



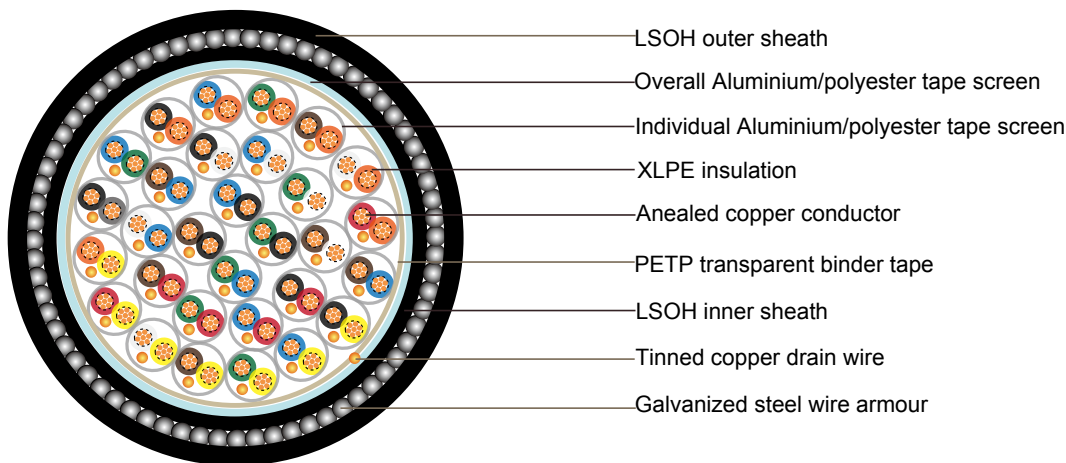
BS5308 Cable Part 1 Type 2

XLPE-IS-OS-SWA-LSOH/ RE-2X(St)H PIMF SWAH

Application

The armoured LSOH versions (Part 1 Type 2) are generally used when the risk of mechanical damage is increased. The galvanised steel wire armour provides excellent protection. Generally used within industrial process manufacturing plants for communication, data and voice transmission signals and services, Also used for the interconnection of electrical equipment and instruments, the LSOH sheath can reduce toxic smoke and fume emission.

Construction



| | |
|--------------------------|--|
| Conductor | Annealed or tinned copper, sizes: 0.5mm ² and 0.75mm ² multistranded(Class 5), 0.5 mm ² , 1.0 mm ² solid(Class 1), 1.5mm ² or 2.5mm ² , multistranded(Class 2) to BS6360 |
| Insulation | XLPE (Cross Linked Polyethylene), or PE (optional) |
| Pairing | Two insulated conductors uniformly twisted together with a lay not exceeding 100mm |
| Colour code | See technical information |
| Individual screen | Aluminium/polyester tape is applied over each pair metallic side down in contact with tinned copper drain wire, 0.5mm ² |
| Binder tape | PETP transparent tape |
| Collective screen | Aluminium/polyester tape is applied over the laid up pairs metallic side down in contact with tinned copper drain wire, 0.5mm ² |
| Inner Sheath | LSOH(Low Smoke Zero Halogen) sheath |



| | |
|----------------------|---|
| Amour | Galvanized steel wire armour |
| Outer sheath | LSOH(Low Smoke Zero Halogen) sheath Flame retardant to IEC60332-3-22 Halogen free to IEC60754-1 Low smoke emission to IEC61034-1-2 |
| Sheath colour | Black or blue |

Mechanical and Electrical Properties

Operating temperature: -20°C up to + 90°C(fixed installation)

0°C to +50°C(during operation)

Minimum bending radius: 6 x overall diameter

| Conductor Area Size | mm ² | 0.5 | 0.5 | 0.75 | 1.0 | 1.5 | |
|--|-----------------------|---------|----------|----------|----------|----------|------|
| Conductor Stranding | No. x mm | 1 x 0.8 | 16 x 0.2 | 24 x 0.2 | 1 x 1.13 | 7 x 0.53 | |
| Conductor resistance max | ohm/km | 36.8 | 39.7 | 26.5 | 18.2 | 12.3 | |
| Insulation resistance min | Gohm/km | 5 | 5 | 5 | 5 | 5 | |
| Capacitance unbalance at 1 kHz(pair to pair screen) | pF/250m | 250 | | | | | |
| Max. Mutual Capacitance @ 1 kHz for Non OS or OS cables (except one-pair and two-pairs) | pF/m | 115 | 115 | 115 | 115 | 120 | |
| Max. Mutual Capacitance @ 1 kHz IS/OS cables (include 1 pair and 2 pair) | pF/m | 75 | 75 | 75 | 75 | 85 | |
| Max. L/R Ratio for adjacent cores(Inductance/Resistance) | µH/ohm | 25 | 25 | 25 | 25 | 40 | |
| Test voltage | Core to core | V | 1000 | 1000 | 1000 | 1000 | 1000 |
| | Core to screen | V | 1000 | 1000 | 1000 | 1000 | 1000 |
| Rated voltage max | V | 300/500 | 300/500 | 300/500 | 300/500 | 300/500 | |



Parameter

| No. of Pairs | No. and Dia. of Wires | Nominal Conductor Cross-Sectional Area | Nominal Thickness of Insulation | Nominal Thickness of bedding | Nominal Dia. over Bedding | Nominal Thickness of Armour | Nominal Thickness of Sheath | Nominal Dia. of Cable | Approx. Weight |
|--------------|-----------------------|--|---------------------------------|------------------------------|---------------------------|-----------------------------|-----------------------------|-----------------------|----------------|
| | no./mm | mm ² | mm | mm | mm | mm | mm | mm | kg/km |
| 2 | 1/0.80 | 0.5 | 0.5 | 0.9 | 9.7 | 0.9 | 1.4 | 14.3 | 380 |
| 5 | 1/0.80 | 0.5 | 0.5 | 1.2 | 13 | 1.25 | 1.5 | 18.5 | 640 |
| 10 | 1/0.80 | 0.5 | 0.5 | 1.2 | 16.9 | 1.25 | 1.7 | 22.8 | 890 |
| 15 | 1/0.80 | 0.5 | 0.5 | 1.3 | 19.7 | 1.6 | 1.7 | 26.3 | 1350 |
| 20 | 1/0.80 | 0.5 | 0.5 | 1.3 | 22.3 | 1.6 | 1.8 | 29.1 | 1470 |
| 30 | 1/0.80 | 0.5 | 0.5 | 1.5 | 27.1 | 1.6 | 1.9 | 34.1 | 1870 |
| 50 | 1/0.80 | 0.5 | 0.5 | 2 | 35 | 2 | 2.2 | 43.4 | 3000 |
| 2 | 16/0.2 | 0.5 | 0.6 | 1.1 | 11.2 | 0.9 | 1.5 | 16 | 460 |
| 5 | 16/0.2 | 0.5 | 0.6 | 1.2 | 14.5 | 1.25 | 1.6 | 20.2 | 760 |
| 10 | 16/0.2 | 0.5 | 0.6 | 1.3 | 19.3 | 1.6 | 1.8 | 26.1 | 1300 |
| 15 | 16/0.2 | 0.5 | 0.6 | 1.5 | 22.6 | 1.6 | 1.8 | 29.4 | 1440 |
| 20 | 16/0.2 | 0.5 | 0.6 | 1.5 | 25.7 | 1.6 | 1.9 | 32.7 | 1870 |
| 30 | 16/0.2 | 0.5 | 0.6 | 1.7 | 31 | 2 | 2.1 | 39.2 | 2400 |
| 50 | 16/0.2 | 0.5 | 0.6 | 2.2 | 39.9 | 2.5 | 2.4 | 49.7 | 3930 |
| 2 | 24/0.2 | 0.75 | 0.6 | 1.1 | 12.1 | 0.9 | 1.5 | 16.9 | 500 |
| 5 | 24/0.2 | 0.75 | 0.6 | 1.2 | 15.7 | 1.25 | 1.6 | 21.4 | 920 |
| 10 | 24/0.2 | 0.75 | 0.6 | 1.3 | 20.9 | 1.6 | 1.7 | 27.5 | 1610 |
| 15 | 24/0.2 | 0.75 | 0.6 | 1.5 | 24.6 | 1.6 | 1.9 | 31.6 | 1960 |
| 20 | 24/0.2 | 0.75 | 0.6 | 1.5 | 27.9 | 1.6 | 1.9 | 34.9 | 2420 |
| 30 | 24/0.2 | 0.75 | 0.6 | 2 | 34.4 | 2 | 2.2 | 42.8 | 3180 |
| 50 | 24/0.2 | 0.75 | 0.6 | 2.2 | 43.5 | 2.5 | 2.5 | 53.5 | 4506 |
| 2 | 1/1.13 | 1 | 0.6 | 1.1 | 11.9 | 0.9 | 1.5 | 16.7 | 515 |
| 5 | 1/1.13 | 1 | 0.6 | 1.2 | 15.4 | 1.25 | 1.6 | 21.1 | 950 |
| 10 | 1/1.13 | 1 | 0.6 | 1.3 | 20.5 | 1.6 | 1.8 | 27.3 | 1330 |
| 15 | 1/1.13 | 1 | 0.6 | 1.5 | 24.1 | 1.6 | 1.9 | 31.1 | 1680 |
| 20 | 1/1.13 | 1 | 0.6 | 1.7 | 27.7 | 2 | 2 | 35.7 | 2540 |
| 30 | 1/1.13 | 1 | 0.6 | 2 | 33.7 | 2 | 2.2 | 42.1 | 2900 |
| 50 | 1/1.13 | 1 | 0.6 | 2.2 | 42.5 | 2.5 | 2.5 | 52.5 | 4800 |
| 2 | 7/0.53 | 1.5 | 0.6 | 1.2 | 13.6 | 1.25 | 1.6 | 19.3 | 730 |
| 5 | 7/0.53 | 1.5 | 0.6 | 1.3 | 17.7 | 1.6 | 1.7 | 24.3 | 1180 |
| 10 | 7/0.53 | 1.5 | 0.6 | 1.5 | 23.9 | 1.6 | 1.9 | 30.9 | 1820 |
| 15 | 7/0.53 | 1.5 | 0.6 | 1.7 | 28 | 2 | 2 | 36 | 2350 |
| 20 | 7/0.53 | 1.5 | 0.6 | 1.7 | 31.7 | 2 | 2.1 | 39.9 | 3030 |
| 30 | 7/0.53 | 1.5 | 0.6 | 2 | 38.6 | 2 | 2.5 | 48.6 | 4050 |
| 50 | 7/0.53 | 1.5 | 0.6 | 2.2 | 48.9 | 2 | 2.7 | 59.3 | 5960 |