

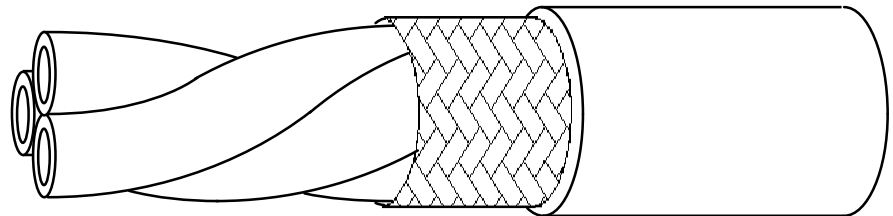
# TECHNICAL DATA SHEET

## 400R SIGNAL WIRE & CABLE

Document number: TTDS-  
Issue: 1  
Date: January 2016

### APPLICATION/USE:

Rail approved limited fire hazard, light weight wire and cable for signal, and low voltage applications. The Insulation is a dual wall combination of TE Connectivity formulated polymer blends. Developed to meet Rail specification requirements such as NFPA 130, whilst maintaining the desirable properties of small size, lightweight, flexible and easy to handle and install.



### 400R SERIES PRODUCT FAMILY:

**400R\*1\*\***  
Rail approved 600V range of Wires & Cables

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#### Business Locations:

☎ Asia: +86-21-33980184  
☎ Australia: 1-800-144-078  
☎ Eire: 800-557-810  
☎ Germany: + 49 (0) 173-3169004

☎ New Zealand: 0800-TYCO-HELP  
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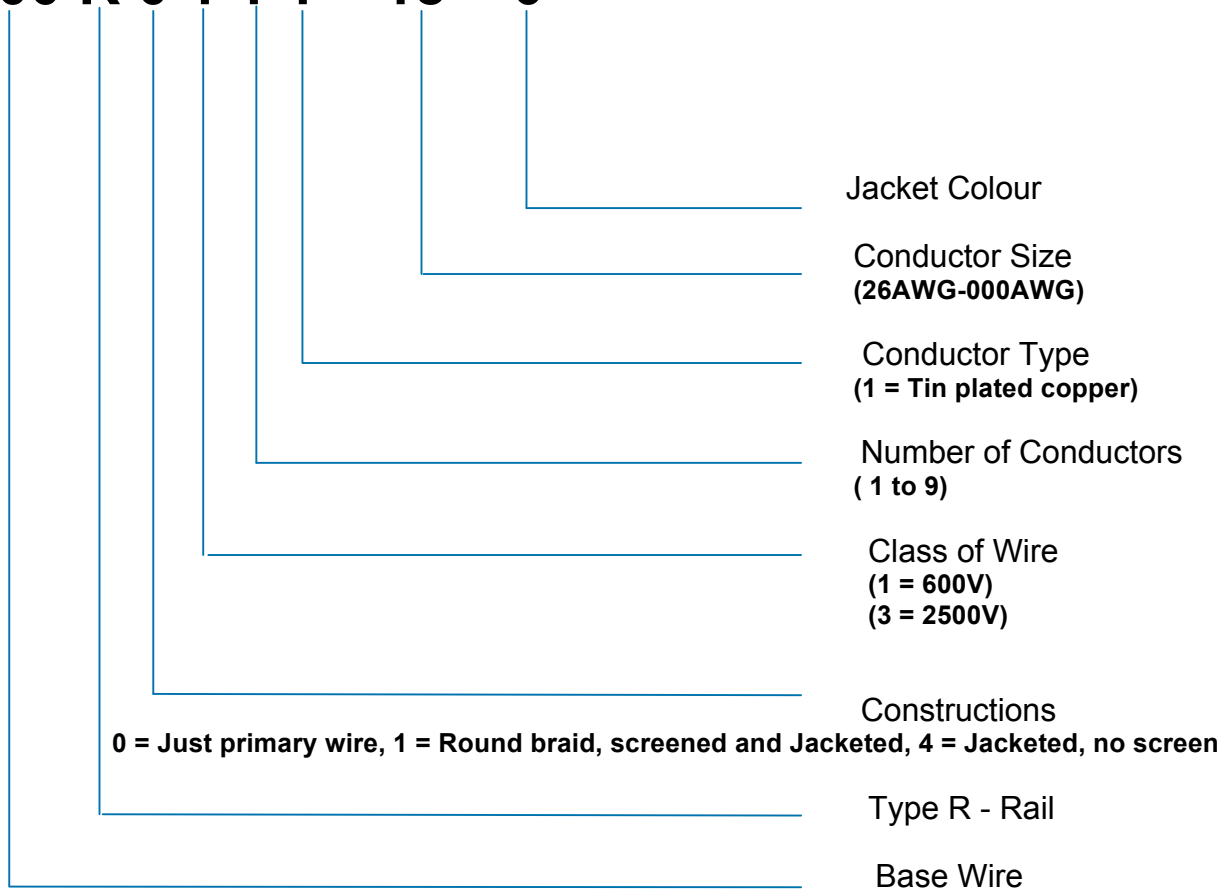
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## 400R SIGNAL WIRE & CABLE

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### PART DESCRIPTION

# 400 R 0 1 1 1 - 18 - 0



SINGLE CORE 400R0111-xx

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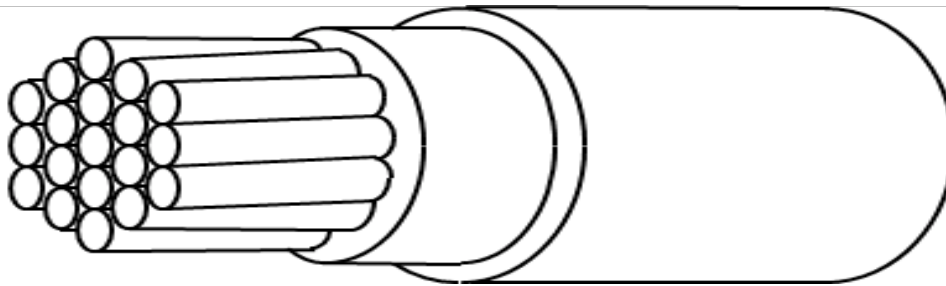
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### SINGLE CORE 400R0111-xx (600V)



Part Number	Wire Size	Conductor Stranding	Diameter of stranded conductor		Max Resistance at 20°C Ω/1000ft	Diameter		Maximum weight lbs/1000ft
			inch min	inch max		inch		
	AWG	No. x AWG				min	max	
400R0111-26-*	26	19 x 38	0.018	0.021	41.3	0.032	0.036	1.4
400R0111-24-*	24	19 x 36	0.023	0.026	26.2	0.038	0.042	2.0
400R0111-22-*	22	19 x 34	0.029	0.033	16.2	0.045	0.049	3.0
400R0111-20-*	20	19 x 32	0.037	0.041	9.88	0.053	0.057	4.5
400R0111-18-*	18	19 x 30	0.046	0.051	6.23	0.063	0.067	6.8
400R0111-16-*	16	19 x 29	0.052	0.058	4.81	0.069	0.075	8.6
400R0111-14-*	14	19 x 27	0.065	0.073	3.06	0.085	0.093	13.2
400R0111-12-*	12	37 x 28	0.084	0.090	2.02	0.104	0.112	20.2
400R0111-10-*	10	37 x 26	0.106	0.114	1.26	0.125	0.133	31.1

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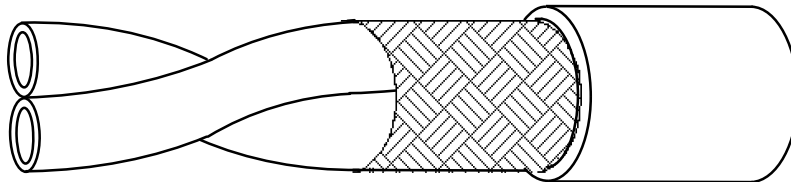
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## 400R SIGNAL WIRE & CABLE

Document number: TTDS-  
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### TWO CORE 400R1121-xx (600v)



Construction Details							
Part Number	Wire Size	Shield size	Jacket thickness		Diameter		Maximum weight
			inch min	inch nom	inch		
	AWG	AWG			nom	max	lbs/1000ft
400R1121-26-*	26	38	0.006	0.008	0.102	0.107	8.1
400R1121-24-*	24	36	0.006	0.008	0.118	0.123	11.3
400R1121-22-*	22	36	0.006	0.008	0.132	0.137	14.5
400R1121-20-*	20	36	0.006	0.008	0.148	0.153	18.8
400R1121-18-*	18	36	0.007	0.009	0.170	0.175	25.7
400R1121-16-*	16	36	0.007	0.009	0.184	0.189	30.2
400R1121-14-*	14	36	0.007	0.009	0.218	0.225	43.2
400R1121-12-*	12	36	0.007	0.009	0.256	0.265	61.5
400R1121-10-*	10	36	0.008	0.010	0.299	0.314	86.3

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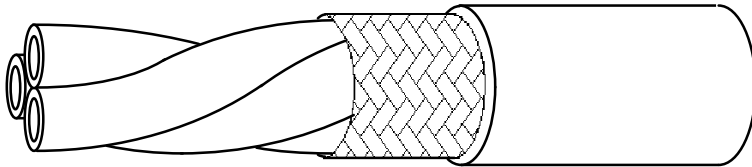


# TECHNICAL DATA SHEET

## 400R SIGNAL WIRE & CABLE

Document number: TTDS-  
Issue: 1  
Date: January 2016

### THREE CORE 400R1131-xx (600v)



Construction Details							
Part Number	Wire Size	Shield size	Jacket thickness		Diameter		Maximum weight
			inch min	inch nom	inch		
	AWG	AWG			nom	max	lbs/1000ft
400R1131-26-*	26	36	0.006	0.008	0.111	0.116	11.1
400R1131-24-*	24	36	0.006	0.008	0.124	0.129	14.4
400R1131-22-*	22	36	0.006	0.008	0.140	0.145	18.8
400R1131-20-*	20	36	0.006	0.008	0.157	0.163	25.0
400R1131-18-*	18	36	0.007	0.009	0.180	0.185	34.4
400R1131-16-*	16	36	0.007	0.009	0.196	0.201	41.1
400R1131-14-*	14	36	0.007	0.009	0.232	0.239	59.6
400R1131-12-*	12	36	0.008	0.010	0.275	0.282	86.8

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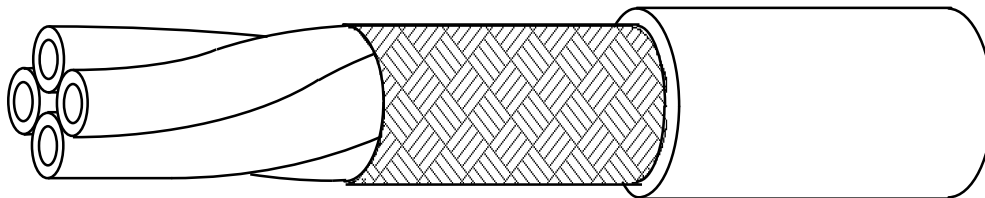


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## 400R SIGNAL WIRE & CABLE

Document number: TTDS-  
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### Four Core 400R1141-xx (600v)



Construction Details							
Part Number	Wire Size	Shield size	Jacket thickness		Diameter		Maximum weight
			inch min	inch nom	inch		
	AWG	AWG			nom	max	lbs/1000ft
400R1141-26-*	26	36	0.006	0.008	0.119	0.137	14.0
400R1141-24-*	24	36	0.006	0.008	0.134	0.154	17.6
400R1141-22-*	22	36	0.006	0.008	0.151	0.175	23.1
400R1141-20-*	20	36	0.007	0.009	0.172	0.200	31.4
400R1141-18-*	18	36	0.007	0.009	0.196	0.229	42.9
400R1141-16-*	16	36	0.007	0.009	0.213	0.249	51.7
400R1141-14-*	14	36	0.007	0.009	0.254	0.298	74.1
400R1141-12-*	12	36	0.008	0.010	0.302	0.355	108.0

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### APPROVALS & DECLARATIONS:

NFPA 130 Vertical Flammability  
BSS 7238 Ds Smoke 4 Minutes  
BSS 7238 Dm Smoke 4 Minutes  
BSS 7239 Toxicity

### Operating temperature

-65°C to +125°C

### Maximum operating Temperature

125°C / 10 Years  
110°C / 30 Years

### Fire Hazard

Low toxicity, Low smoke, Highly flame retarded

### Voltage rating

400R\*1\*\* 600V  
400R\*3\*\* 2,500V

### Conductor size range

26AWG-00AWG

### Construction

Single core and multi core

### Colours

Single core insulation available in all colour codes 0-9  
Standard insulation colours black & white

### Conductors

Tin plated copper stranded

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### FIRE HAZARD PERFORMANCE

TEST	METHOD	RESULT
Flammability – small scale	NFPA 130 FT4 / IEEE 1202	Char Length < 1.5m
Smoke Testing	BSS 7238	Ds < 50 @ 4 minutes Dm < 300 @ 4 minutes
Toxicity	BSS 7239	HCN < 100 ppm CO < 3500 ppm SO <sub>2</sub> < 100 ppm HF < 100 ppm HCL < 500ppm

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### GENERAL PROPERTIES (See WSD for full details)

TEST		REQUIREMENT
Maximum Temperature Rating		-65 to +125°C
Voltage Rating		600V, 1,000V, 2,500V AC RMS Depending on type
Accelerated Aging		300°C +/- 3°C for 6 hours
Blocking		150°C +/- 3°C for 6 hours
Jacket Colour		White Preferred
Dielectric Withstand	600V	2,500V AC RMS, 60Hz 1 minute
	2,500V	5,000V AC RMS, 60Hz 1 minute
Jacket Concentricity		70% Minimum
Jacket Elongation	600V	200% Minimum
	2,500V	150% Minimum
Jacket TS	600V	27.5 MPa minimum
	2,500V	17.2 MPa minimum
Jacket Flaws	600V	High Frequency 4.2KV AC RMS @ 3KHz Impulse 6.0KV Peak
	2,500V	High Frequency 8.0KV AC RMS @ 3KHz Impulse 13.0KV Peak

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### GENERAL PROPERTIES (See WSD for full details)

TEST		REQUIREMENT
Shield Coverage		85% Minimum
Voltage Withstand	600V 2,500V	2,500V AC RMS, 60Hz 1 minute 5,000V AC RMS, 60Hz 1 minute
Humidity Resistance		IR 5,000 M Ohms.1000ft Minimum

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