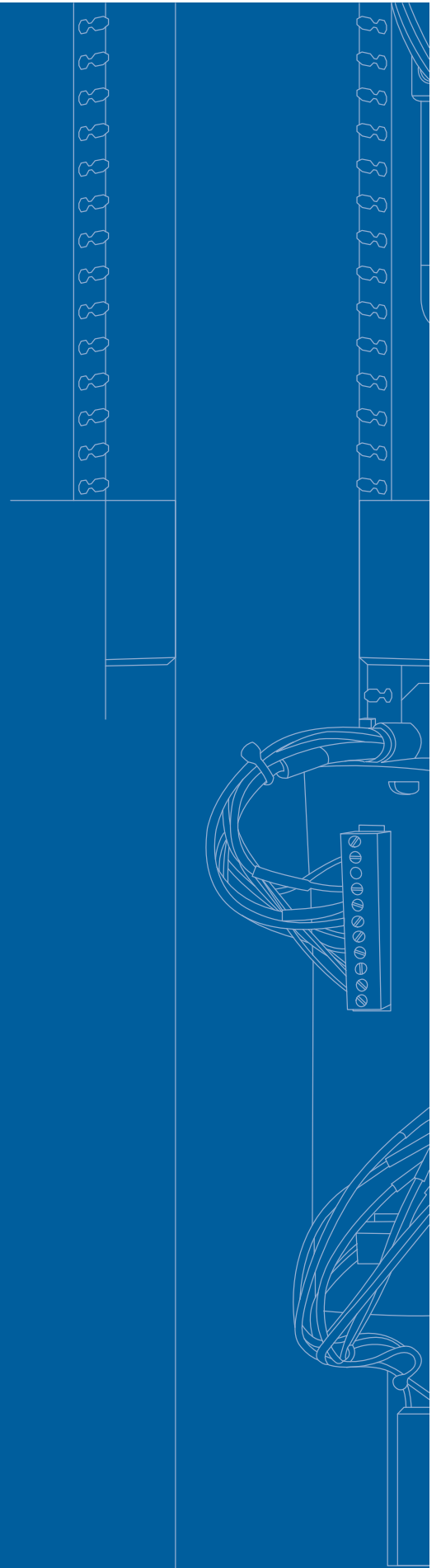
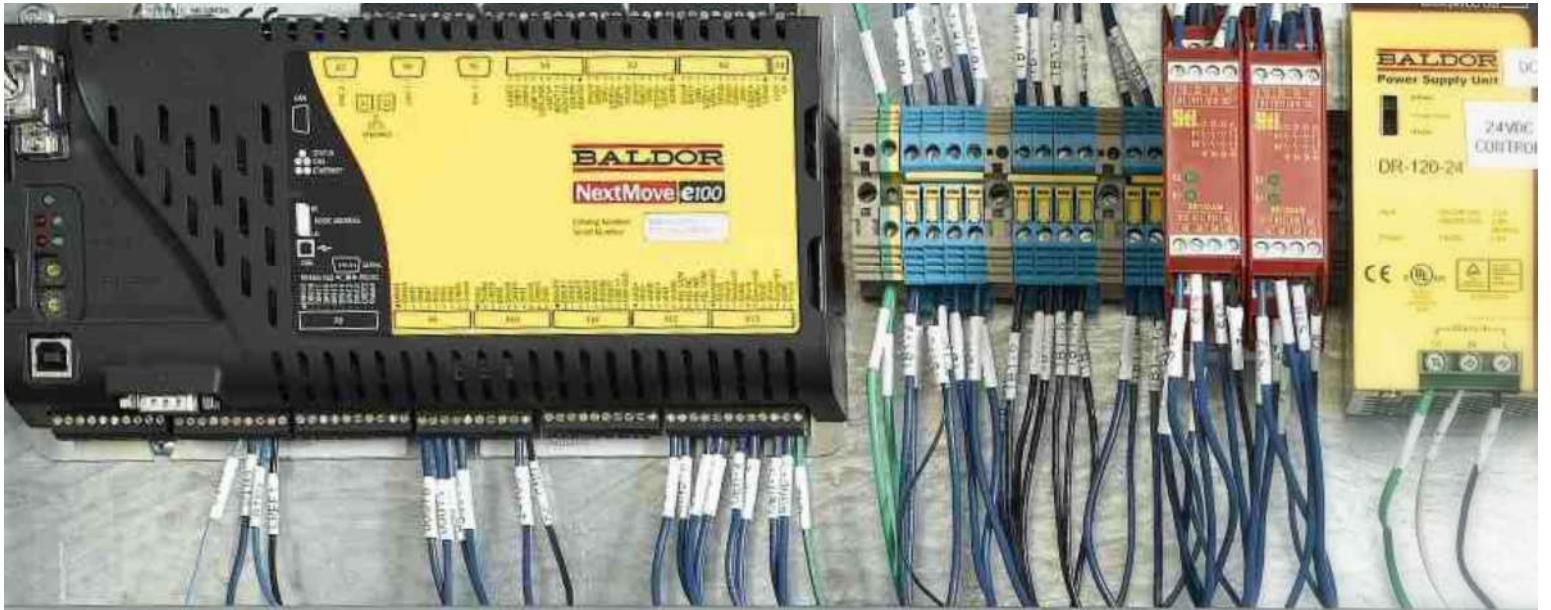


کابلهای کنترل و ابزار دقیق





Instrument & Control Cables

3

CONTENTS

Building Wire & Cables

Power Cables (0.6-1)KV

Instrument & Control Cables

1- Control

Flexible (300-500 V)

Unshielded	1-1 NYSLYO	43
Braid Shielded	1-2 NYSLYCYO	47

2- Instrument & Cables

Multicore Overall Screen

Unarmored	2-1 MSR-Y(ST)Y	49
Armored	2-2 MSR-Y(ST)YRY	51

Pair/Triple

Unarmored	2-3 MSR-Y(ST)Y	53
	2-4 MSR-Y(ST)Y-PIMF	57
Armored	2-5 MSR-2X(ST)H-PIMF	59
	2-6 MSR-Y(ST)YRY	61
	2-7 MSR-Y(ST)YRY-PIMF	65
	2-8 MSR-2X(ST)HRH-PIMF	67

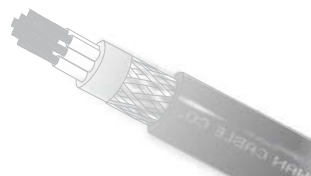
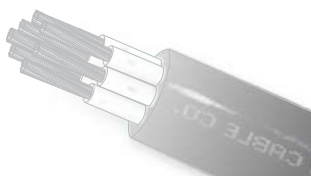
Telecommunication & Coaxial Cables

MV & HV Power Cables

Aerial Cables

Rubber Cables

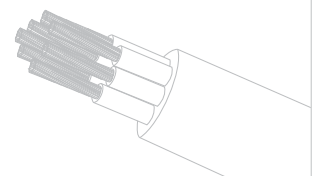
Technical information & Tables



Flexible Unscreened Cable NYSLYO

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** IEC 60227, IEC 60228
- **Code Designation Of Wire According IEC:** 60227 IEC 75
- **Construction :**
 Conductor: Plain Annealed Copper Wire or Tin Coated Wires(Class 5)
 Insulation Type: P.V.C/D
 Outer Sheath Type: P.V.C/ST9
- **Maximum Conductor Temperature:** 70°C
- **Application:**
 Suitable for internal/external wiring of electrical equipment at medium mechanical stress, in dry and damp interiors as well as in industrial environments. These cables can be used in machine tool manufacturing, machines, devices, office machine, data processing and as a control cable for static and flexible but not for continuously flexible application where electrical protection is not required.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
2x0.5	0.6	0.7	5.8	35
2x0.75	0.6	0.8	6.4	44
2x1	0.6	0.8	6.7	51
2x1.5	0.7	0.9	7.7	70
2x2.5	0.8	1.0	9.2	104
5x0.5	0.6	0.9	7.7	73
5x0.75	0.6	0.9	8.2	88
5x1	0.6	1.0	8.9	109
5x1.5	0.7	1.0	10.0	146
5x2.5	0.8	1.2	12.0	223
7x0.5	0.6	1.0	9.2	99
7x0.75	0.6	1.0	9.9	122
7x1	0.6	1.1	10.7	149
7x1.5	0.7	1.2	12.3	207
7x2.5	0.8	1.4	14.7	314
12x0.5	0.6	1.1	11.2	157
12x0.75	0.6	1.2	12.2	199
12x1	0.6	1.2	13.0	238
12x1.5	0.7	1.4	15.0	335
12x2.5	0.8	1.6	18.0	513
19x0.5	0.6	1.3	13.3	236
19x0.75	0.6	1.3	14.4	298
19x1	0.6	1.4	15.5	363
19x1.5	0.7	1.6	17.9	513
19x2.5	0.8	1.8	21.3	779
24x0.5	0.6	1.4	15.7	302
24x0.75	0.6	1.5	17.1	384
24x1	0.6	1.6	18.4	467
24x1.5	0.7	1.8	21.2	657
24x2.5	0.8	2.1	25.4	1003

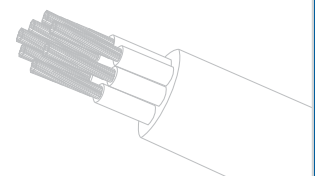


Flexible Unscreened Cable NYSLYO



No. of Cores & Cross Section mm ²	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Overall Dia. (Approx.) mm	Total Weight (Approx.) kg/km
30x0.5	0.6	1.5	16.7	364
30x0.75	0.6	1.6	18.3	469
30x1	0.6	1.7	19.6	568
30x1.5	0.7	1.9	22.6	801
30x2.5	0.8	2.2	27.1	1227
37x0.5	0.6	1.6	18.2	443
37x0.75	0.6	1.7	19.9	570
37x1	0.6	1.8	21.3	690
37x1.5	0.7	2.0	24.5	970
37x2.5	0.8	2.4	29.6	1504
48x0.5	0.6	1.8	21.0	574
48x0.75	0.6	1.9	23.0	739
48x1	0.6	2.0	24.6	893
48x1.5	0.7	2.3	28.4	1263
48x2.5	0.8	2.7	34.2	1948
50x0.5	0.6	1.8	21.1	595
50x0.75	0.6	1.9	23.0	761
50x1	0.6	2.0	24.6	920
50x1.5	0.7	2.3	28.4	1302
50x2.5	0.8	2.7	34.3	2018
54x0.5	0.6	1.8	21.6	631
54x0.75	0.6	2.0	23.8	823
54x1	0.6	2.1	25.5	997
54x1.5	0.7	2.4	29.4	1409
54x2.5	0.8	2.8	35.4	2175
55x0.5	0.6	1.8	21.6	640
55x0.75	0.6	2.0	23.8	834
55x1	0.6	2.1	25.5	1012
55x1.5	0.7	2.4	29.4	1429
55x2.5	0.8	2.8	35.4	2207

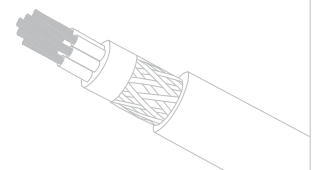
NYSLYO NYSLYCYO MSR - Y (ST) Y MSR-Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



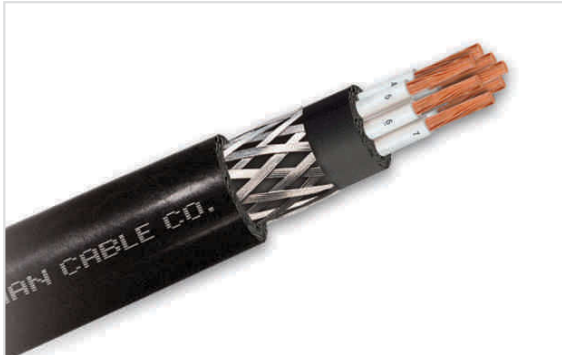
Flexible Screened Cable NYSLYCYO

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** IEC 60227, IEC 60228
- **Code Designation According IEC:** 60227 IEC 74
- **Construction :**
 Conductor: Plain Annealed Copper Wire or Tin Coated Wires (Class 5)
 Insulation Type: P.V.C/D
 Inner Sheath Type: P.V.C/ST5
 Screen: Braided Copper Wire
 Outer Sheath Type: P.V.C/ST9
- **Maximum Conductor Temperature:** 70°C
- **Application:**
 Flexible screened cables are used for medium mechanical stress, but without tensile stress or forced movements in dry wet and moist areas but are not suitable for open air application. These cables are used in measuring and control technics conveyor belts, production lines, air - conditioning, machine tools etc. the cores are numbered in such way that they are still recognizable even after a small part of the outer sheath is removed. special PVC compound ensures good flexibility and is extensively oil resistant.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Dia.	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
2x0.5	0.6	0.7	0.15	0.9	8.2	88
2x0.75	0.6	0.7	0.15	0.9	8.6	96
2x1	0.6	0.7	0.15	1.0	9.1	107
2x1.5	0.7	0.7	0.15	1.0	9.9	126
2x2.5	0.8	0.7	0.15	1.1	11.4	167
5x0.5	0.6	0.7	0.15	1.0	9.9	130
5x0.75	0.6	0.7	0.15	1.1	10.6	152
5x1	0.6	0.7	0.15	1.1	11.1	170
5x1.5	0.7	0.8	0.15	1.2	12.6	226
5x2.5	0.8	0.8	0.2	1.4	14.8	321
7x0.5	0.6	0.7	0.15	1.1	11.4	161
7x0.75	0.6	0.8	0.15	1.2	12.5	201
7x1	0.6	0.8	0.15	1.3	13.3	232
7x1.5	0.7	0.8	0.2	1.4	15.1	307
7x2.5	0.8	0.8	0.2	1.5	17.3	417
12x0.5	0.6	0.8	0.2	1.3	14.0	251
12x0.75	0.6	0.8	0.2	1.4	15.0	298
12x1	0.6	0.8	0.2	1.4	15.8	341
12x1.5	0.7	0.8	0.2	1.6	17.8	448
12x2.5	0.8	0.9	0.2	1.8	21.0	656
19x0.5	0.6	0.8	0.2	1.5	16.1	341
19x0.75	0.6	0.8	0.2	1.5	17.2	408
19x1	0.6	0.9	0.2	1.6	18.5	486
19x1.5	0.7	0.9	0.2	1.8	20.9	656
19x2.5	0.8	1.0	0.2	2.0	24.5	950
24x0.5	0.6	0.9	0.2	1.6	18.7	433
24x0.75	0.6	0.9	0.2	1.7	20.1	522
24x1	0.6	0.9	0.2	1.8	21.4	612
24x1.5	0.7	1.0	0.2	2.0	24.4	828
24x2.5	0.8	1.0	0.25	2.3	28.8	1212

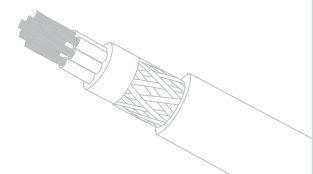


Flexible Screened Cable NYSLYCYO



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Dia.	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
30x0.5	0.6	0.9	0.2	1.7	19.7	501
30x0.75	0.6	0.9	0.2	1.8	21.3	614
30x1	0.6	0.9	0.2	1.9	22.6	719
30x1.5	0.7	1.0	0.25	2.1	26.0	994
30x2.5	0.8	1.1	0.25	2.5	30.9	1532
37x0.5	0.6	0.9	0.2	1.8	21.2	588
37x0.75	0.6	0.9	0.2	1.9	22.9	723
37x1	0.6	1.0	0.2	2.0	24.5	861
37x1.5	0.7	1.0	0.25	2.3	28.1	1187
37x2.5	0.8	1.1	0.25	2.6	33.2	1810
48x0.5	0.6	0.9	0.2	2.0	24.0	733
48x0.75	0.6	1.0	0.25	2.2	26.6	946
48x1	0.6	1.0	0.25	2.3	28.2	1110
48x1.5	0.7	1.1	0.25	2.6	32.2	1577
48x2.5	0.8	1.2	0.3	3.0	38.4	2347
50x0.5	0.6	0.9	0.2	2.0	24.1	755
50x0.75	0.6	1.0	0.25	2.2	26.6	968
50x1	0.6	1.0	0.25	2.3	28.2	1137
50x1.5	0.7	1.1	0.25	2.6	32.2	1616
50x2.5	0.8	1.2	0.3	3.0	38.5	2418
54x0.5	0.6	1.0	0.2	2.1	25.0	816
54x0.75	0.6	1.0	0.25	2.2	27.2	1023
54x1	0.6	1.0	0.25	2.3	28.9	1207
54x1.5	0.7	1.1	0.25	2.6	33.0	1715
54x2.5	0.8	1.2	0.3	3.1	39.6	2582
55x0.5	0.6	1.0	0.2	2.1	25.0	824
55x0.75	0.6	1.0	0.25	2.2	27.2	1034
55x1	0.6	1.0	0.25	2.3	28.9	1221
55x1.5	0.7	1.1	0.25	2.6	33.0	1735
55x2.5	0.8	1.2	0.3	3.1	39.6	2615

NYSLYO NYSLYCYO MSR - Y (ST) Y MSR-Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



Multi-core Screened Instrument Cables MSR - Y (ST) Y

● **Rated Voltage:** 300-500 V

● **Applicable Standard:** BS 5308, BS-EN 50288-7

● **Construction :**

CU/PVC/OSCR/PVC

Conductor: Plain Annealed Copper - Class (1,2,5)

Insulation Type: P.V.C

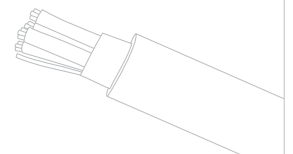
Screen Over Laying up Cores: Polyester tape + Drain Wire + Aluminum Foil

Sheath: P.V.C

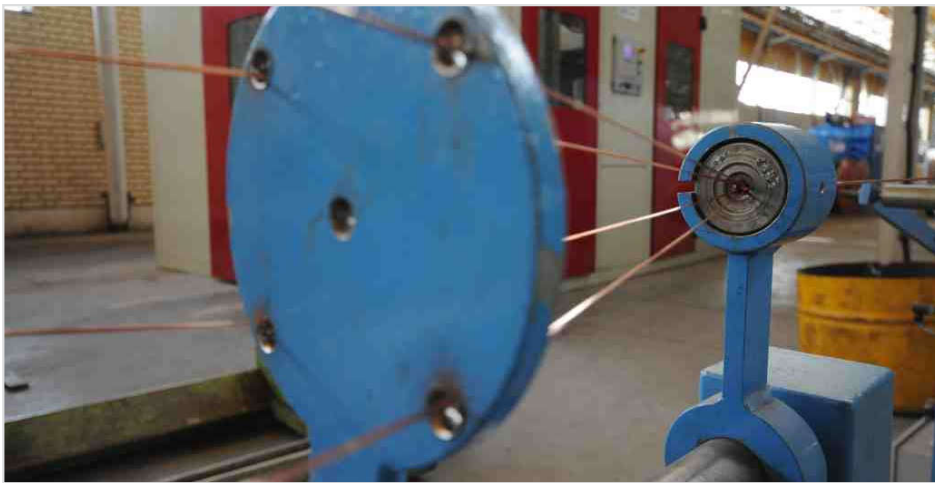
● **Application:**

Transmission of Analog and Digital Signals in Instrumentation System, the cables are suitable to be laid indoors and outdoors, on the trays or in pipes.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
2x0.5	0.6	0.8	6.2	44.6
3x0.5	0.6	0.8	6.5	54.8
4x0.5	0.6	0.8	7.1	65.7
5x0.5	0.6	0.9	7.4	78.4
6x0.5	0.6	0.9	8.5	92.1
7x0.5	0.6	1.1	8.9	108.6
8x0.5	0.6	1.1	10.3	125.1
9x0.5	0.6	1.1	11.0	137.9
10x0.5	0.6	1.1	11.0	146.4
11x0.5	0.6	1.2	11.2	160.0
12x0.5	0.6	1.2	11.5	170.7
13x0.5	0.6	1.2	12.0	182.5
14x0.5	0.6	1.2	12.0	191.1
15x0.5	0.6	1.2	12.6	203.6
20x0.5	0.6	1.2	14.0	256.3
25x0.5	0.6	1.3	15.6	315.3
30x0.5	0.6	1.3	16.4	364.0
35x0.5	0.6	1.3	17.7	415.4
40x0.5	0.6	1.3	18.4	463.0
45x0.5	0.6	1.5	20.2	533.7
50x0.5	0.6	1.5	20.5	579.2
55x0.5	0.6	1.5	21.1	626.2
2x1	0.6	0.8	7.0	59.3
3x1	0.6	0.9	7.6	78.6
4x1	0.6	0.9	8.2	95.9
5x1	0.6	1.1	8.8	118.8
6x1	0.6	1.1	10.1	140.2
7x1	0.6	1.2	10.2	159.0
8x1	0.6	1.2	11.9	183.5
9x1	0.6	1.2	12.7	202.9
10x1	0.6	1.2	12.7	217.0
11x1	0.6	1.3	12.9	237.0
12x1	0.6	1.3	13.3	253.9
13x1	0.6	1.3	14.0	272.2
14x1	0.6	1.3	14.0	286.3
15x1	0.6	1.3	14.7	305.4
20x1	0.6	1.3	16.2	388.7
25x1	0.6	1.5	18.3	487.4
30x1	0.6	1.5	19.3	566.1
35x1	0.6	1.5	20.8	648.3
40x1	0.6	1.5	21.6	725.5
45x1	0.6	1.7	23.7	830.6
50x1	0.6	1.7	24.1	904.9
55x1	0.6	1.7	24.7	981.3

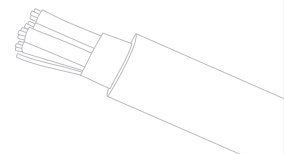


Multi-core Screened Instrument Cables MSR - Y (ST) Y



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
2x1.5	0.6	0.8	7.6	72.6
3x1.5	0.6	1.0	8.4	101.6
4x1.5	0.6	0.9	8.9	120.8
5x1.5	0.6	1.1	9.6	149.9
6x1.5	0.6	1.1	10.9	177.5
7x1.5	0.6	1.2	11.1	202.1
8x1.5	0.6	1.3	13.2	239.0
9x1.5	0.6	1.4	14.3	271.4
10x1.5	0.6	1.4	14.3	290.9
11x1.5	0.6	1.3	14.1	303.9
12x1.5	0.6	1.4	14.8	333.1
13x1.5	0.6	1.3	15.3	350.5
14x1.5	0.6	1.5	15.7	384.1
15x1.5	0.6	1.3	16.1	394.1
20x1.5	0.6	1.3	17.8	506.5
25x1.5	0.6	1.5	20.1	635.0
30x1.5	0.6	1.5	21.3	741.3
35x1.5	0.6	1.5	22.9	851.6
40x1.5	0.6	1.5	23.8	956.2
45x1.5	0.6	1.7	26.1	1091.8
50x1.5	0.6	1.7	26.5	1193.2
55x1.5	0.6	1.7	27.3	1296.9

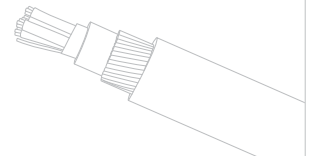
NYSLYO NYSLYCYO MSR - Y (ST) Y MSR-Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
 MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



Multi-Core Screened Armoured Instrument Cables MSR-Y (ST) YRY

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** BS 5308, BS-EN 50288-7
- **Construction :**
 CU/PVC/OSCR/PVC/SWA/PVC
 Conductor: Plain Annealed Copper - Class (1,2,5)
 Insulation Type: P.V.C
 Screen over Laying up Cores: Polyester tape + Drain Wire + Aluminum Foil
 Inner Sheath: P.V.C
 Armour: Galvanized Steel Wire
 Sheath: P.V.C
- **Application:**
 Transmission of Analog and Digital Signals in Instrumentation System,
 the cables are suitable to be laid indoors and outdoors,
 on cable trays or in pipes or in earth.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
2x0.5	0.6	0.8	0.9	1.3	10.6	221
3x0.5	0.6	0.8	0.9	1.3	10.9	238.2
4x0.5	0.6	0.8	0.9	1.3	11.5	262.5
5x0.5	0.6	0.9	0.9	1.4	12.0	287.8
6x0.5	0.6	0.9	0.9	1.4	13.1	323.4
7x0.5	0.6	1.1	0.9	1.5	13.7	358.8
8x0.5	0.6	1.1	1.25	1.5	15.8	495.9
9x0.5	0.6	1.1	1.25	1.5	16.5	523.2
10x0.5	0.6	1.1	1.25	1.5	16.5	531.8
11x0.5	0.6	1.2	1.25	1.6	16.9	564.2
12x0.5	0.6	1.2	1.25	1.6	17.2	587.1
13x0.5	0.6	1.2	1.25	1.6	17.7	612.4
14x0.5	0.6	1.2	1.25	1.6	17.7	621.0
15x0.5	0.6	1.2	1.25	1.6	18.3	647.7
20x0.5	0.6	1.2	1.25	1.6	19.7	739.4
25x0.5	0.6	1.3	1.6	1.7	22.2	985.5
30x0.5	0.6	1.3	1.6	1.7	23.0	1072.9
35x0.5	0.6	1.3	1.6	1.7	24.3	1165.8
40x0.5	0.6	1.3	1.6	1.7	25.0	1234.7
45x0.5	0.6	1.5	1.6	1.9	27.2	1408.0
50x0.5	0.6	1.5	1.6	1.9	27.5	1456.5
55x0.5	0.6	1.5	1.6	1.9	28.1	1524.1
2x0.75	0.6	0.8	0.9	1.3	11.0	236.1
3x0.75	0.6	0.8	0.9	1.3	11.4	256.4
4x0.75	0.6	0.8	0.9	1.4	12.2	289.6
5x0.75	0.6	0.9	0.9	1.4	12.6	318.1
6x0.75	0.6	0.9	0.9	1.4	13.7	357.6
7x0.75	0.6	1.1	0.9	1.5	14.3	396.6
8x0.75	0.6	1.1	1.25	1.5	16.5	547.7
9x0.75	0.6	1.1	1.25	1.5	17.3	578.8
10x0.75	0.6	1.1	1.25	1.5	17.3	590.2
11x0.75	0.6	1.2	1.25	1.6	17.7	626.2
12x0.75	0.6	1.2	1.25	1.6	18.1	652.4
13x0.75	0.6	1.2	1.25	1.6	18.7	681.4
14x0.75	0.6	1.2	1.25	1.6	18.7	692.8
15x0.75	0.6	1.2	1.25	1.6	19.3	732.8
20x0.75	0.6	1.2	1.6	1.6	21.5	960.8
25x0.75	0.6	1.3	1.6	1.8	23.6	1133.4
30x0.75	0.6	1.3	1.6	1.8	24.6	1220.7
35x0.75	0.6	1.3	1.6	1.8	26.0	1346.2
40x0.75	0.6	1.3	1.6	1.8	26.7	1430.6
45x0.75	0.6	1.5	1.6	2.0	29.07	1624.2
50x0.75	0.6	1.5	1.6	2.0	29.4	1687.5
55x0.75	0.6	1.5	1.6	2.0	30.0	1786.6

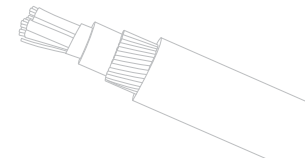


Multi-Core Screened Armoured Instrument Cables MSR-Y (ST) YRY



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
2x1	0.6	0.8	0.9	1.4	11.6	255.6
3x1	0.6	0.9	0.9	1.4	12.2	288.9
4x1	0.6	0.9	0.9	1.4	12.8	320.5
5x1	0.6	1.1	0.9	1.4	13.4	357.3
6x1	0.6	1.1	0.9	1.4	14.6	406.9
7x1	0.6	1.2	1.25	1.6	15.9	536.8
8x1	0.6	1.2	1.25	1.6	17.6	612.3
9x1	0.6	1.2	1.25	1.6	18.4	657.4
10x1	0.6	1.2	1.25	1.6	18.4	671.6
11x1	0.6	1.3	1.25	1.7	18.8	701.6
12x1	0.6	1.3	1.25	1.7	19.2	731.3
13x1	0.6	1.3	1.25	1.7	19.9	764.1
14x1	0.6	1.3	1.25	1.7	19.9	778.3
15x1	0.6	1.3	1.25	1.7	20.6	822.4
20x1	0.6	1.3	1.6	1.7	22.8	1080.1
25x1	0.6	1.5	1.6	1.9	25.3	1281.7
30x1	0.6	1.5	1.6	1.9	26.3	1401.2
35x1	0.6	1.5	1.6	1.9	27.8	1544.1
40x1	0.6	1.5	1.6	1.9	28.6	1644.3
45x1	0.6	1.7	1.6	2.1	31.1	1859.4
50x1	0.6	1.7	1.6	2.1	31.5	1953.5
55x1	0.6	1.7	1.6	2.1	32.1	2052.1
2x1.5	0.6	0.8	0.9	1.4	12.2	282.9
3x1.5	0.6	1.0	0.9	1.4	13.0	332.5
4x1.5	0.6	0.9	0.9	1.4	13.5	365.1
5x1.5	0.6	1.1	0.9	1.4	14.2	408.4
6x1.5	0.6	1.1	1.25	1.4	16.2	555.3
7x1.5	0.6	1.2	1.25	1.6	16.8	606.0
8x1.5	0.6	1.3	1.25	1.6	18.9	706.6
9x1.5	0.6	1.4	1.25	1.6	20.0	766.9
10x1.5	0.6	1.4	1.25	1.6	20.0	786.4
11x1.5	0.6	1.3	1.25	1.7	20.0	807.0
12x1.5	0.6	1.4	1.25	1.7	20.7	851.0
13x1.5	0.6	1.3	1.6	1.7	21.9	1018.4
14x1.5	0.6	1.5	1.6	1.7	22.3	1055.1
15x1.5	0.6	1.3	1.6	1.7	22.7	1085.0
20x1.5	0.6	1.3	1.6	1.7	24.4	1258.3
25x1.5	0.6	1.5	1.6	1.9	27.1	1508.7
30x1.5	0.6	1.5	1.6	1.9	28.3	1656.9
35x1.5	0.6	1.5	1.6	1.9	29.9	1829.5
40x1.5	0.6	1.5	1.6	1.9	30.8	1958.0
45x1.5	0.6	1.7	2.0	2.1	34.3	2449.0
50x1.5	0.6	1.7	2.0	2.1	34.7	2579.7
55x1.5	0.6	1.7	2.0	2.1	35.5	2715.3

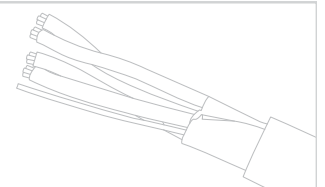
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MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



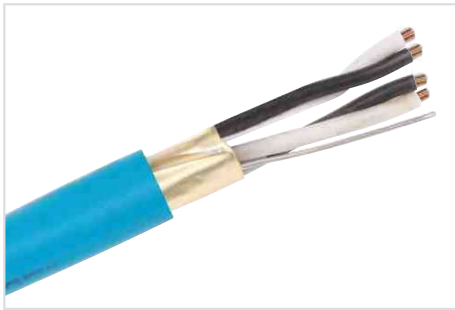
Multi-Pair / Triple Screened Instrument Cables MSR - Y (ST) Y

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** BS 5308, BS-EN 50288-7
- **Construction :**
 CU/PVC/OSCR/PVC
 Conductor: Plain Annealed Copper wire - Class (1,2,5)
 Insulation Type: P.V.C
 Twisted Pair / Triples
 Screen Over Laying Up Pairs: Polyester tape + Drain Wire + Aluminum Foil
 Sheath: P.V.C
- **Application:**
 Transmission of Analog and Digital Signals in Instrumentation System, the cables are suitable to be laid indoors and outdoors, on the trays or in pipes.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
1x2x0.5	0.6	0.8	6.2	45
2x2x0.5	0.6	1.1	8.5	80
3x2x0.5	0.6	1.2	9.9	109
4x2x0.5	0.6	1.2	11.0	133
5x2x0.5	0.6	1.2	12.0	157
6x2x0.5	0.6	1.3	13.1	185
7x2x0.5	0.6	1.3	13.9	208
8x2x0.5	0.6	1.3	14.5	229
9x2x0.5	0.6	1.3	15.4	252
10x2x0.5	0.6	1.3	16.0	273
11x2x0.5	0.6	1.5	17.0	310
12x2x0.5	0.6	1.5	17.7	332
13x2x0.5	0.6	1.5	18.1	352
14x2x0.5	0.6	1.5	18.7	374
15x2x0.5	0.6	1.5	19.3	396
20x2x0.5	0.6	1.5	21.6	502
25x2x0.5	0.6	1.7	24.4	628
30x2x0.5	0.6	1.7	26.2	730
35x2x0.5	0.6	2.2	28.9	895
40x2x0.5	0.6	2.2	30.6	999
45x2x0.5	0.6	2.2	32.3	1103
50x2x0.5	0.6	2.2	33.8	1205
1x2x0.75	0.6	0.8	6.6	52
2x2x0.75	0.6	1.1	9.0	95
3x2x0.75	0.6	1.2	10.6	131
4x2x0.75	0.6	1.2	11.8	161
5x2x0.75	0.6	1.2	12.9	191
6x2x0.75	0.6	1.3	14.1	226
7x2x0.75	0.6	1.3	15.0	255
8x2x0.75	0.6	1.3	15.7	282
9x2x0.75	0.6	1.3	16.6	311
10x2x0.75	0.6	1.3	17.3	339
11x2x0.75	0.6	1.5	18.4	383
12x2x0.75	0.6	1.5	19.1	411
13x2x0.75	0.6	1.5	19.5	437
14x2x0.75	0.6	1.5	20.2	465
15x2x0.75	0.6	1.5	20.9	493
20x2x0.75	0.6	1.7	23.9	651
25x2x0.75	0.6	2.0	27.0	824
30x2x0.75	0.6	2.0	29.1	959
35x2x0.75	0.6	2.2	31.3	1120
40x2x0.75	0.6	2.2	33.2	1254
45x2x0.75	0.6	2.2	35.0	1388
50x2x0.75	0.6	2.2	36.7	1520

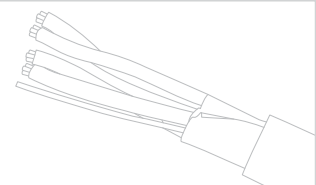


Multi-Pair / Triple Screened Instrument Cables MSR - Y (ST) Y



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
1x2x1	0.6	0.8	7.0	59
2x2x1	0.6	1.2	9.7	113
3x2x1	0.6	1.3	11.4	156
4x2x1	0.6	1.3	12.7	193
5x2x1	0.6	1.3	13.9	230
6x2x1	0.6	1.5	15.3	278
7x2x1	0.6	1.5	16.3	314
8x2x1	0.6	1.5	17.1	348
9x2x1	0.6	1.5	18.1	384
10x2x1	0.6	1.5	18.8	418
11x2x1	0.6	1.7	20.0	470
12x2x1	0.6	1.7	20.7	505
13x2x1	0.6	1.7	21.2	537
14x2x1	0.6	1.7	21.9	572
15x2x1	0.6	1.7	22.7	607
20x2x1	0.6	1.7	25.4	775
25x2x1	0.6	2.0	28.8	979
30x2x1	0.6	2.0	31.0	1143
35x2x1	0.6	2.2	33.4	1335
40x2x1	0.6	2.2	35.4	1498
45x2x1	0.6	2.2	37.4	1662
50x2x1	0.6	2.2	39.1	1822
1x2x1.5	0.6	0.8	7.6	73
2x2x1.5	0.6	1.2	10.6	140
3x2x1.5	0.6	1.3	12.5	195
4x2x1.5	0.6	1.3	13.9	244
5x2x1.5	0.6	1.3	15.2	292
6x2x1.5	0.6	1.5	16.8	353
7x2x1.5	0.6	1.5	17.9	401
8x2x1.5	0.6	1.5	18.7	446
9x2x1.5	0.6	1.5	19.8	494
10x2x1.5	0.6	1.5	20.7	539
11x2x1.5	0.6	1.7	21.9	604
12x2x1.5	0.6	1.7	22.7	650
13x2x1.5	0.6	1.7	23.3	694
14x2x1.5	0.6	1.7	24.1	740
15x2x1.5	0.6	1.7	25.0	786
20x2x1.5	0.6	1.7	28.0	1011
25x2x1.5	0.6	2.0	31.7	1276
30x2x1.5	0.6	2.0	34.2	1496
35x2x1.5	0.6	2.2	36.9	1747
40x2x1.5	0.6	2.2	39.1	1966
45x2x1.5	0.6	2.2	41.3	2186
50x2x1.5	0.6	2.2	43.3	2402

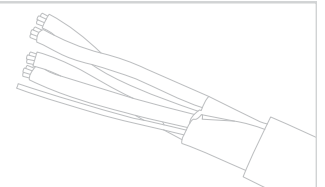
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 MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



Multi-Pair / Triple Screened Instrument Cables MSR - Y (ST) Y



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
1x3x0.5	0.6	1.2	7.3	67
2x3x0.5	0.6	1.3	12.0	127
3x3x0.5	0.6	1.4	13.0	163
4x3x0.5	0.6	1.4	14.2	197
5x3x0.5	0.6	1.4	15.4	232
6x3x0.5	0.6	1.5	17.0	275
7x3x0.5	0.6	1.5	17.0	301
8x3x0.5	0.6	1.6	20.2	359
9x3x0.5	0.6	1.6	21.7	397
10x3x0.5	0.6	1.6	21.7	423
11x3x0.5	0.6	1.6	21.7	448
12x3x0.5	0.6	1.7	22.6	490
13x3x0.5	0.6	1.7	23.8	526
14x3x0.5	0.6	1.7	23.8	551
15x3x0.5	0.6	1.8	25.3	600
25x3x0.5	0.6	2.0	31.6	943
30x3x0.5	0.6	2.0	33.5	1090
35x3x0.5	0.6	2.1	36.3	1262
40x3x0.5	0.6	2.2	38.0	1423
45x3x0.5	0.6	2.3	41.3	1604
50x3x0.5	0.6	2.3	41.9	1740
1x3x0.75	0.6	1.2	7.8	79
2x3x0.75	0.6	1.4	13.2	156
3x3x0.75	0.6	1.4	14.0	196
4x3x0.75	0.6	1.4	15.2	239
5x3x0.75	0.6	1.5	16.8	291
6x3x0.75	0.6	1.5	18.3	337
7x3x0.75	0.6	1.5	18.3	371
8x3x0.75	0.6	1.7	22.0	450
9x3x0.75	0.6	1.7	23.7	499
10x3x0.75	0.6	1.7	23.7	533
11x3x0.75	0.6	1.7	23.7	567
12x3x0.75	0.6	1.7	24.5	608
13x3x0.75	0.6	1.8	26.0	665
14x3x0.75	0.6	1.8	26.0	699
15x3x0.75	0.6	1.8	27.4	746
20x3x0.75	0.6	1.9	30.8	964
25x3x0.75	0.6	2.1	34.5	1198
30x3x0.75	0.6	2.1	36.6	1391
35x3x0.75	0.6	2.2	39.7	1611
40x3x0.75	0.6	2.3	41.5	1818
45x3x0.75	0.6	2.4	45.1	2048
50x3x0.75	0.6	2.4	45.8	2228

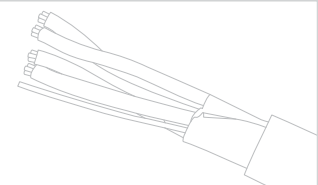


Multi-Pair / Triple Screened Instrument Cables MSR - Y (ST) Y



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
1x3x1	0.6	1.2	8.2	89
2x3x1	0.6	1.4	13.9	178
3x3x1	0.6	1.4	14.8	227
4x3x1	0.6	1.5	16.4	287
5x3x1	0.6	1.5	17.9	340
6x3x1	0.6	1.6	19.7	404
7x3x1	0.6	1.6	19.7	447
8x3x1	0.6	1.7	23.5	528
9x3x1	0.6	1.8	25.5	598
10x3x1	0.6	1.8	25.5	640
11x3x1	0.6	1.8	25.5	683
12x3x1	0.6	1.8	26.3	733
13x3x1	0.6	1.8	27.7	788
14x3x1	0.6	1.8	27.7	830
15x3x1	0.6	1.9	29.5	900
20x3x1	0.6	2.0	33.0	1164
25x3x1	0.6	2.1	36.8	1429
30x3x1	0.6	2.2	39.3	1682
35x3x1	0.6	2.3	42.6	1949
40x3x1	0.6	2.4	44.6	2201
45x3x1	0.6	2.5	48.4	2479
50x3x1	0.6	2.5	49.2	2701
1x3x1.5	0.6	1.2	8.82	109
2x3x1.5	0.6	1.4	15.2	219
3x3x1.5	0.6	1.5	16.4	292
4x3x1.5	0.6	1.5	18.0	362
5x3x1.5	0.6	1.6	19.8	443
6x3x1.5	0.6	1.6	21.7	516
7x3x1.5	0.6	1.6	21.7	574
8x3x1.5	0.6	1.8	26.0	689
9x3x1.5	0.6	1.9	28.3	778
10x3x1.5	0.6	1.9	28.3	837
11x3x1.5	0.6	1.9	28.3	895
12x3x1.5	0.6	1.9	29.2	963
13x3x1.5	0.6	1.9	30.8	1036
14x3x1.5	0.6	1.9	30.8	1094
15x3x1.5	0.6	2.0	32.7	1184
20x3x1.5	0.6	2.1	36.7	1536
25x3x1.5	0.6	2.3	41.1	1908
30x3x1.5	0.6	2.4	43.8	2248
35x3x1.5	0.6	2.5	47.6	2604
40x3x1.5	0.6	2.6	49.7	2944
45x3x1.5	0.6	2.7	54.0	3313
50x3x1.5	0.6	2.7	54.9	3617

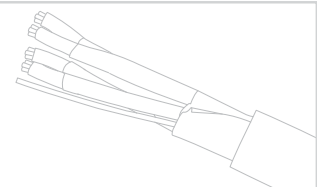
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 MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



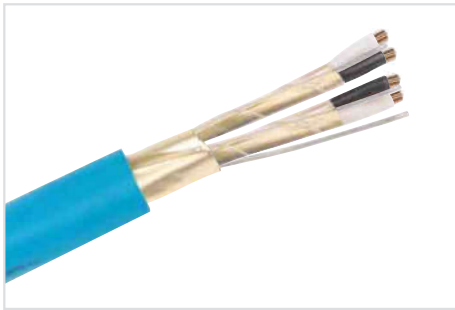
Multi-Pair Individual Screened Instrument Cables MSR - Y (ST) Y - PIMF

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** BS 5308, BS-EN 50288-7
- **Construction :**
 CU/PVC/ISCR/OSCR/PVC
 Conductor: Plain Annealed Copper - Class (1,2,5)
 Insulation Type: P.V.C
 Twisted Pair Screen: Polyester tape + Drain wire + Aluminum Foil
 Screen Over Laying Up Pairs: Polyester tape + Drain Wire + Aluminum Foil
 Sheath: P.V.C
- **Application:**
 Transmission of Analog and Digital Signals in Instrumentation System, the cables are suitable to be laid indoors and outdoors, on the trays or in pipes.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
1x2x0.5	0.6	0.8	6.2	45
2x2x0.5	0.6	1.1	11.5	113
3x2x0.5	0.6	1.2	12.4	147
4x2x0.5	0.6	1.2	13.6	179
5x2x0.5	0.6	1.2	14.8	211
6x2x0.5	0.6	1.3	16.4	251
7x2x0.5	0.6	1.3	16.4	276
8x2x0.5	0.6	1.3	19.3	320
9x2x0.5	0.6	1.3	20.9	355
10x2x0.5	0.6	1.3	20.9	379
11x2x0.5	0.6	1.5	21.3	423
12x2x0.5	0.6	1.5	22.0	453
13x2x0.5	0.6	1.5	23.1	486
14x2x0.5	0.6	1.5	23.1	510
15x2x0.5	0.6	1.5	24.4	544
20x2x0.5	0.6	1.5	27.2	687
25x2x0.5	0.6	1.7	30.6	861
30x2x0.5	0.6	1.7	32.4	1000
35x2x0.5	0.6	2.2	36.1	1226
40x2x0.5	0.6	2.2	37.5	1366
45x2x0.5	0.6	2.2	40.5	1521
50x2x0.5	0.6	2.2	41.2	1652
1x2x0.75	0.6	0.8	6.5	52
2x2x0.75	0.6	1.1	12.4	129
3x2x0.75	0.6	1.2	13.3	170
4x2x0.75	0.6	1.2	14.6	209
5x2x0.75	0.6	1.2	16.0	248
6x2x0.75	0.6	1.3	17.6	295
7x2x0.75	0.6	1.3	17.6	326
8x2x0.75	0.6	1.3	20.9	378
9x2x0.75	0.6	1.3	22.5	419
10x2x0.75	0.6	1.3	22.5	450
11x2x0.75	0.6	1.5	22.9	501
12x2x0.75	0.6	1.5	23.7	537
13x2x0.75	0.6	1.5	24.9	577
14x2x0.75	0.6	1.5	24.9	607
15x2x0.75	0.6	1.5	26.4	648
20x2x0.75	0.6	1.7	29.8	850
25x2x0.75	0.6	2.0	33.7	1076
30x2x0.75	0.6	2.0	35.7	1249
35x2x0.75	0.6	2.2	39.0	1466
40x2x0.75	0.6	2.2	40.6	1637
45x2x0.75	0.6	2.2	43.9	1825
50x2x0.75	0.6	2.2	44.6	1987

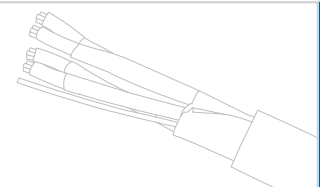


Multi-Pair Individual Screened Instrument Cables MSR - Y (ST) Y - PIMF



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Sheath Thickness	Overall dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	kg/km
1x2x1	0.6	0.8	6.9	59
2x2x1	0.6	1.2	13.3	151
3x2x1	0.6	1.3	14.3	199
4x2x1	0.6	1.3	15.7	244
5x2x1	0.6	1.3	17.1	290
6x2x1	0.6	1.5	19.1	355
7x2x1	0.6	1.5	19.1	391
8x2x1	0.6	1.5	22.6	453
9x2x1	0.6	1.5	24.4	503
10x2x1	0.6	1.5	24.4	539
11x2x1	0.6	1.7	24.8	598
12x2x1	0.6	1.7	25.6	641
13x2x1	0.6	1.7	26.9	688
14x2x1	0.6	1.7	26.9	725
15x2x1	0.6	1.7	28.4	774
20x2x1	0.6	1.7	31.8	981
25x2x1	0.6	2.0	35.9	1241
30x2x1	0.6	2.0	38.0	1445
35x2x1	0.6	2.2	41.5	1695
40x2x1	0.6	2.2	43.3	1896
45x2x1	0.6	2.2	46.8	2115
50x2x1	0.6	2.2	47.6	2306
1x2x1.5	0.6	0.8	7.5	72
2x2x1.5	0.6	1.2	14.5	181
3x2x1.5	0.6	1.3	15.6	241
4x2x1.5	0.6	1.3	17.1	299
5x2x1.5	0.6	1.3	18.8	357
6x2x1.5	0.6	1.5	20.9	435
7x2x1.5	0.6	1.5	20.9	482
8x2x1.5	0.6	1.5	24.8	559
9x2x1.5	0.6	1.5	26.8	621
10x2x1.5	0.6	1.5	26.8	668
11x2x1.5	0.6	1.7	27.2	740
12x2x1.5	0.6	1.7	28.1	795
13x2x1.5	0.6	1.7	29.6	855
14x2x1.5	0.6	1.7	29.6	902
15x2x1.5	0.6	1.7	31.3	964
20x2x1.5	0.6	1.7	35.0	1230
25x2x1.5	0.6	2.0	39.5	1554
30x2x1.5	0.6	2.0	41.9	1815
35x2x1.5	0.6	2.2	45.7	2128
40x2x1.5	0.6	2.2	47.6	2387
45x2x1.5	0.6	2.2	51.6	2666
50x2x1.5	0.6	2.2	52.4	2914

NYSLYO NYSLYCYO MSR - Y (ST) Y MSR-Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



Multi-pair Fire Resistance Individual Screened Instrument Cables MSR – 2X(ST)H – PIMF

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** gen. to BS 5308, part 1, type 1, BS-EN 50288-7

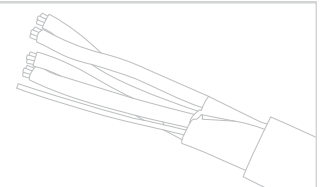
- **Construction:**
 CU or TiCU/MGT/PET/XLPE/ISCR/OSCR/HFSL
 Conductor: plain annealed copper or tinned copper
 Flame barrier: Mica glass tape
 Insulation: XLPE
 Core identification: according to BS 5308 part 1, BS-EN 50288-7
 Pair screen: Aluminum Foil + copper drain wire 0.5mm² + Polyester tape
 Wrapping: 1 layer of plastic tape
 Overall screen: Aluminum Foil + copper or tinned copper drain wire 0.5mm² + Polyester tape
 Outer sheath: Halogen free, Low smoke, flame retardant – HFSL
 Color: Is black, or blue for intrinsically safety systems



- **Technical data:**
 - 1) Temperature: 30°C to + 90°C
 - 2) Maximum short circuit temperature: 250°C (5seconds Max)
 - 3) Test voltage: 1.0kv rms or 2.4 kvdc for 1 minute
 - 4) Conductor resistance: As per class 2 of IEC 60228
 - 5) Minimum insulation resistance: 5000 MΩ.km
 - 6) Mutual capacitance at 1.0 kHz: 115nf/km for one and two pair, 75 nf/km for other cable.
 - 7) L/R (ratio) : 25 μH/Ω for 0.75 mm², 1.0 mm² - 40 μH/Ω for 1.5 mm² - 70 μH/Ω for 2.5 mm²
 - 8) Flame retardant: Acc. IEC 60332 - 1
 - 9) Flame propagation test: Acc. IEC 60332-3
 - 10) Fire resistance test: Acc. IEC 60331-21
 - 11) Smoke density test: Acc. IEC 61034
 - 12) Halogen content test: Acc. IEC 60754-2

- **Application:**
 These cables can be used for transmission of analogue and digital signals in intermentand control system.

No. of Pairs & Cross Section	No. Strand x Diameter	Insulation Thickness	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	no. x mm	mm	mm	mm	kg/km
1x2x0.75	7x0.37	0.6	0.9	7.6	78
2x2x0.75	7x0.37	0.6	0.9	12.6	144
5x2x0.75	7x0.37	0.6	1.2	16.8	262
10x2x0.75	7x0.37	0.6	1.4	22.4	446
15x2x0.75	7x0.37	0.6	1.5	26.0	660
20x2x0.75	7x0.37	0.6	1.6	29.6	850
30x2x0.75	7x0.37	0.6	1.7	36.0	1240
1x2x1	7x0.43	0.6	1.0	8.2	86
2x2x1	7x0.43	0.6	1.1	13.0	148
5x2x1	7x0.43	0.6	1.2	16.4	266
10x2x1	7x0.43	0.6	1.5	23.2	492
15x2x1	7x0.43	0.6	1.6	26.8	718
20x2x1	7x0.43	0.6	1.7	31.2	940
30x2x1	7x0.43	0.6	2.0	36.7	1380
1x2x1.5	7x5.3	0.6	1.0	8.8	104
2x2x1.5	7x5.3	0.6	1.2	15.2	218
5x2x1.5	7x5.3	0.6	1.4	19.6	360
10x2x1.5	7x5.3	0.6	1.6	27.0	670
15x2x1.5	7x5.3	0.6	1.8	32.2	990
20x2x1.5	7x5.3	0.6	1.9	35.6	1240
30x2x1.5	7x5.3	0.6	2.2	43.0	1840
1x2x2.5	7x0.67	0.7	1.2	10.2	116
2x2x2.5	7x0.67	0.7	1.4	16.8	244



Armoured Multi-Pair / Triple Screened Instrument Cables MSR - Y (ST) YRY

● **Rated Voltage:** 300-500 V

● **Applicable Standard:** BS 5308 , BS-EN 50288-7

● **Construction :**

CU/PVC/OSCR/PVC/SWA/PVC

Conductor: Plain Annealed Copper - Class (1,2,5)

Insulation Type: P.V.C

Twisted Pair

Screen Over Laying Up Pairs: Polyester tape + Drain Wire + Aluminum Foil

Inner Sheath: P.V.C

Armour: Galvanized Steel Wire

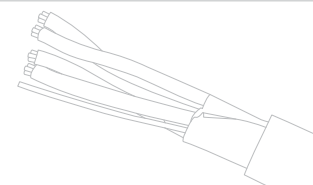
Sheath: P.V.C

● **Application:**

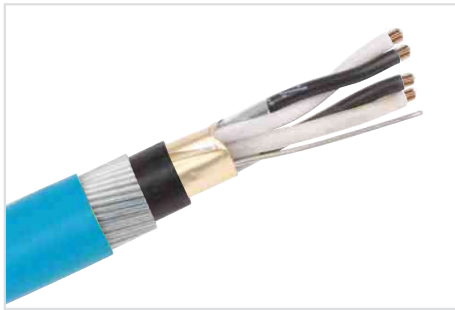
Transmission of Analog and Digital Signals in Instrumentation System, the cables are suitable to be laid indoors and outdoors, on cable trays or in pipes or in earth.

No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Diameter	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
1x2x0.5	0.6	0.8	0.9	1.3	10.6	221
2x2x0.5	0.6	1.1	0.9	1.3	12.9	306
3x2x0.5	0.6	1.2	0.9	1.5	14.7	382
4x2x0.5	0.6	1.2	1.25	1.5	16.5	518
5x2x0.5	0.6	1.2	1.25	1.5	17.5	578
6x2x0.5	0.6	1.3	1.25	1.6	18.8	642
7x2x0.5	0.6	1.3	1.25	1.6	19.6	690
8x2x0.5	0.6	1.3	1.25	1.6	20.2	736
9x2x0.5	0.6	1.3	1.6	1.6	21.8	911
10x2x0.5	0.6	1.3	1.6	1.6	22.4	953
11x2x0.5	0.6	1.5	1.6	1.7	23.6	1039
12x2x0.5	0.6	1.5	1.6	1.7	24.3	1082
13x2x0.5	0.6	1.5	1.6	1.7	24.7	1122
14x2x0.5	0.6	1.5	1.6	1.7	25.3	1165
15x2x0.5	0.6	1.5	1.6	1.7	25.9	1207
20x2x0.5	0.6	1.5	1.6	1.8	28.4	1408
25x2x0.5	0.6	1.7	1.6	1.9	31.4	1650
30x2x0.5	0.6	1.7	2.0	1.9	34.0	2058
35x2x0.5	0.6	2.2	2.0	2.1	37.1	2379
40x2x0.5	0.6	2.2	2.0	2.1	38.8	2574
45x2x0.5	0.6	2.2	2.0	2.1	40.5	2745
50x2x0.5	0.6	2.2	2.0	2.1	42.0	2910
1x2x0.75	0.6	0.8	0.9	1.3	11.0	236
2x2x0.75	0.6	1.1	0.9	1.4	13.6	340
3x2x0.75	0.6	1.2	1.25	1.5	16.1	514
4x2x0.75	0.6	1.2	1.25	1.5	17.3	571
5x2x0.75	0.6	1.2	1.25	1.5	18.4	638
6x2x0.75	0.6	1.3	1.25	1.7	20.0	728
7x2x0.75	0.6	1.3	1.25	1.7	20.9	784
8x2x0.75	0.6	1.3	1.6	1.7	22.3	953
9x2x0.75	0.6	1.3	1.6	1.7	23.2	1021
10x2x0.75	0.6	1.3	1.6	1.7	23.9	1070
11x2x0.75	0.6	1.5	1.6	1.8	25.2	1166
12x2x0.75	0.6	1.5	1.6	1.8	25.9	1232
13x2x0.75	0.6	1.5	1.6	1.8	26.3	1278
14x2x0.75	0.6	1.5	1.6	1.8	27.0	1328
15x2x0.75	0.6	1.5	1.6	1.8	27.7	1377
20x2x0.75	0.6	1.7	1.6	2.0	31.1	1668
25x2x0.75	0.6	2.0	2.0	2.0	35.0	2199
30x2x0.75	0.6	2.0	2.0	2.0	37.1	2428
35x2x0.75	0.6	2.2	2.0	2.2	39.7	2745
40x2x0.75	0.6	2.2	2.0	2.2	41.6	2948
45x2x0.75	0.6	2.2	2.0	2.2	43.4	3176
50x2x0.75	0.6	2.2	2.5	2.2	46.1	3794

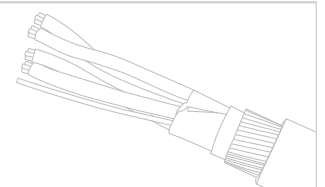
NYSLYO NYSLYCYO MSR - Y (ST) Y MSR-Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF



Armoured Multi-Pair/Triple Screened Instrument Cables MSR - Y (ST) YRY



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire dia.	Nominal Sheath Thickness	Overall dia. (Approx.)	Total Weight (Approx)
mm ²	mm	mm	mm	mm	mm	kg/km
1x2x1	0.6	0.8	0.9	1.4	11.6	256
2x2x1	0.6	1.2	0.9	1.4	14.3	373
3x2x1	0.6	1.3	1.25	1.6	17.1	562
4x2x1	0.6	1.3	1.25	1.6	18.4	637
5x2x1	0.6	1.3	1.25	1.6	19.6	712
6x2x1	0.6	1.5	1.6	1.8	22.1	957
7x2x1	0.6	1.5	1.6	1.8	23.1	1033
8x2x1	0.6	1.5	1.6	1.8	23.9	1089
9x2x1	0.6	1.5	1.6	1.8	24.9	1165
10x2x1	0.6	1.5	1.6	1.8	25.6	1221
11x2x1	0.6	1.7	1.6	1.9	27.0	1327
12x2x1	0.6	1.7	1.6	1.9	27.7	1400
13x2x1	0.6	1.7	1.6	1.9	28.2	1453
14x2x1	0.6	1.7	1.6	1.9	28.9	1510
15x2x1	0.6	1.7	1.6	1.9	29.7	1567
20x2x1	0.6	1.7	2.0	2.0	33.4	2086
25x2x1	0.6	2.0	2.0	2.1	37.0	2462
30x2x1	0.6	2.0	2.0	2.1	39.2	2722
35x2x1	0.6	2.2	2.0	2.4	42.2	3094
40x2x1	0.6	2.2	2.5	2.4	45.2	3723
45x2x1	0.6	2.2	2.5	2.4	47.2	4025
50x2x1	0.6	2.2	2.5	2.4	48.9	4283
1x2x1.5	0.6	0.8	0.9	1.4	12.2	283
2x2x1.5	0.6	1.2	1.25	1.4	15.9	506
3x2x1.5	0.6	1.3	1.25	1.6	18.2	638
4x2x1.5	0.6	1.3	1.25	1.6	19.6	726
5x2x1.5	0.6	1.3	1.6	1.6	21.6	950
6x2x1.5	0.6	1.5	1.6	1.8	23.6	1076
7x2x1.5	0.6	1.5	1.6	1.8	24.7	1164
8x2x1.5	0.6	1.5	1.6	1.8	25.5	1248
9x2x1.5	0.6	1.5	1.6	1.8	26.6	1337
10x2x1.5	0.6	1.5	1.6	1.8	27.5	1421
11x2x1.5	0.6	1.7	1.6	1.9	28.9	1541
12x2x1.5	0.6	1.7	1.6	1.9	29.7	1611
13x2x1.5	0.6	1.7	1.6	1.9	30.3	1675
14x2x1.5	0.6	1.7	1.6	1.9	31.1	1761
15x2x1.5	0.6	1.7	1.6	1.9	32.0	1846
20x2x1.5	0.6	1.7	2.0	2.0	36.0	2446
25x2x1.5	0.6	2.0	2.0	2.1	39.9	2887
30x2x1.5	0.6	2.0	2.0	2.1	42.4	3231
35x2x1.5	0.6	2.2	2.5	2.4	46.7	4065
40x2x1.5	0.6	2.2	2.5	2.4	48.9	4426
45x2x1.5	0.6	2.2	2.5	2.4	51.1	4748
50x2x1.5	0.6	2.2	2.5	2.4	53.1	5103

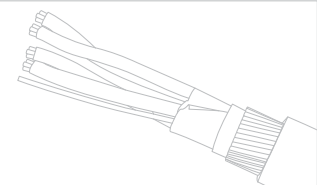


Armoured Multi-Pair/Triple Screened Instrument Cables MSR - Y (ST) YRY



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
1x3x0.5	0.6	1.2	0.9	1.3	11.7	266
2x3x0.5	0.6	1.3	1.25	1.5	17.5	549
3x3x0.5	0.6	1.4	1.25	1.5	18.5	611
4x3x0.5	0.6	1.4	1.25	1.6	19.9	692
5x3x0.5	0.6	1.4	1.6	1.7	22.0	901
6x3x0.5	0.6	1.5	1.6	1.7	23.6	1004
7x3x0.5	0.6	1.5	1.6	1.7	23.6	1030
8x3x0.5	0.6	1.6	1.6	1.8	27.0	1221
9x3x0.5	0.6	1.6	1.6	1.9	28.7	1332
10x3x0.5	0.6	1.6	1.6	1.9	28.7	1358
11x3x0.5	0.6	1.6	1.6	1.9	28.7	1384
12x3x0.5	0.6	1.7	1.6	1.9	29.6	1450
13x3x0.5	0.6	1.7	1.6	1.9	30.8	1527
14x3x0.5	0.6	1.7	1.6	1.9	30.8	1553
15x3x0.5	0.6	1.8	2.0	2.0	33.3	1909
20x3x0.5	0.6	1.9	2.0	2.1	36.6	2224
25x3x0.5	0.6	2.0	2.0	2.2	40.0	2570
30x3x0.5	0.6	2.0	2.0	2.3	42.1	2830
35x3x0.5	0.6	2.1	2.5	2.4	46.1	3535
40x3x0.5	0.6	2.2	2.5	2.5	48.0	3815
45x3x0.5	0.6	2.3	2.5	2.6	51.5	4212
50x3x0.5	0.6	2.3	2.5	2.6	52.1	4396
1x3x0.75	0.6	1.2	0.9	1.3	12.2	290
2x3x0.75	0.6	1.4	1.25	1.5	18.7	615
3x3x0.75	0.6	1.4	1.25	1.6	19.7	679
4x3x0.75	0.6	1.4	1.6	1.6	21.6	897
5x3x0.75	0.6	1.5	1.6	1.7	23.4	1019
6x3x0.75	0.6	1.5	1.6	1.8	25.1	1120
7x3x0.75	0.6	1.5	1.6	1.8	25.1	1154
8x3x0.75	0.6	1.7	1.6	1.9	29.0	1388
9x3x0.75	0.6	1.7	1.6	1.9	30.7	1500
10x3x0.75	0.6	1.7	1.6	1.9	30.7	1534
11x3x0.75	0.6	1.7	1.6	1.9	30.7	1568
12x3x0.75	0.6	1.7	1.6	2.0	31.7	1663
13x3x0.75	0.6	1.8	2.0	2.0	34.0	2005
14x3x0.75	0.6	1.8	2.0	2.0	34.0	2040
15x3x0.75	0.6	1.8	2.0	2.1	35.6	2166
20x3x0.75	0.6	1.9	2.0	2.2	39.2	2558
25x3x0.75	0.6	2.1	2.0	2.3	43.1	2975
30x3x0.75	0.6	2.1	2.5	2.5	46.6	3727
35x3x0.75	0.6	2.2	2.5	2.6	49.9	4122
40x3x0.75	0.6	2.3	2.5	2.6	51.7	4430
45x3x0.75	0.6	2.4	2.5	2.8	55.7	4948
50x3x0.75	0.6	2.4	2.5	2.8	56.4	5176

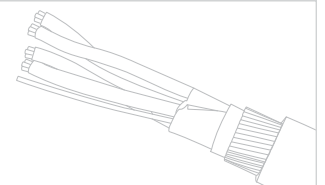
NYSLYO NYSLYCYO MSR - Y (ST) Y MSR - Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR - 2X(ST)HRH - PIMF



Armoured Multi-Pair/Triple Screened Instrument Cables MSR - Y (ST) YRY



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
1x3x1	0.6	1.2	0.9	1.3	12.6	308
2x3x1	0.6	1.4	1.25	1.6	19.6	661
3x3x1	0.6	1.4	1.25	1.6	20.5	735
4x3x1	0.6	1.5	1.6	1.7	23.0	995
5x3x1	0.6	1.5	1.6	1.7	24.5	1093
6x3x1	0.6	1.6	1.6	1.8	26.5	1246
7x3x1	0.6	1.6	1.6	1.8	26.5	1289
8x3x1	0.6	1.7	1.6	1.9	30.5	1527
9x3x1	0.6	1.8	2.0	2.0	33.5	1909
10x3x1	0.6	1.8	2.0	2.0	33.5	1951
11x3x1	0.6	1.8	2.0	2.0	33.5	1994
12x3x1	0.6	1.8	2.0	2.1	34.5	2093
13x3x1	0.6	1.8	2.0	2.1	35.9	2210
14x3x1	0.6	1.8	2.0	2.1	35.9	2253
15x3x1	0.6	1.9	2.0	2.2	37.9	2431
20x3x1	0.6	2.0	2.0	2.3	41.6	2875
25x3x1	0.6	2.1	2.5	2.5	46.8	3768
30x3x1	0.6	2.2	2.5	2.5	49.3	4166
35x3x1	0.6	2.3	2.5	2.7	53.0	4675
40x3x1	0.6	2.4	2.5	2.7	55.0	5030
45x3x1	0.6	2.5	2.5	2.9	59.2	5603
50x3x1	0.6	2.5	2.5	2.9	60.0	5875
1x3x1.5	0.6	1.2	0.9	1.4	13.4	348
2x3x1.5	0.6	1.4	1.6	1.6	21.6	877
3x3x1.5	0.6	1.5	1.6	1.7	23.0	1001
4x3x1.5	0.6	1.5	1.6	1.7	24.6	1131
5x3x1.5	0.6	1.6	1.6	1.8	26.6	1286
6x3x1.5	0.6	1.6	1.6	1.9	28.7	1435
7x3x1.5	0.6	1.6	1.6	1.9	28.7	1494
8x3x1.5	0.6	1.8	2.0	2.1	34.2	2045
9x3x1.5	0.6	1.9	2.0	2.1	36.5	2231
10x3x1.5	0.6	1.9	2.0	2.1	36.5	2290
11x3x1.5	0.6	1.9	2.0	2.1	36.5	2348
12x3x1.5	0.6	1.9	2.0	2.2	37.6	2492
13x3x1.5	0.6	1.9	2.0	2.2	39.2	2630
14x3x1.5	0.6	1.9	2.0	2.2	39.2	2688
15x3x1.5	0.6	2.0	2.0	2.3	41.3	2891
20x3x1.5	0.6	2.1	2.5	2.5	46.7	3873
25x3x1.5	0.6	2.3	2.5	2.6	51.3	4515
30x3x1.5	0.6	2.4	2.5	2.7	54.2	5028
35x3x1.5	0.6	2.5	2.5	2.8	58.2	5652
40x3x1.5	0.6	2.6	2.5	2.9	60.5	6125
45x3x1.5	0.6	2.7	2.5	3.1	65.2	6804
50x3x1.5	0.6	2.7	2.5	3.1	66.1	7161



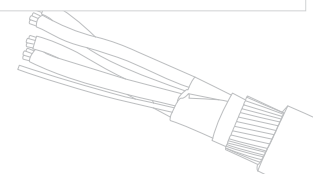


Armoured Multi-Pair Individual Screened Instrument Cables MSR - Y (ST) YRY - PIMF

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** BS 5308, BS-EN 50288-7
- **Construction :**
 CU/PVC/ISCR/OSCR/PVC/SWA/PVC
 Conductor: Plain Annealed Copper - Class (1,2,5)
 Insulation Type: P.V.C
 Twisted Pair & Screen: Polyester tape + Drain Wire + Aluminum Foil
 Screen Over Laying Up Pairs: Polyester tape + Drain Wire + Aluminum Foil
 Inner Sheath: P.V.C
 Armour: Galvanized Steel Wire
 Sheath: P.V.C

- **Application:**
 Transmission of Analog and Digital Signals in Instrumentation System, the cables are suitable to be laid indoors and outdoors, on cable trays or in pipes or in earth.

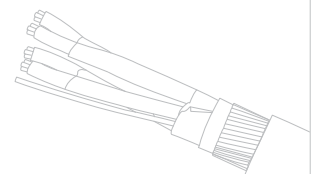
No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
1x2x0.5	0.6	0.8	0.9	1.3	10.6	221
2x2x0.5	0.6	1.1	1.25	1.5	17.0	521
3x2x0.5	0.6	1.2	1.25	1.6	18.1	590
4x2x0.5	0.6	1.2	1.25	1.6	19.3	659
5x2x0.5	0.6	1.2	1.25	1.6	20.5	730
6x2x0.5	0.6	1.3	1.6	1.8	23.2	970
7x2x0.5	0.6	1.3	1.6	1.8	23.2	995
8x2x0.5	0.6	1.3	1.6	1.8	26.1	1143
9x2x0.5	0.6	1.3	1.6	1.8	27.7	1238
10x2x0.5	0.6	1.3	1.6	1.8	27.7	1263
11x2x0.5	0.6	1.5	1.6	1.8	28.1	1326
12x2x0.5	0.6	1.5	1.6	1.8	28.8	1377
13x2x0.5	0.6	1.5	1.6	1.8	29.9	1451
14x2x0.5	0.6	1.5	1.6	1.8	29.9	1476
15x2x0.5	0.6	1.5	1.6	1.8	31.2	1553
20x2x0.5	0.6	1.5	2.0	1.9	35.0	2073
25x2x0.5	0.6	1.7	2.0	2.1	38.8	2436
30x2x0.5	0.6	1.7	2.0	2.1	40.6	2642
35x2x0.5	0.6	2.2	2.5	2.4	45.9	3497
40x2x0.5	0.6	2.2	2.5	2.4	47.3	3731
45x2x0.5	0.6	2.2	2.5	2.4	50.3	4036
50x2x0.5	0.6	2.2	2.5	2.4	51.0	4213
1x2x0.75	0.6	0.8	0.9	1.3	10.9	236
2x2x0.75	0.6	1.1	1.25	1.5	17.9	563
3x2x0.75	0.6	1.2	1.25	1.6	19.0	639
4x2x0.75	0.6	1.2	1.25	1.6	20.3	716
5x2x0.75	0.6	1.2	1.6	1.6	22.4	927
6x2x0.75	0.6	1.3	1.6	1.8	24.4	1057
7x2x0.75	0.6	1.3	1.6	1.8	24.4	1087
8x2x0.75	0.6	1.3	1.6	1.8	27.7	1261
9x2x0.75	0.6	1.3	1.6	1.8	29.3	1365
10x2x0.75	0.6	1.3	1.6	1.8	29.3	1395
11x2x0.75	0.6	1.5	1.6	1.9	29.9	1479
12x2x0.75	0.6	1.5	1.6	1.9	30.7	1538
13x2x0.75	0.6	1.5	1.6	1.9	31.9	1620
14x2x0.75	0.6	1.5	1.6	1.9	31.9	1651
15x2x0.75	0.6	1.5	2.0	1.9	34.2	1977
20x2x0.75	0.6	1.7	2.0	2.0	37.8	2351
25x2x0.75	0.6	2.0	2.0	2.2	42.1	2800
30x2x0.75	0.6	2.0	2.5	2.2	45.1	3475
35x2x0.75	0.6	2.2	2.5	2.5	49.0	3908
40x2x0.75	0.6	2.2	2.5	2.5	50.6	4176
45x2x0.75	0.6	2.2	2.5	2.5	53.9	4557
50x2x0.75	0.6	2.2	2.5	2.5	54.6	4766



Armoured Individual Screened Instrument Cables MSR - Y (ST) YRY - PIMF



No. of Cores & Cross Section	Nominal Insulation Thickness	Nominal Inner Layer Thickness	Armour Wire Dia.	Nominal Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	mm	mm	mm	mm	mm	kg/km
1x2x1	0.6	0.8	0.9	1.4	11.5	255
2x2x1	0.6	1.2	1.25	1.6	19.0	619
3x2x1	0.6	1.3	1.25	1.7	20.2	704
4x2x1	0.6	1.3	1.6	1.7	22.3	915
5x2x1	0.6	1.3	1.6	1.7	23.7	1021
6x2x1	0.6	1.5	1.6	1.9	26.1	1188
7x2x1	0.6	1.5	1.6	1.9	26.1	1224
8x2x1	0.6	1.5	1.6	1.9	29.6	1412
9x2x1	0.6	1.5	1.6	1.9	31.4	1525
10x2x1	0.6	1.5	1.6	1.9	31.4	1562
11x2x1	0.6	1.7	1.6	2.0	32.0	1654
12x2x1	0.6	1.7	2.0	2.0	33.6	1953
13x2x1	0.6	1.7	2.0	2.0	34.9	2063
14x2x1	0.6	1.7	2.0	2.0	34.9	2099
15x2x1	0.6	1.7	2.0	2.0	36.4	2212
20x2x1	0.6	1.7	2.0	2.1	40.0	2592
25x2x1	0.6	2.0	2.5	2.4	45.7	3510
30x2x1	0.6	2.0	2.5	2.4	47.8	3815
35x2x1	0.6	2.2	2.5	2.7	51.9	4330
40x2x1	0.6	2.2	2.5	2.7	53.7	4669
45x2x1	0.6	2.2	2.5	2.7	57.2	5088
50x2x1	0.6	2.2	2.5	2.7	58.0	5328
1x2x1.5	0.6	0.8	0.9	1.4	12.1	282
2x2x1.5	0.6	1.2	1.25	1.6	20.2	687
3x2x1.5	0.6	1.3	1.6	1.7	22.2	912
4x2x1.5	0.6	1.3	1.6	1.7	23.7	1029
5x2x1.5	0.6	1.3	1.6	1.7	25.4	1148
6x2x1.5	0.6	1.5	1.6	1.9	27.9	1332
7x2x1.5	0.6	1.5	1.6	1.9	27.9	1379
8x2x1.5	0.6	1.5	1.6	1.9	31.8	1601
9x2x1.5	0.6	1.5	2.0	1.9	34.6	1978
10x2x1.5	0.6	1.5	2.0	1.9	34.6	2025
11x2x1.5	0.6	1.7	2.0	2.0	35.2	2142
12x2x1.5	0.6	1.7	2.0	2.0	36.1	2230
13x2x1.5	0.6	1.7	2.0	2.0	37.6	2353
14x2x1.5	0.6	1.7	2.0	2.0	37.6	2400
15x2x1.5	0.6	1.7	2.0	2.0	39.3	2553
20x2x1.5	0.6	1.7	2.0	2.1	43.2	2996
25x2x1.5	0.6	2.0	2.5	2.4	49.3	4018
30x2x1.5	0.6	2.0	2.5	2.4	51.7	4422
35x2x1.5	0.6	2.2	2.5	2.7	56.1	5010
40x2x1.5	0.6	2.2	2.5	2.7	58.0	5409
45x2x1.5	0.6	2.2	2.5	2.7	62.0	5893
50x2x1.5	0.6	2.2	2.5	2.7	62.8	6191





Armoured Multi-pair Fire Resistance Individual Screened Instrument Cables MSR – 2X(st)HRH – PIMF

- **Rated Voltage:** 300-500 V
- **Applicable Standard:** gen. to BS 5308, part 1, type 2, BS-EN 50288-7
- **Construction:**
 - CU or TiCU/MGT/PET/XLPE/ISCR/OSCR/HFLS/SWA/HFLS
 - Conductor: plain annealed copper or tinned copper
 - Flame barrier: Mica glass tape
 - Insulation: XLPE
 - Core identification: according to BS 5308 part 1
 - Pair screen: Aluminum Foil + copper drain wire 0.5mm² + Polyester tape
 - Wrapping: 1 layer of plastic tape
 - Overall screen: Aluminum Foil + copper or tinned copper drain wire 0.5mm² + Polyester tape
 - Bedding: Halogen free, Low smoke, Flame retardant – HFLS
 - Armor: galvanized round steel wire
 - Outer sheath: Halogen free, Low smoke, Flame retardant – HFLS
 - Color: Is black, or blue for intrinsically safety systems
- **Technical data:**
 - 1) Temperature: -30°C to + 90°C
 - 2) Maximum short circuit temperature: 250 °C (5 seconds Max)
 - 3) Test voltage: 1.0 kv rms or 2.4 kvdc for 1 minutes
 - 4) Conductor resistance: As per class 2 of IEC 60228
 - 5) Minimum insulation resistance: 5000 MΩ km
 - 6) Mutual capacitance at 1.0 kHz: 115 nf/km for one and two pair, 75 nf/km for other cable.
 - 7) L/R (ratio): 25μHΩ for 0.75 mm², 1.0 mm² - 40μHΩ for 1.5 mm² - 70 μHΩ for 2.5mm²
 - 8) Flame retardant: Acc. IEC 60331-1
 - 9) Flame propagation test: Acc. IEC 60332-3
 - 10) Fire resistance test: Acc. IEC 60331-21
 - 11) Smoke density test: Acc. IEC 61034
 - 12) Halogen content test: Acc. IEC 60754-2
- **Application:**

these cables can be used for transmission of analogue and digital signals in instrument and control systems.

No. of Cores & Cross Section	No. Strand x diameter	Insulation Thickness	Armour Wire Dia.	Sheath Thickness	Overall Dia. (Approx.)	Total Weight (Approx.)
mm ²	No. x mm	mm	mm	mm	mm	kg/km
5x1.5	7x0.53	0.7	0.9	1.8	18.2	540
7x1.5	7x0.53	0.7	1.2	1.8	19.5	650
10x1.5	7x0.53	0.7	1.2	1.8	24.3	830
12x1.5	7x0.53	0.7	1.6	1.8	25.0	1070
19x1.5	7x0.53	0.7	1.6	1.8	28.5	1380
27x1.5	7x0.53	0.7	1.6	1.9	34.0	1980
37x1.5	7x0.53	0.7	2.0	1.9	38.4	2520
48x1.5	7x0.53	0.7	2.0	2.0	43.6	3040
5x2.5	7x0.67	0.7	0.9	1.8	19.3	620
7x2.5	7x0.67	0.7	1.2	1.8	21.8	830
10x2.5	7x0.67	0.7	1.6	1.8	26.4	1140
12x2.5	7x0.67	0.7	1.6	1.8	27.2	1250
19x2.5	7x0.67	0.7	1.6	1.8	32.6	1840
27x2.5	7x0.67	0.7	2.0	1.8	37.6	2520
37x2.5	7x0.67	0.7	2.0	1.9	42.0	3100
48x2.5	7x0.67	0.7	2.0	2.1	48.5	4140

NYSLYO NYSLYCYO MSR - Y (ST) Y MSR-Y (ST) YRY MSR - Y (ST) Y MSR - Y (ST) Y - PIMF
 MSR 2X(ST)H - PIMF MSR - Y (ST) YRY MSR - Y (ST) YRY - PIMF MSR-2X(ST)HRH - PIMF

