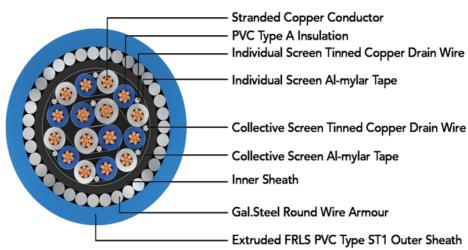
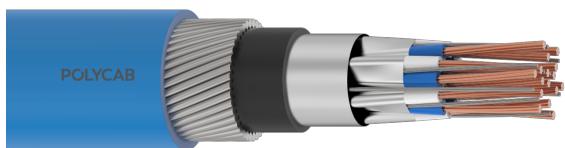


POLY CAB INSTRU 500 (ST) PiMF

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

POLY CAB
IDEAS. CONNECTED.



Images not to scale. Follow table for dimensions

APPLICATION

POLY CAB INSTRU 500 MP, 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. POLY CAB INSTRU 500 MP 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 for Pair

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



APPROVAL



NOTES

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

POLY CAB INSTRU 500 (ST) PiMF
Instrumentation cable PVC/PE Insulated Individual & Overall shielded
500V

POLY CAB
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Weight & Dimension Data

500 VOLTS, MULTI PAIR, 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 pair | 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 | mm | Kg/Km | Kg/Km | mm | mm | Kg/Km | Kg/Km | | |
| 0.5 | 2 | 0.44 | 1.0 | 0.9 | 1.4 | 14.8 | 355 | 365 | 1.0 | 10.2 | 97 | 105 | | |
| 0.5 | 4 | 0.44 | 1.0 | 0.9 | 1.5 | 16.7 | 450 | 465 | 1.0 | 11.9 | 150 | 165 | | |
| 0.5 | 5 | 0.44 | 1.1 | 0.9 | 1.5 | 18.0 | 520 | 530 | 1.1 | 13.2 | 185 | 200 | | |
| 0.5 | 6 | 0.44 | 1.1 | 0.9 | 1.5 | 19.2 | 580 | 590 | 1.1 | 14.4 | 215 | 235 | | |
| 0.5 | 8 | 0.44 | 1.2 | 0.9 | 1.6 | 21.4 | 690 | 710 | 1.2 | 16.4 | 275 | 300 | | |
| 0.5 | 10 | 0.44 | 1.3 | 1.25 | 1.6 | 24.5 | 940 | 970 | 1.3 | 18.8 | 345 | 375 | | |
| 0.5 | 12 | 0.44 | 1.3 | 1.25 | 1.7 | 25.3 | 1030 | 1070 | 1.3 | 19.4 | 390 | 430 | | |
| 0.5 | 16 | 0.44 | 1.4 | 1.25 | 1.7 | 27.7 | 1200 | 1250 | 1.4 | 21.8 | 510 | 560 | | |
| 0.5 | 18 | 0.44 | 1.4 | 1.25 | 1.7 | 28.9 | 1300 | 1350 | 1.4 | 23.0 | 560 | 620 | | |
| 0.5 | 19 | 0.44 | 1.4 | 1.25 | 1.7 | 28.9 | 1320 | 1380 | 1.4 | 23.0 | 580 | 640 | | |
| 0.5 | 20 | 0.44 | 1.4 | 1.25 | 1.8 | 30.4 | 1410 | 1470 | 1.4 | 24.3 | 610 | 680 | | |
| 0.5 | 24 | 0.44 | 1.5 | 1.25 | 1.8 | 33.3 | 1610 | 1690 | 1.5 | 27.2 | 730 | 810 | | |
| 0.5 | 30 | 0.44 | 1.6 | 1.6 | 1.9 | 36.0 | 2030 | 2130 | 1.6 | 29.0 | 890 | 990 | | |
| 0.5 | 37 | 0.44 | 1.7 | 1.6 | 2.0 | 38.8 | 2330 | 2450 | 1.7 | 31.6 | 1080 | 1200 | | |
| 0.75 | 2 | 0.44 | 1.0 | 0.9 | 1.4 | 15.6 | 390 | 395 | 1.0 | 11.0 | 110 | 120 | | |
| 0.75 | 4 | 0.44 | 1.1 | 0.9 | 1.5 | 17.8 | 510 | 530 | 1.1 | 13.0 | 185 | 200 | | |
| 0.75 | 5 | 0.44 | 1.1 | 0.9 | 1.5 | 19.0 | 570 | 590 | 1.1 | 14.2 | 220 | 235 | | |
| 0.75 | 6 | 0.44 | 1.2 | 0.9 | 1.5 | 20.5 | 650 | 680 | 1.2 | 15.7 | 260 | 285 | | |
| 0.75 | 8 | 0.44 | 1.2 | 1.25 | 1.6 | 23.4 | 900 | 930 | 1.2 | 17.7 | 330 | 360 | | |
| 0.75 | 10 | 0.44 | 1.3 | 1.25 | 1.7 | 26.2 | 1060 | 1100 | 1.3 | 20.3 | 410 | 445 | | |
| 0.75 | 12 | 0.44 | 1.3 | 1.25 | 1.7 | 26.9 | 1150 | 1190 | 1.3 | 21.0 | 470 | 510 | | |
| 0.75 | 16 | 0.44 | 1.4 | 1.25 | 1.8 | 29.7 | 1370 | 1430 | 1.4 | 23.6 | 610 | 670 | | |
| 0.75 | 18 | 0.44 | 1.5 | 1.25 | 1.8 | 31.2 | 1500 | 1560 | 1.5 | 25.1 | 690 | 750 | | |
| 0.75 | 19 | 0.44 | 1.5 | 1.25 | 1.8 | 31.2 | 1520 | 1590 | 1.5 | 25.1 | 710 | 780 | | |
| 0.75 | 20 | 0.44 | 1.5 | 1.25 | 1.8 | 32.6 | 1610 | 1680 | 1.5 | 26.5 | 750 | 830 | | |
| 0.75 | 24 | 0.44 | 1.6 | 1.6 | 1.9 | 36.6 | 2060 | 2150 | 1.6 | 29.6 | 900 | 990 | | |
| 0.75 | 30 | 0.44 | 1.7 | 1.6 | 2.0 | 38.8 | 2360 | 2470 | 1.7 | 31.6 | 1100 | 1210 | | |
| 0.75 | 37 | 0.44 | 1.8 | 1.6 | 2.0 | 41.6 | 2690 | 2830 | 1.8 | 34.4 | 1330 | 1470 | | |
| 1.0 | 2 | 0.44 | 1.0 | 0.9 | 1.4 | 16.2 | 420 | 425 | 1.0 | 11.6 | 125 | 135 | | |
| 1.0 | 4 | 0.44 | 1.1 | 0.9 | 1.5 | 18.6 | 560 | 570 | 1.1 | 13.8 | 210 | 225 | | |

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POLY CAB INSTRU 500 (ST) PiMF
Instrumentation cable PVC/PE Insulated Individual & Overall shielded
500V

POLY CAB
 IDEAS. CONNECTED.

| Area of conductor | No.of pair | 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 | mm | Kg/Km | Kg/Km | mm | mm | Kg/Km | Kg/Km | | |
| 1.0 | 5 | 0.44 | 1.1 | 0.9 | 1.5 | 19.9 | 630 | 650 | 1.1 | 15.1 | 250 | 270 | | |
| 1.0 | 6 | 0.44 | 1.2 | 0.9 | 1.6 | 21.7 | 720 | 750 | 1.2 | 16.7 | 300 | 325 | | |
| 1.0 | 8 | 0.44 | 1.3 | 1.25 | 1.6 | 24.7 | 1000 | 1030 | 1.3 | 19.0 | 390 | 420 | | |
| 1.0 | 10 | 0.44 | 1.3 | 1.25 | 1.7 | 27.5 | 1170 | 1210 | 1.3 | 21.6 | 475 | 510 | | |
| 1.0 | 12 | 0.44 | 1.4 | 1.25 | 1.7 | 28.4 | 1280 | 1330 | 1.4 | 22.5 | 560 | 610 | | |
| 1.0 | 16 | 0.44 | 1.5 | 1.25 | 1.8 | 31.4 | 1540 | 1610 | 1.5 | 25.3 | 720 | 790 | | |
| 1.0 | 18 | 0.44 | 1.5 | 1.25 | 1.8 | 32.8 | 1660 | 1740 | 1.5 | 26.7 | 800 | 870 | | |
| 1.0 | 19 | 0.44 | 1.5 | 1.25 | 1.8 | 32.8 | 1700 | 1770 | 1.5 | 26.7 | 830 | 910 | | |
| 1.0 | 20 | 0.44 | 1.6 | 1.25 | 1.9 | 34.7 | 1820 | 1900 | 1.6 | 28.4 | 890 | 970 | | |
| 1.0 | 24 | 0.44 | 1.7 | 1.6 | 2.0 | 38.9 | 2330 | 2430 | 1.7 | 31.7 | 1070 | 1160 | | |
| 1.0 | 30 | 0.44 | 1.7 | 1.6 | 2.0 | 40.9 | 2620 | 2740 | 1.7 | 33.7 | 1280 | 1400 | | |
| 1.0 | 37 | 0.44 | 1.8 | 1.6 | 2.1 | 44.0 | 3030 | 3180 | 1.8 | 36.6 | 1560 | 1710 | | |
| 1.5 | 2 | 0.44 | 1.1 | 0.9 | 1.5 | 17.7 | 485 | 490 | 1.1 | 12.9 | 160 | 170 | | |
| 1.5 | 4 | 0.44 | 1.2 | 0.9 | 1.5 | 20.1 | 650 | 660 | 1.2 | 15.3 | 265 | 285 | | |
| 1.5 | 5 | 0.44 | 1.2 | 0.9 | 1.6 | 21.7 | 740 | 760 | 1.2 | 16.7 | 320 | 345 | | |
| 1.5 | 6 | 0.44 | 1.3 | 1.25 | 1.6 | 24.2 | 980 | 1010 | 1.3 | 18.5 | 380 | 410 | | |
| 1.5 | 8 | 0.44 | 1.3 | 1.25 | 1.7 | 26.7 | 1150 | 1190 | 1.3 | 20.8 | 485 | 520 | | |
| 1.5 | 10 | 0.44 | 1.4 | 1.25 | 1.8 | 30.0 | 1380 | 1430 | 1.4 | 23.9 | 600 | 650 | | |
| 1.5 | 12 | 0.44 | 1.5 | 1.25 | 1.8 | 31.0 | 1520 | 1570 | 1.5 | 24.9 | 710 | 770 | | |
| 1.5 | 16 | 0.44 | 1.6 | 1.25 | 1.9 | 34.3 | 1830 | 1910 | 1.6 | 28.0 | 920 | 990 | | |
| 1.5 | 18 | 0.44 | 1.6 | 1.6 | 1.9 | 36.5 | 2180 | 2270 | 1.6 | 29.5 | 1020 | 1100 | | |
| 1.5 | 19 | 0.44 | 1.6 | 1.6 | 1.9 | 36.5 | 2230 | 2310 | 1.6 | 29.5 | 1070 | 1150 | | |
| 1.5 | 20 | 0.44 | 1.7 | 1.6 | 2.0 | 38.6 | 2380 | 2480 | 1.7 | 31.4 | 1140 | 1230 | | |
| 1.5 | 24 | 0.44 | 1.8 | 1.6 | 2.1 | 42.5 | 2760 | 2880 | 1.8 | 35.1 | 1360 | 1470 | | |
| 1.5 | 30 | 0.44 | 1.9 | 1.6 | 2.1 | 44.9 | 3160 | 3300 | 1.9 | 37.5 | 1660 | 1800 | | |
| 1.5 | 37 | 0.44 | 2.0 | 2.0 | 2.2 | 49.2 | 3970 | 4140 | 2.0 | 40.8 | 2020 | 2190 | | |
| 2.5 | 2 | 0.53 | 1.2 | 0.9 | 1.5 | 20.0 | 600 | 610 | 1.2 | 15.2 | 220 | 235 | | |
| 2.5 | 4 | 0.53 | 1.3 | 1.25 | 1.6 | 23.8 | 960 | 980 | 1.3 | 18.1 | 375 | 400 | | |
| 2.5 | 5 | 0.53 | 1.3 | 1.25 | 1.7 | 25.8 | 1090 | 1120 | 1.3 | 19.9 | 450 | 485 | | |
| 2.5 | 6 | 0.53 | 1.4 | 1.25 | 1.7 | 27.8 | 1250 | 1290 | 1.4 | 21.9 | 540 | 580 | | |
| 2.5 | 8 | 0.53 | 1.5 | 1.25 | 1.8 | 31.1 | 1510 | 1560 | 1.5 | 25.0 | 700 | 750 | | |
| 2.5 | 10 | 0.53 | 1.6 | 1.6 | 1.9 | 35.5 | 2000 | 2070 | 1.6 | 28.6 | 870 | 940 | | |
| 2.5 | 12 | 0.53 | 1.6 | 1.6 | 1.9 | 36.7 | 2170 | 2250 | 1.6 | 29.7 | 1010 | 1090 | | |
| 2.5 | 16 | 0.53 | 1.8 | 1.6 | 2.0 | 40.7 | 2660 | 2770 | 1.8 | 33.5 | 1320 | 1430 | | |

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POLY CAB INSTRU 500 (ST) PiMF
Instrumentation cable PVC/PE Insulated Individual & Overall shielded
500V

POLY CAB
 IDEAS. CONNECTED.

| Area of conductor | No.of pair | 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 | mm | Kg/Km | Kg/Km | mm | mm | Kg/Km | Kg/Km | | |
| 2.5 | 18 | 0.53 | 1.8 | 1.6 | 2.1 | 42.8 | 2890 | 3010 | 1.8 | 35.4 | 1470 | 1590 | | |
| 2.5 | 19 | 0.53 | 1.8 | 1.6 | 2.1 | 42.8 | 2960 | 3090 | 1.8 | 35.4 | 1540 | 1660 | | |
| 2.5 | 20 | 0.53 | 1.9 | 1.6 | 2.1 | 45.0 | 3130 | 3270 | 1.9 | 37.6 | 1640 | 1770 | | |
| 2.5 | 24 | 0.53 | 2.0 | 2.0 | 2.3 | 50.7 | 4000 | 4160 | 2.0 | 42.1 | 1960 | 2120 | | |
| 2.5 | 30 | 0.53 | 2.1 | 2.0 | 2.3 | 53.4 | 4540 | 4740 | 2.1 | 44.8 | 2390 | 2590 | | |
| 2.5 | 37 | 0.53 | 2.3 | 2.0 | 2.4 | 57.8 | 5310 | 5560 | 2.3 | 49.0 | 2930 | 3180 | | |

For Cables of sizes or pair 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) | |
|-------------------|---|--|-----------------------------|---------------------------------|--------------------|-------------------------------------|------|
| | | | | | | nf/Km | μH/Ω |
| Sqmm | Ohm/km | Ohm/km | MΩ/Km | MΩ/Km | | | |
| 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 | |