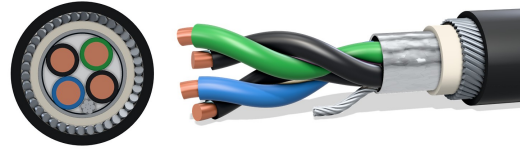


Application

BS 5308 Part 1 Type 2 with an overall screen and a low-smoke zero-halogen sheathing system (near-equivalent to EN 50288-7) is a galvanised-steel-wire-armoured, polyethylene-insulated instrumentation and process-control cable for measuring, control,

signal and alarm circuits with high mechanical requirements in

enclosed and public spaces. The plain copper conductors are insulated with polyethylene (PE) and twisted into pairs (or triples), laid up and enclosed by a single overall (collective) screen of aluminium/polyester foil with a tinned copper drain wire; there are no individual pair screens. Galvanised round steel wires over an LSZH bedding provide mechanical protection, and a low-smoke zero-halogen (LSZH) outer sheath completes the cable. In BS 5308 / PAS 5308 the Part denotes the core insulation (Part 1 = polyethylene, Part 2 = PVC) and the Type denotes the armour (Type 1 = unarmoured, Type 2 = galvanised steel-wire-armoured); the screening, either an overall (collective) screen only or individual pair screens plus an overall screen, is specified separately. Because Type 2 denotes the armour, this armoured overall-screened construction is Part 1 Type 2. British near-equivalent of EN 50288-7 RE-2Y(St)H SWA. Not for power distribution.



CONSTRUCTION

Conductor	Plain (bare) annealed copper, solid class 1, stranded class 2 or flexible class 5 (0.5 mm ² : 1/0.80 mm solid or 16/0.20 mm flexible) acc. to IEC 60228.
Insulation	Polyethylene (PE).
Screen	Collective (overall) screen of aluminium/polyester foil in contact with a tinned copper drain wire (0.5 mm ²).
Armour	Galvanised round steel wires over an LSZH inner sheath (bedding).
Sheath	Low-smoke zero-halogen (LSZH) compound; blue or black.
Core identification	Collective screen: pairs colour-coded to the BS 5308 Part 1 table (pair 1 black/blue, pair 2 black/green, pair 3 blue/green and so on); two pairs as a quad in black, blue, green and brown. Triples: colour code on request.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage U_o/U	300/500 V (300 V core to earth, 500 V core to core).
Test voltage	1.5 kV.
Standard	BS 5308 Part 1 Type 2 (withdrawn; current standard EN 50288-7); conductor acc. to IEC 60228.
Flame-retardant / halogen-free	Flame propagation IEC 60332-1-2 (and IEC 60332-3-24); low smoke IEC 61034; halogen-free IEC 60754.
Max. conductor temperature	+70 °C.
Permitted outer cable temperature, fixed	-30 °C to +70 °C.
Min. bending radius, fixed	10 × overall diameter.
Reaction to fire (CPR)	Eca (EN 50575, armoured halogen-free version); Cca on request for the unarmoured LSZH version. The Declaration of Performance for the version supplied is available from Q Cables on request.

DIMENSIONS & TECHNICAL DATA

Pairs × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
1 × 0.5	36.8	10.8	242
2 × 0.5	36.8	11.7	288
5 × 0.5	36.8	17.3	535
10 × 0.5	36.8	22.3	868
20 × 0.5	36.8	28.5	1466
1 × 0.75	26.5	10.7	270
2 × 0.75	26.5	11.9	330
5 × 0.75	26.5	18.8	719
10 × 0.75	26.5	24.3	1150
20 × 0.75	26.5	30.3	1704
30 × 0.75	26.5	36.9	2570
50 × 0.75	26.5	46.4	4400
1 × 1.5	12.3	11.9	312
2 × 1.5	12.3	13.3	397
5 × 1.5	12.3	21.1	918
10 × 1.5	12.3	27.4	1466
20 × 1.5	12.3	35	2045

Outer diameters, weights and conductor resistances are nominal manufacturer values for the armoured collective-screened pair ($n \times 2 \times \text{mm}^2$) constructions; all values are indicative and non-binding. Triple ($n \times 3 \times \text{mm}^2$) constructions are available to the same standard (see notes).