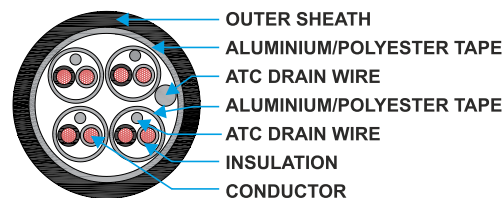




Instrumentation Cable

Multi Pair Individual & Overall Shielded Unarmoured



0302 - Instrumentation Cables

Application

Instrumentation cables are used in diverse applications for control, monitoring, communication, data and voice transmissions signals, and process control circuit in industrial applications such as oil, gas, petrochemical industry, fertilizers, cement, steel plant etc.

Characteristics

- Signal protection between pairs.
- Good electromagnetic protection from external influences.
- Excellent electrical, thermal & physical properties.
- Flame / Fire retardant- highly recommended in areas with high explosion & fire risks.
- Excellent mechanical protection during laying, installation & service.
- Optional class-5 conductor provides extra flexibility

Properties

- Halogen free
- Excellent fire resistance
- No smoke and fume generation
- Low gas emission
- Good mechanical tensile strength & elongation

Construction

- Conductor : Plain or tin plated copper, class-1 solid, class-2 stranded, class-5 flexible as per IS : 8130, BS : 6360, IEC : 60228).
- Insulation : PVC-70°C/HR-85°C /105°C., BS 5308 or polyethylene to BS 6234.
- Individual screen : Twisted pair or triad are individually shielded with aluminium-mylar tape along with tin copper drain wire. longitudinal. shielding of copper tape can also be provided as per customer specific requirements.
- Pair/Triad identification: Identifications can be done by numbered polyester tape applied over each Pair / Triad or by number printing on core of each Pair/triad.
- Overall screen : Multi Pair / Triad are laid up together and are shielded with aluminium-mylar tape along with tin copper drain wire longitudinal. Shielding of copper tape can also be provided.
- Outer sheath : Extruded PVC / FR / FRLS / LSZH sheathed

Technical Parameter

Parameter	Unit	Conductor Size				
		0.5mm ² 1/0.8 mm	0.5mm ² 16/0.2 mm	0.75mm ² 24/0.2 mm	1.0mm ² 1/1.13 mm	1.5mm ² 7/0.53 mm
Insulation Thickness	mm	0.50	0.50	0.50	0.50	0.60
Conductor (Bare) resistance	Ω/Km (max.)	36	39	26	18.1	12.1
Insulation resistance	MΩ x Km	> 36.7	> 36.7	> 36.7	> 36.7	> 36.7
Mutual capacitance (c to c)	pF/m (max.)	250	250	250	250	250
Mutual capacitance (c to s)	pF/m (max.)	450	450	450	450	450
Inductance/resistance ratio (L/R)	μH/Ω (max.)	25	25	25	25	40



Multipair Instrumentation Cables (unarmoured) To BS 5308 Part 1 Type 1-Individual Pair And Collectively Screened

Part code	Conductor	Number of Pairs	Nominal Overall Diameter (mm)	Approx. Weight (kg/km)
0302T020005S	1/0.8mm (0.5mm ²)	2	9.7	100
0302T050005S		5	12.9	190
0302T100005S		10	17.7	320
0302T200005S		20	22.9	570
0302T300005S		30	27.3	820
0302T020005	16/0.2mm (0.5mm ²)	2	11.4	160
0302T050005		5	14.6	250
0302T100005		10	20.5	480
0302T200005		20	26.7	780
0302T300005		30	31.7	1100
0302T020007	24/0.2mm (0.75mm ²)	2	12.2	190
0302T050007		5	15.7	270
0302T100007		10	21.8	550
0302T200007		20	28.5	960
0302T300007		30	33.7	1320
0302T020010S	1/1.13mm (1.0mm ²)	2	12.2	190
0302T050010S		5	15.6	270
0302T100010S		10	22.0	480
0302T200010S		20	29.2	910
0302T300010S		30	34.8	1320
0302T020015	7/0.53mm (1.5mm ²)	2	13.7	250
0302T050015		5	17.8	400
0302T100015		10	25.2	800
0302T200015		20	33.8	1400
0302T300015		30	40.0	2040

Note: S=Solid