

Instrumentation Cable

Flame Retardant

gen. to BS 5308 Part 1 Type 2

Single- & Multi-Triple, PE-Insulation, Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl

70°C / 300/500 V

Application

For transmission of analogue and digital signals in instrument and control systems; use in zone 1 and zone 2 group II classified areas (IEC 60079 part 14). Not allowed for direct connection to low impedance source, e.g. the public mains electricity supply.

Recommended for direct burial. For indoor and outdoor installation in dry and wet locations on racks, in conduits.

Construction

Conductor..... plain annealed copper, sizes: 0.5 mm² solid, 1.0 mm² solid, 0.5 mm² flexible, 0.75 mm² flexible or 1.5 mm² stranded

Insulation..... polyethylene PE

Colour code..... black / white / red;
continuously numbered on cores (1-1-1, 2-2-2 ..)

Wrapping..... at least 1 layer of plastic tape

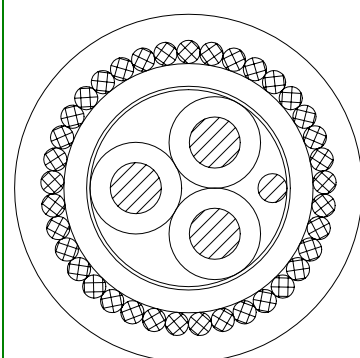
Collective screen... 24 µm aluminium / PETP tape over tinned copper drain wire, 0.5 mm²

Bedding..... polyethylene PE, black

Armour..... galvanized round steel wires

Outer sheath..... polyvinyl chloride PVC, black or blue for intrinsically safe systems

Cable marking..... KERPEN gen. to BS 5308 Part 1 Type 2 FRRT



Technical Data

Flame retardancy: BS 4066-1

Outer sheath:

Amount of halogen acid gas: max. 17% (BS 6425-1)

Limiting Oxygen Index (LOI): min. 30% (IEC 60332-3 annex B)

Temperature index (TI): min. 300°C (ASTM-D-2863)

Sunlight resistance: (UL 1581 section 1200)

Oil resistance: (ICEA S-82-552)

Temperature range:
-40°C up to +70°C (during operation)
- 5°C up to +50°C (during installation)

Min. bending radius:
8 x cable-Ø

Abbreviations

RE- instrumentation cable
2Y insulation & bedding of PE

(St) collective screen
SWA steel wire armour
Yfl outer sheath of PVC
flame retardant

Electrical data at 20°C

	Character	Unit	Values				
			0.5 solid	1.0 solid	0.5 flexible	0.75 flexible	1.5 stranded
Conductor size	nom.	mm ²	0.5 solid	1.0 solid	0.5 flexible	0.75 flexible	1.5 stranded
Conductor resistance	max.	Ω/km	36.8	18.4	39.7	26.5	12.3
Insulation resistance	min.	MΩ x km	5000				
Mutual capacitance at 0.8 resp. 1 kHz one pair and two pair all other cables	max.	nF/km	115 75				115 85
Capacitance unbalance at 1 kHz	max.	pF/250 m	250				
L/R (ratio)	max.	µH/Ω	25				40
Test voltage	U_{rms} core : core	V	1000				
	U_{rms} core : screen	V	1000				
Rated voltage	U_0 / U	max.	300/500				

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Geometrical data								
No. of triples	RT of insulation nom. (mm)	RT of bedding nom. (mm)	Dia. over bedding approx. (mm)	Dia. of armour wire nom. (mm)	RT of outer sheath nom. (mm)	Overall Diameter approx. (mm)	Weight approx. (kg/km)	Part No.
0.5 mm² (solid)								
1	0.5	0.8	5.8	0.9	1.3	10.2	210	76740123
2	0.5	0.9	9.6	0.9	1.4	14.2	330	76740124
5	0.5	1.1	12.0	0.9	1.5	16.8	470	76740125
10	0.5	1.2	16.4	1.25	1.6	22.1	840	76740126
15	0.5	1.3	18.8	1.6	1.7	25.4	1170	76740127
20	0.5	1.3	21.2	1.6	1.8	28.0	1410	76740128
30	0.5	1.5	25.8	1.6	1.9	32.8		
50	0.5	1.7	32.7	2.0	2.1	40.9		
1.0 mm² (solid)								
1	0.6	0.8	6.9	0.9	1.3	11.3	270	76740144
2	0.6	1.1	12.0	0.9	1.5	16.8	450	76740145
5	0.6	1.2	14.9	1.25	1.6	20.6	760	76740146
10	0.6	1.3	20.5	1.6	1.7	27.1	1330	76740147
15	0.6	1.5	23.8	1.6	1.8	30.6	1670	76740148
20	0.6	1.5	26.9	1.6	1.9	33.9	2000	76740149
30	0.6	1.7	32.6	2.0	2.1	40.8		
50	0.6	2.2	42.0	2.5	2.4	51.8		
0.5 mm² (flexible)								
1	0.6	0.8	6.5	0.9	1.3	10.9		
2	0.6	1.1	11.3	0.9	1.5	16.1		
5	0.6	1.2	13.9	1.25	1.6	19.6		
10	0.6	1.3	19.1	1.6	1.7	25.7		
15	0.6	1.3	21.6	1.6	1.8	28.4		
20	0.6	1.5	25.0	1.6	1.9	32.0		
30	0.6	1.7	30.3	2.0	2.0	38.3		
50	0.6	2.0	38.5	2.5	2.3	48.1		

Instrumentation Cable

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Single- & Multi-Triple, PE-Insulation, Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl

70°C / 300/500 V

0.75 mm ² (flexible)								
1	0.6	0.8	7.1	0.9	1.3	11.5	270	76740108
2	0.6	1.2	12.5	1.25	1.5	18.0	440	76740134
5	0.6	1.2	15.3	1.25	1.6	21.0	750	76740135
10	0.6	1.3	21.0	1.6	1.8	27.8	1300	76740136
15	0.6	1.5	24.4	1.6	1.9	31.4	1630	76740137
20	0.6	1.5	27.6	1.6	1.9	34.6	1940	76740138
30	0.6	1.7	33.5	2.0	2.1	41.7		
50	0.6	2.2	43.1	2.5	2.4	52.9		
1.5 mm ² (stranded)								
1	0.6	0.9	8.1	0.9	1.4	12.7	320	76740155
2	0.6	1.2	13.5	1.25	1.5	19.0	650	76740156
5	0.6	1.2	17.3	1.25	1.7	23.2	960	76740157
10	0.6	1.5	24.4	1.6	1.9	31.4	1720	76740158
15	0.6	1.5	27.8	1.6	1.9	34.8	2160	76740159
20	0.6	1.7	32.0	2.0	2.1	40.2	2950	76740160
30	0.6	2.0	38.9	2.5	2.3	48.5		
50	0.6	2.2	49.3	2.5	2.6	59.5		

RT = radial thickness

Instrumentation Cable

Flame Retardant

BS 5308 Part 1 Type 2

Multi-Pair, PE-Insulation, Individual & Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl PiMF

70°C / 300/500 V

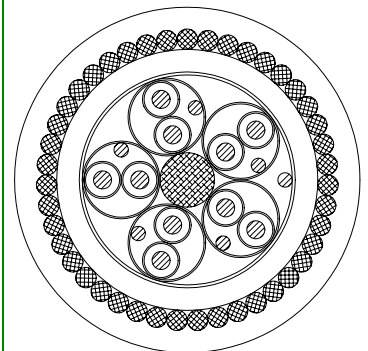
Application

For transmission of analogue and digital signals in instrument and control systems; use in zone 1 and zone 2 group II classified areas (IEC 60079 part 14). Not allowed for direct connection to low impedance source, e.g. the public mains electricity supply.

Recommended for direct burial. For indoor and outdoor installation in dry and wet locations on racks, in conduits.

Construction

- Conductor**..... plain annealed copper, sizes: 0.5 mm² solid, 1.0 mm² solid, 0.5 mm² flexible, 0.75 mm² flexible or 1.5 mm² stranded
- Insulation**..... polyethylene PE
- Colour code**..... black / blue;
with numbered tape under separator tape of the pair screen
- Pair screen**..... 24 µm aluminium / PETP tape over tinned copper drain wire, 0.5 mm²
- Wrapping**..... at least 1 layer of plastic tape
- Collective screen**... 24 µm aluminium / PETP tape over tinned copper drain wire, 0.5 mm²
- Bedding**..... polyethylene PE, black
- Armour**..... galvanized round steel wires
- Outer sheath**..... polyvinyl chloride PVC, black
- Cable marking**..... KERPEN BS 5308 Part 1 Type 2 FRRT



Technical Data

- Flame retardancy:** BS 4066-1
- Outer sheath:**
- Amount of halogen acid gas:** max. 17% (BS 6425-1)
- Limiting Oxygen Index (LOI):** min. 30% (IEC 60332-3 annex B)
- Temperature index (TI):** min. 300°C (ASTM-D-2863)
- Sunlight resistance:** (UL 1581 section 1200)
- Oil resistance:** (ICEA S-82-552)
- Temperature range:** -40°C up to +70°C (during operation)
- 5°C up to +50°C (during installation)
- Min. bending radius:** 8 x cable-Ø

Abbreviations

- RE-2Y instrumentation cable insulation & bedding of PE
- (St) collective screen
- SWA steel wire armour
- Yfl outer sheath of PVC
- fl flame retardant
- PiMF pair screen

Electrical data at 20°C

	Character	Unit	Values					
			0.5 solid	1.0 solid	0.5 flexible	0.75 flexible	1.5 stranded	
Conductor size	nom.	mm ²	0.5 solid	1.0 solid	0.5 flexible	0.75 flexible	1.5 stranded	
Conductor resistance	max.	Ω/km	36.8	18.4	39.7	26.5	12.3	
Insulation resistance	min.	MΩ x km	5000					
Mutual capacitance at 0.8 resp. 1 kHz	max.	nF/km	115					
Capacitance unbalance at 1 kHz	max.	pF/250 m	250					
L/R (ratio)	max.	µH/Ω	25					40
Test voltage U_{rms} core : core		V	1000					
U_{rms} core : screen		V	1000					
Rated voltage U_0 / U	max.	V	300/500					

Instrumentation Cable

Flame Retardant

BS 5308 Part 1 Type 2

Multi-Pair, PE-Insulation, Individual & Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl PiMF

70°C / 300/500 V

Geometrical data								
No. of pairs	RT of insulation	RT of bedding	Dia. over bedding	Dia. of armour wire	RT of outer sheath	Overall Diameter	Weight	Part No.
	nom. (mm)	nom. (mm)	approx. (mm)	nom. (mm)	nom. (mm)	approx. (mm)	approx. (kg/km)	
0.5 mm² (solid)								
2	0.5	0.9	9.7	0.9	1.4	14.3	345	7674B008
5	0.5	1.2	13.0	1.25	1.5	18.5	610	7674B009
10	0.5	1.2	16.9	1.25	1.7	22.8	870	7674B010
15	0.5	1.3	19.7	1.6	1.7	26.3	1265	7674B011
20	0.5	1.3	22.3	1.6	1.8	29.1	1475	7674B012
30	0.5	1.5	27.1	1.6	1.9	34.1	1915	7674B013
50	0.5	2.0	35.0	2.0	2.2	43.4	3075	7674B014
1.0 mm² (solid)								
2	0.6	1.1	11.9	0.9	1.5	16.7	435	7674B023
5	0.6	1.2	15.4	1.25	1.6	21.1	755	7674B024
10	0.6	1.3	20.5	1.6	1.8	27.3	1300	7674B025
15	0.6	1.5	24.1	1.6	1.9	31.1	1665	7674B026
20	0.6	1.7	27.7	2.0	2.0	35.7	2240	7674B027
30	0.6	2.0	33.7	2.0	2.2	42.1	2950	7674B028
50	0.6	2.2	42.5	2.5	2.5	52.5	4639	7674B029
0.5 mm² (flexible)								
2	0.6	1.1	11.2	0.9	1.5	16.0	400	7674B038
5	0.6	1.2	14.5	1.25	1.6	20.2	680	7674B039
10	0.6	1.3	19.3	1.6	1.8	26.1	1175	7674B040
15	0.6	1.5	22.6	1.6	1.8	29.4	1420	7674B041
20	0.6	1.5	25.7	1.6	1.9	32.7	1680	7674B042
30	0.6	1.7	31.0	2.0	2.1	39.2	2415	7674B043
50	0.6	2.2	39.9	2.5	2.4	49.7	3940	7674B044
0.75 mm² (flexible)								
2	0.6	1.1	12.1	0.9	1.5	16.9	437	76740052
5	0.6	1.2	15.7	1.25	1.6	21.4	755	76740053
10	0.6	1.3	20.9	1.6	1.7	27.5	1291	76740054
15	0.6	1.5	24.6	1.6	1.9	31.6	1680	76740055
20	0.6	1.5	27.9	1.6	1.9	34.9	2202	76740056
30	0.6	2.0	34.4	2.0	2.2	42.8	2880	76740057
50	0.6	2.2	43.5	2.5	2.5	53.5	4406	76740058
1.5 mm² (stranded)								
2	0.6	1.2	13.6	1.25	1.6	19.3	635	7674B053

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BS 5308 Part 1 Type 2

*Multi-Pair, PE-Insulation, Individual & Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl PiMF*

70°C / 300/500 V

5	0.6	1.3	17.7	1.6	1.7	24.3	1070	7674B054
10	0.6	1.5	23.9	1.6	1.9	30.9	1605	7674B055
15	0.6	1.7	28.0	2.0	2.0	36.0	2280	7674B056
20	0.6	1.7	31.7	2.0	2.1	39.9	2730	7674B057
30	0.6	2.0	38.6	2.5	2.5	48.6	4075	7674B058
50	0.6	2.2	48.9	2.5	2.7	59.3	5765	7674B059

RT = radial thickness

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BS 5308 Part 1 Type 2

Single- & Multi-Pair, PE-Insulation, Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl

70°C / 300/500 V

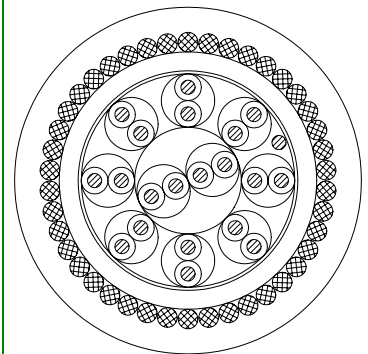
Application

For transmission of analogue and digital signals in instrument and control systems; use in zone 1 and zone 2 group II classified areas (IEC 60079 part 14). Not allowed for direct connection to low impedance source, e.g. the public mains electricity supply.

Recommended for direct burial. For indoor and outdoor installation in dry and wet locations on racks, in conduits.

Construction

- Conductor**..... plain annealed copper, sizes: 0.5 mm² solid, 1.0 mm² solid, 0.5 mm² flexible, 0.75 mm² flexible or 1.5 mm² stranded
- Insulation**..... polyethylene PE
- Colour code**..... according to BS 5308 PART 1 (see Appendix)
- Wrapping**..... at least 1 layer of plastic tape
- Collective screen**... 24 µm aluminium / PETP tape over tinned copper drain wire, 0.5 mm²
- Bedding**..... polyethylene PE, black
- Armour**..... galvanized round steel wires
- Outer sheath**..... polyvinyl chloride PVC, black
- Cable marking**..... KERPEN BS 5308 Part 1 Type 2 FRRT



Technical Data

- Flame retardancy:** BS 4066-1
- Temperature range:** -40°C up to +70°C (during operation)
- 5°C up to +50°C (during installation)
- Outer sheath:**
- Amount of halogen acid gas:** max. 17% (BS 6425-1)
- Limiting Oxygen Index (LOI):** min. 30% (IEC 60332-3 annex B)
- Temperature index (TI):** min. 300°C (ASTM-D-2863)
- Min. bending radius:** 8 x cable-Ø
- Sunlight resistance:** (UL 1581 section 1200)
- Oil resistance:** (ICEA S-82-552)

Abbreviations

- RE-2Y instrumentation cable insulation & bedding of PE
- (St) collective screen
- SWA steel wire armour
- Yfl outer sheath of PVC flame retardant

Electrical data at 20°C

	Character	Unit	Values				
			0.5 solid	1.0 solid	0.5 flexible	0.75 flexible	1.5 stranded
Conductor size	nom.	mm ²	0.5 solid	1.0 solid	0.5 flexible	0.75 flexible	1.5 stranded
Conductor resistance	max.	Ω/km	36.8	18.4	39.7	26.5	12.3
Insulation resistance	min.	MΩ x km	5000				
Mutual capacitance at 0.8 resp. 1 kHz one pair and two pair all other cables	max.	nF/km	115 75				115 85
Capacitance unbalance at 1 kHz	max.	pF/250 m	250				
L/R (ratio)	max.	µH/Ω	25				40
Test voltage	U_{rms} core : core	V	1000				
	U_{rms} core : screen	V	1000				
Rated voltage	U_0 / U	V	300/500				

Instrumentation Cable

Flame Retardant

BS 5308 Part 1 Type 2

Single- & Multi-Pair, PE-Insulation, Collective Screen, Armour, PVC-Sheath
RE-2Y(St)2YSWAYfl

70°C / 300/500 V

Geometrical data								
No. of pairs	RT of insulation nom. (mm)	RT of bedding nom. (mm)	Dia. over bedding approx. (mm)	Dia. of armour wire nom. (mm)	RT of outer sheath nom. (mm)	Overall Diameter approx. (mm)	Weight approx. (kg/km)	Part No.
0.5 mm² (solid)								
1	0.5	0.8	5.5	0.9	1.3	9.9	190	7674B000
2 q	0.5	0.8	6.8	0.9	1.3	11.2	240	7674B001
5	0.5	1.1	10.9	0.9	1.4	15.5	400	7674B002
10	0.5	1.2	14.4	1.25	1.6	20.1	695	7674B003
15	0.5	1.2	16.5	1.25	1.6	22.2	840	7674B004
20	0.5	1.3	18.8	1.6	1.7	25.4	1160	7674B005
30	0.5	1.3	22.3	1.6	1.8	29.1	1460	7674B006
50	0.5	1.5	28.5	1.6	2.0	35.7	2020	7674B007
1.0 mm² (solid)								
1	0.6	0.8	6.6	0.9	1.3	11.0	220	7674B015
2 q	0.6	0.8	8.0	0.9	1.4	12.6	300	7674B016
5	0.6	1.2	13.5	1.25	1.5	19.0	645	7674B017
10	0.6	1.2	17.7	1.25	1.7	23.6	930	7674B018
15	0.6	1.3	20.6	1.6	1.8	27.4	1345	7674B019
20	0.6	1.5	23.8	1.6	1.8	30.6	1625	7674B020
30	0.6	1.5	28.4	1.6	2.0	35.6	2095	7674B021
50	0.6	2.0	36.6	2.0	2.2	45.0	3482	7674B022
0.5 mm² (flexible)								
1	0.6	0.8	6.2	0.9	1.3	10.6	200	7674B030
2 q	0.6	0.8	7.6	0.9	1.3	12.0	245	7674B031
5	0.6	1.1	12.4	0.9	1.5	17.2	460	7674B032
10	0.6	1.2	16.5	1.25	1.6	22.2	790	7674B033
15	0.6	1.3	19.2	1.6	1.7	25.8	1140	7674B034
20	0.6	1.3	21.7	1.6	1.8	28.5	1310	7674B035
30	0.6	1.5	26.4	1.6	1.9	33.4	1720	7674B036
50	0.6	1.7	33.4	2.0	2.1	41.6	2640	7674B037

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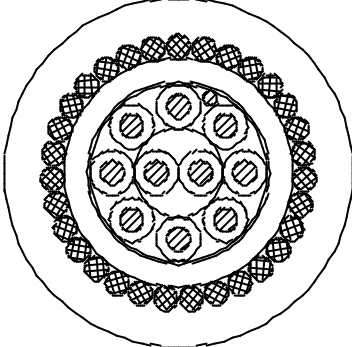
0.75 mm ² (flexible)								
1	0.6	0.8	6.7	0.9	1.3	11.1	230	76740044
2 q	0.6	0.9	8.4	0.9	1.4	13.0	295	76740045
5	0.6	1.2	13.8	1.25	1.6	19.5	645	76740046
10	0.6	1.3	18.4	1.6	1.7	25.0	1090	76740047
15	0.6	1.3	21.1	1.6	1.8	27.9	1300	76740048
20	0.6	1.5	24.4	1.6	1.9	31.4	1570	76740049
30	0.6	1.7	29.5	2.0	2.0	37.5	2020	76740050
50	0.6	2.0	37.6	2.5	2.3	47.2	3210	76740051
1.5 mm ² (stranded)								
1	0.6	0.8	7.5	0.9	1.4	12.1	270	7674B045
2 q	0.6	0.9	9.3	0.9	1.4	13.9	360	7674B046
5	0.6	1.2	15.6	1.25	1.6	21.3	800	7674B047
10	0.6	1.3	20.9	1.6	1.8	27.7	1385	7674B048
15	0.6	1.5	24.6	1.6	1.9	31.6	1750	7674B049
20	0.6	1.5	27.8	2.0	2.0	35.8	2315	7674B050
30	0.6	1.7	33.7	2.0	2.1	41.9	3040	7674B051
50	0.6	2.0	43.0	2.5	2.4	52.8	4810	7674B052

RT = radial thickness

q = 2 pairs are twisted in quad formation

ICON Instrumentation Control Cable	EN 50288-7
Flame Retardant, Sunlight Resistant	90°C / 500 V
Multi-Core, XLPE-Insulation , Collective Screen, Armour, PVC Sheath RE-2X(St)YSWAY-fl	

Application
For control purposes, e.g. controlling of valves or engines; allowed for use in zone 1 and zone 2 group II classified areas (IEC 60079-14); not allowed for direct connection to low impedance source, e.g. the public mains electricity supply.
Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations; for direct burial.

Construction	
<p>Conductor plain annealed copper, stranded, sizes: 0.5 mm², 0.75 mm², 1.0 mm², 1.3 mm², 1.5 mm², 2.5 mm²</p> <p>Insulation..... cross-linked polyethylene XLPE</p> <p>Colour code black, continuously numbered</p> <p>Wrapping..... at least 1 layer of plastic tape</p> <p>Collective screen..... 24 µm aluminium / PETP tape over 7-stranded tinned copper drain wire, 0.5 mm²</p> <p>Inner sheath..... polyvinyl chloride PVC, black</p> <p>Armour..... galvanized round steel wires</p> <p>Outer sheath..... polyvinyl chloride PVC, black; blue for intrinsically safe systems</p> <p>Cable marking..... ICON by KERPEN · INSTRUMENTATION CONTROL CABLE · 500 V · RP · EN 50288-7 · CE · Length marking</p>	

Technical data		Abbreviations	
<p>Flame propagation: Test on single cable: IEC 60332-1-2 Test on bunched cables: IEC 60332-3-24 (Cat. C)</p> <p>Sunlight resistance: UL 1581 section 1200 Oil resistance: ICEA S-82-552</p>	<p>Temperature range: -30°C up to +90°C (during operation) -5 °C up to +50°C (during installation) Min. bending radius: 10 x cable-Ø</p>	<p>RE- Instrumentation Cable 2X insulation of XLPE (St) collective screen Y inner sheath of PVC SWA steel wire armour Y outer sheath of PVC -fl with reduced flame propagation</p>	

Electrical data at 20°C								
	Character	Unit	Values					
Conductor size	nom.	mm ²	0.5	0.75	1.0	1.3	1.5	2.5
Conductor resistance	max.	Ω/km	36.0	24.5	18.1	13.9	12.1	7.4
Insulation resistance	min.	MO x km	5000					
Mutual capacitance	max.	nF/km	115	115	115	115	115	115
Inductance	max.	mH/km	1					
L/R (ratio)	max.	µH/Ω	25	25	25	40	40	60
Test voltage								
core : core U(rms)		V	2000					
core : screen U(rms)		V	2000					
Operating voltage U(rms)		V	500					

ICON Instrumentation Control Cable
EN 50288-7
Flame Retardant, Sunlight Resistant
90°C / 500 V
**Multi-Core, XLPE-Insulation , Collective Screen, Armour, PVC Sheath
 RE-2X(St)YSWAY-fl**
Geometrical data

No. of cores	RT of insulation <i>nom.</i> (mm)	RT of inner sheath <i>nom.</i> (mm)	Ø over inner sheath <i>approx.</i> (mm)	Ø of armour wire <i>nom.</i> (mm)	RT of outer sheath <i>nom.</i> (mm)	Overall diameter <i>approx.</i> (mm)	Weight <i>approx.</i> (kg/km)	Part No. <i>Outer sheath: black</i>
0.5 mm²/7								
2	0.55	0.90	7.1	0.90	1.40	11.7	218	7068C001
3	0.55	0.90	7.4	0.90	1.40	12.0	231	7068C004
4	0.55	0.90	7.5	0.90	1.40	12.1	254	7068C007
5	0.55	1.00	8.3	0.90	1.40	12.9	284	7068C010
6	0.55	1.00	8.4	0.90	1.40	13.0		-
8	0.55	1.00	9.1	0.90	1.40	13.7	345	7068C016
10	0.55	1.00	10.4	0.90	1.40	15.0	400	7068C019
12	0.55	1.10	10.9	0.90	1.50	15.7	443	7068C022
14	0.55	1.10	11.5	0.90	1.50	16.3	476	7068C025
16	0.55	1.10	12.0	0.90	1.50	16.8	506	7068C028
20	0.55	1.10	13.3	0.90	1.50	18.1	571	7068C034
24	0.55	1.20	14.9	0.90	1.60	19.9	661	7068C037
27	0.55	1.20	15.2	1.25	1.60	20.9	810	7068C040
30	0.55	1.20	15.7	1.25	1.60	21.4	850	7068C043
37	0.55	1.30	17.1	1.25	1.70	23.0	965	7068C046
40	0.55	1.30	17.8	1.25	1.70	23.7	1016	7068C049
0.75 mm²/7								
2	0.55	0.90	7.4	0.90	1.40	12.0	231	7068C052
3	0.55	0.90	7.8	0.90	1.40	12.4	248	7068C055
4	0.55	0.90	7.9	0.90	1.40	12.5	279	7068C058
5	0.55	1.00	8.8	0.90	1.40	13.4	323	7068C061
6	0.55	1.00	8.9	0.90	1.40	13.5		-
8	0.55	1.00	9.7	0.90	1.40	14.3	384	7068C067
10	0.55	1.10	11.3	0.90	1.50	16.1	463	7068C070
12	0.55	1.10	11.7	0.90	1.50	16.5	492	7068C073
14	0.55	1.10	12.2	0.90	1.50	17.0	528	7068C076
16	0.55	1.10	12.9	0.90	1.50	17.7	574	7068C079
20	0.55	1.20	14.5	0.90	1.60	19.5	671	7068C085
24	0.55	1.20	16.0	1.25	1.60	21.7	879	7068C088
27	0.55	1.30	16.5	1.25	1.60	22.2	931	7068C091
30	0.55	1.30	17.1	1.25	1.70	23.0	989	7068C094
37	0.55	1.30	18.4	1.25	1.70	24.3	1105	7068C097
40	0.55	1.40	19.3	1.25	1.70	25.2	1184	7068C100

ICON Instrumentation Control Cable
EN 50288-7
Flame Retardant, Sunlight Resistant
90°C / 500 V
**Multi-Core, XLPE-Insulation , Collective Screen, Armour, PVC Sheath
 RE-2X(St)YSWAY-fl**
Geometrical data

No. of cores	RT of insulation <i>nom.</i> (mm)	RT of inner sheath <i>nom.</i> (mm)	Ø over inner sheath <i>approx.</i> (mm)	Ø of armour wire <i>nom.</i> (mm)	RT of outer sheath <i>nom.</i> (mm)	Overall diameter <i>approx.</i> (mm)	Weight <i>approx.</i> (kg/km)	Part No. Outer sheath: black
1.0 mm²/7								
2	0.55	0.90	7.8	0.90	1.40	12.4	248	7068C103
3	0.55	1.00	8.4	0.90	1.40	13.0	271	7068C106
4	0.55	1.00	8.6	0.90	1.40	13.2	300	7068C109
5	0.55	1.00	9.3	0.90	1.40	13.9	343	7068C112
6	0.55	1.00	9.5	0.90	1.40	14.1		-
8	0.55	1.00	10.3	0.90	1.40	14.9	425	7068C118
10	0.55	1.10	12.1	0.90	1.50	16.9	516	7068C121
12	0.55	1.10	12.4	0.90	1.50	17.2	549	7068C124
14	0.55	1.10	13.0	0.90	1.50	17.8	592	7068C127
16	0.55	1.20	13.9	0.90	1.50	18.7	651	7068C130
20	0.55	1.20	15.4	1.25	1.60	21.1	866	7068C136
24	0.55	1.30	17.2	1.25	1.70	23.1	1007	7068C139
27	0.55	1.30	17.6	1.25	1.70	23.5	1060	7068C142
30	0.55	1.30	18.2	1.25	1.70	24.1	1116	7068C145
37	0.55	1.40	19.8	1.25	1.70	25.7	1273	7068C148
40	0.55	1.40	20.6	1.25	1.80	26.7	1354	7068C151
1.3 mm²/7								
2	0.60	1.00	8.5	0.90	1.40	13.1	276	7068C154
3	0.60	1.00	9.0	0.90	1.40	13.6		7068C157
4	0.60	1.00	9.2	0.90	1.40	13.8	341	7068C160
5	0.60	1.00	10.0	0.90	1.40	14.6	384	7068C163
6	0.60	1.00	10.3	0.90	1.40	14.9		-
8	0.60	1.10	11.4	0.90	1.50	16.2	484	7068C169
10	0.60	1.10	13.2	0.90	1.50	18.0	579	7068C172
12	0.60	1.20	13.8	0.90	1.50	18.6	635	7068C175
14	0.60	1.20	14.5	0.90	1.60	19.5	700	7068C178
16	0.60	1.20	15.2	1.25	1.60	20.9	872	7068C181
20	0.60	1.30	17.1	1.25	1.70	23.0	1016	7068C187
24	0.60	1.40	19.1	1.25	1.70	25.0	1166	7068C190
27	0.60	1.40	19.5	1.25	1.70	25.4	1229	7068C193
30	0.60	1.40	20.2	1.25	1.70	26.1	1307	7068C196
37	0.60	1.50	22.0	1.25	1.80	28.1	1507	7068C199
40	0.60	1.50	22.9	1.25	1.80	29.0	1588	7068C202

ICON Instrumentation Control Cable	EN 50288-7
Flame Retardant, Sunlight Resistant	90°C / 500 V
Multi-Core, XLPE-Insulation , Collective Screen, Armour, PVC Sheath RE-2X(St)YSWAY-fl	

Geometrical data								
No. of cores	RT of insulation <i>nom.</i> (mm)	RT of inner sheath <i>nom.</i> (mm)	Ø over inner sheath <i>approx.</i> (mm)	Ø of armour wire <i>nom.</i> (mm)	RT of outer sheath <i>nom.</i> (mm)	Overall diameter <i>approx.</i> (mm)	Weight <i>approx.</i> (kg/km)	Part No. Outer sheath: black
1.5 mm²/7								
2	0.60	1.00	8.8	0.90	1.40	13.4	289	7068C205
3	0.60	1.00	9.2	0.90	1.40	13.8	323	7068C208
4	0.60	1.00	9.5	0.90	1.40	14.1	359	7068C211
5	0.60	1.00	10.3	0.90	1.40	14.9	404	7068C214
6	0.60	1.10	10.9	0.90	1.50	15.7		-
8	0.60	1.10	11.8	0.90	1.50	16.6	533	7068C220
10	0.60	1.20	13.9	0.90	1.50	18.7	632	7068C223
12	0.60	1.20	14.3	0.90	1.60	19.3	688	7068C226
14	0.60	1.20	15.0	0.90	1.60	20.0	744	7068C229
16	0.60	1.20	15.8	1.25	1.60	21.5	927	7068C232
20	0.60	1.30	17.8	1.25	1.70	23.7	1092	7068C238
24	0.60	1.40	19.8	1.25	1.70	25.7	1251	7068C241
27	0.60	1.40	20.3	1.25	1.70	26.2	1323	7068C244
30	0.60	1.40	21.0	1.25	1.80	27.1	1421	7068C247
37	0.60	1.50	22.8	1.25	1.80	28.9	1624	7068C250
40	0.60	1.50	23.9	1.25	1.80	30.0	1727	7068C253
2.5 mm²/7								
2	0.70	1.00	10.0	0.90	1.40	14.6	376	7068C256
3	0.70	1.00	10.6	0.90	1.50	15.4	390	7068C259
4	0.70	1.10	11.2	0.90	1.50	16.0	443	7068C262
5	0.70	1.10	12.2	0.90	1.50	17.0	549	7068C265
6	0.70	1.10	12.7	0.90	1.50	17.5		-
8	0.70	1.20	14.1	0.90	1.60	19.1	686	7068C271
10	0.70	1.30	16.5	1.25	1.60	22.2	954	7068C274
12	0.70	1.30	17.1	1.25	1.70	23.0	1040	7068C277
14	0.70	1.30	17.9	1.25	1.70	23.8	1129	7068C280
16	0.70	1.40	19.1	1.25	1.70	25.0	1254	7068C283
20	0.70	1.40	21.3	1.25	1.80	27.4	1459	7068C289
24	0.70	1.50	23.9	1.25	1.80	30.0	1684	7068C292
27	0.70	1.60	24.6	1.25	1.90	30.9	1815	7068C295
30	0.70	1.60	25.5	1.60	1.90	32.5	2157	7068C298
37	0.70	1.70	27.7	1.60	2.00	34.9	2481	7068C301
40	0.70	1.70	28.8	1.60	2.00	36.0	2619	7068C304

RT = Radial Thickness

ICON Instrumentation Cable **gen. to EN 50288-7**

Fire Resisting (CI), Flame Retardant **90°C / 500 V**

**Single & Multi-Pair, Silicone Rubber-Insulation , Collective Screen, Armour, LSZH Sheath
RE-2G(St)HSWAH CI**

Application

For transmission of analogue and digital signals in instrument and control systems; allowed for use in zone 1 and zone 2 group II classified areas (IEC 60079-14); not allowed for direct connection to low impedance source, e.g. the public mains electricity supply.

Recommended for indoor and outdoor installation, on racks, trays, in conduits, in dry and wet locations; for direct burial. Recommended for use as fire protection measure for people and important material assets.

Construction

Conductor plain annealed copper, stranded, sizes: 0.5 mm², 0.75 mm², 1.0 mm², 1.3 mm², 1.5 mm²

Insulation..... silicone rubber

Colour code black / blue, continuously numbered on blue core (1, 2..) for multipairs

Wrapping at least 1 layer of plastic tape

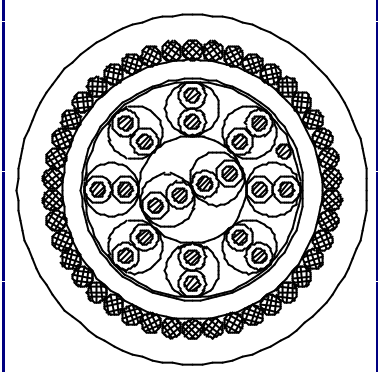
Collective screen..... 24 µm aluminium / PETP tape over 7-stranded tinned copper drain wire, 0.5 mm²

Inner sheath..... zero halogen flame retardant compound LSZH, black

Armour..... galvanized round steel wires

Outer sheath..... zero halogen flame retardant compound LSZH, black; blue for intrinsically safe systems

Cable marking..... **ICON by KERPEN · INSTRUMENTATION CABLE · CI · 500 V · LSZH · gen. to EN 50288-7 · CE · Length marking**



Technical data **Abbreviations**

Circuit Integrity:	IEC 60331-21, BS 6387 Cat. CWZ	Temperature range:	RE- Instrumentation Cable
		-30°C up to +90°C (during operation)	2G insulation of silicone
Flame propagation:		-5 °C up to +50°C (during installation)	(St) collective screen
Test on single cable:	IEC 60332-1-2		H inner sheath of LSZH
Test on bunched cables:	IEC 60332-3-24 (Cat. C)		SWA steel wire armour
Amount of halogen acid gas:	IEC 60754-1 (0%)	Min. bending radius:	H LSZH Sheath
		10 x cable-Ø	CI circuit integrity
Degree of acidity of gases:	IEC 60754-2 (pH > 4.3, C < 10µS/mm)		
Smoke density	IEC 61034-2 (L.T. > 60%)		
Sunlight resistance:	UL 1581 section 1200		
Oil resistance:	ICEA S-82-552		

Electrical data at 20°C

	Character	Unit	Values				
			0.5	0.75	1.0	1.3	1.5
Conductor size	nom.	mm ²	0.5	0.75	1.0	1.3	1.5
Conductor resistance	max.	Ω/km	36.7	25.0	18.5	14.2	12.3
Insulation resistance	min.	MO x km	300				
Mutual capacitance	max.	nF/km					
single pair:			150	150	150	150	150
up to 4 pairs:			110	110	110	110	110
above 4 pairs:			90	90	90	90	90
Inductance	max.	mH/km	1				
L/R (ratio)	max.	µH/Ω	25	25	25	40	40
Test voltage							
core : core U(rms)		V	2000				
core : screen U(rms)		V	2000				
Operating voltage U(rms)		V	500				

ICON Instrumentation Cable
gen. to EN 50288-7
Fire Resisting (CI), Flame Retardant
90°C / 500 V

 Single & Multi-Pair, Silicone Rubber-Insulation , Collective Screen, Armour, LSZH Sheath
 RE-2G(St)HSAWAH CI

Geometrical data

No. of pairs	Ø of core approx. (mm)	RT of inner sheath nom. (mm)	Ø over inner sheath approx. (mm)	Ø of armour wire nom. (mm)	RT of outer sheath nom. (mm)	Overall diameter approx. (mm)	Weight approx. (kg/km)	Part No. Outer sheath: black
0.5 mm²/7								
1	2.1	1.00	6.5	0.90	1.30	10.9	225	7554F001
2	2.1	1.00	9.4	0.90	1.40	14.0	330	7554F004
4	2.1	1.10	11.1	0.9	1.50	15.9	420	7554F007
6	2.1	1.10	13.2	0.90	1.50	18.0	530	7554F010
8	2.1	1.20	14.3	0.90	1.60	19.3	605	7554F013
10	2.1	1.20	16.1	1.25	1.60	21.8	810	7554F016
12	2.1	1.30	17.1	1.25	1.60	22.8	885	7554F019
16	2.1	1.40	19.5	1.25	1.70	25.4	1075	7554F022
20	2.1	1.40	21.4	1.25	1.80	27.5	1235	7554F025
24	2.1	1.50	23.5	1.25	1.80	29.6	1400	7554F028
0.75 mm²/7								
1	2.4	1.00	7.1	0.90	1.30	11.5	250	7554F031
2	2.4	1.00	10.5	0.90	1.40	15.1	375	7554F034
4	2.4	1.10	12.3	0.90	1.50	17.1	480	7557F037
6	2.4	1.20	14.9	0.90	1.60	19.9	635	7554F040
8	2.4	1.20	15.9	1.25	1.60	21.6	815	7554F043
10	2.4	1.30	18.3	1.25	1.70	24.2	970	7554F046
12	2.4	1.40	19.3	1.25	1.70	25.2	1070	7554F049
16	2.4	1.50	22.0	1.25	1.80	28.1	1295	7554F052
20	2.4	1.60	24.5	1.25	1.90	30.8	1515	7554F055
24	2.4	1.60	26.5	1.60	1.90	33.5	1885	7554F058
1.0 mm²/7								
1	2.5	1.00	7.3	0.90	1.40	11.9	260	7554F061
2	2.5	1.10	11.0	0.90	1.50	15.8	415	7554F064
4	2.5	1.10	12.8	0.90	1.50	17.6	520	7554F067
6	2.5	1.20	15.4	1.25	1.60	21.1	790	7554F070
8	2.5	1.30	16.7	1.25	1.60	22.4	895	7554F073
10	2.5	1.40	19.1	1.25	1.70	25.0	1065	7554F076
12	2.5	1.40	20.0	1.25	1.70	25.9	1155	7554F079
16	2.5	1.50	22.8	1.25	1.80	28.9	1415	7554F082
20	2.5	1.60	25.4	1.60	1.90	32.4	1835	7554F085
24	2.5	1.70	27.7	1.60	2.00	34.9	2095	7554F088

ICON™ Instrumentation Cable	gen. to EN 50288-7
Fire Resisting (CI), Flame Retardant	90°C / 500 V
Single & Multi-Pair, Silicone Rubber-Insulation , Collective Screen, Armour, LSZH Sheath RE-2G(St)HSAWAH CI	

Geometrical data								
<i>No. of pairs</i>	<i>Ø of core approx. (mm)</i>	<i>RT of inner sheath nom. (mm)</i>	<i>Ø over inner sheath approx. (mm)</i>	<i>Ø of armour wire nom. (mm)</i>	<i>RT of outer sheath nom. (mm)</i>	<i>Overall diameter approx. (mm)</i>	<i>Weight approx. (kg/km)</i>	<i>Part No. Outer sheath: black</i>
1.3 mm²/7								
1	2.7	1.00	7.70	0.90	1.40	12.3	280	7554F091
2	2.7	1.10	11.7	0.90	1.50	16.5	440	7554F094
4	2.7	1.20	13.8	0.90	1.50	18.6	560	7554F097
6	2.7	1.30	16.7	1.25	1.60	22.4	855	7554F100
8	2.7	1.30	17.8	1.25	1.70	23.7	965	7554F103
10	2.7	1.40	20.4	1.25	1.70	26.3	1130	7554F106
12	2.7	1.40	21.3	1.25	1.80	27.4	1250	7554F109
16	2.7	1.60	24.7	1.25	1.90	31.0	1555	7554F112
20	2.7	1.70	27.3	1.60	2.00	34.5	1990	7554F115
24	2.7	1.70	29.6	1.60	2.00	36.8	2230	7554F118
1.5 mm²/7								
1	2.8	1.00	7.9	0.90	1.40	12.5	290	7554F121
2	2.8	1.10	12.0	0.90	1.50	16.8	470	7554F124
4	2.8	1.20	14.2	0.90	1.50	19.0	615	7554F127
6	2.8	1.30	17.2	1.25	1.70	23.1	950	7554F130
8	2.8	1.30	18.3	1.25	1.70	24.2	1055	7554F133
10	2.8	1.40	21.0	1.25	1.80	27.1	1265	7554F136
12	2.8	1.50	22.2	1.25	1.80	28.3	1405	7554F139
16	2.8	1.60	25.4	1.60	1.90	32.4	1900	7554F142
20	2.8	1.70	28.2	1.60	2.00	35.4	2200	7554F145
24	2.8	1.80	30.7	1.60	2.00	37.9	2495	7554F148

RT = Radial Thickness