



BS 5308-2 Type 1 PVC instrumentation cable

BS 5308 Part 2 Type 1

Instrumentation Cable

British Standard PVC-insulated CAM or ICAM unarmoured instrumentation cable



BS 5308 Part 2 Type 1

300/500 V · PVC Insulated

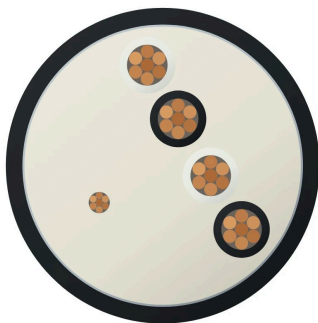
CAM / ICAM · L/R ≤ 25–40 $\mu\text{H}/\Omega$

Application

British Standard 300/500 V unarmoured instrumentation cable built to BS 5308 Part 2 Type 1 with Class 1, 2 or 5 copper conductors, PVC (TI 1) core insulation, CAM or ICAM Al/PET screen with 0.5 mm² tinned drain wire and PVC (TM 1) or LSZH sheath.

Typical uses: Chemical & Fine-Chemical Processing Plants, Water & Wastewater Treatment Works, Food, Beverage & Brewing Automation, Power Stations & Industrial Boiler Houses, Building Management & HVAC Telemetry

Construction



Cross-section, not to scale

- 1 Plain annealed copper conductors
- 2 PVC core insulation (Type TI 1)
- 3 Individual pair screen (ICAM option)
- 4 Polyester binder tape
- 5 Collective Aluminium Mylar screen (CAM)
- 6 Flame-retardant PVC or LSZH outer sheath

Exact BS 5308-2 conductor stranding classes

100 % electrostatic shielding

Technical data

Typical values

Rated voltage U0/U	300/500 V	Test voltage	1000 V AC (core/screen) · 2000 V AC (core/core)
Insulation resistance	≥ 25 MΩ·km at +20 °C (PVC Type TI 1)	Max. mutual capacitance (at 1 kHz)	≤ 250 pF/m (core/core) · ≤ 450 pF/m (core/screen)
Max. L/R ratio	≤ 25 μH/Ω (0.5–1.0 mm ²) · ≤ 40 μH/Ω (1.5 mm ²)	Operating temperature, fixed	–40 °C to +70 °C
Operating temperature, flexing	0 °C to +50 °C	Min. bending radius	6 × OD (CAM) · 8 × OD (ICAM)
Pair lay length	50 mm to 100 mm (staggered lays)	Flame retardance	BS EN 60332-1-2 & BS EN 60332-3-24 (Cat C)
LSZH option	BS EN 60754-1/2 & BS EN 61034-2 available	Standards	BS 5308-2 / PAS 5308-2 Type 1

Sizes

17 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Format & stranding	Screen	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
0.5 mm ² (16/0.20 mm Class 5) — PVC Insulated Type 1 5 sizes						
☐ BS5308-2-T1 1P×0.5 CAM	1×2×0.5 mm ² (16/0.20)	CAM	6.2	16	52	37
☐ BS5308-2-T1 2P×0.5 CAM	2×2×0.5 mm ² (16/0.20)	CAM	9.2	26	92	55
☐ BS5308-2-T1 5P×0.5 ICAM	5×2×0.5 mm ² (16/0.20)	ICAM	12.8	72	186	77
☐ BS5308-2-T1 10P×0.5 ICAM	10×2×0.5 mm ² (16/0.20)	ICAM	17.0	138	322	102
☐ BS5308-2-T1 20P×0.5 ICAM	20×2×0.5 mm ² (16/0.20)	ICAM	22.1	268	560	133
0.75 mm ² (24/0.20 mm Class 5) — PVC Insulated Type 1 4 sizes						
☐ BS5308-2-T1 1P×0.75 CAM	1×2×0.75 mm ² (24/0.20)	CAM	6.7	21	62	40
☐ BS5308-2-T1 2P×0.75 CAM	2×2×0.75 mm ² (24/0.20)	CAM	10.0	36	110	60
☐ BS5308-2-T1 5P×0.75 ICAM	5×2×0.75 mm ² (24/0.20)	ICAM	13.9	96	224	83
☐ BS5308-2-T1 10P×0.75 ICAM	10×2×0.75 mm ² (24/0.20)	ICAM	18.6	186	396	112
1.0 mm ² (32/0.20 mm Class 5) — PVC Insulated Type 1 3 sizes						
☐ BS5308-2-T1 1P×1.0 CAM	1×2×1.0 mm ² (32/0.20)	CAM	7.1	26	72	43
☐ BS5308-2-T1 5P×1.0 ICAM	5×2×1.0 mm ² (32/0.20)	ICAM	14.8	122	266	89
☐ BS5308-2-T1 10P×1.0 ICAM	10×2×1.0 mm ² (32/0.20)	ICAM	19.8	236	468	119
1.5 mm ² (7/0.53 mm Class 2) — PVC Insulated Type 1 5 sizes						
☐ BS5308-2-T1 1P×1.5 CAM	1×2×1.5 mm ² (7/0.53)	CAM	7.9	36	90	47
☐ BS5308-2-T1 2P×1.5 CAM	2×2×1.5 mm ² (7/0.53)	CAM	12.0	65	162	72
☐ BS5308-2-T1 5P×1.5 ICAM	5×2×1.5 mm ² (7/0.53)	ICAM	16.6	172	345	100
☐ BS5308-2-T1 10P×1.5 ICAM	10×2×1.5 mm ² (7/0.53)	ICAM	22.6	336	615	136
☐ BS5308-2-T1 20P×1.5 ICAM	20×2×1.5 mm ² (7/0.53)	ICAM	29.8	662	1,110	179

– Also available in 6, 12, 24 and 36-core unscreened or collectively screened multipair/multicore configurations per BS 5308-2.

Electrical parameters by conductor class (BS 5308-2 Table 5)

5 sizes

Size & stranding	Max. DC R @ 20 °C Ω/km	Max. L/R μH/Ω	Max. C (core/core) pF/m	Max. C (core/scr) pF/m
0.5 mm ² (1/0.80 mm Cl.1)	36.8	25	250	450
0.5 mm ² (16/0.20 mm Cl.5)	39.7	25	250	450
0.75 mm ² (24/0.20 mm Cl.5)	26.5	25	250	450

Size & stranding	Max. DC R @ 20 °C Ω/km	Max. L/R μH/Ω	Max. C (core/core) pF/m	Max. C (core/scr) pF/m
1.0 mm ² (32/0.20 mm Cl.5)	19.8	25	250	450
1.5 mm ² (7/0.53 mm Cl.2)	12.3	40	250	450

– If a long Ex-i loop requires mutual capacitance ≤ 75–115 pF/m, select PE-insulated BS 5308 Part 1 Type 1 instead.

Standards and approvals

- ✓ BS 5308-2 / PAS 5308-2 Type 1 Compliant
- ✓ BS EN 60332-1-2 & BS EN 60332-3-24
- ✓ UKCA, CE, RoHS 2 & REACH

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/bs-5308-part-2-type-1-instrumentation-cable



Typical values for this cable type, based on BS 5308-2 Type 1 (300/500 V). Values for your order are confirmed in the quotation. Subject to change without notice.
Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.