

Application

RE-2X(St)YSWBY TiMF is a steel-wire-braid armoured instrumentation and process-control cable to EN 50288-7 (VDE 0819-7) for measuring, control, signal and alarm circuits with high requirements for interference immunity between individual signal circuits. The plain copper conductors are insulated with cross-linked polyethylene (XLPE) and stranded into triples; each triple is individually screened (TiMF) with an aluminium/polyester foil in contact with a tinned copper drain wire, and all screened triples are enclosed by an overall (collective) foil screen with a further drain wire. A galvanized steel wire braid beneath the polyvinyl chloride (PVC) outer sheath adds mechanical protection and flexibility for demanding routing. The individual triple screens suppress crosstalk between circuits; the cable is not intended for power distribution.



CONSTRUCTION

Conductor	Plain annealed copper, stranded class 2 acc. to IEC 60228 (solid class 1 or tinned on request).
Insulation	Cross-linked polyethylene (XLPE) acc. to EN 50290-2-29.
Screen	Individual screen on every triple: aluminium/polyester foil in contact with a tinned copper drain wire (0.5 mm ²); the assembled triples are enclosed by an overall (collective) aluminium/polyester foil screen with a further tinned copper drain wire (0.5 mm ²).
Armour	Galvanized steel wire braid, over a PVC bedding/inner sheath.
Sheath	Polyvinyl chloride (PVC) acc. to EN 50290-2-22; black (UV-resistant) or blue for intrinsically safe circuits.
Core identification	Triple: black / white / red; triples progressively numbered.

ELECTRICAL & THERMAL PROPERTIES

Rated voltage U₀/U	300 V (500 V on request).
Test voltage	1.5 kV.
Standard	EN 50288-7 (VDE 0819-7); conductor IEC 60228; insulation EN 50290-2-29; sheath EN 50290-2-22.
Flame-retardant	Acc. to IEC 60332-1-2 (and IEC 60332-3-24).
Max. conductor temperature	+90 °C.
Permitted outer cable temperature, fixed	-30 °C to +70 °C.
Min. bending radius, fixed	10 × overall diameter.
Reaction to fire (CPR)	Dca-s3,d2,a3 (EN 50575); the halogen-free version (RE-2XH) reaches Cca / B2ca on request.

DIMENSIONS & TECHNICAL DATA

Triples × mm ²	Cond. R @20°C (Ω/km)	Nominal O.D. (mm)	Weight (kg/km)
2 × 0.5	36.7	16.2	432
4 × 0.5	36.7	17.9	525
5 × 0.5	36.7	19.7	619
6 × 0.5	36.7	22.5	853
8 × 0.5	36.7	23.8	953
10 × 0.5	36.7	26.3	1110
12 × 0.5	36.7	27.2	1194
16 × 0.5	36.7	30.7	1434
20 × 0.5	36.7	34.3	1895
24 × 0.5	36.7	36.5	2163
2 × 0.75	25	16.9	on request
4 × 0.75	25	19.2	on request
5 × 0.75	25	21.4	on request
6 × 0.75	25	23.7	on request
8 × 0.75	25	25.2	on request
10 × 0.75	25	28.1	on request
12 × 0.75	25	28.8	on request
16 × 0.75	25	33	on request
20 × 0.75	25	36.1	on request
24 × 0.75	25	38.9	on request
2 × 1	18.5	17.6	510
4 × 1	18.5	20	659
5 × 1	18.5	22.5	903
6 × 1	18.5	25	1021
8 × 1	18.5	26.4	1199
10 × 1	18.5	29.5	1409
12 × 1	18.5	30.7	1514
16 × 1	18.5	35	2133
20 × 1	18.5	38.3	2470
24 × 1	18.5	41	2816
2 × 1.5	12.3	19.6	619
4 × 1.5	12.3	22.9	938
5 × 1.5	12.3	25	1095
6 × 1.5	12.3	27.8	1279
8 × 1.5	12.3	29.4	1471
10 × 1.5	12.3	33.6	1986
12 × 1.5	12.3	34.9	2154
16 × 1.5	12.3	39	2644
20 × 1.5	12.3	43.7	3421
24 × 1.5	12.3	47.1	3896

Outer diameters, weights and conductor resistances are nominal manufacturer values for the braid-armoured individually-screened triple ($n \times 3 \times \text{mm}^2$) constructions; all values are indicative and non-binding. Weights at 0.75 mm^2 are given on request.