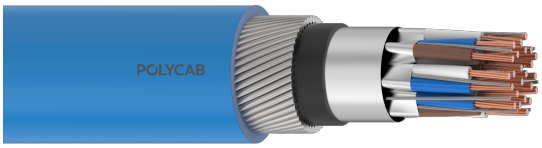
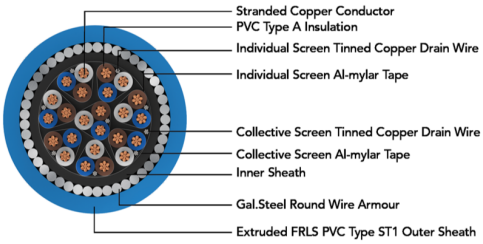
POLYCAB INSTRU 500 (ST) TiMF

Instrumentation cable PVC/PE Insulated Individual & Overall shielded 500V





Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB INSTRU 500 MT, Stranded copper conductor, PVC/PE insulated, Individual & overall al-mylar shielded, armoured/unarmoured and PVC/LSZH sheathed cable confirming to BS EN 50288-7 are designed for transmission of analogue and digital signals in instrument and control systems. POLYCAB INSTRU 500 MT cables are used for diverse applications within industrial process for control, communication, data & voice transmission in oil, gas & petrochemical industries, cement, steel, fertilizers etc.

CHARACTERISTICS

Voltage Rating
500 V

Operation Temperature
Max.: PVC 70°C,
HRPVC 85°C,
XLPE 90°C,
LDPE 60°C.

Bending Radius
12 x Overall diameter

CONSTRUCTION

- Stranded Copper conductor as per EN 60228
- Insulated with PVC/PE as per EN 50288-7
- Individual & Collective screen Al/PET(Aluminium/Polyester tape) with drain wire of tinned Cu/ Tinned copper braiding.
- Extruded inner sheath with PVC/LSZH to EN 50290-2-22/27
- Armoured with Galvanised Steel Strip/Round as per EN 50288-7
- Sheathed with Extruded PVC/LSZH to EN 50290-2-22/27

Core Identification
White, Blue & Brown for Triad

Outer sheath colour: Blue

OUTSTANDING FEATURES

- Low smoke emission
- Flame retardant
- Long Life

STANDARD FOLLOWS

EN 50288-7
EN 50288-1
EN 60228
EN 50290-2-22/27

COMPLIANCE

Conductor resistance	- EN 60228
Insulation resistance	- EN 50288-7
L/R Ratio	- EN 50288-7
Mutual capacitance	- EN 50288-7

OUR ACCREDITATIONS

APPROVAL

NOTES

Outer sheath also available with PE & FRLS on request.
As per the application/identification requirement, other colour also available on request

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POLYCAB
IDEAS. CONNECTED.

Weight & Dimension Data

500 VOLTS, MULTI TRIAD, STR. COPPER, PVC/PE INSULATED, ALUMINIUM MYLAR TAPED INDIVIDUAL & OVERALL SHIELDED, ARMOURED AND UNARMOURED INSTRUMENTATION CABLES AS PER EN 50288-7

Area of conductor	No.of triad	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES			
			Nominal thickness of inner sheath	Diameter of G.I. armour wire	Nominal thickness of outer Sheath	Nominal Overall diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation
Sqmm		mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	Kg/Km	Kg/Km
0.5	2	0.44	1.0	0.9	1.4	15.9	400	410	1.0	11.3	115	125
0.5	4	0.44	1.1	0.9	1.5	18.2	530	550	1.1	13.4	195	210
0.5	5	0.44	1.1	0.9	1.5	19.5	590	620	1.1	14.7	230	255
0.5	6	0.44	1.2	0.9	1.6	21.2	690	720	1.2	16.2	275	305
0.5	8	0.44	1.3	1.25	1.6	24.2	950	990	1.3	18.5	355	395
0.5	10	0.44	1.3	1.25	1.7	26.9	1110	1160	1.3	21.0	430	480
0.5	12	0.44	1.4	1.25	1.7	27.8	1210	1270	1.4	21.9	510	560
0.5	14	0.44	1.4	1.25	1.7	28.9	1310	1380	1.4	23.0	570	640
0.5	16	0.44	1.4	1.25	1.8	30.5	1440	1510	1.4	24.4	640	720
0.5	19	0.44	1.5	1.25	1.8	32.0	1590	1680	1.5	25.9	750	840
0.5	20	0.44	1.5	1.25	1.8	33.5	1680	1770	1.5	27.4	790	890
0.5	24	0.44	1.6	1.6	1.9	37.6	2160	2270	1.6	30.6	950	1070
0.5	30	0.44	1.7	1.6	2.0	39.9	2450	2600	1.7	32.7	1160	1300
0.5	37	0.44	1.8	1.6	2.1	43.0	2830	3010	1.8	35.6	1410	1580
0.75	2	0.44	1.1	0.9	1.5	17.2	460	470	1.1	12.4	145	155
0.75	4	0.44	1.1	0.9	1.5	19.2	590	620	1.1	14.4	230	255
0.75	5	0.44	1.2	0.9	1.6	21.0	690	720	1.2	16.0	285	315
0.75	6	0.44	1.2	1.25	1.6	23.2	900	930	1.2	17.5	335	365
0.75	8	0.44	1.3	1.25	1.7	25.8	1080	1130	1.3	19.9	430	475
0.75	10	0.44	1.4	1.25	1.7	28.8	1270	1330	1.4	22.9	540	590
0.75	12	0.44	1.4	1.25	1.8	29.8	1390	1450	1.4	23.7	620	680
0.75	14	0.44	1.5	1.25	1.8	31.2	1530	1600	1.5	25.1	720	790
0.75	16	0.44	1.5	1.25	1.8	32.6	1660	1740	1.5	26.5	800	890
0.75	19	0.44	1.6	1.25	1.9	34.5	1870	1970	1.6	28.2	940	1040
0.75	20	0.44	1.6	1.6	1.9	36.9	2170	2280	1.6	29.9	990	1100
0.75	24	0.44	1.7	1.6	2.0	40.6	2500	2630	1.7	33.4	1190	1320
0.75	30	0.44	1.8	1.6	2.1	43.0	2880	3040	1.8	35.6	1450	1610
0.75	37	0.44	1.9	1.6	2.1	46.1	3300	3500	1.9	38.7	1760	1960
1.0	2	0.44	1.1	0.9	1.5	17.9	495	510	1.1	13.1	165	175
1.0	4	0.44	1.1	0.9	1.5	20.1	650	670	1.1	15.3	270	295
1.0	5	0.44	1.2	0.9	1.6	22.0	760	790	1.2	17.0	335	365

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Area of conductor	No.of triad	Min. thickness of insulation	ARMOURED CABLES						UNARMOURED CABLES			
			Nominal thickness of inner sheath	Diameter of G.I. armour wire	Nominal thickness of outer Sheath	Nominal Overall diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation	Nominal thickness of outer sheath	Nominal overall diameter	Approx. weight - PE insulation	Approx. weight of PVC Insulation
Sqmm		mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	Kg/Km	Kg/Km
1.0	6	0.44	1.2	1.25	1.6	24.3	990	1020	1.2	18.6	390	425
1.0	8	0.44	1.3	1.25	1.7	27.1	1190	1240	1.3	21.2	510	560
1.0	10	0.44	1.4	1.25	1.8	30.4	1420	1480	1.4	24.3	630	690
1.0	12	0.44	1.5	1.25	1.8	31.5	1560	1640	1.5	25.4	740	810
1.0	14	0.44	1.5	1.25	1.8	32.8	1710	1790	1.5	26.7	840	930
1.0	16	0.44	1.5	1.25	1.8	34.4	1860	1950	1.5	28.3	950	1050
1.0	19	0.44	1.6	1.6	1.9	37.1	2300	2410	1.6	30.1	1110	1230
1.0	20	0.44	1.7	1.6	2.0	39.2	2460	2580	1.7	32.0	1190	1310
1.0	24	0.44	1.8	1.6	2.0	43.0	2830	2970	1.8	35.8	1420	1570
1.0	30	0.44	1.9	1.6	2.1	45.6	3260	3440	1.9	38.2	1740	1920
1.0	37	0.44	2.0	2.0	2.2	49.9	4100	4320	2.0	41.5	2110	2340
1.5	2	0.44	1.1	0.9	1.5	19.1	560	570	1.1	14.3	205	215
1.5	4	0.44	1.2	1.25	1.6	22.7	890	920	1.2	17.0	350	375
1.5	5	0.44	1.3	1.25	1.6	24.6	1030	1060	1.3	18.9	430	465
1.5	6	0.44	1.3	1.25	1.7	26.5	1170	1210	1.3	20.6	500	550
1.5	8	0.44	1.4	1.25	1.8	29.6	1420	1480	1.4	23.5	660	710
1.5	10	0.44	1.5	1.25	1.8	33.1	1680	1750	1.5	27.0	820	890
1.5	12	0.44	1.6	1.25	1.9	34.4	1880	1970	1.6	28.1	960	1040
1.5	14	0.44	1.6	1.6	1.9	36.6	2260	2350	1.6	29.6	1100	1190
1.5	16	0.44	1.7	1.6	2.0	38.7	2500	2610	1.7	31.5	1250	1360
1.5	19	0.44	1.7	1.6	2.0	40.5	2760	2900	1.7	33.3	1450	1580
1.5	20	0.44	1.8	1.6	2.1	42.9	2970	3110	1.8	35.5	1540	1680
1.5	24	0.44	1.9	1.6	2.2	47.2	3450	3620	1.9	39.6	1850	2010
1.5	30	0.44	2.0	2.0	2.2	50.7	4280	4490	2.0	42.3	2260	2470
1.5	37	0.44	2.1	2.0	2.3	54.6	4960	5220	2.1	46.0	2750	3010
2.5	2	0.53	1.2	1.25	1.6	22.7	830	850	1.2	17.0	285	305
2.5	4	0.53	1.3	1.25	1.7	26.1	1150	1190	1.3	20.2	500	540
2.5	5	0.53	1.4	1.25	1.7	28.3	1340	1390	1.4	22.4	620	670
2.5	6	0.53	1.5	1.25	1.8	30.8	1540	1600	1.5	24.7	740	800
2.5	8	0.53	1.6	1.6	1.9	35.2	2070	2150	1.6	28.2	960	1040
2.5	10	0.53	1.7	1.6	2.0	39.5	2480	2580	1.7	32.3	1190	1290
2.5	12	0.53	1.8	1.6	2.0	40.8	2740	2860	1.8	33.6	1400	1520
2.5	14	0.53	1.8	1.6	2.1	42.8	3030	3170	1.8	35.4	1600	1740
2.5	16	0.53	1.9	1.6	2.1	45.1	3320	3480	1.9	37.7	1820	1980

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Sqmm		mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	Kg/Km	Kg/Km
2.5	19	0.53	2.0	2.0	2.2	48.5	4050	4240	2.0	40.1	2140	2330
2.5	20	0.53	2.1	2.0	2.3	51.2	4350	4550	2.1	42.6	2280	2480
2.5	24	0.53	2.2	2.0	2.4	56.4	5030	5270	2.2	47.6	2720	2960
2.5	30	0.53	2.3	2.5	2.5	60.8	6300	6600	2.3	50.8	3330	3630
3	37.00	0.5	2.5	2.5	2.6	66	7340	7710.0	2.5	55	4080	4450

For Cables of sizes or triad not listed above the product data is available on request
Dimensions & Weights are representative figures and may vary

Electrical Parameter

Area of Conductor	Max. DC resistance of conductor at 20°C Plain wires	Max. DC resistance of conductor at 20°C Metal coated wires	Insulation resistance (PVC)	Insulation resistance (PE/XLPE)	Mutual capacitance	Inductance to resistance ratio(L/R)
Sqmm	Ohm/km	Ohm/km	MΩ/Km	MΩ/Km	nf/Km	µH/Ω
0.5	36	36.7	10	1000	< 250	< 25
0.75	24.5	24.8	10	1000	< 250	< 25
1	18.1	18.2	10	1000	< 250	< 25
1.5	12.1	12.2	10	1000	< 250	< 40
2.5	7.41	7.56	10	1000	< 250	< 60