



# 658(\*) (I) SW4 150/250 V

## TCu/EPR/IAM/ZH/GSWB/ZH

### BS 6883

Halogen-free, flame retardant, offshore & shipboard instrumentation cables, elastomer insulated and sheathed, individually screened pairs, triples or quads with steel wire braid

## CONSTRUCTION

Conductors	Tinned annealed circular stranded copper class 5 <sup>1)</sup> acc. to BS EN 60228
Insulation	Halogen-free elastomer compound EPR type GP4 acc. to BS 7655-1.2
Pairs identification*	Black and white with printed number of pairs in contrasting colour on the insulation
Triples identification*	Black, white and red with printed number of triples in contrasting colour on the insulation
Quads identification*	Black, white, red and blue with printed number of quads in contrasting colour on the insulation
Separator	Polyester tape
Individual screen	Aluminium/polyester tape with the metallic contact with tinned copper drain wire
Separator	Polyester tape
Inner sheath	Halogen-free, heat-resistant, oil-resisting and flame-retardant elastomer compound type SW4, acc. to BS 7655-2.6
Armour/mechanical screen	Galvanized steel wire braid <sup>2)</sup>
Outer sheath	Halogen-free, heat-resistant, oil-resisting and flame-retardant elastomer compound type SW4, acc. to BS 7655-2.6
Colour of outer sheath	Grey (Non Intrinsically Safe) or blue (Intrinsically Safe) <sup>3)</sup>
Cable marking	ELECTRIC CABLE Type SW4 "number of pairs or triples, quads" "x" "conductor size" "(I)" "150/250 V" "TFK3" "BS6883" "UK00A code" "IEC60332-3-22 cat. A" "year" "metre mark"



<sup>1)</sup>Class 2 conductors are available on request

<sup>2)</sup>Tinned copper wire braid version is available on request

<sup>3)</sup>Black outer sheathing is available on request

\* Alternative coloured cores are available on request

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## CHARACTERISTIC

Maximum conductor operating temperature:	+90°C
Lowest ambient temperature for fixed installation:	-40°C
Lowest installation temperature:	-15°C
Minimum bending radius:	8 × D; D – overall diameter of cable

## Fire performance

Flame retardant:	IEC 60332-3-22 Category A
Smoke emission:	BS EN 61034-2, IEC 61034-2
Corrosive gas emission:	BS EN 50267-2-1, IEC 60754-1: type SW4 cables < 0.5% HCl

## Applications

Armoured instrumentation cable for fixed installations in all areas including accommodation and on open deck in ships and offshore units where halogen-free cable protection is required.

## Approvals

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Details related to particular Approvals are informative only. Please contact manufacturer to confirm whether the required cross-sections are covered by the Certificate.

Standard length cable packing:	1,000 m on drums Other forms of packing and delivery are available on request
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Number of pairs and nominal area of conductor	Class of conductor	Nominal thickness of insulation	Nominal thickness of inner sheath	Diameter of steel wires in braid	Nominal thickness of outer sheath	Approximate overall diameter of cable	Approximate net weight of cables	UKOOA Code (Grey/Blue)
$n \times 2 \times \text{mm}^2$		mm	mm	mm	mm	mm	kg/km	
1 × 2 × 0.75	5	0.8	1	0.3	1.2	11.5	197	KKF00/KHF00
1 × 2 × 1.0	5	0.8	1	0.3	1.2	11.7	205	KKF01/KHF01
1 × 2 × 1.5*	5	0.8	1.2	0.3	1.4	13.1	252	KKF02/KHF02
1 × 2 × 1.5*	2	0.8	1.2	0.3	1.4	13.2	257	–
1 × 2 × 2.5*	2	0.8	1.3	0.3	1.4	14.3	301	KKF03/KHF03
2 × 2 × 0.75*	5	0.8	1.2	0.3	1.4	13.1	260	–
2 × 2 × 1.5*	5	0.8	1.3	0.3	1.5	14.5	344	–
3 × 2 × 0.75	5	0.8	1.2	0.3	1.4	17.1	398	KKH00/KHH00
3 × 2 × 1	5	0.8	1.3	0.3	1.4	17.8	447	KKH01/KHH01
3 × 2 × 1.5*	5	0.8	1.3	0.3	1.5	18.3	448	KKH02/KHH02
4 × 2 × 0.75	5	0.8	1.4	0.3	1.6	18.5	453	–
4 × 2 × 1.5*	5	0.8	1.4	0.3	1.6	20.2	552	–
5 × 2 × 1.5*	5	0.8	1.4	0.3	1.6	21.7	673	–
7 × 2 × 0.75	5	0.8	1.4	0.3	1.6	21.8	658	KKJ00/KHJ00
7 × 2 × 1.0	5	0.8	1.4	0.3	1.6	22.9	739	KKJ01/KHJ01
7 × 2 × 1.5*	5	0.8	1.4	0.3	1.6	23.2	786	KKJ02/KHJ02
10 × 2 × 1.5*	5	0.8	1.7	0.45	1.9	29.1	1,248	–
10 × 2 × 2.5*	2	0.8	1.7	0.45	1.9	32.2	1,605	–
12 × 2 × 0.75	5	0.8	1.6	0.3	1.8	26.5	944	KKK00/KHK00
12 × 2 × 1.0	5	0.8	1.7	0.45	1.9	28.9	1,200	KKK01/KHK01
12 × 2 × 1.5*	5	0.8	1.7	0.45	1.9	30.2	1,341	KKK02/KHK02
12 × 2 × 2.5*	5	0.8	1.9	0.45	2.1	34.2	1,696	–
16 × 2 × 0.75*	5	0.8	1.9	0.45	2.1	31.1	1,325	–
20 × 2 × 0.75	5	0.8	1.9	0.45	2.1	33.6	1,558	KKL00/KHL00
20 × 2 × 1.0	5	0.8	1.9	0.45	2.2	35.4	1,760	KKL01/KHL01
20 × 2 × 1.5*	5	0.8	2.0	0.45	2.3	37.6	2,039	KKL02/KHL02
24 × 2 × 0.75	5	0.8	2.0	0.45	2.3	36.4	1,903	–
27 × 2 × 0.75	5	0.8	2.0	0.45	2.3	38.0	1,968	–
27 × 2 × 1	5	0.8	2.1	0.45	2.4	39.7	2,203	–
27 × 2 × 1.5*	5	0.8	2.2	0.45	2.5	42.8	2,558	–
37 × 2 × 0.75	5	0.8	2.2	0.45	2.5	43.4	2,550	–
37 × 2 × 1	5	0.8	2.3	0.45	2.6	45.9	2,916	–

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37 × 2 × 1.5	5	0.8	2.4	0.45	2.7	49.0	3,267	–
<b>n × 3 × mm<sup>2</sup></b>		<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>kg/km</b>	
1 × 3 × 0.75	5	0.8	1	0.3	1.2	11.9	218	KKR00/KHR00
1 × 3 × 1.0	5	0.8	1.1	0.3	1.2	12.3	234	KKR01/KHR01
1 × 3 × 1.5*	5	0.8	1.2	0.3	1.4	13.5	285	KKR02/KHR02
1 × 3 × 1.5*	2	0.8	1.2	0.3	1.4	13.7	291	–
1 × 3 × 2.5*	2	0.8	1.4	0.3	1.5	15.2	362	KKR03/KHR03
2 × 3 × 0.75*	5	0.8	1.3	0.3	1.5	17.6	385	–
2 × 3 × 1.5*	2	0.8	1.4	0.3	1.6	19.7	496	–
3 × 3 × 0.75	5	0.8	1.3	0.3	1.5	18.9	456	KK500/KH500
3 × 3 × 1.0	5	0.8	1.3	0.3	1.5	19.7	492	KK501/KH501
3 × 3 × 1.5*	5	0.8	1.4	0.3	1.6	20.1	588	–
7 × 3 × 0.75	5	0.8	1.5	0.3	1.7	24.4	803	KKT00/KHT00
7 × 3 × 1.0	5	0.8	1.5	0.3	1.7	26	871	KKT01/KHT01
7 × 3 × 1.5*	5	0.8	1.7	0.45	2	28.1	1,220	–
12 × 3 × 0.75	5	0.8	1.7	0.45	2	30.5	1,339	KKU00/KHU00
12 × 3 × 1.0	5	0.8	1.8	0.45	2	31.4	1,468	KKU01/KHU01
12 × 3 × 1.5*	5	0.8	1.9	0.45	2.1	34.2	1,815	–
<b>n × 4 × mm<sup>2</sup></b>		<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>mm</b>	<b>kg/km</b>	
1 × 4 × 0.75	5	0.8	1.1	0.3	1.2	12.8	237	–
1 × 4 × 1	5	0.8	1.1	0.3	1.2	13.2	257	–
1 × 4 × 1.5*	5	0.8	1.4	0.3	1.5	14.9	361	–
3 × 4 × 0.75	5	0.8	1.4	0.3	1.5	21.0	574	–
3 × 4 × 1	5	0.8	1.4	0.3	1.6	22.3	654	–
3 × 4 × 1.5*	5	0.8	1.6	0.3	1.7	23.2	719	–
7 × 4 × 0.75	5	0.8	1.6	0.3	1.7	27.2	1,011	–
7 × 4 × 1	5	0.8	1.6	0.45	1.8	29.7	1,275	–
7 × 4 × 1.5	5	0.8	1.7	0.45	1.9	30.6	1,414	–

\* Based on standard

Please refer to technical section for additional information relating to these cables.

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