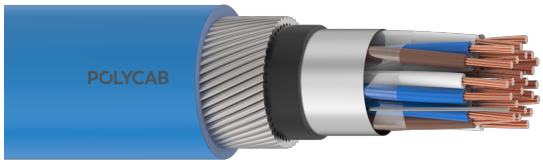
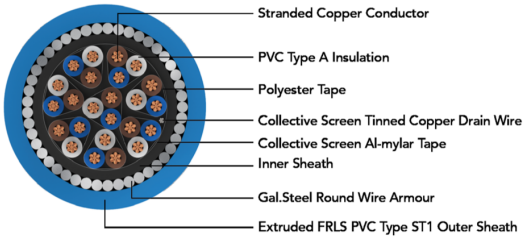
POLYCAB INSTRU 500 T (ST)
Instrumentation cable PVC/PE Insulated Overall shielded 500V





Images not to scale. Follow table for dimensions

APPLICATION

POLYCAB INSTRU 500 SINGLE & MT, Stranded copper conductor, PVC/PE insulated, 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 SINGLE & 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
- 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/Black

OUTSTANDING FEATURES

- Flame Retardant
- Low smoke emission
- 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

NABL

APPROVAL

FQC CE

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, SINGLE & MULTI TRIAD, STR.COPPER, PVC/PE INSULATED, ALUMINIUM MYLAR TAPED 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	1	0.44	0.9	0.9	1.3	11.0	225	230	0.9	6.6	52	57
0.5	2	0.44	1.0	0.9	1.4	14.7	350	360	1.0	10.1	94	105
0.5	4	0.44	1.0	0.9	1.4	16.3	440	455	1.0	11.7	145	165
0.5	5	0.44	1.1	0.9	1.5	17.8	510	530	1.1	13.0	180	205
0.5	6	0.44	1.1	0.9	1.5	19.0	560	590	1.1	14.2	205	235
0.5	8	0.44	1.2	0.9	1.5	21.0	670	710	1.2	16.2	270	305
0.5	10	0.44	1.2	1.25	1.6	24.0	910	960	1.2	18.3	325	370
0.5	12	0.44	1.3	1.25	1.6	24.9	990	1050	1.3	19.2	380	435
0.5	14	0.44	1.3	1.25	1.7	26.1	1080	1150	1.3	20.2	430	495
0.5	16	0.44	1.3	1.25	1.7	27.2	1160	1240	1.3	21.3	480	560
0.5	19	0.44	1.4	1.25	1.7	28.6	1290	1380	1.4	22.7	560	650
0.5	20	0.44	1.4	1.25	1.7	29.9	1360	1450	1.4	24.0	590	690
0.5	24	0.44	1.5	1.25	1.8	32.9	1580	1690	1.5	26.8	710	820
0.5	30	0.44	1.5	1.25	1.8	34.5	1760	1900	1.5	28.4	850	990
0.5	37	0.44	1.6	1.6	1.9	37.9	2240	2420	1.6	30.9	1030	1210
0.75	1	0.44	0.9	0.9	1.3	11.4	245	250	0.9	7.0	63	68
0.75	2	0.44	1.0	0.9	1.4	15.5	385	395	1.0	10.9	115	125
0.75	4	0.44	1.1	0.9	1.5	17.7	510	530	1.1	12.9	190	210
0.75	5	0.44	1.1	0.9	1.5	18.9	580	610	1.1	14.1	225	250
0.75	6	0.44	1.1	0.9	1.5	20.2	650	680	1.1	15.4	260	295
0.75	8	0.44	1.2	1.25	1.6	23.2	910	950	1.2	17.5	340	385
0.75	10	0.44	1.3	1.25	1.7	26.0	1070	1130	1.3	20.1	425	475
0.75	12	0.44	1.3	1.25	1.7	26.7	1150	1220	1.3	20.8	485	550
0.75	14	0.44	1.3	1.25	1.7	27.8	1260	1340	1.3	21.9	550	630
0.75	16	0.44	1.4	1.25	1.7	29.2	1380	1470	1.4	23.3	630	720
0.75	19	0.44	1.4	1.25	1.8	30.7	1520	1630	1.4	24.6	730	830
0.75	20	0.44	1.5	1.25	1.8	32.3	1630	1740	1.5	26.2	780	890
0.75	24	0.44	1.6	1.25	1.9	35.6	1890	2020	1.6	29.3	930	1060
0.75	30	0.44	1.6	1.6	1.9	38.1	2350	2510	1.6	31.1	1120	1290
0.75	37	0.44	1.7	1.6	2.0	41.0	2700	2900	1.7	33.8	1370	1570
1.0	1	0.44	0.9	0.9	1.3	11.8	260	265	0.9	7.4	72	78

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			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	2	0.44	1.0	0.9	1.4	16.1	420	430	1.0	11.5	135	145
1.0	4	0.44	1.1	0.9	1.5	18.5	570	600	1.1	13.7	225	250
1.0	5	0.44	1.1	0.9	1.5	19.8	640	670	1.1	15.0	270	300
1.0	6	0.44	1.2	0.9	1.5	21.4	730	770	1.2	16.6	325	360
1.0	8	0.44	1.2	1.25	1.6	24.4	1010	1060	1.2	18.7	410	460
1.0	10	0.44	1.3	1.25	1.7	27.3	1210	1270	1.3	21.4	510	570
1.0	12	0.44	1.3	1.25	1.7	28.1	1300	1370	1.3	22.2	590	660
1.0	14	0.44	1.4	1.25	1.7	29.5	1440	1520	1.4	23.6	690	770
1.0	16	0.44	1.4	1.25	1.8	31.0	1580	1670	1.4	24.9	770	870
1.0	19	0.44	1.5	1.25	1.8	32.6	1760	1870	1.5	26.5	910	1020
1.0	20	0.44	1.5	1.25	1.8	34.1	1850	1970	1.5	28.0	950	1070
1.0	24	0.44	1.6	1.6	1.9	38.4	2370	2510	1.6	31.4	1140	1290
1.0	30	0.44	1.7	1.6	2.0	40.7	2730	2910	1.7	33.5	1400	1580
1.0	37	0.44	1.8	1.6	2.0	43.6	3130	3310	1.8	36.4	1700	1920
1.5	1	0.44	0.9	0.9	1.4	12.7	300	305	0.9	8.1	90	97
1.5	2	0.44	1.1	0.9	1.5	17.7	500	510	1.1	12.9	175	190
1.5	4	0.44	1.1	0.9	1.5	19.9	670	700	1.1	15.1	295	320
1.5	5	0.44	1.2	0.9	1.6	21.7	780	820	1.2	16.7	360	395
1.5	6	0.44	1.2	1.25	1.6	24.0	1010	1050	1.2	18.3	425	465
1.5	8	0.44	1.3	1.25	1.7	26.7	1220	1280	1.3	20.8	550	610
1.5	10	0.44	1.4	1.25	1.7	29.8	1450	1520	1.4	23.9	690	760
1.5	12	0.44	1.4	1.25	1.8	30.8	1610	1690	1.4	24.7	800	880
1.5	14	0.44	1.5	1.25	1.8	32.3	1780	1870	1.5	26.2	920	1020
1.5	16	0.44	1.5	1.25	1.8	33.8	1940	2050	1.5	27.7	1040	1150
1.5	19	0.44	1.6	1.6	1.9	36.5	2380	2520	1.6	29.5	1220	1360
1.5	20	0.44	1.6	1.6	1.9	38.2	2520	2660	1.6	31.2	1290	1430
1.5	24	0.44	1.8	1.6	2.0	42.3	2940	3110	1.8	35.1	1560	1730
1.5	30	0.44	1.8	1.6	2.1	44.7	3390	3600	1.8	37.3	1890	2100
1.5	37	0.44	1.9	1.6	2.2	48.1	3940	4200	1.9	40.5	2310	2560
2.5	1	0.53	1.0	0.9	1.4	14.2	375	385	1.0	9.6	130	140
2.5	2	0.53	1.2	0.9	1.5	20.1	630	650	1.2	15.3	255	275
2.5	4	0.53	1.2	1.25	1.6	23.7	1020	1060	1.2	18.0	435	475
2.5	5	0.53	1.5	1.25	1.7	25.9	1190	1240	1.5	20.0	540	590
2.5	6	0.53	1.4	1.25	1.7	28.0	1350	1410	1.4	22.1	640	700

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Sqmm		mm	mm	mm	mm	mm	Kg/Km	Kg/Km	mm	mm	Kg/Km	Kg/Km
2.5	8	0.53	1.5	1.25	1.8	31.2	1610	1730	1.5	25.1	840	920
2.5	10	0.53	1.6	1.6	1.9	35.8	2180	2280	1.6	28.8	1040	1140
2.5	12	0.53	1.6	1.6	1.9	36.8	2400	2520	1.6	29.8	1220	1340
2.5	14	0.53	1.7	1.6	2.0	38.8	2670	2810	1.7	31.6	1410	1550
2.5	16	0.53	1.7	1.6	2.0	40.7	2920	3080	1.7	33.5	1590	1750
2.5	19	0.53	1.8	1.6	2.1	43.0	3290	3480	1.8	35.6	1870	2060
2.5	20	0.53	1.9	1.6	2.1	45.3	3500	3700	1.9	37.9	1990	2190
2.5	24	0.53	2.0	2.0	2.3	50.9	4420	4660	2.0	42.3	2370	2610
2.5	30	0.53	2.1	2.0	2.3	53.7	5090	5390	2.1	45.1	2910	3210
2.5	37	0.53	2.2	2.0	2.4	57.9	5930	6300	2.2	49.1	3550	3920

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