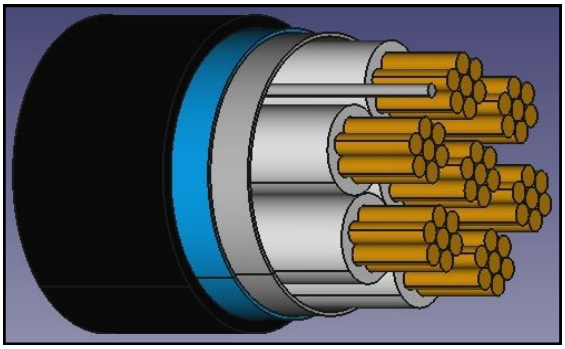
Construction of Cable: 300/500V Non-Armoured Instrumentation Cable
(Overall Screened - CORE)

Drawing:



Application:

Instrumentation non-armoured cables are generally used in the petroleum and petrochemical industries. These cables are generally for indoor control applications and they are designed for use in intrinsically safe system. The cables are overall shielded for isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228
2	Identification of cores: Two cores – Red and Black Three cores – Red, Yellow and Blue Four cores – Red, Yellow, Blue and Black Five cores and above: Number 1, 2, 3, 4, 5… and the number shall be blue or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1
3	Laying Up	Cores stranded together. Binder tape and non-hygroscopic filler may be applied where necessary
4	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**
5	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1
TECHNICAL DATA		
1	Voltage	300/500V
2	Maximum Conductor Temperature	70°C
3	Reference	BS EN50288-7
4	Testing Voltage	1000V
5	Minimum Bending Radius	8 X Bending Radius

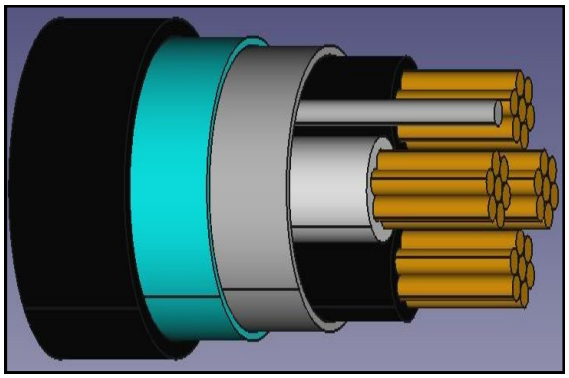
300/500V PVC Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/PVC/OSCR/PVC Multi-core (Overall Screened)

No. of cores	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	0.5	5	16/0.20	0.6	0.9	6.9	55	39.0	25
	0.75		24/0.20	0.6	0.9	7.3	63	26.0	25
	1.0	2	7/0.43	0.6	0.9	7.6	71	18.1	25
	1.5		7/0.53	0.6	0.9	8.2	87	12.1	40
	2.5		7/0.67	0.7	1.0	9.6	122	7.41	60
3	0.5	5	16/0.20	0.6	0.9	7.2	67	39.0	25
	0.75		24/0.20	0.6	0.9	7.7	79	26.0	25
	1.0	2	7/0.43	0.6	0.9	8.0	90	18.1	25
	1.5		7/0.53	0.6	1.0	8.9	116	12.1	40
	2.5		7/0.67	0.7	1.0	10.2	160	7.41	60
4	0.5	5	16/0.20	0.6	0.9	7.8	81	39.0	25
	0.75		24/0.20	0.6	0.9	8.3	95	26.0	25
	1.0	2	7/0.43	0.6	1.0	8.9	114	18.1	25
	1.5		7/0.53	0.6	1.0	9.6	143	12.1	40
	2.5		7/0.67	0.7	1.0	11.1	200	7.41	60
6	0.5	5	16/0.20	0.6	1.0	9.4	112	39.0	25
	0.75		24/0.20	0.6	1.0	10.0	135	26.0	25
	1.0	2	7/0.43	0.6	1.0	10.5	156	18.1	25
	1.5		7/0.53	0.6	1.0	11.4	198	12.1	40
	2.5		7/0.67	0.7	1.1	13.5	287	7.41	60
10	0.5	5	16/0.20	0.6	1.1	11.9	173	39.0	25
	0.75		24/0.20	0.6	1.1	12.7	209	26.0	25
	1.0	2	7/0.43	0.6	1.1	13.4	245	18.1	25
	1.5		7/0.53	0.6	1.2	14.8	320	12.1	40
	2.5		7/0.67	0.7	1.2	17.3	458	7.41	60
20	0.5	5	16/0.20	0.6	1.2	15.1	303	39.0	25
	0.75		24/0.20	0.6	1.2	16.2	372	26.0	25
	1.0	2	7/0.43	0.6	1.2	17.1	442	18.1	25
	1.5		7/0.53	0.6	1.3	18.9	584	12.1	40
	2.5		7/0.67	0.7	1.4	22.4	860	7.41	60
40	0.5	5	16/0.20	0.6	1.3	20.0	550	39.0	25
	0.75		24/0.20	0.6	1.4	21.7	695	26.0	25
	1.0	2	7/0.43	0.6	1.4	22.9	832	18.1	25
	1.5		7/0.53	0.6	1.5	25.3	1106	12.1	40
	2.5		7/0.67	0.7	1.7	30.2	1656	7.41	60
80	0.5	5	16/0.20	0.6	1.6	27.8	1054	39.0	25
	0.75		24/0.20	0.6	1.7	30.2	1335	26.0	25
	1.0	2	7/0.43	0.6	1.7	31.8	1606	18.1	25
	1.5		7/0.53	0.6	1.8	35.2	2143	12.1	40
	2.5		7/0.67	0.7	2.1	42.2	3233	7.41	60

Construction of Cable: 300/500V Non-Armoured Instrumentation Cable
(Overall Screened - PAIR)

Drawing:



Application:

Instrumentation non-armoured cables are generally used in the petroleum and petrochemical industries. These cables are generally for indoor control applications and they are designed for use in intrinsically safe system. The cables are overall shielded for isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single pair – Black and White Multi pairs and above: Number 1, 2… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Laying Up	Pairs stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
4	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
5	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
TECHNICAL DATA			
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/PVC/OSCR/PVC Single-pair & Multi-pair (Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	0.5	5	16/0.20	0.6	0.9	4.5	43	39.78	25
	0.75		24/0.20	0.6	0.9	4.7	50	26.52	25
	1.0	2	7/0.43	0.6	0.9	4.9	58	18.46	25
	1.5		7/0.53	0.6	0.9	5.2	72	12.34	40
	2.5		7/0.67	0.7	0.9	5.8	100	7.59	60
2	0.5	5	16/0.20	0.6	1.0	9.4	92	39.78	25
	0.75		24/0.20	0.6	1.0	10.0	108	26.52	25
	1.0	2	7/0.43	0.6	1.0	10.5	125	18.46	25
	1.5		7/0.53	0.6	1.1	11.6	161	12.34	40
	2.5		7/0.67	0.7	1.1	13.4	222	7.59	60
5	0.5	5	16/0.20	0.6	1.1	14.0	185	39.78	25
	0.75		24/0.20	0.6	1.1	15.0	222	26.52	25
	1.0	2	7/0.43	0.6	1.1	15.8	263	18.46	25
	1.5		7/0.53	0.6	1.2	17.5	343	12.34	40
	2.5		7/0.67	0.7	1.3	20.7	497	7.59	60
10	0.5	5	16/0.20	0.6	1.3	17.7	326	39.78	25
	0.75		24/0.20	0.6	1.3	19.0	397	26.52	25
	1.0	2	7/0.43	0.6	1.3	20.0	478	18.46	25
	1.5		7/0.53	0.6	1.4	22.1	629	12.34	40
	2.5		7/0.67	0.7	1.6	26.4	933	7.59	60
15	0.5	5	16/0.20	0.6	1.4	21.3	465	39.78	25
	0.75		24/0.20	0.6	1.4	23.0	570	26.52	25
	1.0	2	7/0.43	0.6	1.4	24.2	689	18.46	25
	1.5		7/0.53	0.6	1.5	26.7	910	12.34	40
	2.5		7/0.67	0.7	1.7	32.0	1354	7.59	60
20	0.5	5	16/0.20	0.6	1.4	23.7	590	39.78	25
	0.75		24/0.20	0.6	1.5	25.7	741	26.52	25
	1.0	2	7/0.43	0.6	1.5	27.1	900	18.46	25
	1.5		7/0.53	0.6	1.6	29.9	1192	12.34	40
	2.5		7/0.67	0.7	1.9	36.0	1794	7.59	60
30	0.5	5	16/0.20	0.6	1.6	27.5	852	39.78	25
	0.75		24/0.20	0.6	1.7	29.9	1071	26.52	25
	1.0	2	7/0.43	0.6	1.7	31.5	1307	18.46	25
	1.5		7/0.53	0.6	1.8	34.8	1737	12.34	40
	2.5		7/0.67	0.7	2.1	41.8	2614	7.59	60
50	0.5	5	16/0.20	0.6	1.8	35.4	1367	39.78	25
	0.75		24/0.20	0.6	2.0	38.6	1741	26.52	25
	1.0	2	7/0.43	0.6	2.0	40.7	2133	18.46	25
	1.5		7/0.53	0.6	2.2	45.2	2860	12.34	40
	2.5		7/0.67	0.7	2.5	54.2	4294	7.59	60

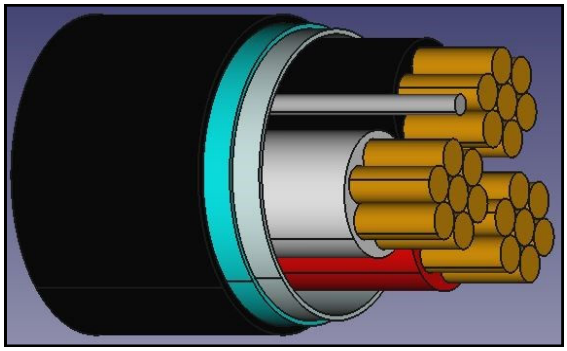
300/500V XLPE Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/XLPE/OSCR/PVC Single-pair & Multi-pair (Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	0.5	5	16/0.20	0.6	0.9	4.5	39	39.78	25
	0.75		24/0.20	0.6	0.9	4.7	45	26.52	25
	1.0	2	7/0.43	0.6	0.9	4.9	53	18.46	25
	1.5		7/0.53	0.6	0.9	5.2	66	12.34	40
	2.5		7/0.67	0.7	0.9	5.8	91	7.59	60
2	0.5	5	16/0.20	0.6	1.0	9.4	84	39.78	25
	0.75		24/0.20	0.6	1.0	10.0	99	26.52	25
	1.0	2	7/0.43	0.6	1.0	10.5	114	18.46	25
	1.5		7/0.53	0.6	1.1	11.6	148	12.34	40
	2.5		7/0.67	0.7	1.1	13.4	203	7.59	60
5	0.5	5	16/0.20	0.6	1.1	14.0	165	39.78	25
	0.75		24/0.20	0.6	1.1	15.0	199	26.52	25
	1.0	2	7/0.43	0.6	1.1	15.8	237	18.46	25
	1.5		7/0.53	0.6	1.2	17.5	311	12.34	40
	2.5		7/0.67	0.7	1.3	20.7	451	7.59	60
10	0.5	5	16/0.20	0.6	1.3	17.7	286	39.78	25
	0.75		24/0.20	0.6	1.3	19.0	352	26.52	25
	1.0	2	7/0.43	0.6	1.3	20.0	424	18.46	25
	1.5		7/0.53	0.6	1.4	22.1	564	12.34	40
	2.5		7/0.67	0.7	1.6	26.4	840	7.59	60
15	0.5	5	16/0.20	0.6	1.4	21.3	405	39.78	25
	0.75		24/0.20	0.6	1.4	23.0	501	26.52	25
	1.0	2	7/0.43	0.6	1.4	24.2	608	18.46	25
	1.5		7/0.53	0.6	1.5	26.7	813	12.34	40
	2.5		7/0.67	0.7	1.7	32.0	1214	7.59	60
20	0.5	5	16/0.20	0.6	1.4	23.7	509	39.78	25
	0.75		24/0.20	0.6	1.5	25.7	648	26.52	25
	1.0		7/0.43	0.6	1.5	27.1	791	18.46	25
	1.5	2	7/0.53	0.6	1.6	29.9	1061	12.34	40
	2.5		7/0.67	0.7	1.9	36.0	1606	7.59	60
30	0.5	5	16/0.20	0.6	1.6	27.5	730	39.78	25
	0.75		24/0.20	0.6	1.7	29.9	932	26.52	25
	1.0	2	7/0.43	0.6	1.7	31.5	1145	18.46	25
	1.5		7/0.53	0.6	1.8	34.8	1541	12.34	40
	2.5		7/0.67	0.7	2.1	41.8	2331	7.59	60
50	0.5	5	16/0.20	0.6	1.8	35.4	1165	39.78	25
	0.75		24/0.20	0.6	2.0	38.6	1510	26.52	25
	1.0	2	7/0.43	0.6	2.0	40.7	1862	18.46	25
	1.5		7/0.53	0.6	2.2	45.2	2533	12.34	40
	2.5		7/0.67	0.7	2.5	54.2	3823	7.59	60

Construction of Cable: 300/500V Non-Armoured Instrumentation Cable
(Overall Screened - TRIAD)

Drawing:



Application:

Instrumentation non-armoured cables are generally used in the petroleum and petrochemical industries. These cables are generally for indoor control applications and they are designed for use in intrinsically safe system. The cables are overall shielded for isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228.	
2	Identification of cores: Single triad – Black, White and Red Multi triads and above: Number 1, 2, 3… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Laying Up	Triads stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
4	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
5	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
TECHNICAL DATA			
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/PVC/OSCR/PVC Single-triad & Multi-triad (Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	0.5	5	16/0.20	0.6	0.9	4.5	53	39.78	25
	0.75		24/0.20	0.6	0.9	4.7	63	26.52	25
	1.0	2	7/0.43	0.6	0.9	4.9	75	18.46	25
	1.5		7/0.53	0.6	0.9	5.2	95	12.34	40
	2.5		7/0.67	0.7	1.0	6.0	138	7.59	60
2	0.5	5	16/0.20	0.6	1.0	9.4	113	39.78	25
	0.75		24/0.20	0.6	1.1	10.2	139	26.52	25
	1.0	2	7/0.43	0.6	1.1	10.7	164	18.46	25
	1.5		7/0.53	0.6	1.1	11.6	207	12.34	40
	2.5		7/0.67	0.7	1.2	13.6	299	7.59	60
5	0.5	5	16/0.20	0.6	1.1	14.0	237	39.78	25
	0.75		24/0.20	0.6	1.2	15.2	296	26.52	25
	1.0	2	7/0.43	0.6	1.2	16.0	355	18.46	25
	1.5		7/0.53	0.6	1.3	17.7	468	12.34	40
	2.5		7/0.67	0.7	1.4	20.9	685	7.59	60
10	0.5	5	16/0.20	0.6	1.3	17.7	430	39.78	25
	0.75		24/0.20	0.6	1.4	19.2	541	26.52	25
	1.0	2	7/0.43	0.6	1.4	20.2	658	18.46	25
	1.5		7/0.53	0.6	1.5	22.3	874	12.34	40
	2.5		7/0.67	0.7	1.7	26.6	1305	7.59	60
15	0.5	5	16/0.20	0.6	1.4	21.3	620	39.78	25
	0.75		24/0.20	0.6	1.5	23.2	782	26.52	25
	1.0	2	7/0.43	0.6	1.5	24.4	957	18.46	25
	1.5		7/0.53	0.6	1.6	26.9	1275	12.34	40
	2.5		7/0.67	0.7	1.9	32.4	1924	7.59	60
20	0.5	5	16/0.20	0.6	1.5	23.9	811	39.78	25
	0.75		24/0.20	0.6	1.6	25.9	1024	26.52	25
	1.0	2	7/0.43	0.6	1.7	27.5	1271	18.46	25
	1.5		7/0.53	0.6	1.8	30.3	1695	12.34	40
	2.5		7/0.67	0.7	2.0	36.2	2538	7.59	60

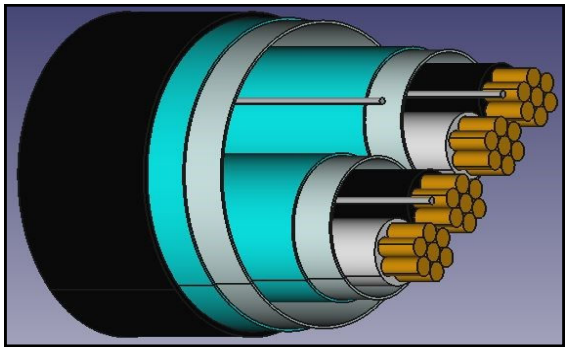
300/500V XLPE Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/XLPE/OSCR/PVC Single-triad & Multi-triad (Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	0.5	5	16/0.20	0.6	0.9	4.5	47	39.78	25
	0.75		24/0.20	0.6	0.9	4.7	56	26.52	25
	1.0	2	7/0.43	0.6	0.9	4.9	67	18.46	25
	1.5		7/0.53	0.6	0.9	5.2	85	12.34	40
	2.5		7/0.67	0.7	1.0	6.0	124	7.59	60
2	0.5	5	16/0.20	0.6	1.0	9.4	101	39.78	25
	0.75		24/0.20	0.6	1.1	10.2	126	26.52	25
	1.0	2	7/0.43	0.6	1.1	10.7	148	18.46	25
	1.5		7/0.53	0.6	1.1	11.6	188	12.34	40
	2.5		7/0.67	0.7	1.2	13.6	272	7.59	60
5	0.5	5	16/0.20	0.6	1.1	14.0	207	39.78	25
	0.75		24/0.20	0.6	1.2	15.2	262	26.52	25
	1.0	2	7/0.43	0.6	1.2	16.0	315	18.46	25
	1.5		7/0.53	0.6	1.3	17.7	420	12.34	40
	2.5		7/0.67	0.7	1.4	20.9	616	7.59	60
10	0.5	5	16/0.20	0.6	1.3	17.7	370	39.78	25
	0.75		24/0.20	0.6	1.4	19.2	472	26.52	25
	1.0	2	7/0.43	0.6	1.4	20.2	578	18.46	25
	1.5		7/0.53	0.6	1.5	22.3	777	12.34	40
	2.5		7/0.67	0.7	1.7	26.6	1166	7.59	60
15	0.5	5	16/0.20	0.6	1.4	21.3	530	39.78	25
	0.75		24/0.20	0.6	1.5	23.2	679	26.52	25
	1.0	2	7/0.43	0.6	1.5	24.4	836	18.46	25
	1.5		7/0.53	0.6	1.6	26.9	1129	12.34	40
	2.5		7/0.67	0.7	1.9	32.4	1714	7.59	60
20	0.5	5	16/0.20	0.6	1.5	23.9	689	39.78	25
	0.75		24/0.20	0.6	1.6	25.9	886	26.52	25
	1.0	2	7/0.43	0.6	1.7	27.5	1108	18.46	25
	1.5		7/0.53	0.6	1.8	30.3	1499	12.34	40
	2.5		7/0.67	0.7	2.0	36.2	2255	7.59	60

Construction of Cable: 300/500V Non-Armoured Instrumentation Cable
(Individually Screened & Overall Screened - PAIR)

Drawing:



Application:

Instrumentation non-armoured cables are generally used in the petroleum and petrochemical industries. These cables are generally for indoor control applications and they are designed for use in intrinsically safe system. The cables are individually and overall shielded for greater isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single pair – Black and White Multi pairs and above: Number 1, 2… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Individual Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
4	Laying Up	Pairs stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
5	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
6	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
TECHNICAL DATA			
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/PVC/ISCR/OSCR/PVC Multi-pair (Individually Pair & Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	0.5	5	16/0.20	0.6	1.0	10.0	107	39.78	25
	0.75		24/0.20	0.6	1.0	10.7	123	26.52	25
	1.0	2	7/0.43	0.6	1.1	11.3	146	18.46	25
	1.5		7/0.53	0.6	1.1	12.2	177	12.34	40
	2.5		7/0.67	0.7	1.2	14.3	245	7.59	60
5	0.5	5	16/0.20	0.6	1.1	15.1	221	39.78	25
	0.75		24/0.20	0.6	1.2	16.3	266	26.52	25
	1.0	2	7/0.43	0.6	1.2	17.1	307	18.46	25
	1.5		7/0.53	0.6	1.2	18.5	381	12.34	40
	2.5		7/0.67	0.7	1.3	21.8	537	7.59	60
10	0.5	5	16/0.20	0.6	1.3	19.0	394	39.78	25
	0.75		24/0.20	0.6	1.4	20.5	475	26.52	25
	1.0	2	7/0.43	0.6	1.4	21.5	557	18.46	25
	1.5		7/0.53	0.6	1.5	23.6	711	12.34	40
	2.5		7/0.67	0.7	1.6	27.7	1009	7.59	60
15	0.5	5	16/0.20	0.6	1.4	23.0	564	39.78	25
	0.75		24/0.20	0.6	1.5	24.8	682	26.52	25
	1.0	2	7/0.43	0.6	1.5	26.1	803	18.46	25
	1.5		7/0.53	0.6	1.6	28.6	1028	12.34	40
	2.5		7/0.67	0.7	1.8	33.9	1481	7.59	60
20	0.5	5	16/0.20	0.6	1.5	25.8	732	39.78	25
	0.75		24/0.20	0.6	1.6	27.8	886	26.52	25
	1.0	2	7/0.43	0.6	1.6	29.2	1048	18.46	25
	1.5		7/0.53	0.6	1.7	32.0	1345	12.34	40
	2.5		7/0.67	0.7	2.0	38.1	1959	7.59	60
30	0.5	5	16/0.20	0.6	1.7	30.0	1057	39.78	25
	0.75		24/0.20	0.6	1.7	32.1	1267	26.52	25
	1.0	2	7/0.43	0.6	1.8	34.0	1521	18.46	25
	1.5		7/0.53	0.6	1.9	37.2	1958	12.34	40
	2.5		7/0.67	0.7	2.2	44.2	2851	7.59	60
50	0.5	5	16/0.20	0.6	1.9	38.5	1700	39.78	25
	0.75		24/0.20	0.6	2.1	41.7	2084	26.52	25
	1.0	2	7/0.43	0.6	2.1	43.9	2481	18.46	25
	1.5		7/0.53	0.6	2.3	48.3	3221	12.34	40
	2.5		7/0.67	0.7	2.7	57.5	4705	7.59	60

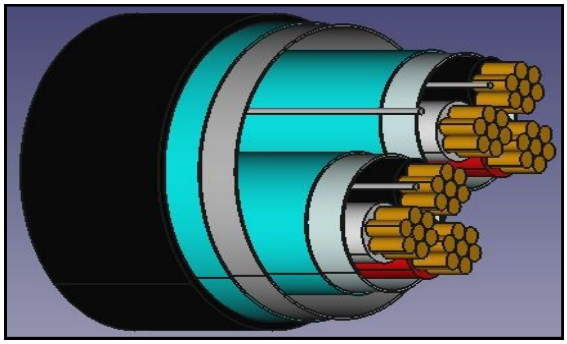
300/500V XLPE Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/XLPE/ISCR/OSCR/PVC Multi-pair (Individually Pair & Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	0.5	5	16/0.20	0.6	1.0	10.0	99	39.78	25
	0.75		24/0.20	0.6	1.0	10.7	114	26.52	25
	1.0	2	7/0.43	0.6	1.1	11.3	135	18.46	25
	1.5		7/0.53	0.6	1.1	12.2	164	12.34	40
	2.5		7/0.67	0.7	1.2	14.3	227	7.59	60
5	0.5	5	16/0.20	0.6	1.1	15.1	201	39.78	25
	0.75		24/0.20	0.6	1.2	16.3	243	26.52	25
	1.0	2	7/0.43	0.6	1.2	17.1	281	18.46	25
	1.5		7/0.53	0.6	1.2	18.5	349	12.34	40
	2.5		7/0.67	0.7	1.3	21.8	490	7.59	60
10	0.5	5	16/0.20	0.6	1.3	19.0	354	39.78	25
	0.75		24/0.20	0.6	1.4	20.5	430	26.52	25
	1.0	2	7/0.43	0.6	1.4	21.5	503	18.46	25
	1.5		7/0.53	0.6	1.5	23.6	646	12.34	40
	2.5		7/0.67	0.7	1.6	27.7	915	7.59	60
15	0.5	5	16/0.20	0.6	1.4	23.0	504	39.78	25
	0.75		24/0.20	0.6	1.5	24.8	613	26.52	25
	1.0	2	7/0.43	0.6	1.5	26.1	722	18.46	25
	1.5		7/0.53	0.6	1.6	28.6	931	12.34	40
	2.5		7/0.67	0.7	1.8	33.9	1341	7.59	60
20	0.5	5	16/0.20	0.6	1.5	25.8	651	39.78	25
	0.75		24/0.20	0.6	1.6	27.8	794	26.52	25
	1.0	2	7/0.43	0.6	1.6	29.2	939	18.46	25
	1.5		7/0.53	0.6	1.7	32.0	1214	12.34	40
	2.5		7/0.67	0.7	2.0	38.1	1771	7.59	60
30	0.5	5	16/0.20	0.6	1.7	30.0	936	39.78	25
	0.75		24/0.20	0.6	1.7	32.1	1128	26.52	25
	1.0	2	7/0.43	0.6	1.8	34.0	1359	18.46	25
	1.5		7/0.53	0.6	1.9	37.2	1762	12.34	40
	2.5		7/0.67	0.7	2.2	44.2	2568	7.59	60
50	0.5	5	16/0.20	0.6	1.9	38.5	1498	39.78	25
	0.75		24/0.20	0.6	2.1	41.7	1853	26.52	25
	1.0	2	7/0.43	0.6	2.1	43.9	2210	18.46	25
	1.5		7/0.53	0.6	2.3	48.3	2894	12.34	40
	2.5		7/0.67	0.7	2.7	57.5	4234	7.59	60

Construction of Cable: 300/500V Non-Armoured Instrumentation Cable
(Individually Screened & Overall Screened - TRIAD)

Drawing:



Application:

Instrumentation non-armoured cables are generally used in the petroleum and petrochemical industries. These cables are generally for indoor control applications and they are designed for use in intrinsically safe system. The cables are individually and overall shielded for greater isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single triad – Black, White and Red Multi triads and above: Number 1, 2, 3… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Individual Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
4	Laying Up	Triads stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
5	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
6	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
TECHNICAL DATA			
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/PVC/ISCR/OSCR/PVC Multi-triad (Individually Pair & Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	0.5	5	16/0.20	0.6	1.0	10.0	107	39.78	25
	0.75		24/0.20	0.6	1.0	10.7	123	26.52	25
	1.0	2	7/0.43	0.6	1.1	11.3	146	18.46	25
	1.5		7/0.53	0.6	1.1	12.2	177	12.34	40
	2.5		7/0.67	0.7	1.2	14.3	245	7.59	60
5	0.5	5	16/0.20	0.6	1.1	15.1	221	39.78	25
	0.75		24/0.20	0.6	1.2	16.3	266	26.52	25
	1.0	2	7/0.43	0.6	1.2	17.1	307	18.46	25
	1.5		7/0.53	0.6	1.2	18.5	381	12.34	40
	2.5		7/0.67	0.7	1.3	21.8	537	7.59	60
10	0.5	5	16/0.20	0.6	1.3	19.0	394	39.78	25
	0.75		24/0.20	0.6	1.4	20.5	475	26.52	25
	1.0	2	7/0.43	0.6	1.4	21.5	557	18.46	25
	1.5		7/0.53	0.6	1.5	23.6	711	12.34	40
	2.5		7/0.67	0.7	1.6	27.7	1009	7.59	60
15	0.5	5	16/0.20	0.6	1.4	23.0	564	39.78	25
	0.75		24/0.20	0.6	1.5	24.8	682	26.52	25
	1.0	2	7/0.43	0.6	1.5	26.1	803	18.46	25
	1.5		7/0.53	0.6	1.6	28.6	1028	12.34	40
	2.5		7/0.67	0.7	1.8	33.9	1481	7.59	60
20	0.5	5	16/0.20	0.6	1.5	25.8	732	39.78	25
	0.75		24/0.20	0.6	1.6	27.8	886	26.52	25
	1.0	2	7/0.43	0.6	1.6	29.2	1048	18.46	25
	1.5		7/0.53	0.6	1.7	32.0	1345	12.34	40
	2.5		7/0.67	0.7	2.0	38.1	1959	7.59	60

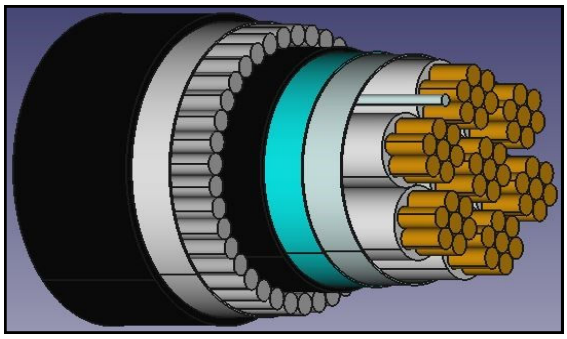
300/500V XLPE Insulated PVC Sheathed Non-Armoured Instrumentation Cable

CU/XLPE/ISCR/OSCR/PVC Multi-triad (Individually Pair & Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Maximum L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	0.5	5	16/0.20	0.6	1.0	10.0	107	39.78	25
	0.75		24/0.20	0.6	1.0	10.7	122	26.52	25
	1.0	2	7/0.43	0.6	1.1	11.3	144	18.46	25
	1.5		7/0.53	0.6	1.1	12.2	175	12.34	40
	2.5		7/0.67	0.7	1.2	14.3	241	7.59	60
5	0.5	5	16/0.20	0.6	1.1	15.1	219	39.78	25
	0.75		24/0.20	0.6	1.2	16.3	264	26.52	25
	1.0	2	7/0.43	0.6	1.2	17.1	303	18.46	25
	1.5		7/0.53	0.6	1.2	18.5	375	12.34	40
	2.5		7/0.67	0.7	1.3	21.8	527	7.59	60
10	0.5	5	16/0.20	0.6	1.3	19.0	391	39.78	25
	0.75		24/0.20	0.6	1.4	20.5	471	26.52	25
	1.0	2	7/0.43	0.6	1.4	21.5	549	18.46	25
	1.5		7/0.53	0.6	1.5	23.6	699	12.34	40
	2.5		7/0.67	0.7	1.6	27.7	989	7.59	60
15	0.5	5	16/0.20	0.6	1.4	23.0	560	39.78	25
	0.75		24/0.20	0.6	1.5	24.8	676	26.52	25
	1.0	2	7/0.43	0.6	1.5	26.1	791	18.46	25
	1.5		7/0.53	0.6	1.6	28.6	1010	12.34	40
	2.5		7/0.67	0.7	1.8	33.9	1451	7.59	60
20	0.5	5	16/0.20	0.6	1.5	25.8	726	39.78	25
	0.75		24/0.20	0.6	1.6	27.8	878	26.52	25
	1.0	2	7/0.43	0.6	1.6	29.2	1031	18.46	25
	1.5		7/0.53	0.6	1.7	32.0	1320	12.34	40
	2.5		7/0.67	0.7	2.0	38.1	1919	7.59	60

Construction of Cable: 300/500V Armoured Instrumentation Cable
(Overall Screened - CORE)

Drawing:



Application:

Instrumentation armoured cables are generally used in the petroleum and petrochemical industries. These cables are suitable for burial underground and they are designed for use in intrinsically safe system. The cables are overall shielded for isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228
2	Identification of cores: Two cores – Red and Black Three cores – Red, Yellow and Blue Four cores – Red, Yellow, Blue and Black Five cores and above: Number 1, 2 ,3, 4, 5… and the number shall be blue or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1
3	Laying Up	Cores stranded together. Binder tape and non-hygroscopic filler may be applied where necessary
4	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**
5	Separation sheath shall be black	PVC type TM5 1 according to BS EN50288-1
6	Armour	Single layer of galvanized steel wire Binder tape may be applied where necessary
7	Outer sheath shall be black	PVC TM5 1 according to BS EN50288-1
TECHNICAL DATA		
1	Voltage	300/500V
2	Maximum Conductor Temperature	70^{o}C
3	Reference	BS EN50288-7
4	Testing Voltage	1000V
5	Minimum Bending Radius	8 X Bending Radius

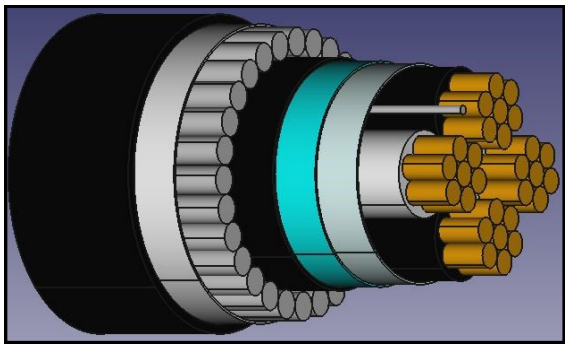
300/500V PVC Insulated PVC Sheathed Armoured Instrumentation Cable

CU/PVC/OSCR/PVC/SWA/PVC Multi-core (Overall Screened)

No. of cores	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	1.0	2	7/0.43	0.6	1.0	0.90	1.4	12.6	296	18.1	25
	1.5		7/0.53	0.6	1.0	0.90	1.4	13.2	327	12.1	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	14.4	390	7.41	60
3	1.0	2	7/0.43	0.6	1.0	0.90	1.4	13.0	325	18.1	25
	1.5		7/0.53	0.6	1.0	0.90	1.4	13.7	364	12.1	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	15.0	441	7.41	60
4	1.0	2	7/0.43	0.6	1.0	0.90	1.4	13.7	364	18.1	25
	1.5		7/0.53	0.6	1.0	0.90	1.4	14.4	411	12.1	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	15.9	505	7.41	60
6	1.0	2	7/0.43	0.6	1.0	0.90	1.4	15.3	446	18.1	25
	1.5		7/0.53	0.6	1.0	0.90	1.4	16.2	510	12.1	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.3	649	7.41	60
10	1.0	2	7/0.43	0.6	1.0	0.90	1.5	18.2	604	18.1	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	19.4	703	12.1	40
	2.5		7/0.67	0.7	1.0	1.25	1.6	22.8	1038	7.41	60
20	1.0	2	7/0.43	0.6	1.0	1.25	1.6	22.6	1017	18.1	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	24.2	1202	12.1	40
	2.5		7/0.67	0.7	1.0	1.60	1.7	28.9	1762	7.41	60
40	1.0	2	7/0.43	0.6	1.0	1.60	1.7	29.4	1753	18.1	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	31.8	2118	12.1	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	36.5	2836	7.41	60
80	1.0	2	7/0.43	0.6	1.2	1.60	2.0	38.7	2914	18.1	25
	1.5		7/0.53	0.6	1.2	1.60	2.1	42.0	3580	12.1	40
	2.5		7/0.67	0.7	1.2	2.00	2.3	49.7	5256	7.41	60

Construction of Cable: 300/500V Armoured Instrumentation Cable
(Overall Screened - PAIR)

Drawing:



Application:

Instrumentation armoured cables are generally used in the petroleum and petrochemical industries. These cables are suitable for burial underground and they are designed for use in intrinsically safe system. The cables are overall shielded for isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single pair – Black and White Multi pairs and above: Number 1, 2… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Laying Up	Pairs stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
4	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
5	Separation sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
6	Armour	Single layer of galvanized steel wire Binder tape may be applied where necessary	
7	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
TECHNICAL DATA			
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Armoured Instrumentation Cable

CU/PVC/OSCR/PVC/SWA/PVC Single-pair & Multi-pair (Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	1.0	2	7/0.43	0.6	1.0	0.90	1.3	9.7	208	18.45	25
	1.5		7/0.53	0.6	1.0	0.90	1.3	10.0	230	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	10.8	279	7.56	60
2	1.0	2	7/0.43	0.6	1.0	0.90	1.4	15.3	414	18.45	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	16.4	475	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.2	583	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.5	20.6	684	18.45	25
	1.5		7/0.53	0.6	1.0	1.25	1.5	22.8	920	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.6	27.2	1337	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.25	1.7	25.5	1142	18.45	25
	1.5		7/0.53	0.6	1.0	1.60	1.7	28.5	1518	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.8	32.6	1968	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.7	30.7	1663	18.45	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	33.2	1980	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	2.0	38.5	2622	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.8	33.6	1984	18.45	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	36.4	2384	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	42.7	3241	7.56	60
30	1.0	2	7/0.43	0.6	1.2	1.60	2.0	38.4	2603	18.45	25
	1.5		7/0.53	0.6	1.2	1.60	2.1	41.7	3162	12.34	40
	2.5		7/0.67	0.7	1.2	2.00	2.2	49.1	4595	7.56	60
50	1.0	2	7/0.43	0.6	1.2	2.00	2.2	48.2	4091	18.45	25
	1.5		7/0.53	0.6	1.4	2.00	2.3	52.9	5059	12.34	40
	2.5		7/0.67	0.7	1.6	2.50	2.6	63.2	7525	7.56	60

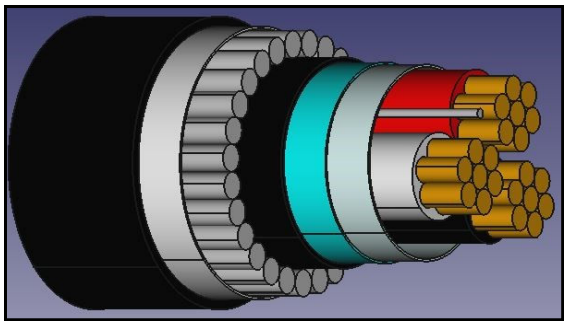
300/500V XLPE Insulated PVC Sheathed Armoured Instrumentation Cable

CU/XLPE/OSCR/PVC/SWA/PVC Single-pair & Multi-pair (Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	1.0	2	7/0.43	0.6	1.0	0.90	1.3	9.7	203	18.45	25
	1.5		7/0.53	0.6	1.0	0.90	1.3	10.0	223	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	10.8	269	7.56	60
2	1.0	2	7/0.43	0.6	1.0	0.90	1.4	15.3	404	18.45	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	16.4	462	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.2	565	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.5	20.6	658	18.45	25
	1.5		7/0.53	0.6	1.0	1.25	1.5	22.8	888	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.6	27.2	1291	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.25	1.7	25.5	1089	18.45	25
	1.5		7/0.53	0.6	1.0	1.60	1.7	28.5	1453	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.8	32.6	1875	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.7	30.7	1582	18.45	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	33.2	1883	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	2.0	38.5	2482	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.8	33.6	1875	18.45	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	36.4	2253	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	42.7	3053	7.56	60
30	1.0	2	7/0.43	0.6	1.2	1.60	2.0	38.4	2440	18.45	25
	1.5		7/0.53	0.6	1.2	1.60	2.1	41.7	2966	12.34	40
	2.5		7/0.67	0.7	1.2	2.00	2.2	49.1	4313	7.56	60
50	1.0	2	7/0.43	0.6	1.2	2.00	2.2	48.2	3820	18.45	25
	1.5		7/0.53	0.6	1.4	2.00	2.3	52.9	4732	12.34	40
	2.5		7/0.67	0.7	1.6	2.50	2.6	63.2	7055	7.56	60

Construction of Cable: 300/500V Armoured Instrumentation Cable
(Overall Screened - TRIAD)

Drawing:



Application:

Instrumentation armoured cables are generally used in the petroleum and petrochemical industries. These cables are suitable for burial underground and they are designed for use in intrinsically safe system. The cables are overall shielded for isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single triad – Black, White and Red Multi triads and above: Number 1, 2, 3… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Laying Up	Triads stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
4	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
5	Separation sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
6	Armour	Single layer of galvanized steel wire Binder tape may be applied where necessary	
7	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
	TECHNICAL DATA		
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Armoured Instrumentation Cable

CU/PVC/OSCR/PVC/SWA/PVC Single-triad & Multi-triad (Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	1.0	2	7/0.43	0.6	1.0	0.90	1.3	9.7	225	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.4	10.2	258	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	10.8	314	7.56	60
2	1.0	2	7/0.43	0.6	1.0	0.90	1.5	15.5	456	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	16.4	522	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.6	18.4	663	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.6	20.8	779	18.46	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	23.0	1047	12.34	40
	2.5		7/0.67	0.7	1.0	1.25	1.7	27.4	1528	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.25	1.7	26.7	1473	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	28.7	1766	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	32.8	2344	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.8	30.9	1934	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	33.4	2348	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	39.1	3226	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.9	33.8	2345	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.0	37.0	2920	12.34	40
	2.5		7/0.67	0.7	1.2	2.00	2.2	43.7	4278	7.56	60

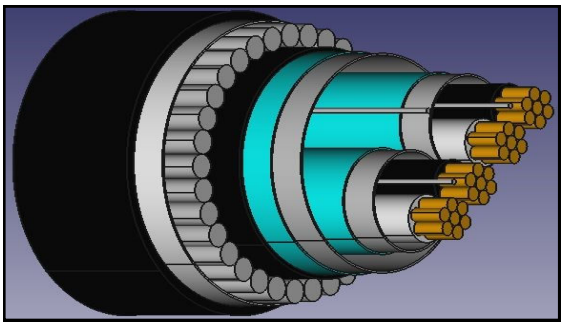
300/500V XLPE Insulated PVC Sheathed Armoured Instrumentation Cable

CU/XLPE/OSCR/PVC/SWA/PVC Single-triad & Multi-triad (Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
1	1.0	2	7/0.43	0.6	1.0	0.90	1.3	9.7	217	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.4	10.2	248	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.4	10.8	300	7.56	60
2	1.0	2	7/0.43	0.6	1.0	0.90	1.5	15.5	440	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	16.4	502	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.6	18.4	635	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.6	20.8	739	18.46	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	23.0	999	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.7	27.4	1459	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.60	1.7	26.7	1392	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	28.7	1669	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	32.8	2204	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.8	30.9	1813	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	33.4	2202	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	39.1	3017	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.9	33.8	2183	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.0	37.0	2724	12.34	40
	2.5		7/0.67	0.7	1.2	2.00	2.2	43.7	3996	7.56	60

Construction of Cable: 300/500V Armoured Instrumentation Cable
(Individually Screened & Overall Screened - PAIR)

Drawing:



Application:

Instrumentation armoured cables are generally used in the petroleum and petrochemical industries. These cables are suitable for burial underground and they are designed for use in intrinsically safe system. The cables are individually and overall shielded for greater isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single pair – Black and White Multi pairs and above: Number 1, 2… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Individual Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
4	Laying Up	Pairs stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
5	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
6	Separation sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
7	Armour	Single layer of galvanized steel wire Binder tape may be applied where necessary	
8	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
TECHNICAL DATA			
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70^{o}C	90^{o}C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Armoured Instrumentation Cable

CU/PVC/ISCR/OSCR/PVC/SWA/PVC Multi-pair (Individually Pair & Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	1.0	2	7/0.43	0.6	1.0	0.90	1.5	16.1	454	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	17.0	508	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.9	617	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.5	21.7	747	18.46	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	24.0	1003	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.7	28.5	1432	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.60	1.7	28.0	1424	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	30.1	1658	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	34.2	2112	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.8	32.6	1847	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	35.1	2168	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.0	40.6	2848	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.9	35.7	2209	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.0	38.9	2662	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	44.6	3464	7.56	60
30	1.0	2	7/0.43	0.6	1.2	1.60	2.0	40.6	2892	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.1	43.9	3455	12.34	40
	2.5		7/0.67	0.7	1.4	2.00	2.3	51.9	5003	7.56	60
50	1.0	2	7/0.43	0.6	1.4	2.00	2.3	51.7	4644	18.46	25
	1.5		7/0.53	0.6	1.4	2.50	2.4	57.0	6050	12.34	40
	2.5		7/0.67	0.7	1.6	2.50	2.7	66.4	8089	7.56	60

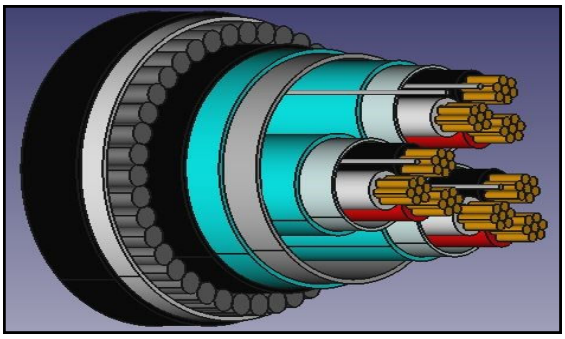
300/500V XLPE Insulated PVC Sheathed Armoured Instrumentation Cable

CU/XLPE/ISCR/OSCR/PVC/SWA/PVC Multi-pair (Individually Pair & Overall Screened)

No. of pairs	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	1.0	2	7/0.43	0.6	1.0	0.90	1.5	16.1	443	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	17.0	495	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.9	598	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.5	21.7	721	18.46	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	24.0	971	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.7	28.5	1386	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.60	1.7	28.0	1371	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	30.1	1593	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	34.2	2019	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.8	32.6	1766	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	35.1	2071	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.0	40.6	2708	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.9	35.7	2101	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.0	38.9	2531	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	44.6	3276	7.56	60
30	1.0	2	7/0.43	0.6	1.2	1.60	2.0	40.6	2729	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.1	43.9	3259	12.34	40
	2.5		7/0.67	0.7	1.4	2.00	2.3	51.9	4720	7.56	60
50	1.0	2	7/0.43	0.6	1.4	2.00	2.3	51.7	4373	18.46	25
	1.5		7/0.53	0.6	1.4	2.50	2.4	57.0	5723	12.34	40
	2.5		7/0.67	0.7	1.6	2.50	2.7	66.4	7619	7.56	60

Construction of Cable: 300/500V Armoured Instrumentation Cable
(Individually Screened & Overall Screened - TRIAD)

Drawing:



Application:

Instrumentation armoured cables are generally used in the petroleum and petrochemical industries. These cables are suitable for burial underground and they are designed for use in intrinsically safe system. The cables are individually and overall shielded for greater isolation and noise reduction.

NO.	DESCRIPTION	PVC Insulated PVC Sheathed	XLPE Insulated PVC Sheathed
1	Conductor	Circular stranded plain annealed copper wire according to IEC60228	
2	Identification of cores: Single triad – Black, White and Red Multi triads and above: Number 1, 2, 3… and the number shall be yellow or black printed on White cores.	Polyvinyl chloride compound (PVC) type TI1 according to BS EN50288-1	Cross-linked polyethylene (XLPE) according to BS EN50288-1
3	Individual Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
4	Laying Up	Triads stranded together. Binder tape and non-hygroscopic filler may be applied where necessary	
5	Overall Screen	Aluminium polyester tape with metallic side downward in contact with a 0.5mm^2 tinned copper drain wire **(OPTIONAL)**	
6	Separation sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
7	Armour	Single layer of galvanized steel wire Binder tape may be applied where necessary	
8	Outer sheath shall be black	PVC type TM5 1 according to BS EN50288-1	PVC type ST2 according to BS EN50288-1
	TECHNICAL DATA		
1	Voltage	300/500V	
2	Maximum Conductor Temperature	70°C	90°C
3	Reference	BS EN50288-7	
4	Testing Voltage	1000V	
5	Minimum Bending Radius	8 X Bending Radius	

300/500V PVC Insulated PVC Sheathed Armoured Instrumentation Cable

CU/PVC/ISCR/OSCR/PVC/SWA/PVC Multi-triad (Individually Pair & Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	1.0	2	7/0.43	0.6	1.0	0.90	1.5	16.1	454	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	17.0	508	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.9	617	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.5	21.7	747	18.46	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	24.0	1003	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.7	28.5	1432	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.60	1.7	28.0	1424	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	30.1	1658	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	34.2	2112	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.8	32.6	1847	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	35.1	2168	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.0	40.6	2848	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.9	35.7	2209	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.0	38.9	2661	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	44.6	3464	7.56	60

300/500V XLPE Insulated PVC Sheathed Armoured Instrumentation Cable

CU/XLPE/ISCR/OSCR/PVC/SWA/PVC Multi-triad (Individually Pair & Overall Screened)

No. of triads	Nominal cross-sectional area	Class of conductor (IEC60228)	Number/ Diameter of wires	Thickness of insulation	Thickness of bedding	Nominal armour wire diameter	Thickness of sheath	Approx. overall diameter	Approx. net weight	Max conductor resistance at 20°C	Max L/R ratio
	(mm^2)		(No./mm)	(mm)	(mm)	(mm)	(mm)	(mm)	(kg/km)	(Ω/KM)	(μH/Ω)
2	1.0	2	7/0.43	0.6	1.0	0.90	1.5	16.1	452	18.46	25
	1.5		7/0.53	0.6	1.0	0.90	1.5	17.0	505	12.34	40
	2.5		7/0.67	0.7	1.0	0.90	1.5	18.9	613	7.56	60
5	1.0	2	7/0.43	0.6	1.0	0.90	1.5	21.7	743	18.46	25
	1.5		7/0.53	0.6	1.0	1.25	1.6	24.0	997	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.7	28.5	1422	7.56	60
10	1.0	2	7/0.43	0.6	1.0	1.60	1.7	28.0	1416	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.8	30.1	1646	12.34	40
	2.5		7/0.67	0.7	1.0	1.60	1.9	34.2	2092	7.56	60
15	1.0	2	7/0.43	0.6	1.0	1.60	1.8	32.6	1835	18.46	25
	1.5		7/0.53	0.6	1.0	1.60	1.9	35.1	2150	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.0	40.6	2818	7.56	60
20	1.0	2	7/0.43	0.6	1.0	1.60	1.9	35.7	2193	18.46	25
	1.5		7/0.53	0.6	1.2	1.60	2.0	38.9	2637	12.34	40
	2.5		7/0.67	0.7	1.2	1.60	2.1	44.6	3424	7.56	60