



Control & signal cable

NR Type E1 / E2

Network Rail Type E1 / E2 Screened Armoured

Network Rail NR/PS/SIG/00005 650/1100 V screened & SWA-armoured signalling cable



NR/PS/SIG/00005 Type E1/E2

650/1100 V Screened + SWA

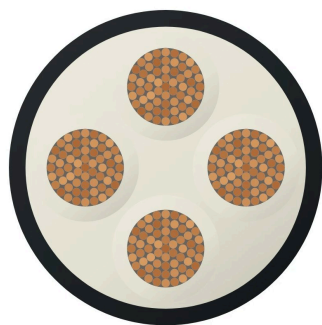
25 kV AC OLE Immunized

Application

NR Type E1 and E2 UK Network Rail screened and armoured trackside signalling cable (NR/PS/SIG/00005, 650/1100 V AC, -25 to +85 °C) for 25 kV AC OLE routes, with tinned copper cores, GP4 EPR insulation, copper screen, SWA armour, and EM2 PCP sheath.

Typical uses: 25 kV AC Electrified UK Mainline Signalling, Under-Track Crossings (UTX) & Direct Burial, Exposed Embankment & Viaduct Cable Runs, Trackside Interlocking & Point Control, High-EMI Traction Substation Approaches

Construction



Cross-section, not to scale

- 1 Tinned copper conductors
- 2 Type GP4 EPR core insulation
- 3 Collective copper EMC screen
- 4 Elastomeric armour bedding
- 5 Galvanised steel wire armour (SWA)
- 6 Type EM2 heavy-duty PCP sheath

Technical data

Typical values

Rated voltage U0/U	650/1100 V AC	AC dielectric test voltage	3,500 V AC RMS for 5 minutes
Max. DC resistance (+20 °C)	12.8 Ω/km (1.5 mm ² 30/0.25) · 7.56 Ω/km (2.5 mm ²)	EMC screening	Collective tinned copper screen + SWA
Operating temperature range	-25 °C to +85 °C	Short-circuit conductor temp.	+250 °C (thermoset GP4 EPR)
Mechanical armouring	Galvanised steel wire armour (BS EN 10257-1)	Min. bending radius	10 × overall cable diameter
Core identification	White GP4 EPR with black printed numbers	Oil, fuel & UV resistance	BS 7655-2.1 Type EM2 heavy PCP jacket
Flame retardance	BS EN 60332-1-2 self-extinguishing	Impact & rodent protection	Full round galvanised steel wire armour
Standards	NR/PS/SIG/00005 (RT/E/PS/00005) Type E1/E2		

Sizes

11 standard constructions

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

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard NR Type E1 / E2 configurations 11 sizes							
☐ NR Type E1 4×1.5	4 × 1.5	30/0.25	2.15	19.50	299.2	680.0	195
☐ NR Type E1 7×1.5	7 × 1.5	30/0.25	2.40	21.80	378.4	860.0	220
☐ NR Type E1 10×1.5	10 × 1.5	30/0.25	2.82	25.60	506.0	1,150.0	260
☐ NR Type E1 12×1.5	12 × 1.5	30/0.25	2.90	26.40	545.6	1,240.0	265
☐ NR Type E1 19×1.5	19 × 1.5	30/0.25	3.32	30.20	743.6	1,690.0	305
☐ NR Type E1 27×1.5	27 × 1.5	30/0.25	3.81	34.60	972.4	2,210.0	350
☐ NR Type E1 37×1.5	37 × 1.5	30/0.25	4.20	38.20	1,214.4	2,760.0	385
☐ NR Type E2 2×2.5	2 × 2.5	7/0.67	2.09	19.00	277.2	630.0	190
☐ NR Type E2 2×6.0	2 × 6.0	7/1.04	2.44	22.20	391.6	890.0	225
☐ NR Type E2 2×10	2 × 10	7/1.35	2.75	25.00	501.6	1,140.0	250
☐ NR Type E2 2×16	2 × 16	7/1.70	3.08	28.00	651.2	1,480.0	280

– Outer diameters and weights are nominal engineering values for NR Type E1 / E2 subject to standard manufacturing tolerances per Network Rail NR/PS/SIG/00005 (formerly RT/E/PS/00005) Type E1 / E2 Screened SWA.

Electrical & rating data

11 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test V AC rms
4 × 1.5	12.80	18.0	15.3	3,500
7 × 1.5	12.80	18.0	15.3	3,500
10 × 1.5	12.80	18.0	15.3	3,500
12 × 1.5	12.80	18.0	15.3	3,500
19 × 1.5	12.80	18.0	15.3	3,500
27 × 1.5	12.80	18.0	15.3	3,500
37 × 1.5	12.80	18.0	15.3	3,500
2 × 2.5	12.80	18.0	15.3	3,500
2 × 6.0	12.80	18.0	15.3	3,500
2 × 10	12.80	18.0	15.3	3,500
2 × 16	12.80	18.0	15.3	3,500

– Electrical resistance at +20 °C and dielectric withstand voltages verified per Network Rail NR/PS/SIG/00005 (formerly RT/E/PS/00005) Type E1 / E2 Screened SWA.

Standards and approvals

- ✓ Network Rail NR/PS/SIG/00005 (formerly RT/E/PS/00005) Type E1 / E2 Screened SWA
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC Compliance Verified

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

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Typical values for this cable type, based on Network Rail NR/PS/SIG/00005 (formerly RT/E/PS/00005) Type E1 / E2 Screened SWA. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.