

Instrumentation Cable

BS EN 50288-7

Single or multipair, overall screen, braided



Application

Used for transmission of analogue or digital signals in measurement, process control and data system technologies. Steel wire braid prevents the cable from mechanical damage while providing better flexibility, hence it is suitable for installation in small compartment such as shipboards and offshore platforms.

Construction

- Annealed stranded copper wire, class 2 or 5 acc. to IEC 60228
- Insulation compound - PVC, PE, XLPE or XLEVA
- Black & white twisted pair (up to 50 pairs) with numbering (other colours upon request)
- Collective screen - aluminium/polyester foil with 0.5mm² stranded tinned copper drain wire
- PVC or PE inner sheath
- Galvanized steel wire braid with 80% coverage
- PVC Outer sheath with flame retardancy acc. to IEC 60332-3-22 (Cat A) or IEC 60332-3-24 (Cat C)

Conductor Sizes

- 0.5mm², 0.75mm², 1.0mm², 1.5mm², 2.5mm² (other sizes upon request)

Technical Data

- Operating temp. up to 70°C (PVC); up to 90°C (PE, XLPE); up to 105°C (XLEVA)
- Min. bending radius approx 10 x Ø
- Limiting Oxygen Index (LOI) > 30

Upon Request

- Multi-core or multi-triad
- Tinned copper conductor
- Fire resistant acc. to IEC 60331 or BS 6387
- Low smoke halogen free (LS0H) sheathing or insulation material acc. to IEC 60754 & IEC 61034
- Anti-termite, anti-rodent, UV, oil resistant material

Electrical Data Sheet @20°C

				Conductor size			
				0.5mm ²	1.0mm ²	1.5mm ²	2.5mm ²
Conductor resistance	Class 2	max	Ω/km	36.7	18.4	12.3	7.56
Insulation resistance	PE-insulated	min	MΩ/km	1000			
	PVC-insulated			10			
Rated Voltage		max	V	300 or 500			
High voltage test	300V AC (DC)	1 min	kV	1 (2)			
	500V AC (DC)			2 (3)			
Mutual capacitance	PE-insulated	max	nF/km	150			
	PVC-insulated			250			
L/R ratio		max	μH/Ω	25	25	40	60

Geometrical Data Sheet

Number of pair	300V			500V		
	Overall diameter (approx) mm	Weight (approx) kg/km		Overall diameter (approx) mm	Weight (approx) kg/km	
		PVC-insulated	PE-insulated		PVC-insulated	PE-insulated
0.5mm² - 7/0.3mm						
1	9.5	131	129	9.9	139	136
2	10.3	171	166	10.7	181	176
4	13.5	268	259	14.5	297	286
8	16.9	405	388	18.0	443	420
10	18.6	472	450	20.3	538	510
12	18.9	505	478	20.6	570	536
20	23.4	723	679	25.4	812	756
24	25.6	837	784	28.2	991	923
1.0mm² - 7/0.43mm						
1	10.2	163	161	10.6	174	170
2	11.3	214	209	12.0	235	227
4	15.1	346	334	16.1	378	364
8	18.9	532	510	20.5	598	569
10	21.4	653	625	22.9	716	680
12	21.7	704	669	23.5	785	742
20	26.8	1023	966	29.3	1184	1112
24	30.0	1263	1194	32.3	1388	1301
1.5mm² - 7/0.53mm						
1	11.2	198	194	11.6	209	204
2	12.5	263	255	13.0	279	270
4	17.1	443	427	18.0	475	456
8	21.6	701	670	22.9	757	718
10	24.4	859	820	25.9	928	880
12	25.1	953	907	26.4	1012	955
20	31.5	1463	1386	33.2	1554	1459
24	34.7	1716	1623	36.7	1831	1717
2.5mm² - 7/0.67mm						
1				13.1	263	256
2				14.7	362	348
4				20.9	637	609
8				27.4	1115	1059
10				31.0	1367	1298
12				31.9	1521	1438
16				35.3	1894	1783
20				39.4	2217	2078