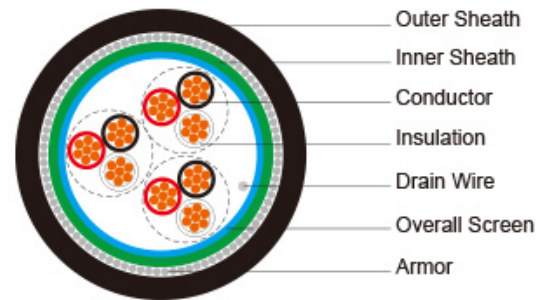


**PE Insulated, LSZH Sheathed, Overall Screened & Armoured Instrumentation Cables (Multitriples)**



RE-2Y(St)HSWAH 70°C / 300 V

**STANDARDS**

Basic design to EN50288-7

**APPLICATION:**

These cables are used for transmission of analogue and digital signals in instrument and control systems at chemistry and petr°Chemistry industry plants, power plants, natural gas and petroluem plants, etc...

These cables are used in the environments which have no corrosive gases are emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. Instrumentation cables are not allowed for direct connection to a low impedance sources, e.g. public mains electricity supply.

With blue sheath it is suitable for intrinsically safe systems. These cables are not recommended for direct burial. They are for indoor and outdoor installation, in dry and wet l°Cations; on racks, trays, in conduits.

**FIRE PERFORMANCE**

<b>Flame Retardance (Single Vertical Wire Test)</b>	EN 60332-1-2; IEC 60332-1-2; BS EN 60332-1-2; VDE 0482-332-1; NBN C 30-004 (cat. F1); NF C32-070-2.1(C2); CEI 20-35/1-2; EN 50265-2-1*; DIN VDE 0482-265-2-1*
<b>Reduced Fire Propagation (Vertically-mounted bundled wires &amp; cable test)</b>	EN 60332-3-24 (cat. C); IEC 60332-3-24; BS EN 60332-3-24; VDE 0482-332-3; NBN C 30-004 (cat. F2); NF C32-070-2.2(C1); CEI 20-22/3-4; EN 50266-2-4*; DIN VDE 0482-266-2-4
<b>Halogen Free</b>	IEC 60754-1; EN 50267-2-1; DIN VDE 0482-267-2-1; CEI 20-37/2-1 ; BS 6425-1*
<b>No Corrosive Gas Emission</b>	IEC 60754-2; EN 50267-2-2; DIN VDE 0482-267-2-2; CEI 20-37/2-2 ; BS 6425-2*
<b>Minimum Smoke Emission</b>	IEC 61034-1&2; EN 61034 -1&2; DIN VDE 0482-1034-1&2; CEI 20-37/3-1&2; EN 50268-1&2*; BS 7622-1&2*
<b>No Toxic gases</b>	NES 02-713; NF C 20-454
<b>Sunlight Resistance</b>	UL 1581 section 1200
<b>Oil Resistance</b>	ICEA S-73-532**

Note: Asterisk \* denotes superseded standard, \*\*Test temperature +60°C, duration 4h. Retention: min 60% of tensite strength/min.60% of elongation.

**VOLTAGE RATING**

300V

**CABLE CONSTRUCTION**

<b>Conductor:</b>	Annealed copper solid or plain copper stranded to IEC 60228 Class 2.
<b>Insulation:</b>	PE compound, EN 50290. 2-23.
<b>Pair:</b>	Two conductors twisted to form a pair
<b>Lay-up:</b>	Pairs laid up in layers of optimum pitch
<b>Separator:</b>	Polyester tape
<b>Overall Screen:</b>	Aluminium/polyester tape with tinned copper drain wire, 0.5mm <sup>2</sup>
<b>Inner sheath:</b>	HFFR compound, EN 50290-2-27
<b>Armour:</b>	Galvanized round steel wire, EN 10257-1
<b>Outer Sheath:</b>	Thermoplastic LSZH compound type LTS3 as per BS 7655-6.1 (Thermosetting LSZH compound type SW2-SW4 as per BS 7655-2.6 can be offered.). UV resistance, hydrocarbon resistance, oil resistance, anti rodent and anti termite properties can be offered as option.

**COLOUR CODE**

<b>Insulation:</b>	Black / White / Red, continuously numbered on white core(1, 2..)for multitruples.
<b>Outer Sheath:</b>	Black or blue for intrinsically safe systems

**Physical AND THERMAL  
PROPERTIES**

<b>Temperature Range During Operation (Fixed State):</b>	-30°C – +70°C
<b>Temperature Range During Installation (Mobile State):</b>	-5°C – +50°C
<b>Minimum Bending Radius:</b>	10 X Overall Diameter

**CONSTRUCTION PARAMETERS**

Cable Code	RE-2Y(St)HSAH							
	No. of Triples x3xCross Section	Nominal Insulation Thick- ness	Nominal Inner Sheath Thick- ness	Nominal Overall Diameter Over Inner Sheath	Nominal Armour Wire Diameter	Nominal Outer Sheath Thick- ness	Nominal Overall Diameter	Approx. Weight
	No.x3xmm <sup>2</sup>	mm	mm	mm	mm	mm	mm	kg/km

0.5mm<sup>2</sup>, Multitriples

RE- 2Y(St)HSAWAH 2T0.5	2x3x0.5	0.35	0.9	8.4	0.9	1.4	13.0	326
RE- 2Y(St)HSAWAH 4T0.5	4x3x0.5	0.35	1.0	9.8	0.9	1.4	14.4	386
RE- 2Y(St)HSAWAH 5T0.5	5x3x0.5	0.35	1.0	10.8	0.9	1.4	15.4	454
RE- 2Y(St)HSAWAH 6T0.5	6x3x0.5	0.35	1.0	12.1	0.9	1.4	16.7	513
RE- 2Y(St)HSAWAH 8T0.5	8x3x0.5	0.35	1.1	13.1	0.9	1.5	17.9	571
RE- 2Y(St)HSAWAH 10T0.5	10x3x0.5	0.35	1.1	14.7	0.9	1.5	19.5	677
RE- 2Y(St)HSAWAH 12T0.5	12x3x0.5	0.35	1.1	15.2	0.9	1.5	20.0	845
RE- 2Y(St)HSAWAH 16T0.5	16x3x0.5	0.35	1.2	17.4	0.9	1.6	22.4	1031
RE- 2Y(St)HSAWAH 20T0.5	20x3x0.5	0.35	1.2	19.1	1.25	1.6	24.8	1179
RE- 2Y(St)HSAWAH 24T0.5	24x3x0.5	0.35	1.3	20.9	1.25	1.7	26.8	1330

0.75mm<sup>2</sup>, Multitriples

RE- 2Y(St)HSAWAH 2T0.75	2x3x0.75	0.38	1.0	10.6	0.9	1.4	13.9	370
RE- 2Y(St)HSAWAH 4T0.75	4x3x0.75	0.38	1.1	12.4	0.9	1.4	15.5	462
RE- 2Y(St)HSAWAH 5T0.75	5x3x0.75	0.38	1.1	13.7	0.9	1.4	16.6	526

RE- 2Y(St)HSWAH 6T0.75	6x3x0.75	0.38	1.1	15.4	0.9	1.5	18.5	615
RE- 2Y(St)HSWAH 8T0.75	8x3x0.75	0.38	1.2	16.7	0.9	1.5	19.5	698
RE- 2Y(St)HSWAH 10T0.75	10x3x0.75	0.38	1.3	19.0	0.9	1.5	21.5	947
RE- 2Y(St)HSWAH 12T0.75	12x3x0.75	0.38	1.3	19.7	0.9	1.7	22.3	1029
RE- 2Y(St)HSWAH 16T0.75	16x3x0.75	0.38	1.4	22.5	1.25	1.6	25.4	1240
RE- 2Y(St)HSWAH 20T0.75	20x3x0.75	0.38	1.5	24.9	1.25	1.7	27.6	1446
RE- 2Y(St)HSWAH 24T0.75	24x3x0.75	0.38	1.6	27.2	1.25	1.7	29.6	1632
1.0mm <sup>2</sup> , Multitriples								
RE- 2Y(St)HSWAH 2T1.0	2x3x1	0.4	1.0	11.5	0.9	1.4	15.0	412
RE- 2Y(St)HSWAH 4T1.0	4x3x1	0.4	1.1	13.4	0.9	1.4	16.5	529
RE- 2Y(St)HSWAH 5T1.0	5x3x1	0.4	1.1	14.8	0.9	1.5	18.0	620
RE- 2Y(St)HSWAH 6T1.0	6x3x1	0.4	1.2	16.9	0.9	1.5	19.8	830
RE- 2Y(St)HSWAH 8T1.0	8x3x1	0.4	1.2	18.1	0.9	1.5	20.9	946
RE- 2Y(St)HSWAH 10T1.0	10x3x1	0.4	1.3	20.7	0.9	1.6	24.1	1105

RE- 2Y(St)HSWAH 12T1.0	12x3x1	0.4	1.3	21.4	1.25	1.6	24.7	1215
RE- 2Y(St)HSWAH 16T1.0	16x3x1	0.4	1.4	24.4	1.25	1.7	27.6	1482
RE- 2Y(St)HSWAH 20T1.0	20x3x1	0.4	1.5	27.1	1.25	1.7	30.0	1740
RE- 2Y(St)HSWAH 24T1.0	24x3x1	0.4	1.6	29.6	1.25	1.8	32.2	2202
1.3mm <sup>2</sup> , Multitriples								
RE- 2Y(St)HSWAH 2T1.3	2x3x1,3	0.45	1.1	12.8	0.9	1.4	16.1	463
RE- 2Y(St)HSWAH 4T1.3	4x3x1,3	0.45	1.1	14.7	0.9	1.5	18.2	621
RE- 2Y(St)HSWAH 5T1.3	5x3x1,3	0.45	1.2	16.5	0.9	1.5	19.6	721
RE- 2Y(St)HSWAH 6T1.3	6x3x1,3	0.45	1.3	18.8	0.9	1.5	21.7	979
RE- 2Y(St)HSWAH 8T1.3	8x3x1,3	0.45	1.3	20.1	0.9	1.6	23.8	1105
RE- 2Y(St)HSWAH 10T1.3	10x3x1,3	0.45	1.4	23.0	1.25	1.7	26.6	1322
RE- 2Y(St)HSWAH 12T1.3	12x3x1,3	0.45	1.5	24.0	1.25	1.7	27.3	1456
RE- 2Y(St)HSWAH 16T1.3	16x3x1,3	0.45	1.6	27.4	1.25	1.8	30.5	1788
RE- 2Y(St)HSWAH 20T1.3	20x3x1,3	0.45	1.7	30.4	1.25	1.8	33.2	2327

RE- 2Y(St)HSWAH 24T1.3	24x3x1,3	0.45	1.8	33.1	1.60	1.9	36.6	2637
1.5mm <sup>2</sup> , Multitriples								
RE- 2Y(St)HSWAH 2T1.5	2x3x1,5	0.45	1.1	13.2	0.9	1.4	16.5	518
RE- 2Y(St)HSWAH 4T1.5	4x3x1,5	0.45	1.2	15.4	0.9	1.5	18.8	674
RE- 2Y(St)HSWAH 5T1.5	5x3x1,5	0.45	1.2	17.1	0.9	1.5	20.2	869
RE- 2Y(St)HSWAH 6T1.5	6x3x1,5	0.45	1.3	19.5	0.9	1.6	22.6	1049
RE- 2Y(St)HSWAH 8T1.5	8x3x1,5	0.45	1.4	21.1	1.25	1.6	24.8	1210
RE- 2Y(St)HSWAH 10T1.5	10x3x1,5	0.45	1.5	24.1	1.25	1.7	27.5	1435
RE- 2Y(St)HSWAH 12T1.5	12x3x1,5	0.45	1.5	24.9	1.25	1.7	28.4	1569
RE- 2Y(St)HSWAH 16T1.5	16x3x1,5	0.45	1.6	28.4	1.25	1.8	31.8	2162
RE- 2Y(St)HSWAH 20T1.5	20x3x1,5	0.45	1.7	31.6	1.25	1.9	34.9	2515
RE- 2Y(St)HSWAH 24T1.5	24x3x1,5	0.45	1.8	34.4	1.60	2.0	38.3	2879

Note : Other conductor sizes & core configurations are available upon request

**Electrical PROPERTIES**

<b>Conductor Area Size</b>	mm <sup>2</sup>	0.5	0.75	1.0	1.3	1.5
<b>Insulation thickness (nominal)</b>	mm	0.35	0.38	0.4	0.45	0.45
<b>Conductor resistance (20°C)</b>	Ω/km	36.7	25	18.5	14.2	12.3

<b>Insulation resistance (20°C)</b>	MΩ.km(Min.)	5000				
<b>Mutual Capacitance (1 kHz)</b>	pF/m(Max.)					
	<u>≤ 4 pairs</u>	90	90	90	102	102
	<u>all other pairs</u>	75	75	75	85	85
<b>Capacitance unbalance(1 kHz)</b>	pF/500 m (Max.)	500				
<b>L / R (ratio) (max.)</b>	μH/Ω	25	25	25	40	40
<b>Inductance</b>	mH/km(Max.)	1				
<b>Operating voltage Urms</b>	V	300				
<b>Test Voltage</b>	Core to Core	V	1500			
	Core to Screen	V	1500			