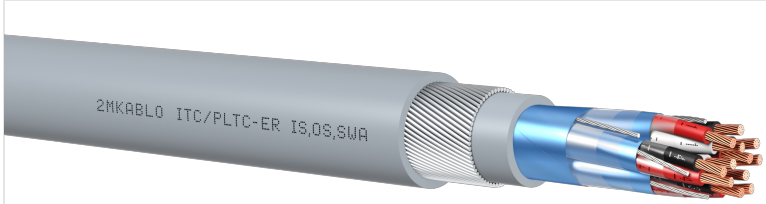
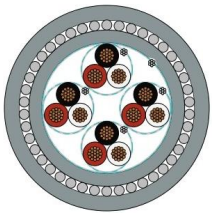
TYPE ITC/PLTC-ER - Individual & Overall Shielded Armored





Areas of Use

Instrumentation cables have a wide range of usage in process control and data processes, in analog and digital signal transmission. Factories, refineries, petrochemical plants, power plants, natural gas filling plants etc. make up the general areas that these cables are used. These cables meets the crush and impact requirements and deformation resistance according to UL 2556.

Cable Construction

Conductor	Stranded Annealed Copper (ASTM B3)
Insulation	PVC (UL 1581 Class 105°C, EN 50363-3 TI3)
Core Colors	Pair: Black / White, Numbered Triples: Black / White / Red, Numbered Quad: Black / White / Red / Blue, Numbered
Individual Seperaor	PET Foil
Individual Screen	Al-PET Foil (with 0.60 mm Tinned Copper Drain Wire)
Lay-up	Shielded pairs / triples / quads are stranded in layers
Separator	PET Foil
Inner Sheath	PVC (UL 1581 Class 105°C)
Armour	Round Galvanised Steel Wire
Outer Sheath	Heat Resistant and Sunlight Resistant PVC (UL 1581 Class 105°C), Black, Blue (other colors upon request)
Reference Standards	UL 13, UL 2250, NEC Article 725, NEC Article 727
Overall Screen	Al-PET Foil (with 7x0.3 mm Stranded Tinned Copper)

Technical Properties

Operating Voltage	300 V
Test Voltage	1.5 kV
Dielectric Voltage Withstand	UL 2556
Conductor Resistance	UL 1581 - Section 220
Insulation Resistance	>100.1 MΩ/kft (at 15.6°C)
Max. Operating Temperature	Fixed: -40°C ... +105°C, Flexible: -5°C ... +60°C
Flame Retardancy	FT4/IEEE 1202 Flame Test (UL 1685), IEC/EN 60332-1, IEC/EN 60332-3-24 (CAT C)
Oil Resistance	ASTM No 2 oil 70°C 4 hours (IEC / EN 60811- 404)
Sunlight Resistance	Acc. to UL 1581, Sec. 1200
Min. Bending Radius (Fixed)	8 x Cable Diameter

Cross Section

Configuration / Cross-Section (AWG)	Cable Diameter (mm) (± 5%)	Copper Weight (kg / km)	~ Cable Weight (kg / km)

2x2x20	12.9	4.51	288
2x2x18	14.3	7.55	342
2x2x16	15.9	11.72	402
2x2x14	18.2	20.24	492
3x2x20	13.4	4.51	314
3x2x18	14.9	7.55	372
3x2x16	16.6	11.72	435
3x2x14	19.1	20.24	538
4x2x20	14.6	4.51	364
4x2x18	16.4	7.55	430
4x2x16	17.7	11.72	484
4x2x14	21.8	20.24	757
5x2x20	16.0	4.51	419
5x2x18	17.4	7.55	477
5x2x16	18.9	11.72	529
5x2x14	23.8	20.24	857
7x2x20	17.0	4.51	468
7x2x18	18.6	7.55	532
7x2x16	21.5	11.72	747
7x2x14	25.4	20.24	961
10x2x20	21.5	4.51	749
10x2x18	24.1	7.55	881
10x2x16	26.2	11.72	982
10x2x14	32.9	20.24	1526
12x2x20	22.0	4.51	786
12x2x18	24.7	7.55	923
12x2x16	26.9	11.72	1029
12x2x14	33.8	20.24	1598
16x2x20	24.2	4.51	919
16x2x18	26.7	7.55	1053
16x2x16	29.6	11.72	1212
16x2x14	36.7	20.24	1812
2x3x20	14.2	4.51	339
2x3x18	15.8	7.55	400
2x3x16	16.9	11.72	439
2x3x14	19.7	20.24	551
3x3x20	14.8	4.51	370
3x3x18	16.5	7.55	434
3x3x16	17.7	11.72	481
3x3x14	22.0	20.24	760
4x3x20	16.2	4.51	427
4x3x18	17.6	7.55	479
4x3x16	18.9	11.72	530
4x3x14	24.1	20.24	877
5x3x20	17.2	4.51	469
5x3x18	18.8	7.55	532

5x3x16	21.6	11.72	741
5x3x14	25.9	20.24	972

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