# RE-2X(St)HSWAH-TIMF..CI

Fire Resistant
Individually Screened
Armoured Cable

EN 50288-7 (500 V)


## CABLE STRUCTURE

| | |
|---|---|
| Conductor | Electrolytic, stranded, annealed plain copper wires to IEC 60228 Class 2 (Class 1 or Class 5 and / or tinned on request) |
| Insulation | Mica tape + XLPE compound to EN50290-2-29<br>Black / White / Red twisted triads with numbered cores |
| Binder Tape | Polyester foil on each twisted triad |
| Individual Screen | Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil |
| Binder Tape | Polyester foil on overall cable core formed by stranded pairs |
| Collective Screen | Aluminum/polyester foil with a tinned copper drain wire in direct contact with the metallic side of the foil |
| Inner Sheath | LSZH compound to EN50290-2-27 |
| Armour | Round galvanised steel wires to EN 10257-1 |
| Outer Sheath | Halogen free flame retardant LSZH compound to EN50290-2-27<br>Orange or Red for circuit integrity<br>Blue for intrinsically safe cable<br>Black for UV resistant and/or non-instrinsically safe cable |

## STANDARDS & MAIN CHARACTERISTICS

| | |
|---|---|
| Rated Voltage | 500 V a.c. |
| AC Test Voltage | 2000 V x 1 min. (core:core / core: screen) |
| Working Temperature | -40˚C / + 90˚C (during operation)<br>- 5 ˚C / + 50˚C (during installation) |
| Min Bending Radius (Fixed) | 10 x D |
| Construction | EN 50288-7 |
| Material Types & Tests | EN 50290-2 series |
| Electrical & Mechanical Tests | EN 50289 series |
| Flame Retardant | IEC 60332 / 1-2, IEC 60332 / 3-24 Cat C |
| Fire Resistance | IEC 60331 / 21, IEC 60331 / 1-2 |
| Halogen Content | IEC 60754 / 1-2 |
| Smoke Emission | IEC 61034 / 1-2 |

### Available Features on Request

- 300 V version
- Hydrocarbon resistant
- Oil resistant
- Hv type reinforced sheath
- Anti termit / anti rodent
- UV resistant

### Application

These cables used for connecting instruments and control systems for analogue or digital signal transmission for indoor and outdoor applications.These cables shall not be connected directly to mains electricity supply or other low impedance sources, since they are not designed to be used for power supply.
Recommended for use where circuit integrity is required in case of fire.

## ELECTRICAL CHARACTERISTICS(*)

| | | | | | | | | |
|---|---|---|---|---|---|---|---|---|
| Conductor size (Class 2) | nom. | mm2 | 0,5 | 0,75 | 1 | 1,3 | 1,5 | 2,5 |
| Conductor resistance | max. | Ω/km | 36,7 | 25,0 | 18,5 | 14,2 | 12,3 | 7,6 |
| Insulation resistance | min. | MΩxkm | 5000 | | | | | |
| Mutual Capacitance | max. | nF/km | 150 | | | | | |
| Inductance | max. | mH/km | 1 | | | | | |
| L/R ratio | max. | µH/Ω | 25 | 25 | 25 | 40 | 40 | 60 |

(*) At 20 °C

## PHYSICAL CHARACTERISTICS

| Cross Sections (mm²) | Nominal Overall Diameter (mm) | Approximate Weight (kg/km) |
|---|---|---|
| 2x3x0,5 | 17,7 | 475 |
| 4x3x0,5 | 19,9 | 604 |
| 5x3x0,5 | 22,2 | 810 |
| 6x3x0,5 | 23,8 | 903 |
| 8x3x0,5 | 26,3 | 1061 |
| 10x3x0,5 | 29,3 | 1240 |
| 12x3x0,5 | 30,2 | 1336 |
| 16x3x0,5 | 33,8 | 1774 |
| 20x3x0,5 | 37,7 | 2117 |
| 24x3x0,5 | 41,4 | 2421 |
| 2x3x0,75 | 18,6 | 518 |
| 4x3x0,75 | 21,9 | 805 |
| 5x3x0,75 | 23,5 | 897 |
| 6x3x0,75 | 25,4 | 1012 |
| 8x3x0,75 | 27,9 | 1187 |
| 10x3x0,75 | 31,2 | 1396 |
| 12x3x0,75 | 33,0 | 1712 |
| 16x3x0,75 | 36,7 | 2067 |
| 20x3x0,75 | 40,4 | 2403 |
| 24x3x0,75 | 45,2 | 3062 |
| 2x3x1 | 19,0 | 540 |
| 4x3x1 | 22,4 | 848 |
| 5x3x1 | 24,0 | 947 |
| 6x3x1 | 25,9 | 1068 |
| 8x3x1 | 28,6 | 1260 |
| 10x3x1 | 32,9 | 1695 |
| 12x3x1 | 33,8 | 1820 |
| 16x3x1 | 37,5 | 2218 |
| 20x3x1 | 41,4 | 2584 |
| 24x3x1 | 46,7 | 3330 |

| Cross Sections (mm²) | Nominal Overall Diameter (mm) | Approximate Weight (kg/km) |
|---|---|---|
| 2x3x1,3 | 19,8 | 588 |
| 4x3x1,3 | 23,3 | 921 |
| 5x3x1,3 | 25,2 | 1053 |
| 6x3x1,3 | 27,1 | 1177 |
| 8x3x1,3 | 30,1 | 1404 |
| 10x3x1,3 | 34,8 | 1900 |
| 12x3x1,3 | 35,8 | 2062 |
| 16x3x1,3 | 39,3 | 2460 |
| 20x3x1,3 | 44,4 | 3200 |
| 24x3x1,3 | 49,2 | 3720 |
| 2x3x1,5 | 20,8 | 717 |
| 4x3x1,5 | 23,7 | 958 |
| 5x3x1,5 | 25,7 | 1097 |
| 6x3x1,5 | 27,6 | 1226 |
| 8x3x1,5 | 30,7 | 1476 |
| 10x3x1,5 | 35,5 | 1980 |
| 12x3x1,5 | 36,7 | 2172 |
| 16x3x1,5 | 40,4 | 2598 |
| 20x3x1,5 | 45,4 | 3350 |
| 24x3x1,5 | 50,3 | 3920 |
| 2x3x2,5 | 23,9 | 900 |
| 4x3x2,5 | 27,3 | 1215 |
| 5x3x2,5 | 29,7 | 1404 |
| 6x3x2,5 | 33,0 | 1795 |
| 8x3x2,5 | 37,1 | 2200 |
| 10x3x2,5 | 41,6 | 2594 |
| 12x3x2,5 | 43,6 | 3132 |
| 16x3x2,5 | 48,6 | 3850 |
| 20x3x2,5 | 53,7 | 4523 |
| 24x3x2,5 | 60,8 | 5805 |