

[illegible]

Usage criteria		Cable designation														
		UNITRONIC® BUS IBS fixed installation	UNITRONIC® BUS IBS FD P highly flexible application	UNITRONIC® BUS IBS Yv suitable for outdoor use/direct burial	UNITRONIC® BUS LD fixed installation	UNITRONIC® BUS LD FD P highly flexible application	UNITRONIC® BUS PB fixed installation	UNITRONIC® BUS PB FD P + PB FD P FC highly flexible application	UNITRONIC® BUS PB Yv suitable for outdoor use/direct burial	UNITRONIC® BUS PA (BU + BK) fixed installation	UNITRONIC® BUS CAN fixed installation (0.22 mm ²)	UNITRONIC® BUS FD P CAN FD P highly flexible application (0.25 mm ²)	UNITRONIC® BUS FF 3 ARM fixed installation	UNITRONIC® BUS FF 2 fixed installation	UNITRONIC® BUS CAN TRAY	UNITRONIC® BUS PB TRAY
Parameter																
Characteristic impedance Ω		100	100	100	100–120	100–120	150 +/-15	150 +/-15	150 +/-15	100 +/-20	120	120	100	100	120	150 +/-15
Mutual capacitance (800 Hz) max. nF/km		60	60	60	60	60	30	30	30	52	40	40	56	65	40	30
Peak operating voltage V (not for power applications)		250	250	250	250	250	250	250	250	250	250	250	300	300	250	250
Test voltage, core/core, U _{eff} V		1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	1500	2000	2000
Conductor resistance (loop) Data network cable pair max. Ω/km		186	159.8	186	186	159.8	110	145, 133	115	44	186	159.8	≤ 24	≤ 24	110.8	110
Minimum bending radius, fixed installation		8 x D	–	8 x D	8 x D	–	75 mm	–	75 mm	65 mm	8 x D	–	15 x D	15 x D	8 x D	8 x D
Minimum bending radius, flexing		–	15 x D	–	–	15 x D	–	**	–	–	–	15 x D	–	–	–	–
Temperature range fixed installation	from °C	– 30	– 40	– 40	– 40	– 40	– 40	– 40	– 40	– 30	– 30	– 40	– 25	– 25	– 40	– 40
	to °C	+ 80	+ 80	+ 70	+ 80	+ 80	+ 80	+ 80	+ 80	+ 80	+ 80	+ 80	+ 80	+ 105	+ 80	+ 80
Temperature range flexing	from °C	–	– 30	–	– 5	– 30	–	– 30	–	–	– 5	– 30	–	–	– 10	– 10
	to °C	–	+ 70	–	+ 70	+ 70	–	+ 70	–	–	+ 70	+ 70	–	–	+ 70	+ 70

Usage criteria		Cable designation													
		UNITRONIC® BUS CC	UNITRONIC® BUS CC FD P FRNC	ETHERLINE® H Cat.5e	ETHERLINE® P Cat.5e	ETHERLINE® H-H Cat.5e	ETHERLINE® H FLEX Cat.5e	ETHERLINE® P FLEX Cat.5e	ETHERLINE® Y FLEX Cat.5e	ETHERLINE® Y EC FLEX Cat.5e	ETHERLINE® P EC FLEX Cat.5e	ETHERLINE® P EC FD Cat.5e	ETHERLINE® PN Cat.5 Y FLEX FC	ETHERLINE® PN Cat.5 FRNC FLEX FC	ETHERLINE® TORSION Cat.5
	Parameter														
Characteristic impedance Ω		110	110	100	100	100	100	100	100	100	100	100	100	100	
Mutual capacitance (800 Hz) max. nF/km		60	60	48	46	46	48	48	-	-	-	-	-	-	
Peak operating voltage V (not for power applications)		300	300	125	125	125	125	125	125	100	100	100	125	125	100
Test voltage, core/core, U _{eff} V		2000	2000	1000	1000	1000	1000	1000	1000	1000	1000	1000	2000	2000	700
Conductor resistance (loop) Data network cable pair max. Ω/km		37.8	37.8	192	186.6	186.6	284	284	-	-	-	-	-	-	
Minimum bending radius, fixed installation		15 x D	4 x D	7.5-8 x D	7.5-8 x D	8 x D	8 x D	8 x D	8 x D	4 x D	4 x D	4 x D	10 x D	4 x D	5 x D
Minimum bending radius, flexing		-	8 x D	-	-	-	15 x D	15 x D	15 x D	8 x D	8 x D	8 x D	15 x D	8 x D	5 x D
Temperature range fixed installation	from °C	-40	-40	-30	-30	-30	-30	-30	-40	-30	-40	-40	-40	-25	-40
	to °C	+70	+80	+80	+80	+80	+80	+80	+80	+80	+80	+80	+80	+80	+80
Temperature range flexing	from °C	-	-40	-5	-5	-5	-5	-5	-10	-5	-30	-30	-20	-25	-40
	to °C	-	+80	+60	+60	+60	+60	+60	+70	+50	+50	+50	+60	+80	+80

**without FC = 65 mm/FC = 120 mm

Usage criteria		Cable designation												
		ETHERLINE® PN Cat.5e Y	ETHERLINE® TRAY ER PN Y FC	ETHERLINE® Y FC Cat.5	ETHERLINE® Cat.5e YY	ETHERLINE® FD P Cat.5e	ETHERLINE® FD P FC Cat.5 highly flexible application	ETHERLINE® PN Cat.6, FRNC FC + ETHERLINE® PN Cat.7 FRNC	ETHERLINE® PN Cat.6, P FC + ETHERLINE® PN Cat.7 P	ETHERLINE® PN Cat.6, Y FC + ETHERLINE® PN + Cat.7 Y	ETHERLINE® PN Cat.6, Y FLEX FC	ETHERLINE® PN Cat.6, FRNC FLEX FC	ETHERLINE® FD Cat.6 + TORSION Y Cat.6 _A	ETHERLINE® FD P Cat.6 + TORSION P Cat.6 _A
														ETHERLINE® TORSION Cat.7
Parameter														
Characteristic impedance Ω		100	100	100	100	100	100	100	100	100	100	100	100	100
Mutual capacitance (800 Hz) max. nF/km		48	48	48	48	50	52	-	-	-	-	-	-	50
Peak operating voltage V (not for power applications)		125	125	125	125	125	125	125	125	125	125	125	125	125
Test voltage, core/core, U _{eff} V		1000	2000	1000	1000	1000	700	1000	1000	1000	1000	1000	1000	750
Conductor resistance (loop) Data network cable pair max. Ω/km		118	115	115	118	290	120	118	118	118	143	143	175	175
Minimum bending radius, fixed installation		7.5 x D	10 x D	10 x D	4 x D	8 x D	5 x D	4 x D	4 x D	4 x D	8 x D	8 x D	8 x D	8 x D
Minimum bending radius, flexing		15 x D	15 x D	15 x D	8 x D	15 x D	8 x D	8 x D	8 x D	8 x D	15 x D	15 x D	15 x D	15 x D
Temperature range fixed installation	from °C	-40	-40	-40	-25	-30	-30	-25	-40	-30	-10	-25	-40	-40
	to °C	+70	+80	+80	+80	+80	+70	+80	+80	+80	+70	+80	+80	+80
Temperature range flexing	from °C	-5	-20	-20	-5	-5	-20	-	-	-	-10	-25	-10	-30
	to °C	+50	+60	+60	+70	+70	+60	-	-	-	+70	+80	+70	+70

Usage criteria		Cable designation												
		UNITRONIC® BUS ASI (G) yellow + black fixed installation/flexible	UNITRONIC® BUS ASI (TPE) yellow + black fixed installation/flexible	UNITRONIC® BUS ASI LD FD P yellow + black highly flexible application	UNITRONIC® BUS ASI FD (TPE) A yellow + black highly flexible application	UNITRONIC® BUS ASI FD P FRNC yellow + black fixed installation	UNITRONIC® BUS ASI (PVC) A yellow + black fixed installation	UNITRONIC® DeviceNet THICK + THIN (halogen-free) fixed installation	UNITRONIC® DeviceNet THICK + THIN (PVC) fixed installation	UNITRONIC® DeviceNet THICK + THIN (PUR) highly flexible	UNITRONIC® DeviceNet THICK + THIN (PVC) highly flexible	UNITRONIC® BUS SAFTEY fixed installation/highly flexible	UNITRONIC® BUS EIB fixed installation	UNITRONIC® BUS EIB COMBI fixed installation
Parameter														
Characteristic impedance Ω		-	-	-	-	-	-	120	120	120	120	100-200	-	-
Mutual capacitance (800 Hz) max. nF/km		-	-	-	-	-	-	39.8	39.8	39.8	39.8	45	max. 100	max. 100
Peak operating voltage V (not for power applications)		300	300	300	300	300	300	300	300	300	300	250	250	250
Test voltage, core/core, U _{eff} V		2000	2000	2000	2000	2000	2000	2000	2000	2000	2000	3000	4000	4000
Conductor resistance (loop) Data network cable pair max. Ω/km		27.4	27.4	16.5	27.4	27.4	27.4	THICK 45 THIN 180	THICK 45 THIN 180	THICK 45 THIN 180	THICK 45 THIN 180	52	max. 130	max. 130
Minimum bending radius, fixed installation		3 x D	3 x D	3 x D	3 x D	3 x D	3 x D	10 x D	10 x D	-	-	8 x D	10 x D	10 x D
Minimum bending radius, flexing		-	-	6 x D	6 x D	-	-	-	-	10 x D	10 x D	-	-	-
Temperature range fixed installation	from °C	-40	-40	-40	-40	-40	-30	-25	-20	-	-	-40	-30	-30
	to °C	+85	+85	+80	+105	+80	+90	+80	+80	-	-	+80	+70	+70
Temperature range flexing	from °C	-	-	-30	-30	-30	-	-	-	-40	-10	-30	-	-
	to °C	-	-	+70	+105	+70	-	-	-	+80	+80	+80	-	-