at 1 MHz
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1		
Oil resistance:	TMPU acc. to EN 50363-10-2		
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28		

SPECIAL INDUSTRIAL ETHERNET CABLES CAT 5



S PN 668 Hybrid Hybrid cable with UL recognition

RT PN 668 Profinet cable suitable for robots




Marking for RT PN 668:

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

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensions AWG	nominal outer- \emptyset inch	mm	cable weight \approx lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω /km
▶ 06689010	S PN 668 Hybrid	22 (\approx 19/34) + 16 (\approx 84/34)/8c	0.394	10.0	106	58.0 / 13.3
▶ 06689001	RT PN 668	22 (\approx 19/34)/4c	0.276	7.0	42	58.0

Other dimensions and colors are possible on request.

Construction:	 S PN 668 Hybrid <i>Hybrid cable type C continuously flexible</i>	RT PN 668 <i>Profinet cable suitable for robots</i>
Dimension:	2 x 2 x 22 AWG + 4 x 16 AWG	2 x 2 x 22 AWG
Conductor:	22 AWG: tinned copper strands, extra fine wires 16 AWG: bare copper strands acc. to IEC 60228, EN 60228, VDE 0295, class 6	tinned copper strands, extra fine wires
Insulation:	22 AWG: SABIX® 16 AWG: TPE	PE
Color code:	22 AWG: blue, yellow, white, orange. 16 AWG: black conductors with consecutive numbers acc. to EN 50334	blue, yellow, white, orange
Stranding:	22 AWG: in layers together in layers	in layers
Wrapping:	PETP foli	netting tape, alu foil
Inner jacket:	SABIX®	—
Wrapping:	alu foil	—
Screen:	tinned copper braiding	
Wrapping:	non-woven tape	
Outer jacket:	PUR	
Jacket color:	green (similar RAL 6018)	

Technical data:	S PN 668 Hybrid <i>Hybrid cable type C continuously flexible</i>	RT PN 668 <i>Profinet cable suitable for robots</i>
Item number:	0668-9010	0668-9001
Peak operating voltage VDE:	max. 350 V	
Voltage: UL:	300 V	—
Testing voltage:	conductor/conductor 1500 V, conductor/screen 1200 V	
Temperature range VDE fixed laying: flexible application:	UL: up to + 80°C - 40°C / + 90°C - 30°C / + 90°C	- 40°C / + 70°C - 30°C / + 70°C
Min. bending radius	fixed laying: 5 x O.D. flexible application: 10 x O.D. continuously flexible: 12 x O.D.	fixed laying: 5 x O.D. flexible application: 10 x O.D. torsion angle: \pm 180°/m
Characteristic impedance:	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)	
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1	
Oil resistance:	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10	
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28	

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INDUSTRIAL GIGABIT ETHERNET CABLES CAT 6

GE 691 CAT 6 Gigabit Ethernet cable,
for flexible applications

S GE 696 CAT 6 Gigabit Ethernet cable,
continuously flexible



DR GE 698 P Highflex reeling CAT 6 Gigabit Ethernet cable



Marking for GE 691:

SAB BRÖCKSKES · D-VIERSEN · GE 691 CAT6 Gigabit Ethernet Cable 4 x 2 x 26 AWG CE

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensions AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω /km
▶ 06912604	GE 691	26 (\approx 7/34)/4pr	0.370	max. 9.0	71	145.0
▶ 06962604	S GE 696	26 (\approx 19/38)/4pr	0.331	max. 9.0	52	145.0
▶ 06982604	DR GE 698 P Highflex	26 (\approx 19/38)/4pr	0.496	approx. 9.9	128	145.0

Other dimensions and colors are possible on request.

Construction:	GE 691 <i>for flexible applications</i>	S GE 696 <i>continuously flexible</i>	DR GE 698 P Highflex <i>reeling cable</i>
Dimension:	4 x 2 x 26 AWG		
Conductor:	tinned copper strands, fine wires	tinned copper strands, extra fine wires	
Insulation:	PE		SABIX®
Color code:	white conductors with consecutive numbers 1 - 4 (+ blue, orange, green, brown)		
Stranding:	twisted to pairs / pairs wrapped with PETP foil and alu foil		
Wrapping:	non-woven tape		
Screen:	alu foil + tinned copper braiding		
Wrapping:	non-woven tape		
Outer jacket:	PUR		PUR / supporting braid / PUR
Jacket color:	green (similar RAL 6018)		black (similar RAL 6018)

Technical data:	GE 691 <i>for flexible applications</i>	S GE 696 <i>continuously flexible</i>	DR GE 698 P Highflex <i>reeling cable</i>
Item number:	0691-2604	0696-2604	0698-2604
Peak operating voltage VDE:	max. 350 V		
Testing voltage:	conductor/conductor 1500 V - conductor/screen 1200 V		
Temperature range VDE fixed laying: flexible application:	- 40°C / + 70°C - 30°C / + 70°C		- 40°C / + 90°C - 30°C / + 90°C
Min. bending radius fixed laying: flexible application: continuously flexible:	5 x O.D. 10 x O.D.	5 x O.D. 10 x O.D. 15 x O.D.	for laying and installation (fixed laying): 5 x O.D. for repeated winding action (flexible): 12 x O.D. guided on deflection pulleys (flexible): 15 x O.D.
Characteristic impedance (1-250 MHz):	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2		
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1		
Oil resistance:	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10		
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28		

SPECIAL INDUSTRIAL GIGABIT ETHERNET CABLES CAT 6



S GE 696 HT high temperature, CAT 6 Gigabit Ethernet cable, for flexible applications

RT GE 694

CAT 6 Gigabit Ethernet cable, suitable for robots with UL recognition, CSA approval

RT GE 694 Hybrid CAT 6 Gigabit Ethernet cable, suitable for robots

CAT6 Gigabit Ethernet Cable 4 x 2 x 26 AWG CE



Industrial Ethernet is a young and 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. 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.

Marking for S GE 696 HT:

SAB BRÖCKSKES · D-VIERSEN · S GE 696 HT CAT6 Gigabit Ethernet Cable 4 x 2 x 26 AWG CE

item no.	type	no. of conductors	cross section AWG	nominal outer-ø max. inch	nominal outer-ø max. mm	weight ≈ lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω/km
▶ 36962604	S GE 696 HT	8	26 (≈ 19/38)	0.370	9.4	71	145.0
▶ 36942604	S GE 694	8	26 (≈ 19/38)	0.331	8.4	52	145.0
▶ 06949001	RT GE 694 Hybrid	8 + 4	26 (≈ 19/38) 1.0 mm ² (≈ 30/32)	0.496	12.6	128	26 (≈ 19/38): 145.0 1.0 mm ² (≈ 30/32): 19.5

Other dimensions and colors are possible on request.

Construction:	S GE 696 HT <i>for flexible applications</i>	RT GE 694 <i>suitable for robots</i>	RT GE 694 Hybrid <i>suitable for robots</i>
Dimension:	4 x 2 x 26 AWG		4 x 2 x 26 AWG + 1.0 mm ²
Conductor:	tinned copper strands, extra fine wires		bare copper strands, extra fine wires
Insulation:	PFA	PE	26 AWG: FEP / 1,0 mm ² : TPE
Color code:	white conductors with consecutive numbers 1 - 4 (+ blue, orange, green, brown)		26 AWG: white-blue/blue, white-orange/orange, white-green/green, white-brown/brown, 1,0 mm ² : black conductors with consecutive numbers acc. to EN 50334
Stranding:	conductors twisted to pairs		
Wrapping:	pairwise with alu foil		26 AWG pairwise with alu foil
Wrapping:	PTFE foil	non-woven tape	—
Screen:	alu foil + tinned copper braiding		pairs 26 AWG: tinned copper braiding
Inner jacket:	—		26 AWG (pairs white-orange/orange and white-brown/brown); TPE, black (similar RAL 9005)
Wrapping:	—		non-woven tape
Outer jacket:	Special Besilen®	PUR	
Jacket color:	green (similar RAL 6018)		black (similar RAL 9005)

Technical data:	S GE 696 HT <i>for flexible applications</i>	RT GE 694 <i>suitable for robots</i>	RT GE 694 Hybrid <i>suitable for robots</i>
Item number:	3696-2604	0694-2604	0694-9001
Peak operating voltage VDE:	max. 350 V		26 AWG: max. 350 V
Nominal voltage:	—		1,0 mm ² : 300/500 V
Voltage: UL/CSA:	—	300 V	—
Testing voltage:	conductor/conductor 1500 V conductor/screen 1200 V		cond./cond. 26 AWG: 1500 V 1,0 mm ² : 2000 V cond./screen 26 AWG: 1200 V
Temperature range VDE fixed laying: flexible application: short-time use:	- 40°C / + 180°C - 25°C / + 180°C + 250°C	UL: up to + 80°C - 40°C / + 70°C - 30°C / + 70°C	- 50°C / + 90°C - 40°C / + 90°C
Min. bending radius fixed laying: flexible application: continuously flexible:	7,5 x O.D. 10 x O.D. 15 x O.D.	5 x O.D. 10 x O.D.	
UL Style:	—	21198	—
Torsion:	up to ± 360°/m		
Characteristic impedance (1-250 MHz):	100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2		26 AWG: 100Ω ± 10Ω, accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2
Zero halogen:	—	acc. to DIN VDE 0472 part 815 + IEC 60754-1	—
Oil resistance:	TMPU acc. to DIN VDE 0282 part 10 + HD 22.10		
Flexibility:	very good		
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28		

E-mail: info@sabcable.com



Web site: www.sabcable.com

INDUSTRIAL GIGABIT ETHERNET CABLES CAT 6 AND CAT 6A

CATLine CAT 6 + CAT 6A suitable for cable tracks / suitable for robots



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

Marking for CATLine CAT 6 S:

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensions AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft
▶ 16774630	CATLine CAT 6 S	26 (\approx 18/38)/4pr	0.280	7.1	38
▶ 16774631	CATLine CAT 6A S	26 (\approx 18/38)/4pr	0.280	7.1	38
▶ 16874630	CATLine CAT 6 RT	26 (\approx 18/38)/4pr	0.280	7.1	38
▶ 16874631	CATLine CAT 6A RT	26 (\approx 18/38)/4pr	0.280	7.1	38

Other dimensions and colors are possible on request.

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 robots</i>	CATLine CAT 6A RT <i>suitable for robots</i>
Dimension:	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:	conductors twisted to pairs, pairs together			
Wrapping:	non-woven tape			
Screen:	alu foil			
Screen:	tinned copper braiding			
Wrapping:	non-woven tape			
Outer jacket:	PUR			
Jacket color:	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 robots</i>	CATLine CAT 6A RT <i>suitable for robots</i>
Item number:	1677-4630	1677-4631	1687-4630	1687-4631
Peak operating voltage:	max. 90 V			
Voltage UL/CSA:	300 V			
Testing voltage:	conductor/conductor 1500 V - conductor/screen 1200 V			
Temperature range VDE fixed laying: flexible application:	UL/CSA: up to + 80°C - 40°C / + 70 °C - 40°C / + 70 °C			
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:	up to \pm 180°/m			
Characteristic impedance (100 MHz):	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2 / CAT 6	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2 / CAT 6	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1			
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 UL Horizontal Flame Test FT2			
Oil resistance:	TMPU acc. to EN 50363-10-2			
Flexibility:	very good			
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28			



+90°C on request!

E-mail: info@sabcable.com



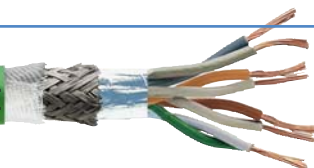
Web site: www.sabcable.com

INDUSTRIAL GIGABIT ETHERNET CABLES CAT 7A



CATLine CAT 7A suitable for cable tracks / suitable for robots

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



Marking for S CATLine CAT 7A S:

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

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item no.	type	dimensions AWG	nominal outer- ϕ inch	outer- ϕ mm	cable weight \approx lbs/mft
▶ 17774631	CATLine CAT 7A S	26 (\approx 18/38)/4pr	0.346	8.8	54
▶ 17874631	CATLine CAT 7A RT	26 (\approx 18/38)/4pr	0.346	8.8	54

Other dimensions and colors are possible on request.

Construction:	CATLine CAT 7A S <i>suitable for cable tracks</i>	CATLine CAT 7A RT <i>suitable for robots</i>
Dimension:	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:	conductors twisted to pairs, pairs screened with foil, pairs together	
Screen:	aluminized non-woven tape	
Screen:	tinned copper braiding	
Wrapping:	non-woven tape	
Outer jacket:	PUR	
Jacket color:	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 number:	1777-4631	1787-4631
Peak operating voltage:	max. 90 V	
Voltage UL/CSA:	300 V	
Testing voltage:	conductor/conductor 1500 V - conductor/screen 1200 V	
Temperature range VDE fixed laying: flexible application:	UL/CSA: up to + 80°C - 40°C / + 70 °C - 40°C / + 70 °C	
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:	—	up to \pm 180°/m
Characteristic impedance (100 MHz):	100 Ω \pm 5 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A	
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1	
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1-2 + EN 60332-1-2 UL Horizontal Flame Test FT2	
Oil resistance:	TMPU acc. to EN 50363-10-2	
Flexibility:	very good	
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28	

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+90°C on request!

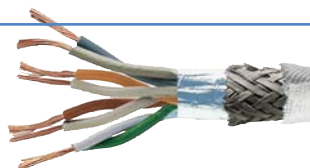
E-mail: info@sabcable.com



Web site: www.sabcable.com

SPECIAL INDUSTRIAL GIGABIT ETHERNET CABLES CAT 6A AND CAT 7A

CATLine CAT 6A DR + CAT 7A DR reeling Industrial Ethernet Cable



VIERSEN · CATLine Cat.6A DR 4x2x26AWG 1639

Marking for CATLine CAT 6A DR:
SAB BRÖCKSKES · D-VIERSEN · CATLine Cat.6A DR 4x2x26AWG 1639-4651 CE

Industrial Ethernet is a young and 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. 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.

item no.	type	dimensions AWG	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft	tensile strength max. N
▶ 16394651	CATLine CAT 6A DR	26 (\approx 18/38)/4pr	0.343	8.7	54	200
▶ 17394651	CATLine CAT 7A DR	26 (\approx 18/38)/4pr	0.413	10.5	79	200

Other dimensions and colors are possible on request.

Construction:	CATLine CAT 6A DR reeling Ethernet cable	CATLine CAT 7A DR reeling Ethernet cable
Dimension:	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:	conductors twisted to pairs, pairs together	conductors 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	
Outer jacket:	PUR / supporting braid / PUR	
Jacket color:	black (RAL 9005)	

Technical data:	CATLine CAT 6A DR reeling Ethernet cable	CATLine CAT 7A DR reeling Ethernet cable
Item number:	1639-4651	1739-4651
Peak operating voltage:	max. 90 V	
Testing voltage:	conductor/conductor 600 V - conductor/screen 600 V	
Temperature range VDE fixed laying: flexible application:	- 50°C / + 90 °C - 40°C / + 90 °C	
Min. bending radius	for laying and installation (fixed laying): 5 x d for repeated winding action (flexible): 10 x d guided on deflection pulleys (flexible): 12 x d	
Characteristic impedance (100 MHz):	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-10-2 / CAT 6A	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-9-2 / CAT 7A
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1	
Weather resistance:	very good	
Oil resistance:	TMPU acc. to EN 50363-10-2	
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28	

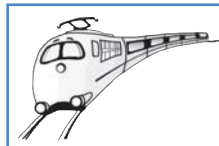
INDUSTRIAL ETHERNET CABLES CAT 5e AND INDUSTRIAL GIGABIT ETHERNET CABLES CAT 6



SABIX® R 660 FRNC CAT 5e SABIX® Rail CAT 5e
SABIX® R 691 FRNC CAT 6 SABIX® Rail CAT 6



SABIX® R 660 FRNC CAT 5e 2x2x22AWG CE



**Especially
for use in
rail vehicles**

Marking for SABIX® R 660 FRNC CAT 5e 66602202:

SAB BRÖCKSKES · D-VIERSEN · SABIX® R 660 FRNC CAT 5e 2x2x22AWG CE

With the SABIX® R 660 CAT 5e and SABIX® R 691 CAT 6 we can offer Ethernet cables for railway engineering are offered. Field of application for the new types is the networking of systems in railway technologies, e.g. the establishment of passenger information systems, monitoring technologies or E-Ticketing systems. Furthermore, the cables of the product range SABIX® Rail fulfil the highest security standards with regard to flame protection.

item no.	type	dimensions	nominal outer- ϕ inch	mm	cable weight \approx lbs/mft	ohmic resistance at 20°C acc. to VDE 0812 max. Ω /km
▶ 66602402	SABIX® R 660 FRNC CAT 5e	24/19 / 2pr	0.240	approx. 6.1	42	83.3
▶ 66602202	SABIX® R 660 FRNC CAT 5e	22 (\approx 7/30) / 2pr	0.264	approx. 6.7	47	58.0
▶ 66912604	SABIX® R 691 FRNC CAT 6	26/7 / 4pr	0.354	max. 9.0	57	145.0

Other dimensions and colors are possible on request.

Construction:	SABIX® R 660 FRNC CAT 5e <i>flexible</i>	SABIX® R 691 FRNC CAT 6 <i>flexible</i>
Dimension:	2 x 2 x 24 AWG	4 x 2 x 26 AWG
Conductor:	tinned copper strands, fine wires	
Insulation:	PE	
Color code:	blue, yellow, white, orange	white conductors with numbers 1 - 4 (+ blue, orange, green, brown)
Stranding:	in layers	twisted pairs wrapped with foil and alu foil
Wrapping:	foil	non-woven tape
Inner jacket:	special SABIX®	—
Screen:	alu foil and tinned copper braiding	
Outer jacket:	special SABIX®	
Jacket color:	green (similar RAL 6018)	

Technical data:	SABIX® R 660 FRNC CAT 5e <i>flexible</i>	SABIX® R 691 FRNC CAT 6 <i>flexible</i>
Item number:	6660-2402	6691-2604
Peak operating voltage VDE:	max. 350 V	
Testing voltage:	conductor/conductor 1500 V, conductor/screen 1200 V	
Temperature range VDE fixed laying: flexible application:	- 40°C / + 70°C - 30°C / + 70°C	
Min. bending radius fixed laying: flexible application:	5 x O.D. 12 x O.D.	
Characteristic impedance:	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-2-2 (CAT 5 acc. to EN 50173-1)	100 Ω \pm 10 Ω , accomplishes the electrical and transmission requirements with high frequency with reference to EN 50288-5-2 (CAT 6 acc. to EN 50173-1)
Zero halogen:	acc. to DIN VDE 0472 part 815 + IEC 60754-1	
Burning characteristics:	flame retardant and self-extinguishing acc. to IEC 60332-1 and EN 60332-1-2, no flame propagation acc. to IEC 60332-3-25, EN 60332-3-25 and EN 50266-2-5 for cable diameter > 6 mm < 12 mm	
Smoke density:	acc. to IEC 61034-1 and EN 61034-1, translucence > 60%	
Toxicity:	FED ₃₀ < 1 acc. to DIN EN 5510-2 appendix C 3.3	
Flexibility:	good	
Absence of harmful substances:	acc. to RoHS directive of the European Union, see page N/28	