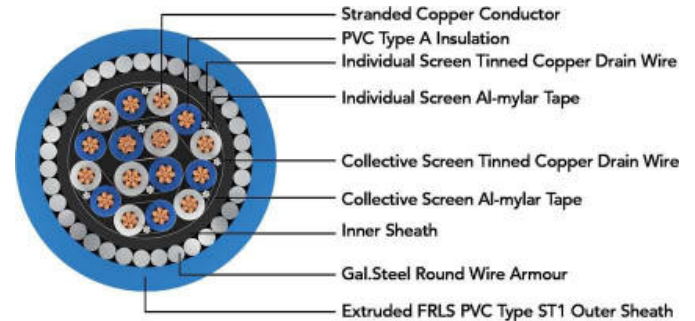


INSTRUMENTATION CABLE • INSTRU 300 (ST) PIMF • 300 V

INDOCABLES INSTRU 300 (ST) PIMF

INSTRUMENTATION CABLE, PVC/PE INSULATED, INDIVIDUAL & OVERALL SHIELDED — EN 50288-7

VOLTAGE RATING 300 V	STANDARD EN 50288-7	CONDUCTOR 0.5 – 1.5 mm²	PAIRS 2 – 37	BENDING RADIUS 12 × OD
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Images not to scale. Follow table for dimensions

APPLICATION

INDOCABLES INSTRU 300MP, 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. INDOCABLES INSTRU 300MP cables are used for diverse applications within industrial process for control, communication, data & voice transmission in oil, gas & petrochemical industries, cement, steel, fertilizers etc.

CONSTRUCTION

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

CHARACTERISTICS

Voltage Rating	300 V
Operation Temperature	Max.: PVC 70°C, HRPVC 85°C, XLPE 90°C, LDPE 60°C.
Bending Radius	12 x Overall diameter

CORE IDENTIFICATION

Core	White & Blue for Pair
Outer sheath colour	Black/Blue


ISO 9001
 Cert. 99 100 22646 (TÜV SÜD)

ISI
 BIS CM/L 6200267409 (IS 7098 Pt-1)

RoHS
 Compliant

REACH
 Compliant

Make in India
 Manufactured in India

STANDARD FOLLOWS

EN 50288-7

EN 50288-1

EN 60228

EN 50290-2-22/27

COMPLIANCEConductor resistance
EN 60228Insulation resistance
EN 50288-7L/R Ratio
EN 50288-7Mutual capacitance
EN 50288-7**NOTES**

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

**ISO 9001**
Cert. 99 100 22646 (TÜV SÜD)**ISI**
BIS CM/L 6200267409 (IS 7098 Pt-1)**RoHS**
Compliant**REACH**
Compliant**Make in India**
Manufactured in India



ORDERING & ITEM CODE

PART-REGISTERED

The item master registers individual-&-overall-screened (IOSC) pair codes for 1/2/4/6/8/12/16/24 pairs in 0.5–1.5 sq mm — shown in dark. The remaining pair counts (5/10/18/19/20/30/37) are derived from the same structure and carry no item ID until the Item Master Steward registers them.

CODE STRUCTURE

IC · IN · PAIRS · SIZE · TC · PE · DESIGNATION · 0300 · EN50288P7 · IOSC

IN Instrumentation line	PAIRS · SIZE Pair count + P, sq.mm × 100	TC · PE Tinned copper, PE insulated	2YY · 2YWY Unarmoured · round wire armoured	Ø300 · IOSC 300 V, individual & overall screened
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SIZE	PAIRS	UNARMoured · 2YY	ARMoured · 2YWY
0.5	2	IC-IN-2P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-2P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	4	IC-IN-4P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-4P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	5	IC-IN-5P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-5P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	6	IC-IN-6P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-6P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	8	IC-IN-8P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-8P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	10	IC-IN-10P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-10P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	12	IC-IN-12P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-12P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	16	IC-IN-16P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-16P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	18	IC-IN-18P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-18P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	19	IC-IN-19P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-19P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	20	IC-IN-20P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-20P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	24	IC-IN-24P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-24P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
	30	IC-IN-30P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-30P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC
37	IC-IN-37P-00050-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-37P-00050-TC-PE-2YWY-0300-EN50288P7-IOSC	
0.75	2	IC-IN-2P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-2P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	4	IC-IN-4P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-4P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	5	IC-IN-5P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-5P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	6	IC-IN-6P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-6P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	8	IC-IN-8P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-8P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	10	IC-IN-10P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-10P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	12	IC-IN-12P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-12P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	16	IC-IN-16P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-16P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	18	IC-IN-18P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-18P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	19	IC-IN-19P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-19P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	20	IC-IN-20P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-20P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	24	IC-IN-24P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-24P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
	30	IC-IN-30P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-30P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC



ISO 9001

Cert. 99 100 22646 (TÜV SÜD)



ISI

BIS CM/L 6200267409 (IS 7098 Pt-1)

RoHS

Compliant

REACH

Compliant



Make in India

Manufactured in India

	37	IC-IN-37P-00075-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-37P-00075-TC-PE-2YWY-0300-EN50288P7-IOSC
1.0	2	IC-IN-2P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-2P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	4	IC-IN-4P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-4P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	5	IC-IN-5P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-5P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	6	IC-IN-6P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-6P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	8	IC-IN-8P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-8P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	10	IC-IN-10P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-10P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	12	IC-IN-12P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-12P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	16	IC-IN-16P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-16P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	18	IC-IN-18P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-18P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	19	IC-IN-19P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-19P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	20	IC-IN-20P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-20P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	24	IC-IN-24P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-24P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	30	IC-IN-30P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-30P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
	37	IC-IN-37P-00100-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-37P-00100-TC-PE-2YWY-0300-EN50288P7-IOSC
1.5	2	IC-IN-2P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-2P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	4	IC-IN-4P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-4P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	5	IC-IN-5P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-5P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	6	IC-IN-6P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-6P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	8	IC-IN-8P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-8P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	10	IC-IN-10P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-10P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	12	IC-IN-12P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-12P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	16	IC-IN-16P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-16P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	18	IC-IN-18P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-18P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	19	IC-IN-19P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-19P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	20	IC-IN-20P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-20P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	24	IC-IN-24P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-24P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	30	IC-IN-30P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-30P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC
	37	IC-IN-37P-00150-TC-PE-2YY-0300-EN50288P7-IOSC	IC-IN-37P-00150-TC-PE-2YWY-0300-EN50288P7-IOSC

Sizes and pair counts follow the weight & dimension table. PVC-insulated, strip-armoured and LSZH-sheathed variants use the same structure with the corresponding insulation and designation segments.



WEIGHT & DIMENSION DATA

300 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 0.5 SQ MM

Min. thickness of insulation 0.26 mm

ARMoured CABLES							UNARMoured CABLES			
NO. OF PAIRS	INNER SHEATH MM	G.I. ARMOUR WIRE MM	OUTER SHEATH MM	OVERALL DIA. MM	WEIGHT PE KG/KM	WEIGHT PVC KG/KM	OUTER SHEATH MM	OVERALL DIA. MM	WEIGHT PE KG/KM	WEIGHT PVC KG/KM
2	0.9	0.9	1.4	13.2	300	305	0.9	8.6	79	83
4	1.0	0.9	1.4	14.8	385	390	1.0	10.2	130	135
5	1.0	0.9	1.4	15.7	430	440	1.0	11.1	155	165
6	1.0	0.9	1.4	16.7	480	490	1.0	12.1	180	190
8	1.1	0.9	1.5	18.6	580	590	1.1	13.8	230	245
10	1.1	0.9	1.5	20.4	670	680	1.1	15.6	280	300
12	1.2	0.9	1.5	21.1	730	750	1.2	16.3	330	350
16	1.2	1.25	1.6	23.8	1000	1030	1.2	18.1	420	445
18	1.3	1.25	1.6	24.9	1080	1120	1.3	19.2	470	500
19	1.3	1.25	1.6	24.9	1100	1140	1.3	19.2	490	530
20	1.3	1.25	1.7	26.2	1170	1210	1.3	20.3	520	550
24	1.4	1.25	1.7	28.6	1340	1390	1.4	22.7	620	660
30	1.4	1.25	1.7	30.0	1510	1570	1.4	24.1	750	800
37	1.5	1.25	1.8	32.3	1760	1830	1.5	26.2	910	980

AREA OF CONDUCTOR 0.75 SQ MM

Min. thickness of insulation 0.26 mm

ARMoured Cables							UNARMoured Cables			
No. of Pairs	Inner Sheath mm	G.I. Armour Wire mm	Outer Sheath mm	Overall Dia. mm	Weight PE kg/km	Weight PVC kg/km	Outer Sheath mm	Overall Dia. mm	Weight PE kg/km	Weight PVC kg/km
2	1.0	0.9	1.4	14.1	345	350	1.0	9.5	98	100
4	1.0	0.9	1.4	15.7	435	440	1.0	11.1	155	165
5	1.0	0.9	1.5	16.9	495	500	1.0	12.1	185	195
6	1.1	0.9	1.5	18.2	560	570	1.1	13.4	225	238
8	1.1	0.9	1.5	19.8	660	680	1.1	15.0	280	300
10	1.2	0.9	1.6	22.3	790	810	1.2	17.3	350	370
12	1.2	1.25	1.6	23.5	970	1000	1.2	17.8	405	430
16	1.3	1.25	1.7	25.9	1180	1210	1.3	20.0	520	560
18	1.3	1.25	1.7	27.0	1260	1300	1.3	21.1	580	620
19	1.3	1.25	1.7	27.0	1290	1330	1.3	21.1	610	650
20	1.4	1.25	1.7	28.4	1370	1410	1.4	22.5	650	690
24	1.4	1.25	1.8	31.1	1570	1630	1.4	25.0	770	820
30	1.5	1.25	1.8	32.8	1800	1870	1.5	26.7	940	1000
37	1.6	1.25	1.9	35.3	2090	2170	1.6	29.0	1140	1220



AREA OF CONDUCTOR 1.0 SQ MM

Min. thickness of insulation 0.26 mm

ARMoured CABLES							UNARMoured CABLES			
NO. OF PAIRS	INNER SHEATH MM	G.I. ARMOUR WIRE MM	OUTER SHEATH MM	OVERALL DIA. MM	WEIGHT PE KG/KM	WEIGHT PVC KG/KM	OUTER SHEATH MM	OVERALL DIA. MM	WEIGHT PE KG/KM	WEIGHT PVC KG/KM
2	1.0	0.9	1.4	14.8	365	370	1.0	10.2	110	115
4	1.0	0.9	1.4	16.5	475	485	1.0	11.9	180	190
5	1.1	0.9	1.5	18.0	560	570	1.1	13.2	225	235
6	1.1	0.9	1.5	19.2	620	640	1.1	14.4	260	275
8	1.2	0.9	1.5	21.1	740	760	1.2	16.3	340	360
10	1.2	1.25	1.6	24.2	1010	1030	1.2	18.5	415	435
12	1.3	1.25	1.6	25.1	1100	1130	1.3	19.4	485	510
16	1.3	1.25	1.7	27.4	1320	1350	1.3	21.5	620	660
18	1.4	1.25	1.7	28.8	1440	1480	1.4	22.9	700	740
19	1.4	1.25	1.7	28.8	1470	1510	1.4	22.9	730	780
20	1.4	1.25	1.7	30.1	1540	1590	1.4	24.2	770	820
24	1.5	1.25	1.8	33.2	1790	1850	1.5	27.1	920	980
30	1.5	1.25	1.8	34.8	2040	2110	1.5	28.7	1120	1190
37	1.6	1.6	1.9	38.3	2590	2670	1.6	31.3	1360	1450

AREA OF CONDUCTOR 1.5 SQ MM

Min. thickness of insulation 0.35 mm

ARMoured Cables						UNARMoured Cables				
No. of Pairs	Inner Sheath mm	G.I. Armour Wire mm	Outer Sheath mm	Overall Dia. mm	Weight PE kg/km	Weight PVC kg/km	Outer Sheath mm	Overall Dia. mm	Weight PE kg/km	Weight PVC kg/km
2	1.0	0.9	1.5	16.8	450	460	1.0	12.0	145	155
4	1.1	0.9	1.5	19.0	600	620	1.1	14.2	245	260
5	1.2	0.9	1.5	20.6	700	720	1.2	15.8	305	325
6	1.2	1.25	1.6	22.9	910	930	1.2	17.2	355	375
8	1.3	1.25	1.7	25.5	1100	1130	1.3	19.6	460	490
10	1.4	1.25	1.7	28.4	1300	1330	1.4	22.5	570	610
12	1.4	1.25	1.7	29.2	1410	1460	1.4	23.3	660	710
16	1.5	1.25	1.8	32.2	1700	1760	1.5	26.1	860	920
18	1.5	1.25	1.8	33.6	1840	1910	1.5	27.5	960	1030
19	1.5	1.25	1.8	33.6	1880	1950	1.5	27.5	1000	1070
20	1.6	1.6	1.9	36.4	2230	2300	1.6	29.4	1070	1140
24	1.7	1.6	2.0	40.0	2570	2660	1.7	32.8	1280	1370
30	1.8	1.6	2.0	42.2	2950	3060	1.8	35.0	1560	1680
37	1.9	1.6	2.1	45.5	3420	3560	1.9	38.1	1900	2040

For Cables of sizes or pairs 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 AT 20°C — PLAIN WIRES	MAX. DC RESISTANCE AT 20°C — METAL COATED WIRES	INSULATION RESISTANCE (PVC)	INSULATION RESISTANCE (PE/XLPE)	MUTUAL CAPACITANCE	L/R RATIO
Sq. mm	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

OUTSTANDING FEATURES



FLAME RETARDANT



LOW SMOKE EMISSION



LONG LIFE