



EMPOWERING PROCESS MANAGEMENT



**RTD EXTENSION WIRES:**



**RTD Cables** are used as an extension wire to transmit Signal from RTD Sensor to Control Unit. They are available in 2,3,4,6,8, 9 cores as per the requirement of RTD SENSOR design for Simplex & Duplex Construction.

The most popular design is of PTFE Insulation & outer jacket of PTFE, GLASS FIBER & SILICONE RUBBER as per requirement. Metal over braid of SS & SPC, if required

**ELTEC PTFE Insulated RTD Extension wires** conforms to US Military **MIL – W – 16878** and Indian defense specifications **JSS 51034**. As per these standards, these wires are classified in three main working voltage grades.

GRADE	SPARK TESTING	DIE ELECTRIC TESTING
ET (250 V)	2500 V AC	1500 V AC
E (600 V)	3400 V AC	2000 V AC
EE (1000 V)	5000 V AC	3000 V AC

APPLICATIONS	PRODUCT FEATURES
<ul style="list-style-type: none"> <li>RTD Sensors &amp; Extension Wires</li> <li>RTD Autoclave</li> <li>Medical Instruments &amp; Scientific Equipments</li> <li>Sensors, Load Cells &amp; Pressure Transducers</li> <li>Electronics &amp; Communication Equipment</li> <li>Process Instrumentation</li> </ul>	<ul style="list-style-type: none"> <li>Continuous use up to 260 °C</li> <li>Intermittent use up to 300 °C</li> <li>High dielectric values</li> <li>Non flammable, non toxic</li> <li>High strain &amp; abrasion resistance</li> <li>Immune to agene, fungus</li> </ul>

**PRODUCT SPECIFICATIONS:**

Conductor	Silver Plated Copper wires sizes from 28 AWG to 20 AWG as per MIL – W - 16878 & JSS 51034, Refer Table for most popular & standard wire sizes
Core Insulation	Fused PTFE Tape , FEP, PFA Fiber Glass, Silicone Rubber Extruded, Refer Ordering Code
No. of Pair or Triad	1, 2, 3 or more
Construction	Twisted
Outer Sheath	Fused PTFE Tape , FEP, PFA, Fiber Glass Insulated, Silicone Rubber Extruded, Refer Ordering Code
Screening	Silver Plated Copper wire Braid or SS Over Metal Braid
Color Code	Confirms to EN 60751

- Other types of Insulation & Jacket such as PVC, FEP, PFA is available on request.
- Screening of SS or Silver Plated Copper wire with Outside Jacket of PTFE
- Few Standard Conductor Sizes confirming to MIL – W – 16878 & JSS 51034 are as per the table








**ELTEC CABLES & INSTRUMENTS**

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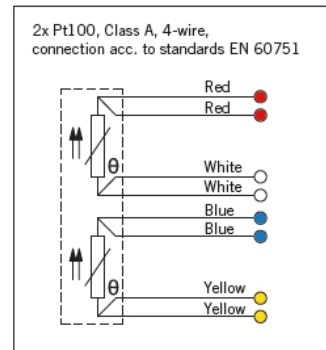
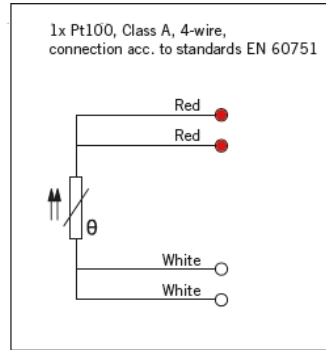
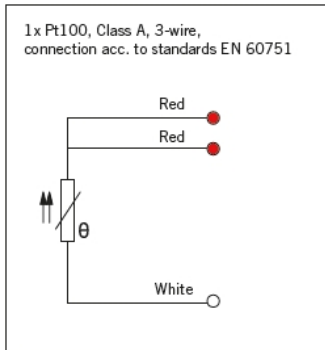
**FEW STANDARD RTD CABLE WIRE SIZES as per MIL – W – 16878 & JSS 51034**

Sr. No.	Size in AWG	No. of strands/dia. of each strand (mm)	Parameters of conductor (As per JSS 51034)			Elongation % (Min)	Nominal Wire	Nominal Dia. of Insulated Wire	
			Dia. (mm)	Cross section (sq. mm)	Resistance Ohm/km at 20° C			ET (250 V AC)	E (600 V AC)
1.	26/7/34	7/0.16	0.48	0.1409	133.7	9.0	0.79	0.99	1.24
2.	24/7/32	7/0.2	0.60	0.2270	83.2	9.0	0.91	1.12	1.37
3.	24/19/36	19/0.13	0.63	0.2407	80.2	9.0	0.91	1.12	1.37
4.	22/7/30	7/0.25	0.75	0.3547	52.5	13.5	1.07	1.27	1.52
5.	22/19/34	19/0.16	0.80	0.3820	49.8	9.0	1.07	1.27	1.52
6.	20/7/28	7/0.32	0.97	0.5630	33.0	13.5	1.27	1.47	1.73
7.	20/19/32	19/0.2	1.00	0.6162	30.3	9.0	1.27	1.47	1.73

**FEW POPULAR RTD CABLE CONSTRUCTIONS**

CORE INSULATION	SHEATH INSULATION		MAX. TEMP.	INSULATING MATERIAL CHARACTERISTICS
PTFE Tapped	PTFE Tapped		260°C (500°F)	Resistance to abrasion, oil, moisture etc. with high electrical properties.
PTFE Tapped	SILICONE RUBBER		180°C (392°F)	Excellent flexibility & softness with good temperature resistant
PTFE	FIBER with SS Metal Braid		260°C (500°F)	Resistance to moisture & abrasion and higher temperature resistance
SILICONE RUBBER	SILICONE RUBBER		180°C (356°F)	Excellent flexibility & softness with good temperature resistant
FIBER GLASS	FIBER GLASS with SS Metal		500°C (932°F)	High temperature resistant & flame retardant
CERAMIC FIBER	CERAMIC FIBER		800°C (1472°F)	Extreme temperature resistant & flame retardant

**RTD COLOR CODE as per EN 60751**



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### RTD WIRE ORDERING CODE

Rx	RTD Wire
	<b># 1 Wire Size in AWG</b>
26	7 * 34 - 7 strands of 26 AWG
24	7 * 32 - 7 strands of 32 AWG
24	19 * 36 - 19 strands of 36 AWG
22	7 * 30 - 7 strands of 30 AWG
22	19 * 34 - 19 strands of 34 AWG
20	7 * 28 - 7 strands of 28 AWG
20	19 * 32 - 19 strands of 32 AWG
X	Others specify
	<b># 2 Conductor</b>
SPC	Silver Plated Copper Wire (Standard)
NPC	Nickel Plated Copper Wire
TPC	Tin Plated Copper Wire
	<b># 3 No. of Cores</b>
2C	Two Core Simplex
3C	Three Core Simplex
4C	Four Core Simplex
6C	Six Core Duplex
8C	Eight Core Duplex
	<b>#4 Insulation</b>
P	PVC Extruded
T	PTFE Fused (Standard)
F	Fiber Glass Braid (Standard)
SR	Silicone Rubber
C	Ceramic Fiber Braid
EP	FEP Extruded PTFE
PF	PFA Extruded PTFE
	<b># 5 Inner Jacket</b>
P	PVC Extruded
T	PTFE Fused (Standard)
F	Fiber Glass Braid
C	Ceramic Fiber Braid (Standard)
SR	Silicone Rubber
EP	FEP Extruded PTFE
PF	PFA Extruded PTFE
	<b># 6 Shielding</b>
0	No Shield
S	Stainless Steel Over Braid
Sl	Silver Plated Braid
Sh	Aluminum Mylar with Drain Wire
	<b># 7 OuterJacket</b>
P	PVC Extruded
T	PTFE Fused (Standard)
F	Fiber Glass Braid
C	Ceramic Fiber Braid (Standard)
SR	Silicone Rubber
EP	FEP Extruded PTFE
PF	PFA Extruded PTFE

Rx	24	AWG	SPC	6C	T	T	S	T
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