



INFINITY NETWORKS PVT. LTD.

B-97 A, Mayapuri Industrial Area Phase - 1, New Delhi 110064, India

+91 9899549000 • office@inpl.co.in • inpl.co.in



Whatever your application, Infinity offers you a wide range of cables to choose from. Cables that are made to perform under tough Indian conditions.

You can pick a cable from our ready range or you can even get it designed and manufactured to meet your specific requirements.

At Infinity Networks, we have been bridging gaps in technology thanks to relentless research and development efforts. In fact, our legacy flows from Bhansali, a brand synonymous with quality cables for over 75 years. Today, Infinity Networks keeps abreast of changing trends and expertise and is synonymous with quality cables.

A result of continuous efforts, planning and attention to detail, Infinity Network's quality procedures are precisely defined and strictly followed.

So, reap the benefits of quality, innovation and reliability.

Move ahead with Infinity Network.

Approvals

IS/ISO 9001:2015 • ISO 14001:2015 • ISO 45001:2018



The Infinity Networks Range

Solar cables • Automotive cables • Cables for electronics • Cables for defence applications • Mining cables • Oil, gas & petrochemical cables • Transportation cables • Fire survival/resistant cables • Appliance wiring cables • Litz & winding wires • RF & CATV coaxial cables • Fibre optic cables • Earth braid cables



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The Infinity Range of Cables

Cable Type	Applications
1 Radio Frequency Coaxial Cables as per British Standards 2316 (UR Series), American Military Standards MIL-C17D (RG Series), KATHERIN, etc.	<ul style="list-style-type: none">• Radio transmission systems• CATV, MATV and CCTV systems• Electrical instruments• LAN, WAN, ETHERNET, ARCNET, NOVELL, and other complex applications• Dual coax-workstations for large word processing systems
2 Copper/Aluminium Conductor PVC Insulated Armoured/ Unarmoured Control Cables suitable for 1.1 kV as per IS:1554 (PART-I)	<ul style="list-style-type: none">• Interconnection of electrical machines, instruments and control panels, etc.
3 Copper Conductor PVC Insulated Cables as per IS:694	<ul style="list-style-type: none">• House wiring, building wiring
4 Copper Conductor PVC Insulated Multipair Telephone Cables with option of Screened/Unscreened pairs, Jellyfilled Armoured/Unarmoured, conforming to specifications of ITD, OKL, IEB, BPO, etc.	<ul style="list-style-type: none">• Telephone Systems of any project• EPABX systems• In-house telephone wiring, etc.
5 Instrumentation/Control & Data Cables with HR PVC and Flame Retardant Low Smoke Outer Sheath as per National/International specifications.	<ul style="list-style-type: none">• Thermal power projects• Fire alarm systems• Refineries and petrochemical projects• Chemical plants• Fire hazard areas• Transmission systems• Computer controlled electrical and electronic equipment• Lifts and conveyor belts
6 Flexible/Solid Copper Conductor PVC/Polyethylene Insulated Aluminium/Copper Tape Screen Pair/Triads/ Unit Formation with Individual/Overall Screened. Armoured/Unarmoured PVC Sheathed suitable up to 1.1 kV as per customer specifications.	<ul style="list-style-type: none">• Data Acquisition Systems (DAS)• RTD from junction boxes• To connect various instruments to main junction box• Computer networks• Digital control monitoring and information systems• To connect local junction boxes to terminal boxes• Electrical and electronic equipment
7 Copper Conductor PVC/Polyethylene Insulated Copper Wire Braided Screened Instrumentation Cables.	<ul style="list-style-type: none">• Electric instruments and public address systems• Piped music• Interconnection of electrical machines, instruments and control panels, etc.
8 Compensating Cables & Thermocouple Extension Cables	<ul style="list-style-type: none">• All types of thermocouples as per IS, BS, ANSI, DIN and JIS standards.
9 Flat Ribbon Cables PVC Insulated Bonded/Extruded	<ul style="list-style-type: none">• Electronic and computer applications• Spacecraft wiring• Under carpet wiring• High flexibility applications
10 Other Winding Wires, Litz Wires, etc.	<ul style="list-style-type: none">• High frequency IF coils/deflection components for Audio/TV/Telecommunications and professional electronics
11 Telephone Coil Cords and Straight Cords, etc., Computer Cables and Assemblies.	<ul style="list-style-type: none">• Electronic push button telephones/EPABX, computersystems, etc.

Note: We also specialise in the manufacture of custom made cables as per customer's specific requirements.





Radio Frequency Coaxial Cables

Infinity manufactures one of the most comprehensive lines of coaxial cables available from any single source. Signal transmission in electronic applications and data communications is changing in a dramatic way. Cables now have to accommodate faster signal speeds over longer distance with less signal loss. Additionally, new shielding requirements to meet FCC RFI/EMI emission controls, tougher fire/temperature requirements requiring special materials in critical installations and demands for high density wiring are factors which have been considered in many of our coaxial and data cable products.

Our products are designed to meet these needs for safe and reliable transmission of voice, video and data.

Infinity's coaxial cable products are supplied in 50, 75, 93, 125 and 150 ohms impedance grades for most voice, video and data applications. Our comprehensive line includes:

- Standard RG/URM/JSS/JIS type coax for commercial and defence use
- Triaxial cables-balanced lines for reduced crosstalk
- Triaxial cables
- MATV and CATV Cables
- Networking load for LAN, WAN, ETHERNET, ARCNET, NOVELL LAN D-LINK and other complex applications
- Dual Coax-workstation for large word processing systems.

Item (Replaces)	Conductor Size	Dia over Dielectric	O.D.	Impedance	Attenuation at 200 MHz	Max R.F. operating voltage
	(mm)	(mm)	(mm)	(ohms)	(dB/100 m)	kV
Characteristic impedance 50-55 ohms						
RG-174/U	7/0.16 (C)	1.50	2.5	50.0	40	1.5 rms
RG-122/U	27/0.127 (T)	2.40	4.1	50.0	36	1.9 rms
RG-58/U	0.81 (P)	2.95	5.0	53.5	23	1.9 rms
RG-58C/U	19/0.18 (T)	2.95	5.0	50.0	24	1.9 rms
URM-43 (UR 43)	0.9 (P)	2.95	5.0	50.0	19	2.6 peak
URM-76 (UR 76)	7/0.32 (P)	2.95	5.0	50.0	22	2.6 peak
RG-55B/U	0.81 (S)	2.95	5.2	53.5	20	1.9 rms
RG-223/U (RG-55A/U)	0.9 (S)	2.95	5.5	50.0	20	1.9 rms
URM-115	0.9 (P)	2.95	7.2	50.0	19	2.0 peak
RG-212/U (RG-5B/U)	1.2 (S)	4.70	8.4	50.0	14	3.0 rms
RG-213/U (RG-8A/U)	<i>Similar to and substitutes URM-67 and UR-67</i>					
	7/0.75 (P)	7.25	10.3	50.0	11	5.0 rms
RG-214/U (RG-9B/U)	<i>Similar to and substitutes URM-112 and UR-112</i>					
	7/0.75 (S)	7.25	10.8	50.0	11	5.0 rms
URM-91 (UR-91)	7/0.76 (P)	7.25	11.0	50.0	10	6.5 peak
RG-217/U (RG-14A/U)	2.7 (P)	9.80	13.8	50.0	7	7.0 rms
RG-218/U (RG-17A/U)	<i>Similar to and substitutes URM-74 and UR-74</i>					
	4.95 (P)	17.30	22.1	50.0	4	11.0 rms





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Item (Replaces)	Conductor Size	Dia over Dielectric	O.D.	Impedance	Attenuation at 200 MHz	Max R.F. operating voltage
NORMAL VALUES						
	(mm)	(mm)	(mm)	(ohms)	(dB/100 m)	kV

Characteristic impedance 70-75 ohms

URM-200	7/0.2 (P)	2.45	4.1	75	23	Foam-PE dielectric
URM-201	0.71 (P)	3.25	5.1	75	16	-do-
URM-202	7/0.25 (P)	3.25	5.1	75	16	-do-
URM-210	7/0.19 (P)	3.25	5.8	75	22	-do-
URM-70 (UR-70)	7/0.19 (P)	3.25	5.8	75	22	1.8 peak
UR-56	0.56 (P)	3.25	5.9	71	18	2.5 peak
URM-117	7/0.212 (P)	3.70	6.0	75	18	2.6 peak
RG-59B/U	0.58 (C)	3.70	6.1	75	16	2.3 rms
RG-59/U	0.63 (P)	3.70	6.2	73	16	2.3 rms
URM-203	1.12 (P)	5.10	7.3	75	11	Foam-PE dielectric
URM-204	1.25 (P)	5.60	7.8	75	10	-do-
UR-54	7/0.193 (P)	3.25	8.3	72	22	1.8 peak
URM-206	1.4 (P)	6.35	8.7	75	8 F	Foam-PE dielectric
RG-11A/U	7/0.41 (P)	7.25	10.3	75	11	5.0 rms
UR-59	1.12 (P)	7.25	10.3	75	9	5.0 peak
URM-65 (UR-65)	1.15 (P)	7.25	10.3	75	9	5.0 rms
RG-216/U (RG-13A/U)	7/0.41 (T)	7.25	10.8	75	15	5.0 rms
UR-21	1.42 (P)	8.40	11.5	71	8	5.0 peak
UR-60	1.12 (P)	7.25	11.7	75	9	5.0 peak
RG-34B/U	7/0.64 (P)	11.70	16.0	75	7	6.5 rms
URM-77 (UR-77)	<i>Similar to and substitutes RG-164/U</i>					
	2.65 (P)	17.30	22.0	75	5	12.5 peak

Characteristic impedance 90-125 ohms

RG-62A/U Semi-air spaced	0.64 (C)	3.7	6.1	93	12	0.75 rms
RG-71B/U Semi-air spaced	0.64 (P)	3.7	6.4	93	12	0.75 rms
RG-63 B/U Semi-air spaced	0.64 (P)	7.25	10.3	125	9	1.00 rms
RG-22/U	2×7/0.38 (P)	7.25	10.3	95	20	1.00 rms
UR-78	0.61 (P)	7.25	10.3	100	11	3.7 rms
RG-57A/U Twin conductor	2×7/0.12	12.0	15.9	95	12	3.0 rms

Note: If you have a new or unusual application or if you cannot find a cable in this section which meets your requirement, then, please contact us. We can design a custom-made cable for you.

P=Plain copper, T=Tinned copper, S=Silver plated, C=Copper coated steel.

Colour: Sheathing — grey/black/white.

Packing: As per customer requirements





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Equipment Wires

Our commitment to quality and service starts from the beginning...with the manufacturing of a Single Conductor Hook-up wire, the most basic wiring component. Our hook-up wires, lead wires and equipment wires are manufactured in a variety of material, size and designs to meet rigid industrial and government specifications. Used extensively for both electrical and electronic equipment where applications range from inter-connection circuits to internal wiring of computers and data processing equipment, etc.

Technical Data

Conductor: Bare copper/tinned, copper/pre-twisted and tinned copper complying with BS:6360

Insulation: PVC compound complying with BS:6746

Operating temperature: Heat resistant -20° C to + 85°/+105° C

Low temperature -40° C to +70° C

Normal wires -15° C to + 70° C

RoHS compliant cables with SGS reports also available

Size (mm)	Nominal area (mm ²)	Insulation thickness (mm)	Max. overall Diameter (mm)	Max. cont. Current Rat. (amp)	Voltage rating	
					DC	AC
7/.10	0.054	0.15	0.70	0.34	750	500
7/.12	0.080	0.15	0.75	0.51	750	500
7/.15	0.127	0.35	1.1/1.30	0.81	1500	1000
7/.193	0.200	0.30	1.30	1.28	1500	1000
7/.2	0.220	0.30	1.30	1.36	1500	1000
14/.15	0.250	0.40	1.65	1.55	1500	1000
14/.193	0.410	0.40	1.75	2.62	1500	1000
14/.2	0.440	0.40	1.80	2.81	1500	1000
16/.2	0.500	0.40	1.80	3.11	1500	1000
19/.10	0.150	0.25	1.10	1.00	750	500
24/.2	0.750	0.40	2.20	4.66	1500	1000
32/.2	1.000	0.40	2.30	6.20	1500	1000
48/.2	1.500	0.50	2.80	9.33	1500	1000
63/.2	2.000	0.50	3.00	12.44	1500	1000
80/.2	2.500	0.60	3.50	15.55	1500	1000
128/.2	4.000	0.60	4.00	24.88	1500	1000
23/38	0.420	0.40	1.70	2.61	1500	1000
23/36	0.680	0.40	2.10	4.23	1500	1000
40/36	1.170	0.45	2.80	7.26	1500	1000
70/36	2.000	0.50	3.45	12.44	1500	1000
110/36	3.200	0.60	4.00	19.84	1500	1000



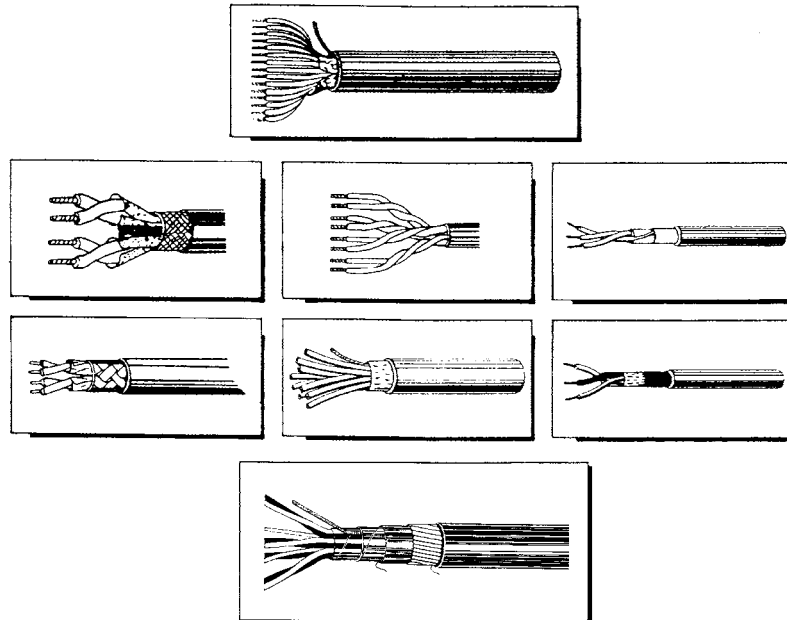


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Instrumentation and Data Cables



The growing sophistication of the electronic industry continues to create a need for specially designed cables for use with computer-controlled electrical and electronic equipment. To satisfy requirements for impedance matching, lower bit error rates, lower crosstalk, longer transmission distances and high signal purity, we are manufacturing an expanding spectrum of instrumentation, data and control cables in full range of sizes, insulations of different types, shields types for special installations. We can also armour these cables for mechanical protection.

Conductor: Solid/stranded, tinned/bare/silver plated and made up of annealed high conductivity EC Grade copper as per IS:8130 with conductor sizes ranging from 0.05 sq mm to 10 sq mm.

Insulation: PE/Foam PE/PP/PVC/Silicone/Special Thermoplastic materials.

Construction: Paired/Triads or Quad construction with individual/collective shields.

Colour Scheme: As per IEC/ITD/MIL standards/As per customer specifications.

Shield: Aluminium foil with ATC drain wire/Copper Braid Shielding.

Sheath: PVC-FRLS/HR/Halogen Free/Normal, PU/Silicone, RoHS-compliant compound, oil and rodent-resistant or any other thermoplastic materials.





CAT-5e and CAT-6 Cables

Our CAT-5e and CAT-6 cables are designed to exceed category 5e and 6 specifications in PVC/FRLS/LSOH jacket options. They comply with all of the performance requirements for current and proposed applications such as Gigabit Ethernet, 100 BASE-Tx, token ring, 155 Mbps ATM, 622Mbps ATM, 100 Mbps TP-PMD, ISDN, analog (broadband, baseband) and digital video & voice.

Technical Data

Conductor Type: 24 AWG Solid Bare Copper

Insulation: Colour-coded PE Insulation

Colour Codes: 1P-White/Blue, 2P-White/Orange, 3P-White/Green, 4P-White/Brown

Sheath: PVC/FRLS/LSOH

Flammability Grade: CMX, CM, MP, CMG, MPG, CMR, MPR

Electrical Characteristics - CAT-5e Cables

Freq. MHz	Attenuation (dB/100 m)Max.	Next (dB) Min.	PSNEXT (dB) Min.	ELFEXT (dB) Min.	PSELFEXT (dB) Min.	Return Loss (dB) Min.	ACR (dB) Min.	PS ACR (dB) Min.
0.772	1.8	67.0	64.0	66.0	63.0	20.0	65.2	62.2
1.000	2.0	65.3	62.3	63.8	60.8	20.0	63.3	60.3
4.000	4.1	56.3	53.3	51.7	48.7	23.0	52.2	49.2
8.000	5.8	51.8	48.8	45.7	42.7	24.5	46.0	43.0
10.000	6.5	50.3	47.3	43.8	40.8	25.0	43.8	40.8
16.000	8.2	47.3	44.3	39.7	36.7	25.0	39.1	36.1
20.000	9.3	45.8	42.8	37.7	34.7	25.0	36.5	33.5
25.000	10.4	44.3	41.3	35.8	32.8	24.3	33.9	30.9
31.250	11.7	42.9	39.9	33.9	30.9	23.6	31.2	28.2
62.500	17.0	38.4	35.4	27.8	24.8	21.5	21.4	18.4
100.000	22.0	35.3	32.3	23.8	20.8	20.1	13.3	10.3

DC Resistance (max.): 9.38Ω/100 metres.

DC Resistance Unbalance: 2% max.

Characteristic Impedance: 100 ±15Ω @ 1-100 MHz

Mutual Capacitance: 5.6 nF/100 metres.

Propagation Delay: 538 ns/100 metres max. @ 100 MHz

Also available in Copper Coated Aluminium (CCA)

Electrical Characteristics - CAT-6 Cables

Freq. MHz	Attenuation (dB/100 m) Max.	Next (dB) Min.	PSNEXT (dB) Min.	ELFEXT (dB) Min.	PSELFEXT (dB) Min.	Return Loss (dB) Min.	ACR (dB) Min.	PS ACR (dB) Min.
0.772	1.8	76.0	74.0	70.0	67.0	20.0	74.2	72.2
1.00	2.0	74.3	72.3	67.8	64.8	20.0	72.3	70.3
4.00	3.8	65.3	63.3	55.8	52.8	23.0	61.5	59.5
8.00	5.3	60.8	58.8	49.7	46.7	24.5	55.5	53.5
10.00	6.0	59.3	57.3	47.8	44.8	25.0	53.3	51.3
16.00	7.6	56.2	54.2	43.7	40.7	25.0	48.6	46.6
20.00	8.5	54.8	52.8	41.8	38.8	25.0	46.3	44.3
25.00	9.5	53.3	51.3	39.8	36.8	24.3	43.8	41.8
31.25	10.7	51.9	49.9	37.9	34.9	23.6	41.2	39.2
62.50	15.4	47.4	45.4	31.9	28.9	21.5	32.0	30.0
100.00	19.8	44.3	42.3	27.8	24.8	20.1	24.5	23.5
200.00	29.0	39.8	37.8	21.8	18.8	18.0	10.8	8.8
250.00	32.8	38.3	36.3	19.8	16.8	17.3	5.5	3.5

DC Resistance (max.): 9.38Ω/100 metres.

DC Resistance Unbalance: 3% max.

Characteristic Impedance: 100 ± 15Ω @ 1-100 MHz,
100 ± 20Ω @ 100-250 MHz

Mutual Capacitance: 5.6nF/100 metres.

Propagation Delay: 536ns/100 metres max. @ 250 MHz





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Telephone Cables

Today, the vital link in the world of fast movement is communication. A well established and firm contact is dependent upon the connecting technology delivering right signals with high accuracy.

In many respects, the telephone cables are processed with specially treated copper conductor having better elongation and strength for longer life, better solderability and special insulating materials to avoid any cross talks.

An easily Identifiable colour coding helps in reducing the time loss for accurate connections.

Concern for safety and environmental protection has made it mandatory that the cables you install meet specific rigid requirements.

Material & Construction: Tinned copper conductors, PVC insulated, Sheathed, armoured/unarmoured.

Identification: Approved identification thread laid under the sheath.

Applications: Indoor telephone wiring, switch-board wiring, private telephone exchanges for intercoms, telecommunication equipment, etc.

Specifications: TEC Spec. No. G/WIR-06/02 May 94
armouring to IS:1554 Part-I 1988

No. of Pairs	0.40mm		0.50mm		0.60mm	
	Sheath Thick. mm (Min.)	Outer Dia mm (Max.)	Sheath Thick. mm (Min.)	Outer Dia mm (Max.)	Sheath Thick. mm (Min.)	Outer Dia mm (Max.)
1.	0.50	3.5	0.50	3.5	0.50	3.5
3.	0.65	5.5	0.65	5.6	0.65	6.2
4.	0.65	5.5	0.65	6.0	0.65	6.4
6.	0.65	6.5	0.65	6.8	0.65	7.8
7.	0.65	6.8	0.65	7.0	0.65	7.9
8.	0.65	7.0	0.65	7.3	0.65	8.0
10.	0.75	8.0	0.75	9.0	0.75	10.0
11.	0.75	8.5	0.75	9.5	0.75	10.1
12.	0.75	8.5	0.75	9.5	0.75	10.2
14.	0.75	9.5	0.75	10.5	0.75	10.5
16.	0.75	9.5	0.75	10.6	0.75	10.6
21.	0.75	10.5	0.75	11.5	0.75	11.8
24.	0.75	11.0	0.75	11.5	0.75	12.5
28.	0.75	11.5	0.75	11.5	0.75	13.4
32. (in sub unit)	0.75	12.5	0.75	13.0	0.90	14.6
35.	0.90	13.0	0.90	13.0	0.90	15.1
42.	0.90	14.0	0.90	15.0	1.10	16.2
48.	1.10	14.5	1.10	16.0	1.10	17.3
51.	1.10	15.5	1.10	16.2	1.10	18.3
53.	1.10	16.0	1.10	16.5	1.10	18.3
101.	1.40	22.0	1.40	22.8	1.40	23.8
102.	1.40	22.5	1.40	23.0	1.40	24.6
128. (in 4 unit)	1.40	26.0	1.40	27.0	1.40	28.5
204. (in 4 unit)	1.80	31.0	1.80	33.0	1.80	35.6





LT Power Cables

Power cables with PVC/XLPE insulation for Power Transmission in voltage grade 650/1100 Volts (U./U) provided with ISI marking IS 1554 (Pt.-I). Available with or without HR/FRLS properties screening can be provided if desired. Confirming to standard specifications like IS 1554 (Pt.-I), IEC 502, BS 6436/87.

Configuration: Single core upto 1000 sq mm. Multi-core upto 400 sq mm x 3.5 Cores

Construction

Conductor: Aluminium / Copper Solid / Stranded Circular / Compacted / Sector-shaped conductor.

Insulation: PVC or XLPE (Heat Resistant PVC on request)

Mechanical Protection: Galvanised steel wire / strips / double helical steel tape. Aluminium wire armouring for single core cable.

Inner & Outer Sheath: PVC/FRLS black / grey.

1.1 kV Twin Core, Aluminium Conductor, PVC Insulated, Inner Sheathed, Armoured PVC Sheathed Cables Conforming To IS: 1554 (Part I) Amended Up to Date

Nominal cross sectional area	Nominal thickness of insulation	Minimum thickness of inner sheath	ARMOUR		Min. outer sheath thick.	Approx. overall dia.	Approx. wt of cable	Max. DC Conductor resistance at 20°C	Current Ratings		
			Galv. round steel wire nom. dia.	Galv. flat steel strip nom. thick.					Direct in ground amps	In Ducts amps	In Air amps
Sq mm	mm	mm	mm	mm	mm	mm	kg/km	Ohm/km			
*1.5	0.8	0.3	1.4	—	1.24	12.2	320	18.1000	18	16	16
*2.5	0.9	0.3	1.4	—	1.24	13.4	380	12.1000	25	21	21
*4.0	1.0	0.3	1.4	—	1.24	14.7	450	7.4100	32	27	27
*6.0	1.0	0.3	1.4	—	1.24	15.8	500	4.6100	40	34	35
*10	1.0	0.3	1.4	—	1.24	17.9	600	3.0800	55	45	47
16	1.0	0.3	—	0.8	1.40	17.0	500	1.9100	70	58	59
25	1.2	0.3	—	0.8	1.40	20.1	650	1.2000	90	76	78
35	1.2	0.3	—	0.8	1.40	21.7	750	0.8680	110	92	99
50	1.4	0.3	—	0.8	1.40	24.5	950	0.6410	135	115	125
70	1.4	0.3	—	0.8	1.56	27.1	1150	0.4430	160	140	150
95	1.6	0.4	—	0.8	1.56	30.8	1460	0.3200	190	170	185
120	1.6	0.4	—	0.8	1.56	32.9	1670	0.2530	210	190	210
150	1.8	0.4	—	0.8	1.72	36.3	2010	0.2060	240	210	240
185	2.0	0.5	—	0.8	1.88	40.3	2450	0.1640	275	240	275
240	2.2	0.5	—	0.8	2.04	44.8	2950	0.1250	320	275	325
300	2.4	0.6	—	0.8	2.20	49.6	3560	0.1000	355	305	365
400	2.6	0.7	—	0.8	2.36	55.9	4500	0.0778	385	345	420
500	3.0	0.7	—	0.8	2.68	62.5	5600	0.0605	410	370	450

1.1 kV Three Core, Aluminium Conductor, PVC Insulated, Inner Sheathed, Armoured PVC Sheathed Cables Conforming To IS: 1554 (Part I) Amended Up to Date

*1.5	0.8	0.30	1.4	—	1.24	12.7	375	18.1000	16	14	13
*2.5	0.9	0.30	1.4	—	1.24	14.0	425	12.1000	21	18	18
*4.0	1.0	0.30	1.4	—	1.24	15.6	500	7.4100	28	23	23
*6.0	1.0	0.30	1.4	—	1.24	17.3	575	4.6100	35	30	30
*10	1.0	0.30	1.4	—	1.40	19.0	700	3.0800	46	39	40
16	1.0	0.30	—	0.80	1.40	19.3	650	1.9100	60	50	51
25	1.2	0.30	—	0.80	1.40	22.0	800	1.2000	76	63	70
35	1.2	0.30	—	0.80	1.40	24.0	950	0.8680	92	77	86
50	1.4	0.30	—	0.80	1.56	27.6	1200	0.6410	110	95	105
70	1.4	0.40	—	0.80	1.56	30.8	1500	0.4430	135	115	130
95	1.6	0.40	—	0.80	1.56	34.6	1900	0.3200	165	140	155
120	1.6	0.40	—	0.80	1.72	37.5	2240	0.2530	185	155	180
150	1.8	0.50	—	0.80	1.88	41.9	2700	0.2060	210	175	205
185	2.0	0.50	—	0.80	1.88	45.6	3200	0.1640	235	200	240
240	2.2	0.60	—	0.80	2.20	51.6	3990	0.1250	275	235	280
300	2.4	0.60	—	0.80	2.36	56.7	4850	0.1000	305	260	315
400	2.6	0.70	—	0.80	2.52	64.1	6100	0.0778	335	290	375
500	3.0	0.70	—	0.80	2.84	71.5	7600	0.0605	350	310	410



**1.1 kV Four Core, Aluminium Conductor, PVC Insulated, Inner Sheathed,
 Armoured PVC Sheathed Cables Conforming To IS: 1554 (Part I) Amended Up to Date**

Nominal cross sectional area	Nominal thickness of insulation	Minimum thickness of inner sheath	ARMOUR		Min. outer sheath thick.	Approx. overall dia.	Approx. wt of cable	Max. DC Conductor resistance at 20°C	Current Ratings		
			Galv. round steel wire nom. dia. mm	Galv. flat steel strip nom. thick. mm					Direct in ground amps	In Ducts amps	In Air amps
*1.5	0.8	0.3	1.4	—	1.24	15.0	400	18.1000	16	14	13
*2.5	0.9	0.3	1.4	—	1.24	16.5	480	12.1000	21	18	18
*4.0	1.0	0.3	1.4	—	1.24	18.0	550	7.4100	28	23	23
*6.0	1.0	0.3	1.4	—	1.24	19.5	650	4.6100	35	30	30
*10	1.0	0.3	—	0.8	1.40	20.0	660	3.0800	46	39	40
16	1.0	0.3	—	0.8	1.40	23.0	750	1.9100	60	50	51
25	1.2	0.3	—	0.8	1.40	23.7	950	1.2000	76	63	70
35	1.2	0.3	—	0.8	1.40	25.9	1165	0.8680	92	77	86
50	1.4	0.4	—	0.8	1.56	30.4	1540	0.6410	110	95	105
70	1.4	0.4	—	0.8	1.56	33.5	1800	0.4430	135	115	130
95	1.6	0.4	—	0.8	1.72	38.1	2400	0.3200	165	140	155
120	1.6	0.5	—	0.8	1.88	41.9	2800	0.2530	185	155	180
150	1.8	0.5	—	0.8	1.88	45.9	3350	0.2060	210	175	205
185	2.0	0.6	—	0.8	2.04	50.9	4000	0.1640	235	200	240
240	2.2	0.6	—	0.8	2.36	57.1	5050	0.1250	275	235	280
300	2.4	0.7	—	0.8	2.52	63.2	6200	0.1000	305	260	315
400	2.6	0.7	—	0.8	2.84	71.4	7850	0.0778	335	290	375
500	3.0	0.7	—	0.8	3.00	79.2	9600	0.0605	350	310	410

**1.1 kV 3½ Core, Aluminium Conductor, PVC Insulated, Inner Sheathed,
 Armoured PVC Sheathed Cables Conforming To IS: 1554 (Part I) Amended Up to Date**

Nominal cross sectional area		Nominal thickness of insulation		Minimum thickness of inner sheath	ARMOUR Galvanised flat steel strip nom. thick. mm	Min. thickness of outer sheath	Approx. overall diameter	Approx. wt of cable	Max. DC Conductor resistance at 20°C		Current Ratings		
Main	Neutral	Main	Neutral						Main	Neutral	Direct in Ground amps	In Ducts amps	In Air amps
25	16	1.2	1.0	0.3	0.8	1.40	23.1	900	1.200	1.910	76	63	70
35	16	1.2	1.0	0.3	0.8	1.40	24.9	1030	0.868	1.910	92	77	86
50	25	1.4	1.2	0.3	0.8	1.56	28.8	1350	0.641	1.200	100	95	105
70	35	1.4	1.2	0.4	0.8	1.56	32.2	1725	0.443	0.868	135	115	130
95	50	1.6	1.4	0.4	0.8	1.56	36.3	2130	0.320	0.641	165	140	155
120	70	1.6	1.4	0.5	0.8	1.72	40.1	2580	0.253	0.443	185	155	180
150	70	1.8	1.4	0.5	0.8	1.88	43.8	3050	0.206	0.443	210	175	205
185	95	2.0	1.6	0.5	0.8	2.04	48.4	3650	0.164	0.320	235	200	240
240	120	2.2	1.6	0.6	0.8	2.20	54.3	4580	0.125	0.253	275	235	280
300	150	2.4	1.8	0.6	0.8	2.36	59.7	5500	0.100	0.206	305	260	315
400	185	2.6	2.0	0.7	0.8	2.68	67.6	7000	0.0778	0.164	335	290	375
500	240	3.0	2.2	0.7	0.8	2.84	75.2	8600	0.0605	0.125	350	310	410

These cables can be supplied with HR (Heat Resistant), FR (Fire Retardant), FRLS (Flame Retardant Low Smoke), Halogen Free Insulation and Sheath, and FS (Fire Survival) characteristics.





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PVC Insulated Cables

Technical Data

Conductor: Electrolytic Grade Bright Annealed Bare Copper as per IS8130/1984.

Insulation: PVC compound offering high insulation resistance and dielectric strength as per IS 5831/1984.

Single Core, Unsheathed Cables in Voltage Grade 1100V

Nominal area of conductor	Number/Nom dia. of wire	Thickness of insulation (Nom.)	Approx. Overall Dia.	Current carrying capacity # 2 cables, single phase		Resistance (Max.) per km @20°C
				In conduit / Trunking	Unenclosed-clipped directly to a surface or on cable tray	
sq. mm	mm	mm	mm	amps	amps	Ω
1.0	14/0.3*	0.7	2.8	11	12	18.100
1.5	22/0.3*	0.7	3.1	13	16	12.100
2.5	36/0.3*	0.8	3.8	18	22	7.410
4.0	56/0.3**	0.8	4.4	24	29	4.950
6.0	84/0.3**	0.8	5.0	31	37	3.300
Standard Colours: Black, Red, Blue, Yellow and Green (for earthing). Supplied in 90 meter lengths in attractive cartons						
# As per IS 3961 (Part V) – 1968			BIS Licence No. CML –8510871			
* As per conductor Class 2 of IS: 8130 / 1984			** As per conductor Class 5 of IS:8130/1984			
10.0	84/0.4 or 140/0.3	1.0	6.6	42	51	1.910
16.0	126/0.4	1.0	7.8	57	68	1.210
25.0	196/0.4	1.2	9.7	71	86	0.780
35.0	276/0.4	1.2	10.9	91	110	0.554
50.0	396/0.4	1.4	13.2	120	145	0.386
Standard Colour: Black, Red, Blue and Yellow Supplied in 100 metre lengths in coils		Other Colours on request Conform to IS 694:1990		Above sized are as per conductor Class 5 of IS:8130/1984 Supplied in BIS Licence No. CML –8510871		

Nominal area of conductor Sq. mm	Number/Nom dia. of wire mm	Thickness of insulation (Nom.) mm	Approx. Overall Diameter mm	Current Carrying Max Capacity Amps.	Resistance (Max.) per km @20°C Ω
70	360 /0.5	1.8	16.15	214	0.272
95	475 / 0.5	1.9	18.75	254	0.206
120	608 / 0.5	2.1	21.25	300	0.161
150	750 /0.5	2.1	22.25	340	0.129
185	925 /0.5	2.5	25.5	390	0.106
240	1221 /0.5	2.5	28.5	460	0.0801
Standard Colour: Black, Red, Blue and Yellow. Supplied in 100 metre lengths in coils		Other Colours on request Conform to IS 694:1990		Above sized are as per conductor Class 5 of IS:8130/1984 BIS Licence No. CML –8510871	





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Multicore Round Insulated Copper Conductor and Sheathed Black Flexible Cables 1100 Voltage Grade

Nominal cross sectional area of conductor Sq. mm	No./Nominal dia. of cond. strands mm	Nominal thick. of insulation mm	Nominal Thickness of Sheet			Approx. Overall Diameter			Current Rating A/C amps	Voltage Drop		Max. Cond. Resistance at 20°C Ohm/km
			Two Core mm	Three Core mm	Four Core mm	Two Core mm	Three Core mm	Four Core mm		DC or Single Phase AC mV	3-Phase AC mV	
0.5	16 /0.20	0.6	0.9	0.9	0.9	6.2	6.6	7.2	4	83	72	39.0
0.75	24 /0.20	0.6	0.9	0.9	0.9	6.5	6.9	7.6	7	56	48	26.0
1.0	32 /0.20	0.6	0.9	0.9	0.9	6.9	7.3	8.2	11	43	37	19.5
1.5	30 /0.25	0.6	0.9	0.9	1.0	7.6	8.2	9.3	15	31	26	13.3
2.5	50 /0.25	0.7	1.0	1.0	1.0	9.0	9.6	10.5	20	18	16	7.98
4.0	56 /0.30	0.8	1.0	1.0	1.0	10.3	10.9	12.3	26	11	9.6	4.95

Note: Supplied in 100 meter length with black outer sheath. Any colour on specific request can be supplied, in economical run. The number & diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria.

Three Core Flat Flexible Industrial Cable for submersible Pump Motors 1100 Voltage Grade

Nominal area of conductor mm	Number / Size of wire for each core	INSULATION		SHEATH (Overall dimensions)		Max. Conductor Resistance at 20°C (Max.) Ohm/km	Current Carrying Cap. at 40°C amps
		Thickness (nominal) mm	Core Dia. (nominal) mm	Width (W) (nominal) mm	Thickness (T) (nominal) mm		
1.50	22 /0.30	0.8	3.25	12.8	6.0	13.3	14
2.50	36 /0.30	0.9	3.9	14.6	6.4	7.98	18
4.00	56 /0.30	1.0	4.65	17.2	7.4	4.95	26
6.00	84 /0.30	1.0	5.3	18.7	7.9	3.3	31
10.00	140 /0.30	1.0	6.6	23.7	9.9	1.91	42
16.00	226 /0.30	1.0	8.2	28.0	11.4	1.21	57
25.00	354 /0.30	1.2	10.1	35.5	14.7	0.78	72
35.00	495 /0.30	1.2	11.5	39.5	16.2	0.554	90

Note: Supplied in 500 +/- 5% meter packing on drums. Can also be supplied 100 +/- meter packing on request. The number & diameter of conductor strands are for reference only. Conductor resistance as per IS:8130 is the governing criteria.





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CATV Coaxial Cables

Foam PE Dielectric

Technical Data

	RG-59		RG-6		RG-11	
	ABC	CCS	ABC	CCS	ABC	CCA
Conductor Diameter (mm)	0.81	0.81	1.02	1.02	1.63	1.63
Diameter over dielectric (nominal, mm)	3.75	3.75	4.57	4.57	7.10	7.10
Shield	Al Foil + Braid	Al Foil + Braid	Al Foil + Braid	Al Foil + Braid	Al Foil + Braid	Al Foil + Braid
Over all Diameter (mm)	6.0	6.0	7.0	7.0	10.0	10.0
	PVC	PVC	PVC/PE	PVC/PE	PVC/PE	PVC/PE
Min. bending radius (mm)	70	70	100	100	140	140
Impedance (Ω)	75	75	75	75	75	75

Attenuation

Frequency (MHz)	RG-59 ABC	RG-59 CCS	RG-6 ABC	RG-6 CCS	RG-11 ABC	RG-11 CCA
5	2.60	2.60	1.90	1.90	1.25	1.25
55	6.20	6.20	5.25	5.25	3.15	3.15
83	7.62	7.62	6.45	6.45	3.86	3.86
187	10.80	10.80	9.41	9.41	5.86	5.86
211	11.47	11.47	10.00	10.00	6.23	6.23
250	12.37	12.37	10.82	10.82	6.72	6.72
300	13.43	13.43	11.65	11.65	7.38	7.38
350	14.50	14.50	12.63	12.63	7.94	7.94
400	15.40	15.40	13.61	13.61	8.53	8.53
450	16.30	16.30	14.43	14.43	9.02	9.02
500	17.20	17.20	15.09	15.09	9.51	9.51
550	17.96	17.96	16.08	16.08	9.97	9.97
600	18.71	18.71	16.73	16.73	10.43	10.43
750	21.04	21.04	18.54	18.54	11.97	11.97
865	22.70	22.70	20.01	20.01	13.05	13.05
1000	24.51	24.51	21.49	21.49	14.27	14.27

Attenuation in dB/100m at 20° C; Tolerance ±7%. For RG-59 - Attenuation in dB/92m at 20° C; Tolerance ±7%

Electrical Properties

Parameters	RG-59 ABC	RG-59 CCS	RG-6 ABC	RG-6 CCS	RG-11 ABC	RG-11 CCA
DC Resistance (Ω/km)						
Center Conductor	34.81	185.00	21.11	127.00	8.60	12.00
Impedance (Ω)	75.00	75.00	75.00	75.00	75.00	75.00
Velocity of Propagation (Nominal)	85%	85%	85%	85%	85%	85%

The above cables are also available in CCA/CCS construction. Braiding available in Aluminium and Copper Conductor



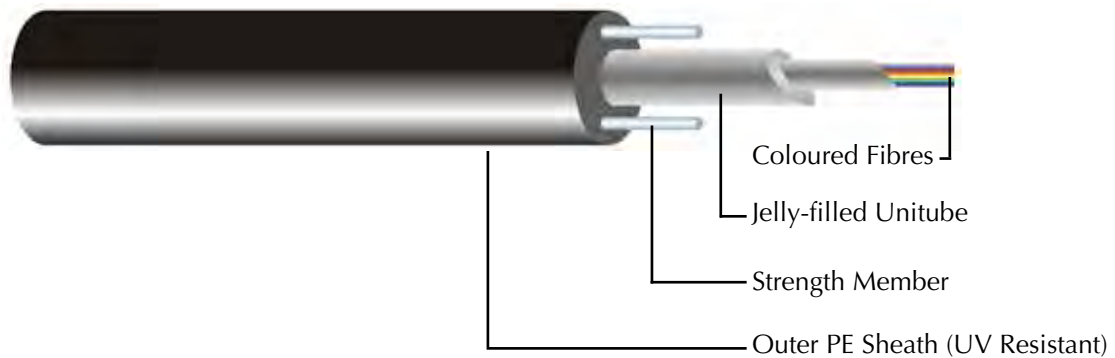


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Optical Fibre Cables for CATV Applications



	2F OFC	4F OFC	6F OFC	12F OFC	24F OFC
Optical					
Attenuation (1310/1550 dB/km)	≤0.38/ ≤0.25	≤0.38/ ≤0.25	≤0.38/ ≤0.25	≤0.38/ ≤0.25	≤0.38/ ≤0.25
Chromatic Dispersion (1285-1300 nm band ps/nm.km)	≤3.5	≤3.5	≤3.5	≤3.5	≤3.5
Polarisation Mode Dispersion ps/(km) ^{1/2}	≤0.3	≤0.3	≤0.3	≤0.3	≤0.3
Mechanical					
Tensile Strength (Newtons) Unaged	≥550/ 3.80	≥550/ 3.80	≥550/ 3.80	≥550/ 3.80	≥550/ 3.80
(KPSI or Gpa) Aged	≥440/ 3.00	≥440/ 3.00	≥440/ 3.00	≥440/ 3.00	≥440/ 3.00
Coating Strippability (Newtons)	1.3≤F≤8.9	1.3≤F≤8.9	1.3≤F≤8.9	1.3≤F≤8.9	1.3≤F≤8.9
Span (metres)	25	25	25	25	25
Minimum Bending Radius (D=cable diameter)	40D	40D	40D	40D	40D
Operating Temperature (°C)	-20 to +70	-20 to +70	-20 to +70	-20 to +70	-20 to +70
Cable Diameter (mm; nominal)	6.2	6.2	6.3	6.9	7.2
Cable Weight/km	33	34	35	70	75
Drum Length (metres; tolerance ±10%)	1500 to 2600	1500 to 2600	1500 to 2600	1500 to 2600	1500 to 2600

Armoured cables also available





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Enquiry Form

Preparation of special purpose cables

Please fill up this form and send it to us, preferably with a drawing and providing as much detail as possible about the electrical and physical properties desired.

Quantity	Size	Cable Type
Intended application		How is the cable laid?
What thermal and mechanical requirements are made of the cable?		
Make-up	Core	Core
Strands (wires x mm)		
Wire (mm ²)		
	Copper bare/tinned/silver-plated	Copper bare/tinned/silver-plated
Insulation	PVC/PE/FPE rubber/silicone/PTFE/PUR	PVC/PE/FPE rubber/silicone/PTFE/PUR
Screening (if required)	Copper bare/tinned braided	Copper bare/tinned braided
	Al foil/Cu foil	Al foil/Cu foil
	Drain wire, bare/tinned mm	Drain wire, bare/tinned mm
Further Cores		
Core colour	Support element: Messenger wire/galvanised steel	
Inner sheath: PVC/rubber/silicone	Common screen: ABC/ATC/SPC/Al foil	
Braiding %dia over braid (approx.)	metal foil with/without	Armouring: Steel wire
Sheath wire	mm Copper bare/tinned	
Outer sheath: PVC/PE/silicone/neoprene/rubber/PUR	Outer dia (approx. mm)	
Electrical properties		
Operating voltage	Test voltage	Capacitance
Other information		Delivery date
Sender		
Name	Road/Street/PO Box	
Company	Town/City	
Department	Postal Code	
Designation	Email	
Telephone	Fax	
Signature/Stamp	Date	
Note		

