



EN 50288-7 XLPE/PVC instrumentation cable

RE-2X(st)Y

Instrumentation Cable

+90 °C XLPE-insulated collectively or PiMF-screened PVC instrumentation cable



BS EN 50288-7

+90 °C XLPE / PVC

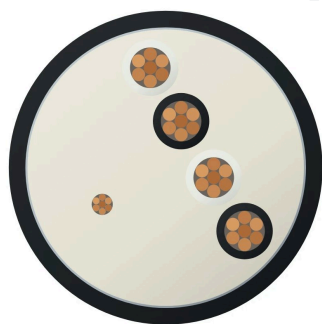
300/500 V · L/R ≤ 25-40 μH/Ω

Application

High-thermal-stability 300/500 V process instrumentation cable built to BS EN 50288-7 with Class 2 copper conductors, +90 °C XLPE (2X) insulation, collective or PiMF Al/PET screen and oil-resistant flame-retardant PVC (Y) outer sheath.

Typical uses: Hot-Climate Middle East & Tropical Refineries, Steam-Traced Chemical & Petrochemical Racks, Boiler Houses, Fired Heaters & Power Plants, Ex-i Intrinsically Safe Process Loops, Pulp, Paper & Acid/Alkali Chemical Units

Construction



Cross-section, not to scale

- | | | |
|---|---|-------------------------------|
| 1 | Stranded copper conductors | |
| 2 | Cross-linked polyethylene (XLPE / 2X) | |
| 3 | Individual pair screen (PiMF option) | |
| 4 | Polyester binder tape | |
| 5 | Collective Al/PET electrostatic screen (st) | 100 % electrostatic shielding |
| 6 | Oil- & flame-retardant PVC outer sheath (Y) | |

Technical data

Typical values

Rated voltage U0/U	300/500 V	Test voltage	2000 V AC (core/core & core/screen) for 1 min
Insulation resistance	≥ 5000 MΩ·km at +20 °C	Mutual capacitance (at 800 Hz)	≤ 100 nF/km (OS) · ≤ 115 nF/km (PiMF)
Max. L/R ratio	≤ 25 μH/Ω (0.5–1.0 mm ²) · ≤ 40 μH/Ω (1.5 mm ²)	Max. conductor operating temperature	+90 °C (XLPE / 2X thermoset core insulation)
Ambient temperature, fixed / flex	–40 °C to +80/+90 °C (fixed) · –5 °C to +50 °C (flexing)	Short-circuit temperature	+250 °C (max. 5 s)
Min. bending radius, fixed	7.5 × OD	Min. bending radius, during pulling	10 × OD
Flame retardance	IEC 60332-1-2 & IEC 60332-3-24 (Cat C)	Oil, acid & alkali resistance	EN 50290-2-22 TM1 chemical-resistant PVC sheath
Standards	BS EN 50288-7		

Sizes

18 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Format	Screening	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
0.5 mm ² XLPE/PVC — L/R ≤ 25 μH/Ω · +90 °C 5 sizes						
☐ RE-2X(st)Y 1×2×0.5	1×2×0.5 mm ²	OS	5.8	15	46	44
☐ RE-2X(st)Y 2×2×0.5	2×2×0.5 mm ²	OS	8.3	25	77	62
☐ RE-2X(st)Y 4×2×0.5 PiMF	4×2×0.5 mm ²	PiMF+OS	10.7	52	134	80
☐ RE-2X(st)Y 8×2×0.5 PiMF	8×2×0.5 mm ²	PiMF+OS	13.9	98	228	104
☐ RE-2X(st)Y 12×2×0.5 PiMF	12×2×0.5 mm ²	PiMF+OS	16.6	144	322	125
0.75 mm ² XLPE/PVC — L/R ≤ 25 μH/Ω · +90 °C 4 sizes						
☐ RE-2X(st)Y 1×2×0.75	1×2×0.75 mm ²	OS	6.2	20	55	46
☐ RE-2X(st)Y 2×2×0.75	2×2×0.75 mm ²	OS	9.1	34	94	68
☐ RE-2X(st)Y 4×2×0.75 PiMF	4×2×0.75 mm ²	PiMF+OS	11.7	71	165	88
☐ RE-2X(st)Y 8×2×0.75 PiMF	8×2×0.75 mm ²	PiMF+OS	15.3	136	282	115
1.0 mm ² XLPE/PVC — L/R ≤ 25 μH/Ω · +90 °C 3 sizes						
☐ RE-2X(st)Y 1×2×1.0	1×2×1.0 mm ²	OS	6.6	25	65	50
☐ RE-2X(st)Y 4×2×1.0 PiMF	4×2×1.0 mm ²	PiMF+OS	12.6	90	198	94
☐ RE-2X(st)Y 8×2×1.0 PiMF	8×2×1.0 mm ²	PiMF+OS	16.6	174	344	125
1.5 mm ² XLPE/PVC — L/R ≤ 40 μH/Ω · +90 °C 6 sizes						
☐ RE-2X(st)Y 1×2×1.5	1×2×1.5 mm ²	OS	7.5	35	84	56
☐ RE-2X(st)Y 2×2×1.5	2×2×1.5 mm ²	OS	10.9	63	148	82
☐ RE-2X(st)Y 4×2×1.5 PiMF	4×2×1.5 mm ²	PiMF+OS	14.2	129	262	106
☐ RE-2X(st)Y 8×2×1.5 PiMF	8×2×1.5 mm ²	PiMF+OS	18.8	252	456	141
☐ RE-2X(st)Y 12×2×1.5 PiMF	12×2×1.5 mm ²	PiMF+OS	22.5	374	652	169
☐ RE-2X(st)Y 24×2×1.5 PiMF	24×2×1.5 mm ²	PiMF+OS	31.0	742	1,235	232

– Also available with galvanised steel wire armour (RE-2X(st)Y SWAY / RE-2X(st)YRY) on request.

Electrical parameters by cross-section

4 sizes

Conductor size	Max. DC R @ 20 °C Ω/km	Max. L/R ratio $\mu\text{H}/\Omega$	Max. C (OS) nF/km	Max. C (PiMF) nF/km
0.50 mm ²	36.7	25	100	115
0.75 mm ²	25.0	25	100	115
1.00 mm ²	18.5	25	100	115
1.50 mm ²	12.3	40	100	115

– Matches the exact $\leq 100 / 115 \text{ nF/km}$ capacitance of RE-2Y(st)Y while raising core thermal stability from +70 °C to +90 °C.

Standards and approvals

- ✓ BS EN 50288-7 Compliant
- ✓ IEC 60332-1-2 & IEC 60332-3-24 Cat C
- ✓ CE, RoHS 2 (2011/65/EU) & REACH

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

+86 185 9591 3361

Email

info@tebaoflex.com

Web

tebaoflex.com/cables/re-2x-st-y-instrumentation-cable



Typical values for this cable type, based on BS EN 50288-7 (300/500 V). Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.