

IB-BiT 500®CY

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



industrial
application



internal
application



external
application



high flexibility



EN 60332-1-2



EN 60332-3



oxygen index



UV resistance



oil resistant
EN 60811-404



EMC

Technical data:

Thermal parameters:

Operating temperature:

fixed installation: -40 °C to 80 °C

flexible connections: -5 °C to 80 °C

Electrical parameters:

Operating voltage: $U_0/U=300/500V$

Test voltage (50Hz): 3000V

Mechanical parameters:

Insulation resistance: 20MΩxkm

Inductance ca.: 0,6mH/km

Min. bending radius:

flexible connections: 10xØ

fixed installation: 5xØ

Design:

Conductors:

bare copper conductors, multi-stranded class 5 acc.

to EN 60228

Insulation:

special PVC

Core identification: black, number coded conductors

Core arrangement: cores twisted together or pairs twisted together

Inner sheath:

special PVC

Screen:

tinned copper wire braid, coverage ≥85%

Outer sheath:

special PVC, 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. Common screen of tinned copper wire braid ensures very good protection against external electromagnetic field especially in industrial environment. Reciprocal connection of screen to earth ensures full electromagnetic compatibility (EMC). Cables are suitable for fixed installations and for flexible connections in industrial devices, technological lines and machines operating in dry and damp rooms. High flexibility of IB-BiT 500®CY cable simplifies installation and compounds used enable easy and fast connections and ensure their high durability.

Cables classified according to **EN 50575 (CPR)**.

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0150	2x0,5	6,9	77
SI0151	3x0,5	7,2	85
SI0152	4x0,5	7,6	98
SI0153	5x0,5	8,3	118
SI0154	6x0,5	9,3	143
SI0155	7x0,5	9,3	147
SI0156	8x0,5	10,0	165
SI0157	10x0,5	11,5	208
SI0158	12x0,5	11,5	215
SI0159	14x0,5	11,9	236
SI0160	16x0,5	12,4	258
SI0161	18x0,5	13,0	282
SI0162	19x0,5	13,0	286
SI0163	20x0,5	13,7	312
SI0164	21x0,5	13,7	316
SI0238	25x0,5	15,2	370
SI0166	27x0,5	15,2	380
SI0167	30x0,5	16,0	422
SI0168	37x0,5	17,1	487
SI0169	2x0,75	7,3	88
SI0170	3x0,75	7,6	99
SI0171	4x0,75	8,3	122
SI0172	5x0,75	9,3	149
SI0173	6x0,75	9,9	168
SI0174	7x0,75	9,9	173
SI0175	8x0,75	10,6	196

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0176	10x0,75	12,3	249
SI0177	12x0,75	12,3	260
SI0178	14x0,75	12,8	285
SI0179	16x0,75	13,6	321
SI0180	18x0,75	14,2	351
SI0181	19x0,75	14,2	356
SI0182	20x0,75	14,7	380
SI0183	21x0,75	14,7	387
SI1150	25x0,75	16,8	473
SI0185	2x1,0	7,6	98
SI0186	3x1,0	8,2	120
SI0187	4x1,0	9,1	146
SI0188	5x1,0	9,7	168
SI0189	6x1,0	10,3	190
SI0190	7x1,0	10,3	197
SI0191	8x1,0	11,3	229
SI0192	10x1,0	12,9	285
SI0193	12x1,0	12,9	300
SI0194	14x1,0	13,6	335
SI0195	16x1,0	14,3	371
SI0196	18x1,0	14,9	406
SI0197	19x1,0	14,9	414
SI0198	20x1,0	15,9	457
SI0199	21x1,0	15,9	463
SI0246	25x1,0	18,3	583
SI0201	2x1,5	8,6	130

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Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0202	3x1,5	9,4	158
SI0203	4x1,5	10,1	187
SI0204	5x1,5	10,8	214
SI0205	6x1,5	11,7	248
SI0206	7x1,5	11,7	259
SI0207	8x1,5	12,7	296
SI0208	10x1,5	14,8	376
SI0209	12x1,5	14,8	397

Cat. no.	n x mm ²	Outer diameter* [mm]	Approximate cable weight [kg/km]
SI0210	2x2,5	10,1	180
SI0211	3x2,5	10,6	209
SI0212	4x2,5	11,6	252
SI0213	5x2,5	12,4	293
SI0214	6x2,5	13,6	345
SI0215	7x2,5	13,6	361
SI0216	8x2,5	14,8	414
SI0217	10x2,5	17,5	537
SI0218	12x2,5	17,5	570

*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 IB-BiT 500[®]CY

Core cross-section mm ²	Max. resistance at 20°C [Ω/km]	Core-core capacitance at 1kHz [nF/km]
0,5	39,0	130
0,75	26,0	140
1	19,5	140
1,5	13,3	140
2,5	7,98	170