



EN 50288-7 SWA armoured instrumentation cable

RE-2Y(st)Y SWAY

Armoured Instrumentation Cable

Galvanised steel wire armoured PE/PVC instrumentation cable for direct burial



BS EN 50288-7

Galvanised SWA Armour

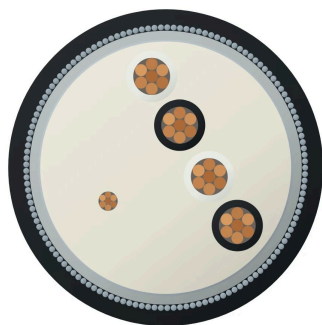
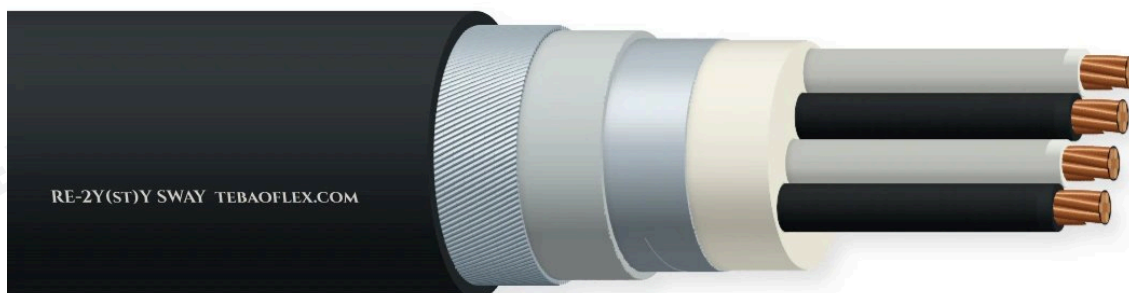
300/500 V · Ex-i / Black

Application

Direct-burial 300/500 V process instrumentation cable built to BS EN 50288-7 with Class 2 copper conductors, low-capacitance PE (2Y) insulation, collective or PIMF Al/PET screen, PVC bedding, galvanised steel wire armour (SWA) and PVC outer sheath.

Typical uses: Oil & Gas Tank Farms & Pipeline Stations, Refinery Direct-Burial Trench Networks, Petrochemical & Fertiliser Complexes, Power Plants & Desalination Facilities, Mining & Cement Process Instrumentation

Construction



Cross-section, not to scale

- 1 Stranded copper conductors
- 2 Polyethylene core insulation
- 3 Individual & collective Al/PET screens
- 4 Extruded PVC inner bedding (Y)
- 5 Galvanised steel wire armour (SWA)
- 6 Flame-retardant PVC outer sheath (Y)

100 % electrostatic
interference rejection

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)	Operating temperature, fixed	–40 °C to +70 °C
Operating temperature, installation	–5 °C to +50 °C	Max. short-circuit temperature	+150 °C (max. 5 s)
Armour wire diameter	0.90 mm / 1.25 mm / 1.60 mm galvanised steel (EN 10257-1)	Min. bending radius, fixed	10 × OD
Min. bending radius, during pulling	12 × OD	Flame retardance	IEC 60332-1-2 & IEC 60332-3-24 (Cat C)
Direct burial & rodent protection	Full mechanical protection via galvanised SWA	Oil & chemical resistance	EN 50290-2-22 TM1 oil-resistant PVC
Standards	BS EN 50288-7 & BS EN 10257-1		

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	SWA wire Ø	Outer Ø ≈ mm	Copper kg/km	Weight ≈ kg/km	Min. bend R fixed mm
0.5 mm ² SWA Armoured — L/R ≤ 25 μH/Ω 5 sizes						
☐ RE-2Y(st)Y SWAY 1×2×0.5	1×2×0.5 mm ²	0.9 mm SWA	10.4	15	210	104
☐ RE-2Y(st)Y SWAY 2×2×0.5	2×2×0.5 mm ²	0.9 mm SWA	12.8	25	295	128
☐ RE-2Y(st)Y PiMF SWAY 4×2×0.5	4×2×0.5 mm ²	0.9 mm SWA	15.2	52	415	152
☐ RE-2Y(st)Y PiMF SWAY 8×2×0.5	8×2×0.5 mm ²	1.25 mm SWA	19.2	98	665	192
☐ RE-2Y(st)Y PiMF SWAY 12×2×0.5	12×2×0.5 mm ²	1.25 mm SWA	22.0	144	860	220
0.75 mm ² SWA Armoured — L/R ≤ 25 μH/Ω 4 sizes						
☐ RE-2Y(st)Y SWAY 1×2×0.75	1×2×0.75 mm ²	0.9 mm SWA	10.8	20	232	108
☐ RE-2Y(st)Y SWAY 2×2×0.75	2×2×0.75 mm ²	0.9 mm SWA	13.6	34	335	136
☐ RE-2Y(st)Y PiMF SWAY 4×2×0.75	4×2×0.75 mm ²	0.9 mm SWA	16.4	71	475	164
☐ RE-2Y(st)Y PiMF SWAY 8×2×0.75	8×2×0.75 mm ²	1.25 mm SWA	20.8	136	765	208
1.0 mm ² SWA Armoured — L/R ≤ 25 μH/Ω 4 sizes						
☐ RE-2Y(st)Y SWAY 1×2×1.0	1×2×1.0 mm ²	0.9 mm SWA	11.2	25	252	112
☐ RE-2Y(st)Y PiMF SWAY 4×2×1.0	4×2×1.0 mm ²	1.25 mm SWA	17.8	90	585	178
☐ RE-2Y(st)Y PiMF SWAY 8×2×1.0	8×2×1.0 mm ²	1.25 mm SWA	22.1	174	880	221
☐ RE-2Y(st)Y PiMF SWAY 12×2×1.0	12×2×1.0 mm ²	1.6 mm SWA	25.4	258	1,140	254
1.5 mm ² SWA Armoured — L/R ≤ 40 μH/Ω 5 sizes						
☐ RE-2Y(st)Y SWAY 1×2×1.5	1×2×1.5 mm ²	0.9 mm SWA	12.0	35	290	120
☐ RE-2Y(st)Y SWAY 2×2×1.5	2×2×1.5 mm ²	0.9 mm SWA	15.6	63	440	156
☐ RE-2Y(st)Y PiMF SWAY 4×2×1.5	4×2×1.5 mm ²	1.25 mm SWA	19.6	129	710	196
☐ RE-2Y(st)Y PiMF SWAY 8×2×1.5	8×2×1.5 mm ²	1.6 mm SWA	24.8	252	1,120	248
☐ RE-2Y(st)Y PiMF SWAY 12×2×1.5	12×2×1.5 mm ²	1.6 mm SWA	28.6	374	1,465	286

– Inner bedding diameter is available on request for exact E1W / Ex-d / Ex-e double-compression gland ring sizing.

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

- Earth the SWA armour at both ends for mechanical fault protection while earthing the internal electrostatic screen at the marshalling cabinet single-point instrument earth.

Standards and approvals

- ✓ BS EN 50288-7 & EN 10257-1 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

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Email

info@tebaoflex.com

Web

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



Typical values for this cable type, based on BS EN 50288-7 / EN 10257-1. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.