

IB-BiT 500[®]2(St)

Flexible, individually and collectively screened paired control cables with number coded conductors, for intrinsically safe circuits, rated 300/500 V



industrial application



internal application



external application



high flexibility



EN 60332-1-2



EN 60332-3-24



oxygen index



UV resistance

oil resistant
EN 60811-404

hydrocarbon resistant

Technical data:

Thermal parameters:

Operating temperature:

fixed installation: -40 °C to 80 °C
flexible connections: -5 °C to 80 °C

Electrical parameters:

Operating voltage: $U_n/U = 300/500$ V

Test voltage (50 Hz): 3000 V

Insulation resistance: 20 MΩ x km

Inductance ca.: 0,6 mH/km

Mechanical parameters:

Min. bending radius:

flexible connections: 10 x Ø
fixed installation: 5 x Ø

Design:

Conductors:

bare copper conductors, multi-stranded class 5 acc. to EN 60228

Insulation:

PVC compound

Core identification:

black, number coded conductors

Core arrangement:

twisted screened pairs

Individual screen:

aluminium backed polyester tape with tinned copper drain wire underneath each pair

Collective screen:

aluminium backed polyester tape with tinned copper drain wire

Outer sheath:

PVC compound, oil resistant (EN 60811-404), self-extinguishing and flame retardant (acc. to EN 60332-1-2, EN 60332-3-24, cat. C), UV resistant; colour: blue

Application:

Flexible power/control cables designed for operation intrinsically safe circuits. Double screening improves protection of transmitted signals against external electromagnetic field. Individual screening of pairs decreases signal interferences from adjacent pairs. They are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. Insulation materials and conductor construction in IB-BiT 500[®]2(St) cable enable easy and fast connections and ensure their high durability. Cables classified according to EN 50575 (CPR).

Cat. no.	n x 2 x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0250	2x2x0,5	7,7	82
SI0251	3x2x0,5	8,6	96
SI0252	4x2x0,5	10,0	134
SI0253	5x2x0,5	10,4	158
SI0254	6x2x0,5	10,7	172
SI0255	7x2x0,5	12,2	205
SI0256	8x2x0,5	12,7	230
SI0257	10x2x0,5	13,8	280
SI0258	12x2x0,5	15,0	333
SI0259	14x2x0,5	15,9	380
SI0260	16x2x0,5	17,3	449
SI0261	18x2x0,5	18,0	488
SI0262	20x2x0,5	18,9	542
SI0263	24x2x0,5	20,3	633
SI0264	2x2x0,75	8,3	98
SI0265	3x2x0,75	9,7	124
SI0266	4x2x0,75	10,9	161
SI0267	5x2x0,75	11,5	196
SI0268	6x2x0,75	11,9	215
SI0269	7x2x0,75	13,2	250
SI0270	8x2x0,75	14,0	285
SI0271	10x2x0,75	15,0	340
SI0272	12x2x0,75	16,8	422
SI0273	14x2x0,75	17,7	480
SI0274	16x2x0,75	19,1	557
SI0275	18x2x0,75	19,9	605
SI0276	20x2x0,75	20,7	663
SI0277	24x2x0,75	22,2	776

Cat. no.	n x 2 x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0278	2x2x1,0	9,2	126
SI0279	3x2x1,0	10,3	150
SI0280	4x2x1,0	11,5	193
SI0281	5x2x1,0	12,2	240
SI0282	6x2x1,0	12,6	265
SI0283	7x2x1,0	14,2	310
SI0284	8x2x1,0	14,9	345
SI0285	10x2x1,0	16,3	430
SI0286	12x2x1,0	17,8	514
SI0287	14x2x1,0	19,0	595
SI0288	16x2x1,0	20,3	678
SI0289	18x2x1,0	21,1	740
SI0290	20x2x1,0	22,2	821
SI0291	24x2x1,0	23,9	964
SI0292	2x2x1,5	10,5	158
SI0293	3x2x1,5	12,0	196
SI0294	4x2x1,5	13,5	253
SI0295	5x2x1,5	14,2	310
SI0296	6x2x1,5	14,7	345
SI0297	7x2x1,5	16,8	415
SI0298	8x2x1,5	17,6	460
SI0299	10x2x1,5	19,0	560
SI0300	12x2x1,5	20,8	676
SI0301	14x2x1,5	22,2	782
SI0302	16x2x1,5	23,7	894
SI0303	18x2x1,5	24,7	977
SI0304	20x2x1,5	26,1	1095
SI0305	24x2x1,5	28,1	1286

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SI0306	2x2x2,5	12,5	220
SI0307	3x2x2,5	14,2	275
SI0308	4x2x2,5	16,0	354
SI0309	5x2x2,5	17,0	445
SI0310	6x2x2,5	17,6	490

Cat. no.	n x 2 x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0311	7x2x2,5	20,0	580
SI0312	8x2x2,5	20,9	645
SI0313	10x2x2,5	22,6	790
SI0314	12x2x2,5	24,7	952
SI0315	14x2x2,5	26,7	1116
SI0316	16x2x2,5	28,5	1276

*Outer diameter tolerance: +/- 5%

Cable Factory BITNER reserve the right to modify the specifications without prior notice

Note: on customer's request other cross sections or number of cores can be produced

Electrical parameters - paired cables IB-BiT 500[®]2(St)

Core cross-section [mm ²]	Max. resistance at 20 °C [Ω/km]	Core-core capacitance at 1 kHz [nF/km]
0,5	78,0	200
0,75	52,0	210
1	39,0	210
1,5	26,6	210
2,5	16,0	240