MEDICAL EQUIPMENT WIRES, CABLES & TUBES

Paras Wires

MEDICAL EQUIPMENT CABLES & TUBES

ELECTRICAL & ELECTRONIC CIRCUITS OF MEDICAL EQUIPMENTS

Paras Wires

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ABOUT MEDICAL CABLES AT PARAS WIRES

Cables for medical applications have to be reliable and save. They are used in different areas and must meet the highest requirements. Our wide range of products are suitable for these environments. In the laboratory, in the operating room or monitoring, rom diagnostics to life support devices, medical cables play a crucial role in modern healthcare. The challenges are great: ultrasound devices, X-ray machines and the like, for example, have to be connected to the PC or other systems for modern information processing. Special cables are used to guarantee smooth operation.

Medical cables - State-of-the-art technology in the smallest possible space
Particularly high requirements apply to medical devices. Not only various data have to be transmitted and read out, as is the case with imaging devices such as special cameras for surgeons. The cables must also be suitable for use in confined spaces. Paras Wires is responding to the trend towards ever smaller, more compact devices with special medical cables such as miniature cables and flat cables.

Medical cables - Many elements combined to save space
Since medical technology often requires different devices to be connected to each other and controlled centrally, so-called hybrid cables are also used as medical cables. Here we bundle various elements under one cable sheath. The advantages for our customers are numerous. Compared to using several cables, you save space as well as material costs.

Medical cables - Specific cables for your requirements
Particularly for specialized clinics and in medical research, the requirements can often not be met with standard cables such as those produced by industry. As experts for special cables with know-how and experience, we therefore develop specific medical cables for our customers. These efficient solutions are based on your effective requirements. This enables them to meet your specifications while still being extremely cost-effective.

PVC/PVC CABLES

STANDARDS/APPROVALS

Can be made as per UL 2464,

UL2576

PROPERTIES

- ROHS compliance
- Oils and hydrocarbons resistant
- Good abrasion resistance
- Medical grade Polymer*
- Good Water resistance
- High Flexibility, Very High Flexibility can be made

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper as per IEC 60228

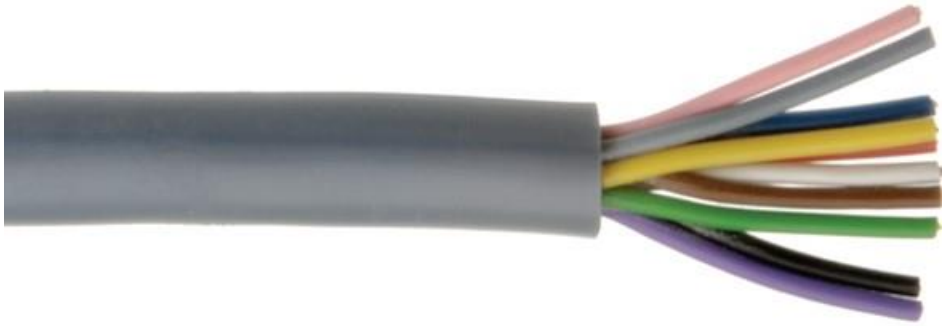
Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

Bending Radius
10 x outer diameter

Paras Wires PVT LTD Sensor & Transducer Cables



ABOUT SENSOR & TRANSDUCER PVC CABLES

Our sensor cables are designed for a wide range of medical applications.

1. We offer a range of force sensor cables which are used in load cells and piezoresistive force sensors, which enables OEMs to measure force with high reliability in various medical applications including infusion pumps.
2. Our range of fluid detection sensor cables help where liquid level, air bubble, air-in-line and point air detectors have to be measured or monitored. These are critical to a system's operation.
3. We offer a wide range of cables for used in temperature measurement, control and compensation sensing applications.

APPLICATIONS

- Air bubble Sensors
- Liquid level sensors
- Load cells Sensors
- Piezoresistive Sensors
- Pressure Sensors
- Temperature Sensors
- Humidity Sensors

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper OR High Flexible Annealed Bare/Tinned Copper
- Insulation: PVC with Medical grade & ROHS compliance
- Shielding: Annealed Tinned Copper Braiding
- Jacketing: PVC based special Medical grade & ROHS Compliant polymer
- Colour of Jacket: White & Grey

FR-LSZH & PUR CABLES

PROPERTIES

- ROHS compliance
- acids, oils, hydrocarbons and alkalis resistant
- Fire retardant, halogen free & low smoke
- Good abrasion resistance
- Medical grade Polymer*
- Good Steam and Water resistance
- High Flexibility

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper as per IEC 60228

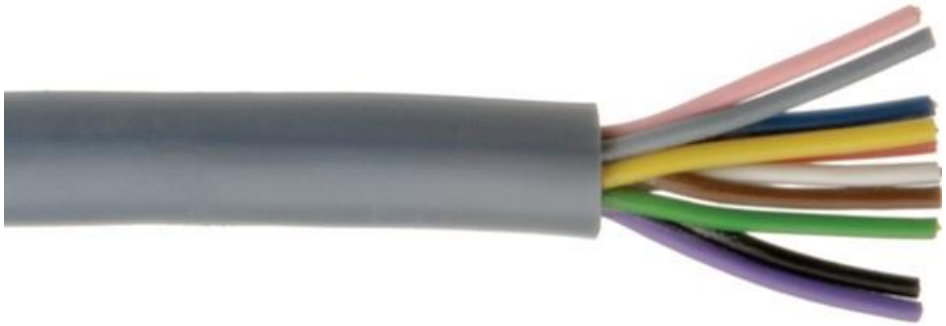
Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

Bending Radius
10 x outer diameter

Paras Wires PVT LTD Sensor & Transducer Cables



ABOUT LOW FREQUENCY PVC DATA CABLES

Our sensor cables are designed for a wide range of medical applications.

1. We offer a range of force sensor cables which are used in load cells and piezoresistive force sensors, which enables OEMs to measure force with high reliability in various medical applications including infusion pumps.
2. Our range of fluid detection sensor cables help where liquid level, air bubble, air-in-line and point air detectors have to be measured or monitored. These are critical to a system's operation.
3. We offer a wide range of cables for used in temperature measurement, control and compensation sensing applications.

APPLICATIONS

- Air bubble Sensors
- Liquid level sensors
- Load cells Sensors
- Piezoresistive Sensors
- Pressure Sensors
- Temperature Sensors
- Humidity Sensors

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper OR High Flexible Annealed Bare/Tinned Copper
- Insulation: FR-LSZH
- Shielding: Annealed Tinned Copper Braiding
- Jacketing: PUR Medical Grade
- Colour of Jacket: White & Grey

For More Details Contact Us At
www.paraswires.net info@paraswires.net Paras Wires PVT LTD paraswires paraswires

SENSOR AND TRANSDUCER CABLES

Conductor size sqmm	Insulation Diameter Nominal in mm	Number Of Cores	Overall Diameter in Nominal mm	
			Without Shielding	With Shielding
0.14	1.0	2	3.0	4.7
0.14	1.0	3	3.1	4.9
0.14	1.0	4	3.4	5.0
0.14	1.0	5	3.7	5.3
0.14	1.0	7	4.2	5.8
0.14	1.0	10	5.0	6.9
0.14	1.0	24	7.2	9.2
0.14	1.0	52	10.1	12.1
0.22	1.1	2	3.8	6.0
0.22	1.1	3	3.8	6.0
0.22	1.1	4	4.2	6.4
0.22	1.1	5	4.5	6.7
0.22	1.1	6	4.8	7.0
0.22	1.1	7	5.1	7.2
0.22	1.1	8	5.3	7.5
0.22	1.1	10	6.2	8.8
0.22	1.1	14	7.0	9.6
0.22	1.1	20	8.2	11.0
0.25	1.1	2	3.9	6.0
0.25	1.1	3	3.9	6.0
0.25	1.1	4	4.3	6.4
0.25	1.1	5	4.6	6.8
0.25	1.1	6	4.9	7.1
0.25	1.1	7	5.2	7.4
0.25	1.1	8	5.4	7.6
0.25	1.1	10	6.3	8.9
0.25	1.1	14	7.2	9.7
0.25	1.1	20	8.4	11.2
0.34	1.3	2	4.1	6.3
0.34	1.3	3	4.1	6.4
0.34	1.3	4	4.5	6.8
0.34	1.3	5	4.9	7.2
0.34	1.3	6	5.2	7.5
0.34	1.3	7	5.5	7.8
0.34	1.3	8	5.8	8.2
0.34	1.3	10	6.7	9.5
0.34	1.3	12	7.2	10.0
0.34	1.3	20	9.0	12.0

PVC/PVC CABLES

STANDARDS/APPROVALS

Can be made as per UL 2464,

UL2576

PROPERTIES

- ROHS compliance
- Oils and hydrocarbons resistant
- Good abrasion resistance
- Medical Grade polymers*
- Good Water resistance
- High Flexibility, Very High Flexibility can be made

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper as per IEC 60228

Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

Bending Radius
10 x outer diameter

Paras Wires PVT LTD Control and Instrumentation Cables

ABOUT CONTROL AND INSTRUMENTATION CABLES

Control and Instrumentation cables are multiple conductor cables that convey low energy electrical signals used for monitoring or controlling electrical power systems and their associated processes. Based on the strong innovating power of medical monitoring and information techniques, Paras Wires has developed many new cable solutions. Particularly progressive are the applications of the linked surgery systems. Depending on the use, we can offer for example CAT5, CAT6 and CAT7-Cables for high flexible, temperature and chemical resistance as well as durable and robot-suitable variations. Surgery robot & Dental systems have the demand of high mechanic requirements as well as million cycles of torsional and bending movements. To fulfil these high requirements we check our products with our in-house test systems regarding performance and durability. The combination of different insulation and sheath materials allows the use of various disinfectants and cleaning substances

APPLICATIONS

- Surgery robots
- ECG Cable: 3,5 &10 Lead
- SPO2 Extension
- IBP Cables
- Monitoring equipment
- Many more medical applications

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper OR High Flexible Annealed Bare/Tinned Copper
- Insulation: PVC Medical Grade & ROHS Compliant
- Shielding: Annealed Bare/Tin Coated Copper Braiding/Drain wire with Aluminium Mylar Shielding
- Jacketing: PVC based special Medical Grade & ROHS Compliant polymer

Colour of Jacket: White & Grey

FR-LSZH & PUR CABLES

PROPERTIES

- ROHS compliance
- acids, oils, hydrocarbons and alkalis resistant
- Fire retardant, halogen free & low smoke
- Good abrasion resistance
- Medical grade polymers
- Good Steam and Water resistance
- High Flexibility

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper as per IEC 60228

Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

Bending Radius
10 x outer diameter

Paras Wires PVT LTD Control and Instrumentation Cables

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Control and Instrumentation cables are multiple conductor cables that convey low energy electrical signals used for monitoring or controlling electrical power systems and their associated processes. Based on the strong innovating power of medical monitoring and information techniques, Paras Wires has developed many new cable solutions. Particularly progressive are the applications of the linked surgery systems. Depending on the use, we can offer for example CAT5, CAT6 and CAT7-Cables for high flexible, temperature and chemical resistance as well as durable and robot-suitable variations. Surgery robot & Dental systems have the demand of high mechanic requirements as well as million cycles of torsional and bending movements. To fulfil these high requirements we check our products with our in-house test systems regarding performance and durability. The combination of different insulation and sheath materials allows the use of various disinfectants and cleaning substances

APPLICATIONS

- Surgery robots
- ECG Cable: 3,5 &10 Lead
- SPO2 Extension
- IBP Cables
- Monitoring equipment
- Many more medical applications

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper OR High Flexible Annealed Bare/Tinned Copper
- Insulation: FR-LSZH(HFFR) Polymer
- Shielding: Annealed Bare/Tin Coated Copper Braiding/Drain wire with Aluminium Mylar Shielding
- Jacketing: PUR Medical Grade
- Colour of Jacket: White & Grey

OTHER DESIGN VARIANTS CABLES

Paras Wires PVT LTD Coiled Cord Control and Instrumentation Cables

BENEFITS OF COILED CORD CONTROL AND INSTRUMENTATION CABLES

Medical instrument cable can be used as gathering connection wire of the equipment circuit which needs to move back and forth or up-and-down, AC voltage 300/750 V or DC voltage 6V-1000V and below, such as telephone spiral cable, computer spiral wire, plug-in unit of electronic equipment Spiral cable, Auto spiral wire, Trailer retractable cable, Retractable connection wire, etc.

BENEFITS OF RIBBON CONTROL AND INSTRUMENTATION CABLES

Paras Wires is responding to the trend towards ever smaller, more compact devices with special medical cables such as ribbon cables. These help in reducing the space required for installation of wires and also are very flexible and can be manoeuvred easily through thin spaces.

CONTROL AND INSTRUMENTATION CABLES

Conductor sqmm	Insulation Diameter in mm	Number of cores	Overall Diameter in mm		
			Without Shielding	With Braided Shielding	With Al Tape & Drain wire Shielding
0.14	1.0	2	3.0	3.8	3.4
0.14	1.0	3	3.1	3.9	3.5
0.14	1.0	4	3.4	4.1	3.8
0.14	1.0	5	3.7	4.4	4.1
0.14	1.0	7	4.2	4.9	4.6
0.14	1.0	10	5.0	5.8	5.4
0.14	1.0	24	7.2	8.0	7.6
0.14	1.0	52	10.1	10.9	10.5
0.25	1.1	2	3.9	4.6	4.3
0.25	1.1	3	3.9	4.6	4.3
0.25	1.1	4	4.3	5.0	4.7
0.25	1.1	5	4.6	5.4	5.0
0.25	1.1	6	4.9	5.7	5.3
0.25	1.1	7	5.2	6.0	5.6
0.25	1.1	8	5.4	6.2	5.8
0.25	1.1	10	6.3	7.1	6.7
0.25	1.1	14	7.2	7.9	7.6
0.25	1.1	20	8.4	9.2	8.8
0.34	1.3	2	4.1	4.9	4.5
0.34	1.3	3	4.1	4.9	4.5
0.34	1.3	4	4.5	5.3	4.9
0.34	1.3	5	4.9	5.7	5.3
0.34	1.3	6	5.2	6.0	5.6
0.34	1.3	7	5.5	6.3	5.9
0.34	1.3	8	5.8	6.6	6.2
0.34	1.3	10	6.7	7.5	7.1
0.34	1.3	12	7.2	8.0	7.6
0.34	1.3	20	9.0	9.8	9.4
0.50	1.6	2	5.1	5.9	5.5
0.50	1.6	3	5.1	6.0	5.5
0.50	1.6	4	5.7	6.5	6.1
0.50	1.6	5	6.1	7.0	6.5
0.50	1.6	6	6.6	7.4	7.0
0.50	1.6	7	7.4	8.2	7.8
0.50	1.6	8	7.7	8.6	8.2
0.50	1.6	10	8.4	9.4	8.8
0.50	1.6	12	9.0	10.0	9.4
0.50	1.6	14	9.6	10.6	10.0
0.50	1.6	19	10.8	11.8	11.2
0.50	1.6	24	11.9	12.9	12.3
0.50	1.6	52	16.6	17.6	17.0

CONTROL AND INSTRUMENTATION CABLES

Conductor sqmm	Insulation Diameter in mm	Number of cores	Overall Diameter in mm		
			Without Shielding	With Braided Shielding	With Al Tape & Drain wire Shielding
0.75	1.9	2	5.7	6.7	6.1
0.75	1.9	3	5.7	6.7	6.1
0.75	1.9	4	6.4	7.4	6.8
0.75	1.9	5	7.0	8.0	7.4
0.75	1.9	6	7.9	8.9	8.3
0.75	1.9	7	8.4	9.4	8.8
0.75	1.9	10	9.6	10.6	10.0
0.75	1.9	12	10.3	11.3	10.7
0.75	1.9	14	11.0	12.0	11.4
0.75	1.9	19	12.5	13.5	12.9
0.75	1.9	24	13.8	14.8	14.2
0.75	1.9	52	19.4	20.4	19.8
1.00	2.3	2	6.9	7.9	7.3
1.00	2.3	3	6.9	7.9	7.3
1.00	2.3	4	7.8	8.8	8.2
1.00	2.3	5	8.4	9.4	8.8
1.00	2.3	6	9.0	10.0	9.4
1.00	2.3	7	9.6	10.6	10.0
1.00	2.3	10	11.1	12.1	11.5
1.00	2.3	12	12.0	13.0	12.4
1.00	2.3	14	12.8	13.8	13.2
1.00	2.3	19	14.5	15.5	14.9
1.00	2.3	24	16.1	17.1	16.5
1.50	2.6	2	7.5	8.5	7.9
1.50	2.6	3	7.5	8.5	7.9
1.50	2.6	4	8.4	9.4	8.8
1.50	2.6	5	9.2	10.2	9.6
1.50	2.6	6	9.9	10.9	10.3
1.50	2.6	7	10.5	11.5	10.9
1.50	2.6	10	12.2	13.2	12.6
1.50	2.6	12	13.1	14.1	13.5
1.50	2.6	14	14.0	15.0	14.4
1.50	2.6	19	16.0	17.0	16.4
1.50	2.6	24	17.8	18.8	18.2

CONTROL AND INSTRUMENTATION CABLES

Conductor sqmm	Insulation Diameter in mm	Number of cores	Overall Diameter in mm		
			Without Shielding	With Braided Shielding	With Al Tape & Drain wire Shielding
2	2.9	2	8.2	9.2	8.6
2	2.9	3	8.2	9.2	8.6
2	2.9	4	9.2	10.2	9.6
2	2.9	5	10.0	11.0	10.4
2	2.9	6	10.8	11.8	11.2
2	2.9	7	11.5	12.5	11.9
2	2.9	10	13.3	14.3	13.7
2	2.9	12	14.4	15.4	14.8
2	2.9	14	15.4	16.4	15.8
2	2.9	19	17.6	18.6	18.0
2	2.9	24	19.6	20.6	20.0
2.5	3.1	2	8.6	9.6	9.0
2.5	3.1	3	8.6	9.6	9.0
2.5	3.1	4	9.7	10.7	10.1
2.5	3.1	5	10.6	11.6	11.0
2.5	3.1	6	11.4	12.4	11.8
2.5	3.1	7	12.1	13.1	12.5
2.5	3.1	10	14.1	15.1	14.5
2.5	3.1	12	15.3	16.3	15.7
2.5	3.1	14	16.3	17.3	16.7
2.5	3.1	19	18.7	19.7	19.1
3	3.2	24	21.8	22.8	22.2
3	3.2	2	9.0	10.0	9.4
3	3.2	3	9.0	10.0	9.4
3	3.2	4	10.1	11.1	10.5
3	3.2	5	11.1	12.1	11.5
3	3.2	6	11.9	12.9	12.3
3	3.2	7	12.7	13.7	13.1
3	3.2	10	14.8	15.8	15.2
3	3.2	12	16.0	17.0	16.4
3	3.2	14	17.1	18.1	17.5
3	3.2	19	19.6	20.6	20.0

PAIRED CONTROL AND INSTRUMENTATION CABLES

Condutor				Outer Diameter in mm		
AWG	sqmm	Insulation Diameter in mm	Number of Pairs	Without Shielding	With Braiding Shielding	With Drainwire Shielding
26AWG	0.14	1.0	1	2.9	3.7	3.3
26AWG	0.14	1.0	2	4.5	5.2	4.9
26AWG	0.14	1.0	3	4.6	5.4	5.0
26AWG	0.14	1.0	4	5.0	5.8	5.4
26AWG	0.14	1.0	5	5.6	6.4	6.0
26AWG	0.14	1.0	6	6.0	6.8	6.4
26AWG	0.14	1.0	7	6.1	6.9	6.5
26AWG	0.14	1.0	10	7.6	8.4	8.0
	0.25	1.1	1	3.7	4.5	4.1
	0.25	1.1	2	5.4	6.2	5.8
	0.25	1.1	3	5.8	6.5	6.2
	0.25	1.1	4	6.2	7.0	6.6
	0.25	1.1	5	6.9	7.7	7.3
	0.25	1.1	6	7.1	7.9	7.5
	0.25	1.1	7	7.1	7.9	7.5
	0.25	1.1	10	9.2	10.0	9.6
	0.25	1.1	14	10.0	10.8	10.4
	0.25	1.1	20	11.4	12.2	11.8
22AWG	0.34	1.3	1	3.9	4.7	4.3
22AWG	0.34	1.3	2	5.8	6.6	6.2
22AWG	0.34	1.3	3	6.2	6.9	6.6
22AWG	0.34	1.3	4	6.7	7.4	7.1
22AWG	0.34	1.3	5	7.4	8.2	7.8
22AWG	0.34	1.3	6	7.7	8.4	8.1
22AWG	0.34	1.3	7	7.7	8.4	8.1
22AWG	0.34	1.3	10	9.9	10.7	10.3
22AWG	0.34	1.3	14	10.8	11.6	11.2
22AWG	0.34	1.3	20	12.3	13.0	12.7
	0.5	1.6	1	4.8	5.6	5.2
	0.5	1.6	2	7.3	8.2	7.7
	0.5	1.6	3	7.8	8.6	8.2
	0.5	1.6	4	8.4	9.3	8.8
	0.5	1.6	5	9.4	10.3	9.8
	0.5	1.6	6	10.1	11.0	10.5
	0.5	1.6	7	10.1	11.1	10.5
	0.5	1.6	10	12.5	13.5	12.9
	0.5	1.6	14	13.7	14.7	14.1
	0.5	1.6	20	15.3	16.3	15.7
	0.5	1.6	24	16.9	17.9	17.3
	0.5	1.6	52	25.5	26.5	25.9

PAIRED CONTROL AND INSTRUMENTATION CABLES

Condutor				Outer Diameter in mm		
AWG	sqmm	Insulation Diameter in mm	Number of Pairs	Without Shielding	With Braiding Shielding	With Drainwire Shielding
	0.75	1.9	1	5.5	6.5	5.9
	0.75	1.9	2	8.3	9.3	8.7
	0.75	1.9	3	8.9	9.9	9.3
	0.75	1.9	4	9.7	10.7	10.1
	0.75	1.9	5	11.2	12.2	11.6
	0.75	1.9	6	11.6	12.6	12.0
	0.75	1.9	7	11.6	12.6	12.0
	0.75	1.9	10	14.5	15.5	14.9
	0.75	1.9	14	15.9	16.9	16.3
	0.75	1.9	20	17.8	18.8	18.2
	0.75	1.9	24	19.7	20.7	20.1
	0.75	1.9	52	29.9	30.9	30.3
	1	2.3	1	6.6	7.6	7.0
	1	2.3	2	10.1	11.1	10.5
	1	2.3	3	10.7	11.7	11.1
	1	2.3	4	11.7	12.7	12.1
	1	2.3	5	13.0	14.0	13.4
	1	2.3	6	13.5	14.5	13.9
	1	2.3	7	13.5	14.5	13.9
	1	2.3	10	17.0	18.0	17.4
	1	2.3	14	18.6	19.6	19.0
	1	2.3	20	20.9	21.9	21.3
	1.5	2.6	1	7.1	8.1	7.5
	1.5	2.6	2	11.0	12.0	11.4
	1.5	2.6	3	11.8	12.8	12.2
	1.5	2.6	4	12.8	13.8	13.2
	1.5	2.6	5	14.4	15.4	14.8
	1.5	2.6	6	14.9	15.9	15.3
	1.5	2.6	7	14.9	15.9	15.3
	1.5	2.6	10	18.7	19.7	19.1
	1.5	2.6	14	20.5	21.5	20.9
	1.5	2.6	20	23.1	24.1	23.5

PAIRED CONTROL AND INSTRUMENTATION CABLES

Condutor				Outer Diameter in mm		
AWG	sqmm	Insulation Diameter in mm	Number of Pairs	Without Shielding	With Braiding Shielding	With Drainwire Shielding
14AWG	2	2.9	1	7.7	8.7	8.1
14AWG	2	2.9	2	12.0	13.0	12.4
14AWG	2	2.9	3	12.9	13.9	13.3
14AWG	2	2.9	4	14.1	15.1	14.5
14AWG	2	2.9	5	15.8	16.8	16.2
14AWG	2	2.9	6	16.4	17.4	16.8
14AWG	2	2.9	7	16.4	17.4	16.8
14AWG	2	2.9	10	20.7	21.7	21.1
14AWG	2	2.9	14	22.7	23.7	23.1
14AWG	2	2.9	20	25.5	26.5	25.9
	2.5	3.1	1	8.1	9.1	8.5
	2.5	3.1	2	12.7	13.7	13.1
	2.5	3.1	3	13.6	14.6	14.0
	2.5	3.1	4	14.9	15.9	15.3
	2.5	3.1	5	16.7	17.7	17.1
	2.5	3.1	6	17.3	18.3	17.7
	2.5	3.1	7	17.3	18.3	17.7
	2.5	3.1	10	21.9	22.9	22.3
	2.5	3.1	14	24.1	25.1	24.5
	2.5	3.1	20	27.1	28.1	27.5
12AWG	3	3.2	1	8.5	9.5	8.9
12AWG	3	3.2	2	13.3	14.3	13.7
12AWG	3	3.2	3	14.3	15.3	14.7
12AWG	3	3.2	4	15.6	16.6	16.0
12AWG	3	3.2	5	17.5	18.5	17.9
12AWG	3	3.2	6	18.2	19.2	18.6
12AWG	3	3.2	7	18.2	19.2	18.6
12AWG	3	3.2	10	23.0	24.0	23.4
12AWG	3	3.2	14	25.3	26.3	25.7
12AWG	3	3.2	20	28.6	29.6	29.0

HYBRID/COMPOSITE CABLES

PROPERTIES

- ROHS compliance
- Oils and hydrocarbons resistant
- Good abrasion resistance
- Medical grade Polymer*
- Good Water resistance
- High Flexibility, Very High Flexibility can be made

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper as per IEC 60228

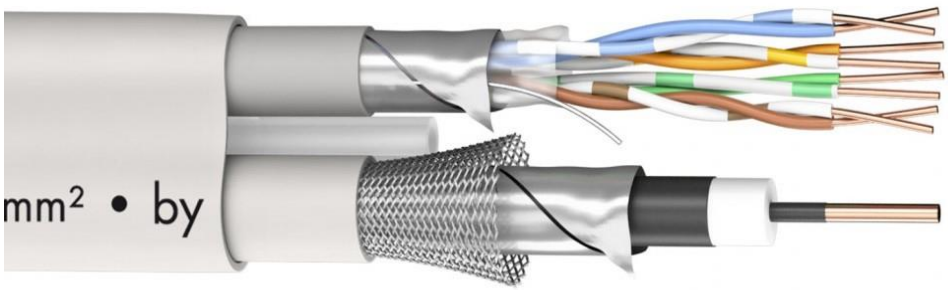
Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

Bending Radius
10 x outer diameter

Paras Wires PVT LTD HYBRID/COMPOSITE Cables



ABOUT HYBRID/COMPOSITE CABLES

Since medical technology often requires different devices to be connected to each other and controlled centrally, so-called hybrid cables are also used as medical cables. Here we bundle various elements under one cable sheath. The advantages for our customers are numerous. Compared to using several cables, you save space as well as material costs.

Hybrid cables – A wide variety of elements under one sheath

Based on our many years of experience, it is our daily business to develop hybrid cables in close cooperation with our customers. Here we can bundle the most diverse cable types in a common sheath. These include copper conductors, fiber optic cables, coaxial cables, shielded pairs, hoses for hydraulics/pneumatics and/or bus cables with data, control and supply cables. This approach makes our hybrid cables efficient all-rounders for your individual operational requirements. Please feel free to contact our experts and let them advise you in an initial discussion.

Hybrid cable - One cable, numerous advantages

It is obvious that multiple cables, each with a separate sheath, have a larger surface area, requiring both more material and space. With our hybrid cables, we favour optimize the factors of space and material costs in your favour. This allows you to be more flexible in laying the cable and saves investment costs compared to buying single cables. We can also design our hybrid system cables to be tension-resistant, EMC-optimized or resistant to a wide variety of media - just as it makes most sense for your requirements.

Hybrid cables - Quickly assembled

As part of our comprehensive assembly service, we develop precisely tailored plug & play systems for your hybrid cables. This enables you to use our solutions directly for a wide variety of applications. There is no need for time-consuming and costly assembly, as you receive all components and products from one competent source

PVC HOOKUP WIRES

PROPERTIES

- ROHS - compliance
- acids, oils, alkalis and moisture resistant
- good abrasion resistance
- Fire retardant rating vw1 as per UL

TECHNICAL SPECIFICATIONS

Conductor
As per UL AWG Annealed Bare/Tin coated copper

Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

INSULATION COLOURS

RED	YELLOW
BLACK	WHITE
BROWN	VIOLET
GREEN	BLUE
Grey	YELLOW/GREEN

Paras Wires PVT LTD UL1569 Wires

ABOUT PVC HOOKUP WIRES

PVC insulated cables and wires (frequently referred to as “hook-up wire”)used in the internal wiring of electronic and electrical equipment. Their uniform insulation thickness ensures easy stripping and cutting.

APPROVALS

Underwritters Laboratories UL1569,1007,1015

APPLICATIONS

- Internal Wiring of electrical & electronic equipment used for wiring & cable assemblies in data electronic equipment
- Used in wiring of motors, transformers, switchboard, panels, rectifier, electronic and electrical circuits etc.

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper
- Insulation: PVC ROHS Compliant

DIMENSION DETAILS:

SL. No	Size	Type of conductor	Size of conductor (mm)	Insulation OD(nom) (mm)
1	30 AWG	ABC/ATC	7/0.1	1.10
2	28 AWG	ABC/ATC	7/0.13	1.20
3	26 AWG	ABC/ATC	7/0.16	1.30
4	24 AWG	ABC/ATC	7/0.2	1.40
5	22 AWG	ABC/ATC	7/0.254	1.60
6	20 AWG	ABC/ATC	16/0.2	1.70
7	18 AWG	ABC/ATC	16/0.254	2.00
8	16 AWG	ABC/ATC	26/0.254	2.30
9	14 AWG	ABC/ATC	41/0.254	2.70
10	12 AWG	ABC/ATC	37/0.32	3.00
11	10 AWG	ABC/ATC	63/0.32	4.00
12	8 AWG	ABC/ATC	98/0.32	5.80
13	6 AWG	ABC/ATC	84/0.45	7.20
14	4 AWG	ABC/ATC	133/0.45	9.30
15	2 AWG	ABC/ATC	168/0.5	10.50

FR-LSZH HOOKUP WIRES

PROPERTIES

ROHS & REACH compliance

acids, oils, alkalis and moisture resistant

good abrasion resistance

Fire retardant & Low smoke Zero halogen

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper

Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-20°C to +80 °C

INSULATION COLOURS

RED	YELLOW
BLACK	WHITE
BROWN	VIOLET
GREEN	BLUE
Grey	YELLOW/GREEN

Paras Wires PVT LTD FR-LSZH Wires

ABOUT FR-LSZH HOOKUP WIRES

LSZH is recommended for wiring devices, switch gear cabinets, and distribution boxes. Dry rooms; areas where human safety and damage to electronic components are a concern
Low smoke, zero halogen (LSZH)
Fire Retardant (FR)

APPLICATIONS

- Internal Wiring of electrical & electronic equipment used for wiring & cable assemblies in data electronic equipment
- Used in wiring of motors, transformers, switchboard, panels, rectifier, electronic and electrical circuits etc.

- Oil and gas refining
- Electronic Applications.
- Marine and offshore application
- High-energy radiation environments

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper
- Insulation: FR-LSZH ROHS & REACH Compliant

DIMENSION DETAILS:

SL. No	Size	Type of conductor	Size of conductor (mm)	Insulation OD(nom) (mm)
1	30 AWG	ABC/ATC	7/0.1	1.10
2	28 AWG	ABC/ATC	7/0.13	1.20
3	26 AWG	ABC/ATC	7/0.16	1.30
4	24 AWG	ABC/ATC	7/0.2	1.40
5	22 AWG	ABC/ATC	7/0.254	1.60
6	20 AWG	ABC/ATC	16/0.2	1.70
7	18 AWG	ABC/ATC	16/0.254	2.00
8	16 AWG	ABC/ATC	26/0.254	2.30
9	14 AWG	ABC/ATC	41/0.254	2.70
10	12 AWG	ABC/ATC	37/0.32	3.00
11	10 AWG	ABC/ATC	63/0.32	4.00
12	8 AWG	ABC/ATC	98/0.32	5.80
13	6 AWG	ABC/ATC	84/0.45	7.20
14	4 AWG	ABC/ATC	133/0.45	9.30
15	2 AWG	ABC/ATC	168/0.5	10.50

XLPE/XLPO HOOKUP WIRES

PROPERTIES

ROHS & REACH compliance

acids, oils, alkalis and moisture resistant

good abrasion resistance

Fire retardant & Low smoke Zero halogen

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper

Insulation Resistance
>10MΩ/km

Voltage Rating
300V

Temperature Rating
-40°C to +125 °C

INSULATION COLOURS

- RED
- YELLOW
- BLACK
- WHITE
- BROWN
- VIOLET
- GREEN
- BLUE
- Grey
- YELLOW/GREEN

Paras Wires PVT LTD XLPE Wires

ABOUT XLPE HOOKUP WIRES

XLPE stands for cross -linked polyethylene ,Xlpe cable has a high chemical resistance and moisture resistance. Xlpe cable can be used at high temperatures and high voltage applications. XLPE is recommended for wiring devices, switch gear cabinets, and distribution boxes. Dry rooms; areas where human safety and damage to electronic components are a concern

APPLICATIONS

- Internal Wiring of electrical & electronic equipment used for wiring & cable assemblies in data electronic equipment
- Used in wiring of motors, transformers, switchboard, panels, rectifier, electronic and electrical circuits etc.
- Oil and gas refining
- Electronic Applications.
- Marine and offshore application
- High-energy radiation environments

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Bare/Tinned Copper
- Insulation: XLPE/XLPO ROHS & REACH Compliant

DIMENSION DETAILS:

SL. No	Size	Type of conductor	Size of conductor (mm)	Insulation OD(nom) (mm)
1	30 AWG	ABC/ATC	7/0.1	1.10
2	28 AWG	ABC/ATC	7/0.13	1.20
3	26 AWG	ABC/ATC	7/0.16	1.30
4	24 AWG	ABC/ATC	7/0.2	1.40
5	22 AWG	ABC/ATC	7/0.254	1.60
6	20 AWG	ABC/ATC	16/0.2	1.70
7	18 AWG	ABC/ATC	16/0.254	2.00
8	16 AWG	ABC/ATC	26/0.254	2.30
9	14 AWG	ABC/ATC	41/0.254	2.70
10	12 AWG	ABC/ATC	37/0.32	3.00
11	10 AWG	ABC/ATC	63/0.32	4.00
12	8 AWG	ABC/ATC	98/0.32	5.80
13	6 AWG	ABC/ATC	84/0.45	7.20
14	4 AWG	ABC/ATC	133/0.45	9.30
15	2 AWG	ABC/ATC	168/0.5	10.50

FEP HOOKUP WIRES

PROPERTIES

- ROHS - compliance
- acids, oils, alkalis and moisture resistant
- good abrasion resistance
- Fire retardant

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper

Insulation Resistance
>10MΩ/km

Voltage Rating
600V

Temperature Rating
-55°C to +200 °C

INSULATION COLOURS

- RED
- YELLOW
- BLACK
- WHITE
- GREEN
- BLUE

Paras Wires PVT LTD ETFE Wires

ABOUT FEP HOOKUP WIRES

FEP, also known as(fluorinated ethylene propylene copolymer) insulated wires, and cables display excellent material toughness, electrical properties and good resistance to heat, flame, and chemical radiation.
The FEP wire can go up to 200°C while the wires display good flexibility and resistance to abrasion. The FEP wires we have available come in single insulation and dual insulation options.

APPLICATIONS

- Internal Wiring of electrical & electronic equipment used for wiring & cable assemblies in data electronic equipment
- Used in wiring of motors, transformers, switchboard, panels, rectifier, electronic and electrical circuits etc.
- Electronic Applications.
- High-energy radiation environments

PRODUCT CONSTRUCTION

Conductor: Stranded Annealed Bare/Tinned/Silver Copper
Insulation: FEP ROHS & REACH Compliant

DIMENSION DETAILS:

Sl no	Conductor construction		Conductor diameter in mm	Wire diameter in mm
	AWG	mm		
1	32	7/0.08	0.25	0.7
2	30	7/0.1	0.3	0.75
3	28	7/0.13	0.37	0.8
4	26	19/0.10	0.45	1
5	24	19/0.13	0.58	1.2
6	22	19/0.16	0.7	1.4
7	20	19/0.20	0.88	1.6
8	19	19/0.23	1	1.8
9	18	19/0.25	1.15	2.2
10	16	19/0.29	1.25	2.4
11	14	19/0.36	1.6	2.6
12	12	37/0.32	1.95	3.2

ETFE HOOKUP WIRES

PROPERTIES

- ROHS - compliance
- acids, oils, alkalis and moisture resistant
- good abrasion resistance
- Fire retardant

TECHNICAL SPECIFICATIONS

Conductor
Annealed Bare/Tin coated copper

Insulation Resistance
>10MΩ/km

Voltage Rating
600V

Temperature Rating
-55°C to +150 °C

INSULATION COLOURS

- RED
- YELLOW
- BLACK
- WHITE
- GREEN
- BLUE

Paras Wires PVT LTD ETFE Wires

ABOUT ETFE HOOKUP WIRES

ETFE, also known as, ethylene tetrafluoroethylene copolymer, insulated wires, and cables display excellent material toughness, electrical properties and good resistance to heat, flame, and chemical radiation. The ETFE wire can go up to 150°C while the wires display good flexibility and resistance to abrasion. The ETFE wires we have available come in single insulation and dual insulation options.

APPLICATIONS

- Internal Wiring of electrical & electronic equipment used for wiring & cable assemblies in data electronic equipment
- Used in wiring of motors, transformers, switchboard, panels, rectifier, electronic and electrical circuits etc.
- Electronic Applications.
- High-energy radiation environments

PRODUCT CONSTRUCTION

Conductor: Stranded Annealed Bare/Tinned/Silver Copper
Insulation: ETFE ROHS & REACH Compliant

DIMENSION DETAILS:

Sl no	Conductor construction		Conductor diameter in mm	Wire diameter in mm
	AWG	mm		
1	32	7/0.08	0.25	0.7
2	30	7/0.1	0.3	0.75
3	28	7/0.13	0.37	0.8
4	26	19/0.10	0.45	1
5	24	19/0.13	0.58	1.2
6	22	19/0.16	0.7	1.4
7	20	19/0.20	0.88	1.6
8	19	19/0.23	1	1.8
9	18	19/0.25	1.15	2.2
10	16	19/0.29	1.25	2.4
11	14	19/0.36	1.6	2.6
12	12	37/0.32	1.95	3.2

TEFLON SINGLE CORE (PTFE) WIRES

STANDARDS/APPROVALS

JSS 51034 LCSO APPROVED

MIL-W-16878 CEMILAC APPROVED

GOST

ABOUT TEFLON SINGLE CORE(PTFE) WIRES

PTFE Insulated Equipment Wires Sizes AWG 06 to AWG 32 Voltage Grade : 250V, 600V, 1000V,PTFE(Polytetrafluorethylene) Wires are tape wrapped wires having uniform insulation thickness around the central conductor compared to the wires insulated by extrusion process. Excellent mechanical and electrical properties with a Small size & weight They propagate neither flame nor fire Resistance to solder iron damage They withstand most solvents, water, moisture and are fungus proof. They are very thin and can withstand very high currents in smaller size wires.

PROPERTIES

- ROHS compliance
- acids, oils, alkalis and moisture resistant
- Fire retardant
- Good abrasion resistance
- Lead Free
- Good Steam and Water resistance
- High Flexibility

APPLICATIONS

1. For wiring electrical appliances and lamps up to a max. permissible operating temperature of:
   i. 200 °C with silver-plated copper conductor
   ii. 260 °C with nickel-plated copper conductor
2. Everywhere cables are exposed to high temperatures and where they may also be under mechanical or chemical strain:
   i. Defence & Aerospace
   ii. Machinery and plant engineering
   iii. Automotive industry
   iv. Lighting industry
   v. Measuring device manufacture

TECHNICAL SPECIFICATIONS

Conductor
Annealed silver/nickel coated copper or copper alloy

Voltage Rating
230V, 600V & 1000V

Temperature Rating
-65°C to +260 °C

Bending Radius
10 x outer diameter

PRODUCT CONSTRUCTION

- Conductor: Stranded Annealed Silver/Nickel Plated Copper or copper alloys
- Insulation: PTFE Tape Wrapped and Sintered

INSULATION COLOURS

RED	YELLOW
BLACK	WHITE
BROWN	VIOLET
GREEN	BLUE
Grey	Bi-colour as required

TEFLON SINGLE CORE (PTFE) WIRES

Size	Number of Stands/Dia of Strand		Dia of Conductor	Cross Sectional Area	ET 250V OD of Insulation		ET 600V OD of Insulation		EE 1000V OD of Insulation	
AWG	AWG	(mm)	(mm)	mm^2	Min (mm)	Max (mm)	Min (mm)	Max (mm)	Min (mm)	Max (mm)
32	7/40	7/0.08	0.25	0.035	0.5	0.6	0.66	0.86	0.91	1.11
30	1/30	1/0.25	0.25	0.049	0.5	0.6	0.66	0.86	0.91	1.11
30	7/38	7/0.10	0.31	0.055	0.55	0.66	0.71	0.91	0.96	1.16
28	1/28	1/0.32	0.32	0.08	0.58	0.68	0.73	0.93	0.99	1.19
28	7/36	7/0.13	0.38	0.093	0.63	0.73	0.78	0.99	1.04	1.24
26	1/26	1/0.40	0.4	0.125	0.66	0.76	0.81	1.01	1.06	1.27
26	7/34	7/0.16	0.48	0.14	0.73	0.83	0.88	1.09	1.14	1.34
26	19/38	19/0.10	0.51	0.149	0.73	0.83	0.88	1.09	1.14	1.34
24	1/24	1/0.51	0.51	0.204	0.76	0.86	0.91	1.11	1.16	1.37
24	7/32	7/0.20	0.61	0.219	0.86	0.96	1.01	1.21	1.27	1.47
24	19/36	19/0.13	0.64	0.252	0.86	0.96	1.01	1.21	1.27	1.47
22	1/22	1/0.64	0.64	0.321	0.88	1.01	1.04	1.27	1.29	1.52
22	7/30	7/0.25	0.76	0.343	1.01	1.11	1.16	1.37	1.42	1.62
22	19/34	19/0.16	0.81	0.382	1.01	1.11	1.16	1.37	1.42	1.52
20	1/20	1/0.81	0.81	0.515	1.06	1.16	1.21	1.42	1.47	1.67
20	7/28	7/0.32	0.97	0.562	1.21	1.32	1.37	1.57	1.62	1.82
20	19/32	19/0.20	1.02	0.596	1.21	1.32	1.37	1.57	1.62	1.82
18	7/26	7/0.40	1.22	0.879			1.63	1.87	1.87	2.13
18	19/30	19/0.25	1.27	0.932			1.63	1.87	1.87	2.13
16	19/29	19/0.29	1.45	1.254			1.85	2.2	2.1	2.41
15	19/28	19/0.32	1.6	1.528			1.98	2.28	2.26	2.54
14	19/27	19/0.36	1.83	1.933			2.23	2.59	2.48	2.89
13	19/26	19/0.40	2	2.387			2.43	2.74	2.66	3.02
12	19/25	19/0.45	2.31	3.021			2.71	3.07	2.97	3.37
12	37/28	37/0.32	2.26	2.975			2.66	3.02	2.92	3.32
11	19/24	19/0.50	2.5	3.73			2.99	3.3	3.2	3.58
10	19/22	19/0.65	3.25	6.304			3.73	4.03	3.96	4.34
10	37/26	37/0.4	2.82	4.649			3.22	3.58	3.47	3.88
8	133/29	133/0.29	4.29	8.784					5.05	5.56
6	133/27	133/0.36	5.41	13.537					6.42	6.93