100E
RAIL SIGNAL WIRE & CABLE

Wire and Cable

iS Rayfast

TE connectivity

Authorized Distributor

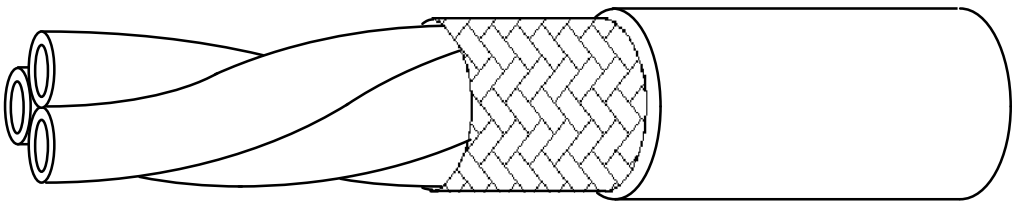
TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

APPLICATION/USE:

Rail approved zero Halogen, light weight wire and cable for signal, and Low voltage applications. The construction is a dual wall combination of TE Connectivity formulated polymer blends. Developed to meet Rail specification requirements, whilst maintaining the desirable features of small size, lightweight, flexibility, non-wrinkling.



100E approvals:

EN50306-2
Thin Wall single core Wires 300 volts
EN50306-3
Single Core and Multi-Core Cables (pairs, triples and quads) screened and thin wall sheathed
EN50306-4
Multi-Core and Multi-Pair Cables standard wall sheathed, screened or unscreened

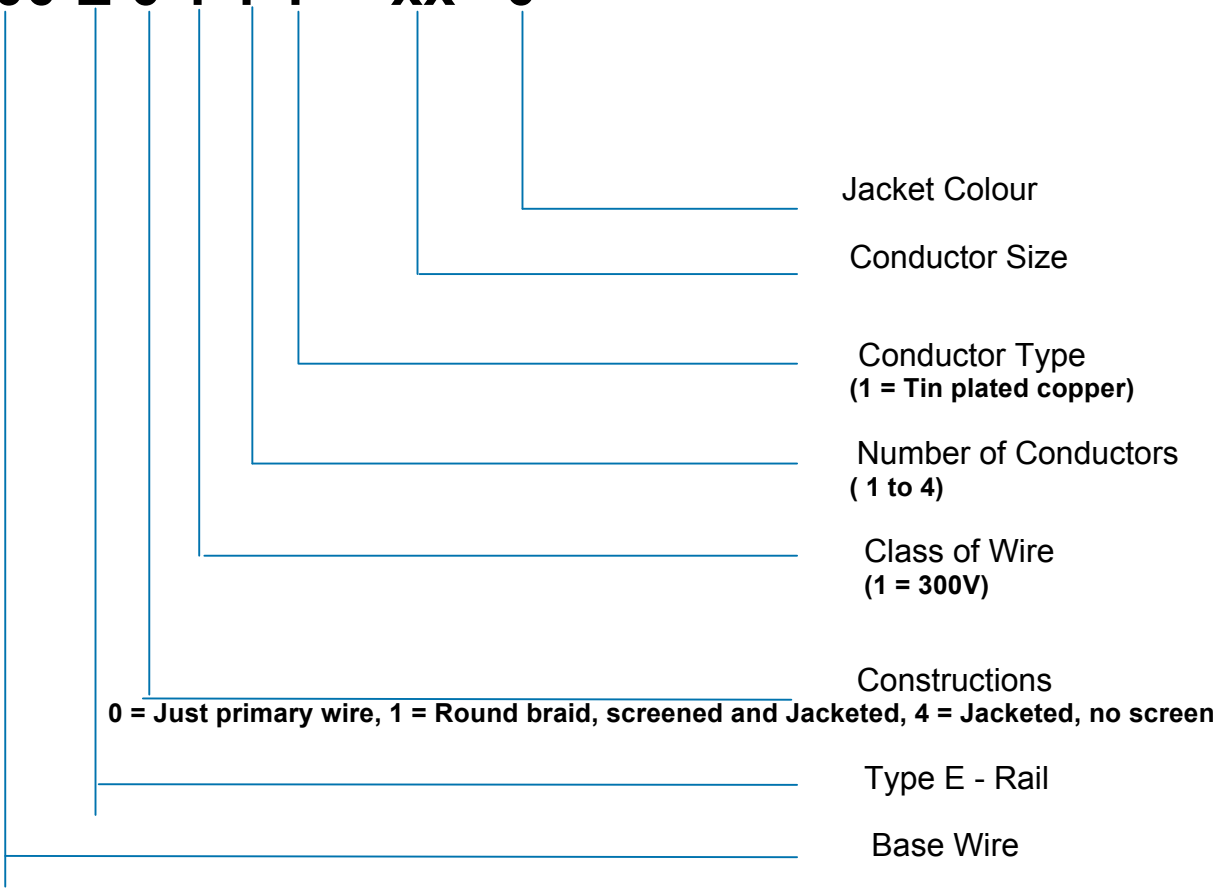
TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

PART DESCRIPTION

100 E 0 1 1 1 – xx– 0



TECHNICAL DATA SHEET

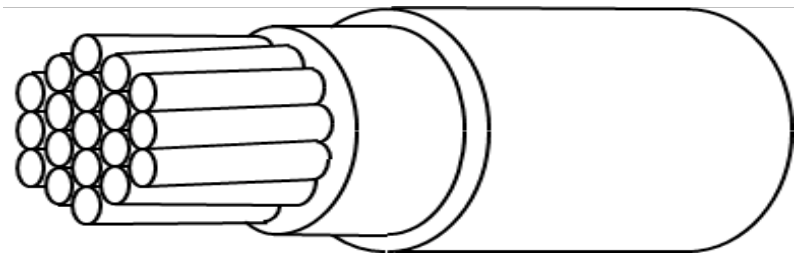
100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

EN50306-2

Thin Wall Single Core Wires 300 volts

100E-0111-XX-X



Part Description	Conductor				Finished Wire			
	Nominal		Diameter (mm)		Maximum Resistance @ 20°C	Diameter (mm)		Maximum Weight (kg/km)
	Cross Sectional Area (mm^2)	Conductor Stranding No./Diam. (mm)	Min.	Max.	(ohms/km)	Min.	Max.	
100E0111-0.50-*	0.50	19/0.18	0.82	0.90	40.1	1.37	1.45	6.60
100E0111-0.75-*	0.75	19/0.23	1.04	1.15	26.7	1.59	1.65	8.90
100E0111-1.00-*	1.00	19/0.25	1.17	1.26	20.0	1.69	1.80	10.7
100E0111-1.50-*	1.50	37/0.23	1.46	1.58	13.7	2.03	2.13	16.0
100E0111-2.50-*	2.50	37/0.29	1.85	2.01	8.21	2.50	2.63	25.7

Mark Manufacturer's Name, EN Reference, Voltage Rating, Number of Cores and Conductor Size, Hazard Level

E.G TE Connectivity EN 50306-2 300V 1x1.50 M

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Continuous Operating Temperature Wire	-55˚C to 125˚C
Continuous Operating Temperature Cable	-30˚C to 105˚C
Halogens	Halogen Free, Low Smoke, Highly Flame Retarded
Voltage rating	100E 300/500V
Conductor size range	0.50mm² to 2.50mm²
Construction	Single Core
Colours	Single core insulation white Standard Insulation White
Conductors	Tin plated copper stranded

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

EN 50306-2

FIRE HAZARD PERFORMANCE

TEST	METHOD	RESULT
Flame Propagation – Single Cable	IEC 60332-1-2	Charring Confined to between 50mm and 540mm
Flame Propagation – Bunched Cable (d ≥ 12mm)	IEC 60332-3-24	Max. burn length 2.5m
Flame Propagation – Bunched Cable (6mm < d < 12mm)	EN 50305 Clause 9.1.1	Max. burn length 2.5m
Flame Propagation – Bunched Cable (d ≤ 6mm)	EN 50305 Clause 9.1.2	Max. burn length 1.5m
Smoke Testing	EN 61034-2	3m cube box 90% min. transmittance
Toxicity	EN 50305 Clause 9.2	Index Max. 6
Fluorine Content	IEC 60684-2 Cl 45.2	< 0.1% Fluorine
Evolution of HCL	EN 60754-1	< 0.5% HCL
Acid Gas Emission	EN 60754-2	pH > 4.3, conductivity < 10 µS/mm

GENERAL PROPERTIES

TEST	METHOD	REQUIREMENT
Electrical Resistance of Conductors	EN 50305 Clause 6.1	See SCD
Voltage Test on Complete Cable	EN 50305 Clause 6.2.1	5 minutes, 2Kv No breakdown of the insulation

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Dialectic Strength	EN 50305 Clause 6.8	Minimum Breakdown Voltage – 4Kv
Spark Test	EN 50305 Clause 6.5	No breakdown
DC Stability	EN 50305 Clause 6.7	85±2˚C for 240h No breakdown of the insulation
Insulation Resistance	6.4.1 and 6.4.2 of EN 50305	Table 2 of EN 50306-2
Insulation Application	EN 50306-1	EN 50306-1
Insulation Thickness	EN 50306-1	EN 50306-1
Insulation Concentricity	EN 50306-1	EN 50306-1
Overall Diameter	EN 50306-1 Clause 6.7	EN 50306-2 Table 1
Cable Identification and Marking	EN 50306-4 Clause 3.2.3 3.2.4	As EN 50306-2
Durability of Identification	EN 50305 Clause 10.1	Legible after rubbing with wet cloth
Strippability of Insulation	EN 50305 Clause 5.5.1	Easily Stripped
Adhesion of insulation to the Conductors	EN 50305 Clause 5.5.2	EN 50306-2 Table 2
Hot Set Test	IEC 60811-507	15 minutes at 200±3˚C Max elongation 100% under load 25% after unloading
Long Term Ageing	EN 50305 Clause 7.3	20,000 hours at 125°C
Mineral Oil Immersion	EN 50305 Clause 8.1	IRM 902, 24h at 100±2˚C No Breakdown
Fuel Resistance	EN 50305 Clause 8.1	IRM 903, 168h at 70±2˚C No Breakdown
Acid and Alkali Resistance	EN 50305 Clause 8.2	Oxalic Acid and Sodium Hydroxide, 168h at 23±2˚C No Breakdown
Pressure at High Temperature	EN 50305 Clause 7.5	4h at 125±2˚C No Breakdown
Dynamic Cut Through	EN 50305 Clause 5.6	Mean Value ≥ 50N Minimum Value ≥ 30N

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Notch Propagation of Sheath	EN 50305 Clause 5.3	0.05 mm Notch, at 85˚C, Ambient and -15˚C No breakdown of sheath
Shrinkage	EN 50305 Clause 7.6	Max 0.5%
Blocking of Cores	EN 50305 Clause 10.2	6h at 150±2˚C Easily Separate, no Damage
Bending Test at Low Temperature	IEC 60811-504	4h at -40˚C No Cracks in Sheath
Abrasion Resistance	EN 50305 Clause 5.2	Load 8N Mean ≥ 150 cycles Minimum 100 Cycles
Ozone Resistance	EN 50305 Clause 7.4.1	250 to 300 x 10^{-6}, 25 ±2˚C, 24h No Cracks or Breakdown
Stress Cracking	EN 50306-1 Clause 7.7	168h at 154˚C No Cracks or Breakdown

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

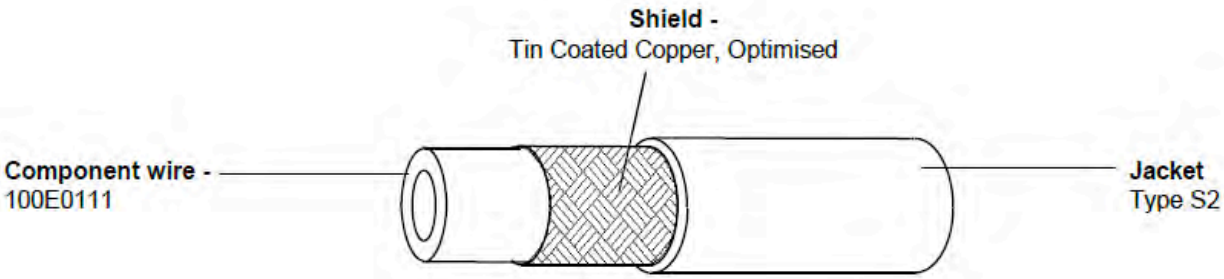
Document number: TTDS-
Issue: 1
Date: May 2015

EN50306-3

Single Core and Multi-Core Cables (pairs, triples and quads) screened and thin wall sheathed

One CORE 100E1111-xx-x

SINGLE CONDUCTOR CABLE, HALOGEN FREE, SHIELDED AND JACKETED
300 VOLT IN ACCORDANCE WITH EN 50306-3, TEMPERATURE CLASSIFICATION 90°C



Part Description	Nominal Cross Sectional Area (mm²)	Shield Size (mm)	Jacket Thickness (mm)		Overall Diameter (mm)			Maximum Weight (kg/km)
			Min.	Nom.	Lower Spec Limit	Target	Upper Spec Limit	
100E1111-0.50-*-*	0.50	0.10	0.20	0.38	2.30	2.61	2.80	17.4
100E1111-0.75-*-*	0.75	0.10	0.20	0.38	2.50	2.82	3.00	20.7
100E1111-1.00-*-*	1.00	0.10	0.20	0.38	2.70	2.95	3.20	23.9
100E1111-1.50-*-*	1.50	0.10	0.20	0.38	3.10	3.28	3.60	31.6
100E1111-2.50-*-*	2.50	0.13	0.20	0.38	3.60	3.88	4.40	49.3

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

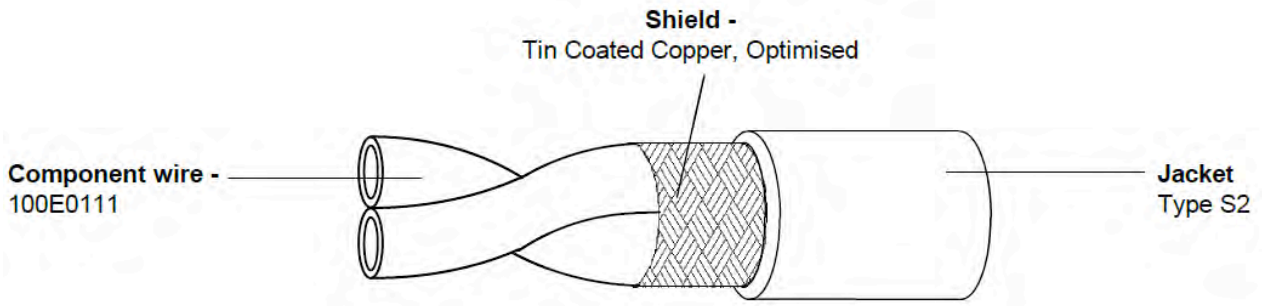
Document number: TTDS-
Issue: 1
Date: May 2015

EN50306-3

Single Core and Multi-Core Cables (pairs, triples and quads) screened and thin wall sheathed

TWO CORE 100E1121-xx-x

TWO CONDUCTOR CABLE, HALOGEN FREE, SHIELDED AND JACKETED
300 VOLT IN ACCORDANCE WITH EN 50306-3, TEMPERATURE CLASSIFICATION 90°C



Part Description	Nominal Cross Sectional Area (mm²)	Shield Size (mm)	Jacket Thickness (mm)		Overall Diameter (mm)			Maximum Weight (kg/ km)
			Min.	Nom.	Lower Spec Limit	Target	Upper Spec Limit	
100E1121-0.50-*/*-*	0.50	0.13	0.20	0.38	3.70	4.14	4.30	32.5
100E1121-0.75-*/*-*	0.75	0.13	0.20	0.38	4.15	4.56	4.70	39.0
100E1121-1.00-*/*-*	1.00	0.13	0.20	0.38	4.20	4.81	5.20	47.0
100E1121-1.50-*/*-*	1.50	0.13	0.20	0.38	5.10	5.48	6.10	64.4
100E1121-2.50-*/*-*	2.50	0.13	0.20	0.38	6.40	6.45	7.40	95.2

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

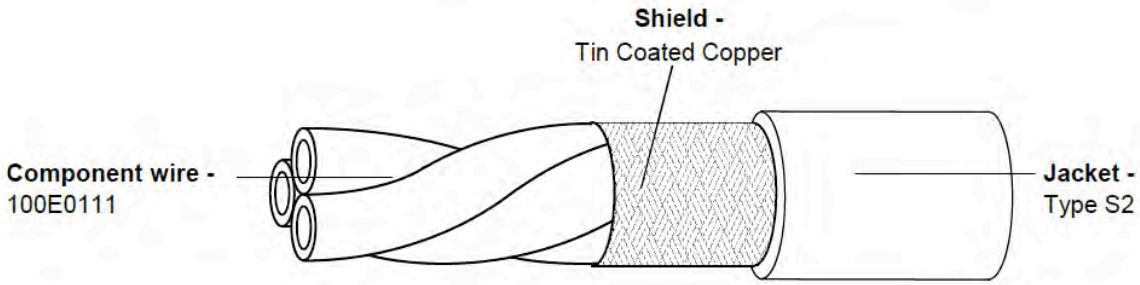
Document number: TTDS-
Issue: 1
Date: May 2015

EN50306-3

Single Core and Multi-Core Cables (pairs, triples and quads) screened and thin wall sheathed

THREE CORE 100E1131-xx-x

THREE CONDUCTOR CABLE, HALOGEN FREE, SHIELDED AND JACKETED
300 VOLT IN ACCORDANCE WITH EN 50306-3, TEMPERATURE CLASSIFICATION 90°C



Part Description	Cross Sectional Area (mm^2)	Shield Size (mm)	Jacket Thckness (mm)		Overall Diameter			Maximum Weight (kg/km)
			Min.	Nom.	Lower Spec Limit	Nom.	Max.	
100E1131-0.50-*/*/*-*	0.50	0.13	0.20	0.38	3.70	4.36	4.50	42.0
100E1131-0.75-*/*/*-*	0.75	0.13	0.20	0.38	4.00	4.82	5.00	52.2
100E1131-1.00-*/*/*-*	1.00	0.13	0.20	0.38	4.50	5.09	5.50	62.3
100E1131-1.50-*/*/*-*	1.50	0.13	0.20	0.38	5.40	5.81	6.40	85.9
100E1131-2.50-*/*/*-*	2.50	0.13	0.20	0.38	6.80	6.86	7.80	129

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

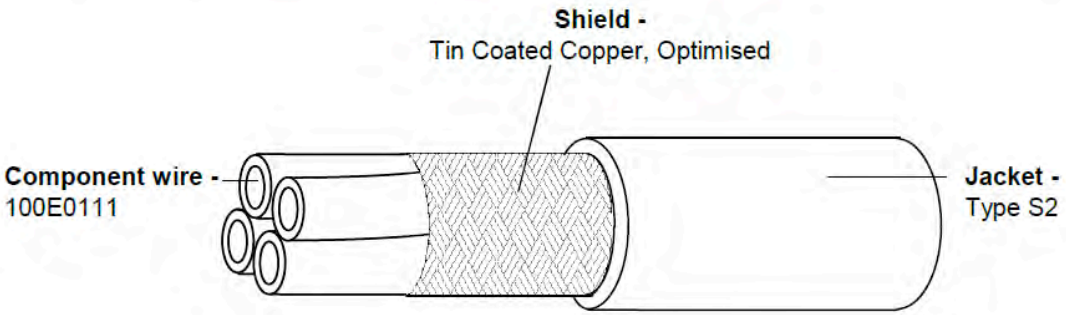
Document number: TTDS-
Issue: 1
Date: May 2015

EN50306-3

Single Core and Multi-Core Cables (pairs, triples and quads) screened and thin wall sheathed

FOUR CORE 100E1141-xx-x

FOUR CONDUCTOR CABLE, HALOGEN FREE, SHIELDED AND JACKETED
300 VOLT IN ACCORDANCE WITH EN 50306-3, TEMPERATURE CLASSIFICATION 90°C



Part Description	Cross Sectional Area (mm²)	Shield Size (mm)	Jacket Thckness (mm)		Overall Diameter (mm)			Maximum Weight (kg/km)
			Min.	Nom.	Lower Spec Limit	Target	Upper Spec Limit	
100E1141-0.50-*/*/*/*-*	0.50	0.13	0.25	0.38	4.00	4.72	5.00	85.8
100E1141-0.75-*/*/*/*-*	0.75	0.13	0.25	0.38	4.50	5.22	5.50	101
100E1141-1.00-*/*/*/*-*	1.00	0.13	0.30	0.43	5.00	5.62	6.00	123
100E1141-1.50-*/*/*/*-*	1.50	0.13	0.38	0.48	6.00	6.53	7.00	168
100E1141-2.50-*/*/*/*-*	2.50	0.13	0.46	0.61	7.50	7.96	8.50	250

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Continuous Operating Temperature Wire	-55˚C to 125˚C
Continuous Operating Temperature Cable	-30˚C to 105˚C
Halogens	Halogen Free, Low Smoke, Highly Flame Retarded
Voltage rating	100E 300/500V
Conductor size range	0.50mm² to 2.50mm²
Construction	Multi Core
Colours	Single core insulation white Standard Insulation White
Conductors	Tin plated copper stranded

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

EN 50306-3

FIRE HAZARD PERFORMANCE

TEST	METHOD	RESULT
Flame Propagation – Single Cable	IEC 60332-1-2	Charring Confined to between 50mm and 540mm
Flame Propagation – Bunched Cable (d ≥ 12mm)	IEC 60332-3-24	Max. burn length 2.5m
Flame Propagation – Bunched Cable (6mm < d < 12mm)	EN 50305 Clause 9.1.1	Max. burn length 2.5m
Flame Propagation – Bunched Cable (d ≤ 6mm)	EN 50305 Clause 9.1.2	Max. burn length 1.5m
Smoke Testing	EN 61034-2	3m cube box 90% min. transmittance
Toxicity	EN 50305 Clause 9.2	Index Max. 5
Fluorine Content	IEC 60684-2 Cl 45.2	< 0.1% Fluorine
Evolution of HCL	EN 60754-1	< 0.5% HCL
Acid Gas Emission	EN 60754-2	pH > 4.3, conductivity < 10 µS/mm

GENERAL PROPERTIES

TEST	METHOD	REQUIREMENT
Electrical Resistance of Conductors	EN 50305 Clause 6.1	See SCD

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Voltage Test on Complete Cable	EN 50305 Clause 6.2.1	5 minutes, 2Kv No breakdown of the insulation
Voltage Test on Sheath	EN 50305 Clause 6.3	5 minutes, 2Kv No breakdown of the Sheath
Spark Test on Sheath	EN 50305 Clause 6.5	No breakdown of the sheath
Sheath - Application	EN 50306-1 Clause 6.6.2	As EN 50306-3
Metallic Screen – Diameter of Wire	EN 50306-4 Clause 5.3.4	As EN 50306-3
Metallic Screen – Filling Factor	EN 50306-4 Clause 5.3.4	As EN 50306-3
Sheath - Thickness	EN 50306-1 Annex 2	As EN 50306-3
Overall Diameter	EN 50306-1 Clause 6.7	As EN 50306-3
Identification and Marking	EN 50306-4 Clause 3.2.3 3.2.4	As EN 50306-3
Durability of Identification	EN 50305 Clause 10.1	Print markings are durable
Mechanical Properties of the Sheath in the State as Delivered	IEC 60811-501	240h at 120±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Water Absorption	EN 50305 Clause 8.3	Water, 168h at 70±2˚C No breakdown of the sheath
Hot Set Test	IEC 60811-507	15 minutes at 200±3˚C Max elongation 100% under load 25% after unloading
Long Term Ageing	EN 50305 Clause 7.3	20,000 hours at 125°C
Mineral Oil Immersion	EN 50305 Clause 8.1	IRM 902, 24h at 100±2˚C No Breakdown
Fuel Resistance	EN 50305 Clause 8.1	IRM 903, 168h at 70±2˚C No Breakdown
Acid and Alkali Resistance	EN 50305 Clause 8.2	Oxalic Acid and Sodium Hydroxide, 168h at 23±2˚C

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

		No Breakdown
Pressure at High Temperature	EN 50305 Clause 7.5	4h at 125±2˚C No Breakdown
Dynamic Cut Through	EN 50305 Clause 5.6	Mean Value ≥ 50N Minimum Value ≥ 30N
Notch Propagation of Sheath	EN 50305 Clause 5.3	0.05 mm Notch, at 85˚C, Ambient and -15˚C No breakdown of sheath
Bending Test at Low Temperature	IEC 60811-504	4h at -40˚C No Cracks in Sheath
Abrasion Resistance	EN 50305 Clause 5.2	Load 8N Mean ≥ 150 cycles Minimum 100 Cycles
Ozone	EN 50305 Clause 7.4.1	250 to 300 x 10^{-6}, 25 ±2˚C, 24h No Cracks or Breakdown
Stress Cracking	EN 50306-1 Clause 7.7	168h at 154˚C No cracks or breakdown

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

EN50306-4

Multi-Core and Multi-Pair Cables standard wall sheathed, screened or unscreened
EPD design

- Multi-Core and Multi-Pair Cables standard wall sheathed
  - Unscreened, Sheathed for either exposed or protected wiring, (0.50 mm² to 2.50 mm², number of cores from 2 to 48)
    - Conform with table 1 of EN 50306-4 (Class 1P or 1E)
  - Screened, Sheathed for either exposed or protected wiring (0.50 mm² to 2.50 mm², number of cores from 2 to 8)
    - Conform with table 3 of EN 50306-4 (Class 3P or 3E)
  - Screened, Sheathed for either exposed or protected wiring (0.50 mm² to 1.50 mm², number of pairs of cores from 2 to 7)
    - Conform with table 3 of EN 50306-4 (Class 5P or 5E)
    - Cores - White, Outer Jacket – Black

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Continuous Operating Temperature Wire	-55˚C to 125˚C
Continuous Operating Temperature Cable	-30˚C to 105˚C
Halogens	Halogen Free, Low Smoke, Highly Flame Retarded
Voltage rating	100E 300/500V
Conductor size range	0.50mm² to 2.50mm²
Construction	Multi Core
Colours	Single core insulation white Standard Insulation White
Conductors	Tin plated copper stranded

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

EN 50306-4 CLASS 1P & 1E

FIRE HAZARD PERFORMANCE

TEST	METHOD	RESULT
Flame Propagation – Single Cable	IEC 60332-1-2	Charring Confined to between 50mm and 540mm
Flame Propagation – Bunched Cable (d ≥ 12mm)	IEC 60332-3-24	Max. burn length 2.5m
Flame Propagation – Bunched Cable (6mm < d < 12mm)	EN 50305 Clause 9.1.1	Max. burn length 2.5m
Flame Propagation – Bunched Cable (d ≤ 6mm)	EN 50305 Clause 9.1.2	Max. burn length 1.5m
Smoke Testing	EN 61034-2	3m cube box 70% min. transmittance
Toxicity	EN 50305 Clause 9.2	Index Max. 5
Fluorine Content	IEC 60684-2 Cl 45.2	< 0.1% Fluorine
Evolution of HCL	EN 60754-1	< 0.5% HCL
Acid Gas Emission	EN 60754-2	pH > 4.3, conductivity < 10 µS/mm

GENERAL PROPERTIES (See EN 50306-4 for full details)

TEST	METHOD	REQUIREMENT
Electrical Resistance of Conductors	EN 50305 Clause 6.1	See SCD
Voltage Test on Complete Cable	EN 50305 Clause 6.2.1	5 minutes, 2Kv No breakdown of the insulation
Sheath - Application	EN 50306-1 Clause 6.6.2	As EN 50306-4
Sheath - Thickness	EN 50306-1 Annex 2	As EN 50306-4
Overall Diameter	EN 50306-1 Clause 6.7	As EN 50306-4

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Identification and Marking	EN 50306-4 Clause 3.2.3 3.2.4	As EN 50306-4
Durability of Identification	EN 50305 Clause 10.1	Print markings are durable
Mechanical Properties of the Sheath in the State as Delivered	IEC 60811-501	240h at 120±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Hot Set Test	IEC 60811-507	15 minutes at 200±3˚C Max elongation 100% under load 25% after unloading
Long Term Ageing	EN 50305 Clause 7.3	20,000 hours at 125°C
Mineral Oil Immersion	IEC 60811-404	IRM 902, 24h at 100±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Fuel Resistance	IEC 60811-404	IRM 903, 168h at 70±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Acid and Alkali Resistance	IEC 60811-404	Oxalic Acid and Sodium Hydroxide, 168h at Elongation ± 30% Tensile Strength ± 30% From Initial Test
Pressure at High Temperature	IEC 60811-508	4h at 125±2˚C Max 50% indentation
Bending Test at Low Temperature	IEC 60811-504	4h at -40˚C No Cracks in Sheath
Elongation at Low Temperature	IEC 60811-504	Elongation ≥ 30% at -40˚C
Impact Resistance at Low Temperature	EN 50305 Clause 5.1	2h at -25˚C No Cracks
Ozone	EN 50305 Clause 7.4.2	250 to 300 x 10^{-6}, 25 ±2˚C, 24h No Cracks
Water Absorption	IEC 60811-402	Water, 168h at 70±2˚C Weight increase ≤ 15 mg/cm²

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

Compatibility	EN 50305 Cl. 7.1	168h at 115±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test

EN 50306-4 CLASS 3P & 3E

FIRE HAZARD PERFORMANCE

TEST	METHOD	RESULT
Flame Propagation – Single Cable	IEC 60332-1-2	Charring Confined to between 50mm and 540mm
Flame Propagation – Bunched Cable (d ≥ 12mm)	IEC 60332-3-24	Max. burn length 2.5m
Flame Propagation – Bunched Cable (6mm < d < 12mm)	EN 50305 Clause 9.1.1	Max. burn length 2.5m
Flame Propagation – Bunched Cable (d ≤ 6mm)	EN 50305 Clause 9.1.2	Max. burn length 1.5m
Smoke Testing	EN 61034-2	3m cube box 70% min. transmittance
Toxicity	EN 50305 Clause 9.2	Index Max. 5
Fluorine Content	IEC 60684-2 Cl 45.2	< 0.1% Fluorine
Evolution of HCL	EN 60754-1	< 0.5% HCL
Acid Gas Emission	EN 60754-2	pH > 4.3, conductivity < 10 µS/mm

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

GENERAL PROPERTIES (See EN 50306-4 for full details)

TEST	METHOD	REQUIREMENT
Electrical Resistance of Conductors	EN 50305 Clause 6.1	See SCD
Voltage Test on Complete Cable	EN 50305 Clause 6.2.1	5 minutes, 2Kv No breakdown of the insulation
Spark Test on Sheath	EN 50305 Clause 6.5	5 minutes, 2Kv No breakdown of the Sheath
Metallic Screen – Diameter of Wire	EN 50306-4 Clause 5.3.4	As EN 50306-4
Metallic Screen – Filling Factor	EN 50306-4 Clause 5.3.4	As EN 50306-4
Sheath - Application	EN 50306-1 Clause 6.6.2	As EN 50306-4
Sheath - Thickness	EN 50306-1 Annex 2	As EN 50306-4
Overall Diameter	EN 50306-1 Clause 6.7	As EN 50306-4
Identification and Marking	EN 50306-4 Clause 3.2.3 3.2.4	As EN 50306-4
Durability of Identification	EN 50305 Clause 10.1	Print markings are durable
Mechanical Properties of the Sheath in the State as Delivered	IEC 60811-501	240h at 120±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Hot Set Test	IEC 60811-507	15 minutes at 200±3˚C Max elongation 100% under load 25% after unloading
Long Term Ageing	EN 50305 Clause 7.3	20,000 hours at 125°C
Mineral Oil Immersion	IEC 60811-404	IRM 902, 24h at 100±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Fuel Resistance	IEC 60811-404	IRM 903, 168h at 70±2˚C Elongation ± 30% Tensile Strength ± 30% From Initial Test
Acid and Alkali Resistance	IEC 60811-404	Oxalic Acid and Sodium Hydroxide, 168h at Elongation ± 30%

TECHNICAL DATA SHEET

100E SIGNAL WIRE & CABLE

Document number: TTDS-
Issue: 1
Date: May 2015

		Tensile Strength ± 30% From Initial Test
Pressure at High Temperature	EN 50305 Clause 7.5	4h at 125±2˚C Max 50% indentation
Bending Test at Low Temperature	IEC 60811-504	4h at -40˚C No Cracks in Sheath
Impact Resistance at Low Temperature	IEC 60811-506	2h at -25˚C No Cracks
Abrasion Resistance	EN 50305 Clause 5.2	Mean ≥ 150 cycles Minimum 100 Cycles Load 8N
Ozone	EN 50305 Clause 7.4.1	250 to 300 x 10^{-6}, 25 ±2˚C, 24h No Cracks

Tel: +44(0) 1793616700 • Fax: +44(0) 1793 644304
uksales@is-rayfast.com • export@is-rayfast.com
www.is-rayfast.com
2 Lydiard Fields, Swindon, Wiltshire, SN5 8UB

While TE Connectivity Ltd. has made every reasonable effort to ensure the accuracy of the information in this document, TE does not guarantee that it is error-free, nor does TE make any other representation, warranty or guarantee that the information is accurate, correct, reliable or current. TE reserves the right to make any adjustments to the information contained herein at any time without notice. TE expressly disclaims all implied warranties regarding the information contained herein, including, but not limited to, any implied warranties of merchantability or fitness for a particular purpose. The dimensions in this document are for reference purposes only and are subject to change without notice. Specifications are subject to change without notice. Consult TE for the latest dimensions and design specifications.