



# HALLEY CABLES

# KH-EPR/IND/SW4/GSWB/SW4

## IEC 60332-3 & IEC 60331

### Instrumentation and Control Cables 150-250 V

EPR insulated, collective screened, HFFR sheathed cable



### Construction:

- Conductor : tinned copper, stranded, class 2, for 1,5 mm<sup>2</sup>: 7x0,53 mm.
- Fire proof separator: MICA tape.
- Insulation : EPR compound, 3G.
- Core identification : black and white coloured.
- Pair : two cores twisted to a pair, and polyester tape.
- Pair screen : screened by aluminium laminated polyester tape (100% coverage) with stranded tinned copper drain wire (7x0,30 mm).
- Pair separator : polyester tape with numbered tapes 1,2,3...
- Lay-up : pairs laid up in layers of optimum pitch with necessary fillers.
- Separator : polyester tape.
- Overall screen : screened by aluminium laminated polyester tape (100 % coverage) with stranded tinned copper drain wire (7x0,30 mm).
- Inner sheath : cross-linked halogen-free flame retardant compound, SW4; black.
- Armour : galvanized steel wires braiding, ~90% coverage.
- Separator : polyester tape.
- Outer sheath : cross-linked halogen-free, flame retardant (HFFR) compound, SW4.
- Sheath colour : KH-light blue. Other colours available upon request.

### Technical data and tests:

- Rated voltage : 150-250 V.
- Test voltage : 1500 V (AC, 50 Hz).
- Temperature range : - 30° C ~ + 90° C.
- Insulation resistance : min. 100 MΩ/km.
- Nominal capacitance : max. 150 pF/m (core/core).
- Min. bending radius : 10 x D, static.

### Standards:

- Design : adapted to IEC 60092-353 and EN 50288-7.
- Conductor : EN 60228 class 2.
- Flame test : single: IEC 60332-1 & EN 60332-1-2.  
bunched: IEC 60332-3 & EN 60332-3-24 Cat C.
- Insulation integrity : IEC 60331.
- Smoke density : IEC 61034-2 & EN 61034-2.
- Halogen-free : IEC 60754-1/2.

### Applications:

These cables are used for control purposes (e.g. controlling of pumps, valves or engines) in chemistry and petrochemistry industry plants, power plants, natural gas and petroleum plants, etc... The armour protects the cable from mechanical damage. These cables are used on the basis of a fixed operating mode, and can continue with the supply of power under existing fire conditions and in environments which must have no corrosive gases emitted in the event of fire. In case of fire, these cables inhibit the propagation of the flames whereby the development of smoke is extremely low. They are resistant to oil and chemicals. They are for indoor and outdoor installation, in dry and wet locations; on racks, trays, in conduits.

\*Any other construction available upon request.



## DIMENSIONS

No. of cores x cross section mm <sup>2</sup>	Insulation thickness mm	Approx. inner diameter mm	Braiding wire diameter mm	Approx. outer diameter mm	Copper weight kg/km	Approx. cable weight kg/km
2x2x1,5	0,8	15,40	~0,24	19,90	73	545
3x2x1,5	0,8	16,30	~0,24	20,80	107	600
5x2x1,5	0,8	19,20	~0,24	23,90	176	830
7x2x1,5	0,8	22,60	~0,24	27,70	245	1070
12x2x1,5	0,8	28,70	~0,24	34,00	417	1560
16x2x1,5	0,8	32,90	~0,24	38,60	555	2010
20x2x1,5	0,8	36,50	~0,24	42,40	692	2370