



# HALLEY CABLES

# RE-2X(St)YSWAYÖ-uv-fl-PIMF 70° C

## CU/XLPE/ISCR/OSCR/PVC/SWA/PVC

### Instrumentation Cables 500 V

XLPE insulated, screened, armoured, PVC sheathed cable

RE-2X(St)YSWAYÖ-uv-fl PIMF



### Construction:

- Conductor : plain copper wire, stranded.
- Insulation : XLPE compound, (RE-2X...).
- Core identification : black / white ; with numbered tape under separator tape of the pair screen.
- Pair : two conductors twisted to a pair.
- PIMF construction : polyester tape above the pair, AL-PES tape over stranded 0,50 mm<sup>2</sup> copper drain wire.
- Lay-up : PIMF laid up in layers of optimum pitch.
- Separator : polyester tape.
- Screen : AL-PES tape over tinned copper drain wire 0,50 mm<sup>2</sup>.
- Inner sheath : PVC compound.
- Armour : galvanized round steel wire.
- Outer sheath : PVC compound, UV and oil resistant.
- Sheath colour : RAL 5015, blue.

### Technical data and tests:

- Rated voltage : 500 V.
- Test voltage : Urms core-core : 2000 V;  
Urms core-screen : 2000 V.
- Temperature range : operation : - 30° C ~ + 70° C;  
installation : - 5° C ~ + 50° C.
- Min. bending radius : 10 x D.

### Standards:

- Design : DIN EN 50288-7.
- Conductor : IEC 60228 class 2,  
DIN EN 60228 class 2.
- Insulation : EN 50290-2-29.
- Inner/Outer sheath : EN 50290-2-22.

### Applications:

These cables are used for transmission of analogue and digital signals in instrument and control systems at chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc... . Instrumentation cables are not allowed for direct connection to a low impedance source, e.g. public mains electricity supply. With blue sheath it is suitable for intrinsically safe systems. The armour above the inner sheath protects the cable from mechanical shocks. These cables are recommended for direct burial. They are for indoor and outdoor installation, in dry and wet locations; on racks, trays, in conduits.

No. of cores x cross section no x mm <sup>2</sup>	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
6x2x1	16,9	22,9	138	948
10x2x1	19,6	26,3	227	1342
16x2x1	24,5	31,6	361	1849
20x2x1	27,2	34,5	450	2132

### Technical data and tests:

- Conductor resistance (20° C) : 0,50 mm<sup>2</sup> : 36,7 Ω/km;  
0,75 mm<sup>2</sup> : 25,0 Ω/km;  
1,0 mm<sup>2</sup> : 18,5 Ω/km;  
1,3 mm<sup>2</sup> : 14,2 Ω/km;  
1,5 mm<sup>2</sup> : 12,3 Ω/km.
- Insulation resistance (20° C) : min. 5000 MΩ/km.
- Mutual capacitance (1 kHz) : max. 100 pF/m.
- L/R (ratio) (max) : 0,50 mm<sup>2</sup> : 25 μH/Ω;  
0,75 mm<sup>2</sup> : 25 μH/Ω;  
1,0 mm<sup>2</sup> : 25 μH/Ω;  
1,3 mm<sup>2</sup> : 40 μH/Ω;  
1,5 mm<sup>2</sup> : 40 μH/Ω.

### Standards:

- Armour : EN 10257-1.
- Flame retardancy test : IEC 60332-1 & EN 60332-1.
- Sunlight resistance : UL 1581 section 1200.
- Oil resistance : ICEA S-82-552.

