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www.innovcable.com.br

Evolucable Industria de Cabos Especiais
Av. Minasa, 25 - Galpão B1 - Condomínio Industrial
Business Park -Sumaré/SP - Cep 13.180-400
Sumaré/SP (Fábrica): +55 19 3090-3350
São Paulo/SP: +55 11 3090-6855
Rio de Janeiro/RJ: +55 21 2042-0087

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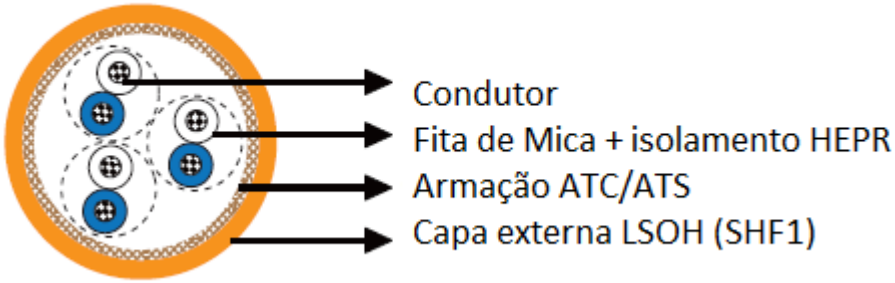
INNOVCABLE INSTRUMENTATION / CONTROL ATC/ATS- FIRE RESISTANT - MICA TAPE/HEPR/SHF1 - Multi Pair/Triple - 0,15/0,25Kv (300V) - IEC 60331



1) Conductor formed by electrolytic bare copper wires or tinned, soft temper, class 5 stranding. IEC 60228. *1,7
2) Conductor insulation of mica tape and special halogen-free compound LSOH (HEPR).*4
3) Communication conductor with 0,5mm² section, in LSOH (HEPR) compound, Identification through insulation in blue colour (only for cables with 2 or more pairs, suits or blocks) - (Optional). *4
5) Polyester Tape.
6) Frame: bare copper (ATC) or tinned copper (ATS) wire braid with coverage >90%. *8
7) Halogen-free polyolefin LSOH (SHF1) cover, grey colour. *2,5

Identification

INNOVCABLE INNOVSHORE FIRE RESISTANT INSTRUMENTATION ATC/ATS HEPR/SHF1 __X__X__mm² 0,15/0,25KV 90°C OF: XXXX/ANO IEC 60092/60331.

Of the conductors - through the colours of the insulation, being:
black and white (cables in pairs)
black, white and red (cables in pairs).
black, white, red and green (cables in pairs).*3
Identification through sequential numbering.

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Applicable Specifications

Strings: IEC 60228

Primary Isolation: 150/250 V (300 V) - IEC 60092-376

Selection and installation of electrical cables: IEC 60092-352

Meets fire test - circuit integrity - procedures and requirements 0.6/1Kv - IEC 60331-21

Low Smoke emission: IEC 61034- 1/2

Meets the requirements for firing test - IEC 60332-1 and IEC 60332-3-22 , category "A".

Shipborne energy cables - General construction and testing requirements: IEC 60092-350

Insulation materials and outer jacket for use on board offshore units, power, control, instrumentation and telecommunication cables: IEC 60092-360

Common test methods for insulation and outer jacket of materials of electric cables: IEC 60811

Halogen Free: IEC-60754-1/2

Application: IEC 60092 series

Certifications can be Batch Approval or Type Approval (depending on certification and certifier) - Please contact us for further details.

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Applications

FIRE RESISTANT cable, temperature class 90 °C, flame retardant (IEC 60332-3), low smoke emission, halogen free, low toxicity and fire resistant "FIRE BARRIER" type (IEC 60331, 950 ° C).
Built and designed for the demanding environment of offshore drilling and the marine industry. The frame provides protection as required by the standard.
Used on board ships in fixed installations, trays, troughs, conduits, panels, among others.
Recommended for use in control, command and signalling circuits in accordance with IEC 60092-352. INNOVSHORE CONTROL/INSTRUMENTATION ATC/ATS HEPR 0.15/0.25KV cables offer maximum resistance to chemical products, humidity and UV rays. They exceed the specifications of the indicated IEC's.

Maximum Conductor Temperature

CONTINUOUS DUTY: 90°C - IEC 60092-360
SHORT CIRCUIT: 250°C

Notes

*** We manufacture with other configurations:**
1) Tinned copper conductor can be manufactured in class 2.
2) External Coat Colours: Nomenclature to be added at the end of the code: VM - Red // VD - Green // BR - White // PT - Black // AZ - Blue // LJ - Orange
We can manufacture other colours on request.
3) Different sections and amount of veins, maximum up to:
- 71 x 2 x 0,50mm² / 71 x 2 x 2,50mm²
- 71 x 3 x 0,50mm² / 71 x 3 x 2,50mm².
- 36 x 4 x 0.50mm² / 36 x 4 x 2.50mm².
Also available in AWG.
4) Vein insulation material:
EPR - 90 ºC
HF90 - 90 ºC
XLPE - 90 ºC
5) Material of the intermediate layer and the cover:
ST2
SE
SHF2

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6) At Innovcable's discretion, separators and/or fillers of compatible material may be used.
7) Nomenclature to be added at the end of the code according to the conductor type:
Bare copper conductor - CN
Tinned copper conductor - SN
8) Types of armatures:
ATC - Bare copper wire braided frame
ATS - Tinned copper braid frame

****Innovcable reserves the right to change this catalogue without prior notice.**

Construção N. elementos x n. de condutores x seção (mm²)	Isolação Espessura Nominal mm	Capa Ext. Espessura Nominal mm	Peso Nominal mm
1x2x0.75	0.5	1.3	120
2x2x0.75	0.5	1.3	150
3x2x0.75	0.5	1.8	280
4x2x0.75	0.5	1.8	320
5x2x0.75	0.5	1.9	390
6x2x0.75	0.5	1.9	440
7x2x0.75	0.5	1.9	460
8x2x0.75	0.5	2.0	520
10x2x0.75	0.5	2.0	620
12x2x0.75	0.5	2.1	700
14x2x0.75	0.5	2.1	770
16x2x0.75	0.5	2.2	870
19x2x0.75	0.5	2.2	990
20x2x0.75	0.5	2.2	1010
24x2x0.75	0.5	2.4	1240
30x2x0.75	0.5	2.5	1480
37x2x0.75	0.5	2.6	1730
1x2x1.0	0.5	1.3	130
2x2x1.0	0.5	1.3	170
3x2x1.0	0.5	1.8	320
4x2x1.0	0.5	1.8	360
5x2x1.0	0.5	1.9	440
6x2x1.0	0.5	2.0	510
7x2x1.0	0.5	2.0	530
8x2x1.0	0.5	2.0	590
10x2x1.0	0.5	2.1	730
12x2x1.0	0.5	2.1	810
14x2x1.0	0.5	2.2	900
16x2x1.0	0.5	2.2	1010
19x2x1.0	0.5	2.3	1160

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Construction No. of elements×No. of cores in element×Cross section(mm²)	Nominal Insulation Thickness mm	Nominal Sheath Thickness mm	Nominal Weight kg/km
20×2×1.0	0.5	2.3	1190
24×2×1.0	0.5	2.5	1460
30×2×1.0	0.5	2.6	1740
37×2×1.0	0.5	2.9	2140
1×2×1.5	0.6	1.3	160
2×2×1.5	0.6	1.4	220
3×2×1.5	0.6	1.9	400
4×2×1.5	0.6	1.9	470
5×2×1.5	0.6	2.0	570
6×2×1.5	0.6	2.1	660
7×2×1.5	0.6	2.1	700
8×2×1.5	0.6	2.1	780
10×2×1.5	0.6	2.2	950
12×2×1.5	0.6	2.3	1070
14×2×1.5	0.6	2.3	1180
16×2×1.5	0.6	2.4	1350
19×2×1.5	0.6	2.5	1560
20×2×1.5	0.6	2.5	1590
24×2×1.5	0.6	2.9	2060
30×2×1.5	0.6	3.0	2450
37×2×1.5	0.6	3.1	2880
1×3×0.75	0.5	1.3	130
2×3×0.75	0.5	1.8	290
3×3×0.75	0.5	1.8	340
4×3×0.75	0.5	1.9	410
5×3×0.75	0.5	1.9	480
6×3×0.75	0.5	2.0	590
7×3×0.75	0.5	2.0	620
8×3×0.75	0.5	2.1	700
10×3×0.75	0.5	2.2	860
12×3×0.75	0.5	2.2	970
14×3×0.75	0.5	2.3	1080
16×3×0.75	0.5	2.3	1200
19×3×0.75	0.5	2.4	1390
20×3×0.75	0.5	2.5	1460
24×3×0.75	0.5	2.6	1710
30×3×0.75	0.5	2.9	2170
32×3×0.75	0.5	3.0	2320
1×3×1.0	0.5	1.3	150
2×3×1.0	0.5	1.8	320

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3x3x1.0	0.5	1.8	380
4x3x1.0	0.5	1.9	470
5x3x1.0	0.5	2.0	560
6x3x1.0	0.5	2.1	680
7x3x1.0	0.5	2.1	720
8x3x1.0	0.5	2.1	810
10x3x1.0	0.5	2.2	990
12x3x1.0	0.5	2.3	1130
14x3x1.0	0.5	2.3	1260
16x3x1.0	0.5	2.4	1410
19x3x1.0	0.5	2.5	1640
20x3x1.0	0.5	2.5	1700
24x3x1.0	0.5	2.9	2110
30x3x1.0	0.5	3.0	2560
32x3x1.0	0.5	3.1	2730
1x3x1.5	0.6	1.3	180
2x3x1.5	0.6	1.9	410
3x3x1.5	0.6	1.9	490
4x3x1.5	0.6	2.0	610
5x3x1.5	0.6	2.1	740
6x3x1.5	0.6	2.2	890
7x3x1.5	0.6	2.2	950
8x3x1.5	0.6	2.3	1070
10x3x1.5	0.6	2.4	1320
12x3x1.5	0.6	2.5	1520
14x3x1.5	0.6	2.5	1690
16x3x1.5	0.6	2.8	1990
19x3x1.5	0.6	2.9	2310
20x3x1.5	0.6	3.0	2420
24x3x1.5	0.6	3.1	2840
30x3x1.5	0.6	3.3	3460
32x3x1.5	0.6	3.3	3670

* 2 pares é montado como quadra