



HALLEY CABLES

RE-Yw(St)YwSWAYw-fl CU/PVC/OSCR/PVC/SWA/PVC

Instrumentation Cables PVC DK PVC 300 V

PVC insulated, screened, armoured, PVC sheathed cable

RE-Yw(St)YwSWAYw-fl



Construction:

Conductor	: plain copper wire, stranded.
Insulation	: PVC compound, 105° C.
Core identification	: black / white / red cores are numbered (1-1-1, 2-2-2,...). Upon request: colour coded according to IEC 60189-2. Other core configurations manufactured upon request.
Pair	: two conductors twisted to a pair.
Lay-up	: pairs laid up in layers of optimum pitch.
Separator	: polyester tape.
Screen	: AL-PES tape over stranded tinned copper drain wire 0,50 mm ² .
Inner sheath	: PVC compound, 105° C.
Armour	: galvanized round steel wire.
Outer sheath	: PVC compound, 105° C.
Sheath colour	: RAL 9005, black or RAL 5015, blue.

Technical data and tests:

Rated voltage	: 300 V.
Test voltage	: Urms core-core : 1500 V; Urms core-screen : 1500 V.
Temperature range	: operation : - 30° C ~ + 105° C; installation : - 5° C ~ + 50° C.
Min. bending radius	: 10 x D.
Insulation resistance	: min. 100 MΩ/km.

Standards:

Design	: DIN EN 50288-7.
Conductor	: IEC 60228 class 2, DIN EN 60228 class 2.
Insulation	: EN 50290-2-21.
Inner/outer sheath	: EN 50290-2-22.
Armour	: EN 10257-1.
Flame retardancy	: IEC 60332-1 & EN 60332-1.

Applications:

These cables are used for transmission of analogue and digital signals in instrumentation and control systems at chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc... . Instrumentation cables are not allowed to be directly connected to a low impedance source, e.g. public mains electricity supply. The armour above the sheath protects the cable from mechanical shocks. 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 locations; on racks, trays, in conduits.

Technical data and tests:

Insulation thickness	: 0,50 mm ² : 0,40 mm; 0,75 mm ² : 0,40 mm; 1,0 mm ² : 0,40 mm; 1,3 mm ² : 0,45 mm; 1,5 mm ² : 0,45 mm.
Conductor resistance	: 0,50 mm ² : 36,7 Ω/km; 0,75 mm ² : 25,0 Ω/km; 1,0 mm ² : 18,5 Ω/km; 1,3 mm ² : 14,2 Ω/km; 1,5 mm ² : 12,3 Ω/km.
L/R (ratio) (max)	: 0,50 mm ² : 25 μH/Ω; 0,75 mm ² : 25 μH/Ω; 1,0 mm ² : 25 μH/Ω; 1,3 mm ² : 40 μH/Ω; 1,5 mm ² : 40 μH/Ω.
Mutual capacitance (1 kHz)	: 0,50 mm ² : max. 190 pF/m; 0,75 mm ² : max. 190 pF/m; 1,0 mm ² : max. 190 pF/m; 1,3 mm ² : max. 200 pF/m; 1,5 mm ² : max. 200 pF/m.

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DIMENSIONS

No. of cores x cross section mm ²	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
1x3x0,50	6,0	10,4	19	190
2x3x0,50	9,0	13,6	34	300
4x3x0,50	10,3	14,9	62	380
5x3x0,50	11,0	15,8	77	420
6x3x0,50	11,8	16,6	91	460
8x3x0,50	13,3	18,1	120	540
10x3x0,50	14,5	19,5	149	625
12x3x0,50	15,7	21,4	178	805
16x3x0,50	17,8	23,7	235	965
20x3x0,50	19,6	25,5	293	1115
24x3x0,50	21,2	27,3	350	1260
1x3x0,75	6,4	10,8	26	210
2x3x0,75	9,8	14,4	48	330
4x3x0,75	11,2	16,0	91	430
5x3x0,75	12,0	16,8	113	480
6x3x0,75	12,9	17,7	134	535
8x3x0,75	14,5	19,5	177	655
10x3x0,75	16,0	21,7	221	850
12x3x0,75	17,3	23,2	264	965
16x3x0,75	19,6	25,5	350	1150
20x3x0,75	21,6	27,7	437	1345
24x3x0,75	23,8	29,9	523	1560
1x3x1	6,9	11,3	34	230
2x3x1	10,5	15,1	62	365
4x3x1	12,1	16,9	120	495
5x3x1	13,0	17,8	149	550
6x3x1	14,0	18,8	178	620
8x3x1	15,8	21,5	235	855
10x3x1	17,4	23,3	293	995
12x3x1	18,8	24,7	350	1110
16x3x1	21,4	27,5	466	1360
20x3x1	24,0	30,1	581	1625
24x3x1	26,1	33,1	696	2020
1x3x1,3	7,5	12,1	42	265
2x3x1,3	11,7	16,5	80	430
4x3x1,3	13,5	18,3	155	580
5x3x1,3	14,5	20,2	192	750
6x3x1,3	15,7	21,4	230	815

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No. of cores x cross section mm ²	Approx. bedding diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
8x3x1,3	17,7	23,6	304	1010
10x3x1,3	19,6	25,5	379	1175
12x3x1,3	21,2	27,3	454	1335
16x3x1,3	24,5	31,5	604	1840
20x3x1,3	27,1	34,3	754	2175
24x3x1,3	29,4	36,6	903	2450
1x3x1,5	7,7	12,3	48	275
2x3x1,5	12,1	16,9	91	455
4x3x1,5	14,0	18,8	177	615
5x3x1,5	15,0	20,7	220	800
6x3x1,5	16,2	21,9	264	900
8x3x1,5	18,4	24,3	350	1095
10x3x1,5	20,3	26,2	436	1250
12x3x1,5	22,0	28,1	523	1440
16x3x1,5	25,4	32,4	696	1965
20x3x1,5	28,1	35,3	868	2300
24x3x1,5	30,5	37,7	1041	2645

