# RE-2Y(St)HSWBH-PiMF/TiMF



#### Areas of Use

Used for communication and instrumentation purposes in industries like oil exploration, cement, paper, steel, power generation as well as in intrinsically safe systems in hazardous areas like petrochemical plants and thermal power plants to monitor measuring equipment in process automation applications. HFFR types are less flammable in case of fire, mostly self-extinguishing, have low smoke density and they do not emit poisonous and corrosive gasses during a fire. Armoured types provide mechanical strength and protect the cable core against outer mechanical effects.

#### **Cable Construction**

| Conductor                      | Stranded Annealed Copper (IEC/EN 60228, Class 2)  |
|--------------------------------|---|
| Insulation                     | PE (EN 50290-2-23)  |
| Core Colors                    | Pair: Black / White, Numbered Triples: Balck / White / Red, Numbered Quad: Black /<br>White / Red / Blue, Numbered                  |
| Separator                      | PET Foil  |
| Individual Screen              | AI-PET Foil (with 0.60 mm Tinned Copper Drain Wire)   |
| Lay-up                         | Shielded pairs / triples / quads are stranded in layers   |
|                                |   |
| Separator                      | PET Foil  |
| Separator<br>Overall Screen    | PET Foil<br>Al-PET Foil (with 7x0.3 mm Tinned Copper Drain Wire)  |
|                                |   |
| Overall Screen                 | AI-PET Foil (with 7x0.3 mm Tinned Copper Drain Wire)  |
| Overall Screen<br>Inner Sheath | AI-PET Foil (with 7x0.3 mm Tinned Copper Drain Wire)<br>Halogen Free Flame Retardant Compound (HFFR/LSZH/LSOH/FRNC) (EN 50290-2-27) |

### **Technical Properties**

| Operating Voltage              | 500 V*   |
|--------------------------------|--|
| Test Voltage                   | Core - Core: 2000 V; Core - Screen: 1000 V   |
| Conductor Resistance           | 0.50 mm <sup>2</sup> - ≤36 Ω/km; 0.75 mm <sup>2</sup> - ≤24.5 Ω/km; 1.00 mm <sup>2</sup> - ≤18.1 Ω/km; 1.30 mm <sup>2</sup> - ≤14.2 Ω/km; 1.50 mm <sup>2</sup> - ≤12.1 Ω/km; 2.50 mm <sup>2</sup> - ≤7.41 Ω/km |
| Insulation Resistance          | >5000 M.Ωxkm   |
| Capacitance Unbalance (800 Hz) | ≤500 pF/500m   |
| Capacitance (@800Hz)           | ≤115 nF/km (Capacitance values may increase by 20% up to 4 pairs)  |
| L/R Ratio                      | 0.50 mm²1.00 mm² - $\leq$ 25 $\mu$ H/ $\Omega;$ 1.30 mm²1.50 mm² - $\leq$ 40 $\mu$ H/ $\Omega;$ 2.50 mm² - $\leq$ 60 $\mu$ H/ $\Omega$   |
| Temperature Range              | Fixed: -40 °C+70 °C, Flexible: -5 °C+50 °C   |
| Flame Retardancy               | IEC/EN 60332-1, IEC/EN 60332-3-24 (CAT C)  |
| Smoke Density                  | IEC/EN 61034-1   |
| Amount of Halogen Acid Gas     | IEC/EN 60754-1   |
| Corrosive Gases Measurement    | IEC/EN 60754-2   |
| Oil Resistance                 | IEC/EN 60811-404, ASTM No 2 oil 70 °C 4 hours  |
| Min. Bending Radius (Fixed)    | 10 x Cable Diameter  |

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