

CABLE CONSTRUCTION AND SPECIFICATIONS

IDENTIFICATION

Cu/MICA+XLPE/OS/LSZH/SWA/LSZH (RTE4XOHM1FM1) - 500 V - 1X3x1,5 mm²

FOR.EL.IND. CODE

1F0622031017378

DATE

01/09/2022

REV.

0

DESCRIPTION

Instrument cable overall screen, armoured

APPLICATION

CONDUCTOR	
material	Stranded annealed tinned copper cl.2 - 1,5 mm ²
INSULATION	
Material	Synthetic mica glass tape
INSULATION	
Material	Special fire retardant cross-linked polyethylene compound XLPE (E4 quality)
Colors	1 white-1 black-1 red
PRIMARY CABLING	
Type	Triads
SCREEN	
Material	Al/Polyester tape (9/12) 25x0,023 mm
DRAIN WIRE	
Material	Stranded annealed tinned copper cl.2 - 0,5 mm ²
WRAPPING	
Material	Polyester tape 25x0,023 mm
SHEATH	
Material	Halogen free thermoplastic compound (M1 quality)
Nominal diameter	10,8 mm
Colors	Natural
ARMOUR	
Type	Wire Armour
Material	Galvanized steel wire 0,9 mm
SHEATH	
Material	Halogen free thermoplastic compound UV resistant and -40°C (M1 quality)
Nominal diameter	15,68 mm
Colors	blue
Nominal Weight	462 kg/km
Marking	
ELECTRICAL CHARACTERISTICS	
Voltage rating	300/500 V
Conductor resistance	<= 12,2 Ohm/km a 20Å°C
Insulation resistance	>= 1000 MOhm x km
Dielectric test cond/cond	1000 V a.c. for 1 min
MECHANICAL AND INSTALLATION CHARACTERISTICS	
Min. bending radius	10 x Diam.
Max operating temperature	90 C
Max short circuit temperature	250 C
STANDARDS OR SPECIFICATIONS CONSTRUCTION	
Multi-element metallic cables used in analogue and digital communication and control. Part 7: Sectional specification for instrumentation and control cables (where applicable)	CEI 46-143 (CEI EN 50288-7) PQA - EN 50288-7 PQA
STANDARDS OR SPECIFICATIONS TEST	

CABLE CONSTRUCTION AND SPECIFICATIONS

Test on electric and optical cables under fire conditions. Part 3-24:
Test for vertical flame spread of vertically-mounted bunched wire or
cables - Category C

CEI 20-22/3-4
(CEI EN 60332- IEC 60332-3-24 EN 60332-3-24
3-24)

Tests for electric cables under fire conditions " Circuit integrity
" Part 23: Procedures and requirements " Electric data cables

- IEC 60331-23 -

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CABLE CONSTRUCTION AND SPECIFICATIONS

IDENTIFICATION

Cu/XLPE/OS/PVC/SWA/PVC (RE4XOHRFR) - 300/500 V - 1X2X1,5 mm²

FOR.EL.IND. CODE

1F0602070819532

DATE

21/05/2024

REV.

0

DESCRIPTION

Overall screened cable,armoured

APPLICATION

CONDUCTOR	
material	Stranded annealed tinned copper cl.2 - 1,5 mm ²
INSULATION	
Material	XLPE (E4)
Colors	1 black-1 white
PRIMARY CABLING	
Type	Pairs
SCREEN	
Material	Al/Polyester tape (9/12) 25x0,023 mm
DRAIN WIRE	
Material	Stranded annealed tinned copper cl.2 - 0,5 mm ²
WRAPPING	
Material	Polyester tape 25x0,023 mm
SHEATH	
Material	PVC (typeRZ)
Nominal diameter	7,35 mm
Colors	natural
ARMOUR	
Type	Wire Armour
Material	Galvanized steel wire 0,9 mm
SHEATH	
Material	PVC 90C low smoke,HCl, res. Olii, Idroc, UV, -40Å°C (type RZ)
Nominal diameter	12,17 mm
Colors	Light Blue RAL 5015
Nominal Weight	301 kg/km
Marking	
ELECTRICAL CHARACTERISTICS	
Voltage rating	300/500 V
Conductor resistance	<= 12,1 Ohm/km a 20 C
MECHANICAL AND INSTALLATION CHARACTERISTICS	
Min. bending radius	12 x Diam.
Max operating temperature	90 C
Max short circuit temperature	250 C
STANDARDS OR SPECIFICATIONS CONSTRUCTION	
Multi-element metallic cables used in analogue and digital communication and control. Part 7: Sectional specification for instrumentation and control cables	CEI 46-143 (CEI EN 50288-7) - EN 50288-7
Conductors of insulated cables	CEI 20-29 (CEI EN 60228) IEC 60228 EN 60228
STANDARDS OR SPECIFICATIONS TEST	
Test on electric and optical cables under fire conditions. Part 3-24: Test for vertical flame spread of vertically-mounted bunched wire or cables - Category C	CEI 20-22/3-4 (CEI EN 60332- IEC 60332-3-24 EN 60332-3-24 3-24)

CABLE CONSTRUCTION AND SPECIFICATIONS

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CABLE CONSTRUCTION AND SPECIFICATIONS

IDENTIFICATION

Cu/XLPE/OS/PVC/SWA/PVC (RE4XOHRFR) - 300/500 V - 1X2X2,5 mm²

FOR.EL.IND. CODE

1B0602010621794

DATE

21/05/2024

REV.

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DESCRIPTION

APPLICATION

CONDUCTOR	
material	Stranded annealed tinned copper cl.2 - 2,5 mm ²
INSULATION	
Material	XLPE (E4)
Colors	Black - White
TOTAL CABLING	
Type	Unilay
SCREEN	
Material	Al/Polyester tape (9/12) 30x0,023 mm
DRAIN WIRE	
Material	Stranded annealed tinned copper cl.2 - 0,5 mm ²
WRAPPING	
Material	Polyester tape 30x0,023 mm
SHEATH	
Material	PVC (typeRZ)
Nominal diameter	8,59 mm
Colors	NATURAL
ARMOUR	
Type	Wire Armour
Material	Galvanized steel wire 0,9 mm
SHEATH	
Material	PVC 90C low smoke,HCl, res. Olii, Idroc, UV, -40Å°C (type RZ)
Nominal diameter	13,27 mm
Colors	grey
Nominal Weight	363 kg/km
Marking	
ELECTRICAL CHARACTERISTICS	
Voltage rating	300/500 V
conductor resistance	<= 7,56 V r.m.s.
MECHANICAL AND INSTALLATION CHARACTERISTICS	
Min. bending radius	15 x Diam.
STANDARDS OR SPECIFICATIONS CONSTRUCTION	
Conductors in insulated cables and cords	IEC 60228 EN 60228
Instrumentation cables. Part 1: Specification for polyethylene insulated cables. Type 2: Polyethylene insulated, polyethylene bedded, single wire armoured and PVC oversheated	EN50288-7 - -
STANDARDS OR SPECIFICATIONS TEST	
Test on electric and optical cables under fire conditions. Part 3-22: Test for vertical flame spread of vertically-mounted bunched wire or cables - Category C	CEI 20-22/3-2 (CEI EN 60332- IEC 60332-3-24 EN 60332-3-24 3-24)

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BFOU (i) Instrumentation Cable, 250V, mud resistant

Applications:	Fixed installation for power, control and lighting in both EX (Zone 0, 1 & 2)- and safe areas, emergency and critical systems where requirement for fire resistance exists and when installed with the correct ATEX Approved Accessories/Equipment . For installation in areas exposed to MUD and drilling/cleaning fluids. Meets the MUD resistance requirement in NEK TS 606:2009.
Conductor:	Tinned annealed stranded copper
Twisting:	Two / Three insulated cores shall be twisted together to form a pair/triple
Core Identification:	Pairs: Black & blue Triples: Black, blue & Brown
Screen:	ICM (individual copper mylar) and a TCWB (Tinned copper wire braid)
Insulation:	MGT (Mica glass tape), halogen free EPR (Ethylene Propylene Rubber),
Sheath/Jacket:	Type: SHF2 MUD, thermoset dual compound, halogen free and mud resistant
Colour:	Blue & Grey
Voltage:	150/250v
Operating Temperature:	Maximum 90°C, Cold bend -40°C / Cold impact -35°C
Min bending radius:	6 x O/D
Approvals:	ABS, DNV Meets the UV resistance requirements of UL1581 or HD605 part 2.5.12
Standards:	NEK606: cables for offshore installation halogen-free or mud-resistant, IEC60332: flame retardant, IEC61031-1.2: smoke density, IEC60754-1, halogen free properties, IEC60228: electrical conductor IEC 60092-376:2003: Electrical installations in ships – cables for control instrumentation circuits 150/250v (300v) IEC60331



No of pairs	Conductor area sq.mm	Conductor diameter mm	Insulation thickness mm	Under armour diameter mm	Nominal diameter overall mm	Min bending radius mm	Weight kg/km		
1	0.75	1.1	0.6	9.1	13.0	52	259		
2	0.75	1.1	0.6	13.7	17.7	71	479		
4	0.75	1.1	0.6	15.9	20.5	82	655		
8	0.75	1.1	0.6	20.3	25.7	102	860		
12	0.75	1.1	0.6	24.3	30.1	120	1165		
16	0.75	1.1	0.6	28.1	34.3	137	1550		
19	0.75	1.1	0.6	30.3	36.7	147	1740		
24	0.75	1.1	0.6	33.6	40.3	161	2075		
1	1.5	1.6	0.7	10.02	14.1	56	310		
2	1.5	1.6	0.7	15.5	20.2	81	616		
4	1.5	1.6	0.7	18.1	23.1	92	861		
8	1.5	1.6	0.7	23.4	29.1	116	1117		
12	1.5	1.6	0.7	28.4	34.6	139	1593		
16	1.5	1.6	0.7	32.3	39.0	156	2030		
19	1.5	1.6	0.7	35.0	41.6	166	2261		
24	1.5	1.6	0.7	39.3	46.5	186	2830		
No of triples	Conductor area sq.mm	Conductor diameter mm	Insulation thickness mm	Under armour diameter mm	Nominal diameter overall mm	Min bending radius mm	Weight kg/km		
1	0.75	1.1	0.6	9.6	13.5	54	281		
2	0.75	1.1	0.6	15.0	19.6	78	574		
4	0.75	1.1	0.6	17.4	22.5	90	795		
8	0.75	1.1	0.6	23.5	29.	116	1075		
12	0.75	1.1	0.6	27.6	33.8	135	1491		
16	0.75	1.1	0.6	31.8	38.2	153	1933		
1	1.5	1.6	0.7	10.8	14.6	59	341		
2	1.5	1.6	0.7	17.1	21.9	88	742		
4	1.5	1.6	0.7	20.0	25.1	100	1015		
8	1.5	1.6	0.7	27.0	33.0	123	1450		
12	1.5	1.6	0.7	32.3	38.9	132	2044		
16	1.5	1.6	0.7	36.7	43.6	156	2932		

