



ISO 9001:2008

# LiY(St)Y-P nx(2x0,5c)

(equivalent: NOMAK)

#### INSTRUMENTATION CABLES





















**APPLICATIONS** 

**LiY(St)Y-P** nx(2x0,5c) are multipair, overall shielded cables intended for control and instrumentation circuits, for signal, monitoring and data processing systems and for analogue or digital data transmission, all in industrial electronics applications.

Paired structure decreases mutual influence between signals transmitted along the cable and reduces influence of outer sources of interference.

The cables are protected by an overall electrostatic shield against external electric interferences.

The cables are suitable for indoor installations connecting fixed and movable equipment.

The cable is also suitable for Maxi-Termi-Point jointing technique.

#### CONSTRUCTION

- flexible, multiwire conductors, stranded of tin-plated copper wires (7x0.3 mm), meeting requirements of class 2 per PN-EN 60228,
- PVC insulation,
- insulated conductors twisted into pairs, identification colour code:
  - "a" wire orange insulation and black pair number printed on it,
  - "b" wire white insulation and black pair number printed on it,
- pairs laid-up in layers into a cable core,
- cable core wrapped in polyester tape,
- overall electrostatic shield incorporating aluminium-polyester tape and stranded annealed tinned copper drain wire, cross-section 0.5 mm<sup>2</sup> (7x0.3 mm),
- PVC cable sheath, grey RAL 7001, other colours also available.

## **AVAILABLE UPON REQUEST**

**LiH(St)H-P** nx(2x0,5c) (equivalent: NOMAK-HF) - halogen free cables, applied when higher safety in case of fire is required. The cables are flame retardant, their smoke emission in fire is low and released gases are not corrosive.

**LiY(St)Yu-P nx(2x0,5c)** - cables of reduced combustibility, sheathed with special self-extinguishing PVC of high oxygen index and pass combustibility test according to PN-EN 60332-3 standard.





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### **CHARACTERISTICS**

| Characteristic impedance at 10 MHz  | $100 \pm 10 \Omega$ | Attenuation loss, [dB/100m] max - at |             |
|-------------------------------------|---------------------|--------------------------------------|-------------|
| Mutual capacitance at 800 Hz, appr. | 100 nF/km*)         | frequency [kHz]:<br>9.6<br>19.2      | 0.3<br>0.5  |
| DC loop resistance at 20°C,         | 04.0#               | 64.0                                 | 0.7         |
| maximum                             | 81 Ω/km             | 100.0<br>200.0                       | 0.9<br>1.5  |
| Insulation resistance, minimum      | 20 MΩ·km            | 1000.0                               | 2.9         |
| Operating voltage                   | 150 V               | Operating temperature range          |             |
| Voltage test                        | 2,0 kV rms          | for fixed installation               | from - 30 t |

for fixed installation from - 30 to + 80°C for movable installation from - 5 to + 70°C

Minimum bending radius 15 x cable diameter

Cable combustibility flame retardant

Combustibility tests PN-EN 60332-1-2, IEC 60332-1-2

# C ∈ = the cable meets requirements of the low voltage directive 2014/35/EU

| Product<br>No. | Number<br>of pairs (x 2)<br>x conductor<br>cross-section | Cable outer<br>diameter<br>(appr.) | Copper<br>index | Cable<br>weight<br>(appr.) |
|----------------|--|------------------------------------|-----------------|----------------------------|
|                | mm <sup>2</sup>  | mm                                 | kg/km           | kg/km                      |
| 0092 010       | 2 x (2 x 0,5c)   | 6,9                                | 24,0            | 58                         |
| 0092 009       | 4 x (2 x 0,5c)   | 8,2                                | 43,2            | 87                         |
| 0092 012       | 8 x (2 x 0,5c)   | 10,5                               | 82,0            | 153                        |

|   | Product<br>No. | Number<br>of pairs (x 2)<br>x conductor<br>cross-section | Cable outer<br>diameter<br>(appr.) | Copper<br>index | Cable<br>weight<br>(appr.) |
|---|----------------|--|------------------------------------|-----------------|----------------------------|
|   |                | mm <sup>2</sup>  | mm                                 | kg/km           | kg/km                      |
| Ī | 0092 011       | 12 x (2 x 0,5c)  | 12,7                               | 120,0           | 220                        |
|   | 0092 013       | 24 x (2 x 0,5c)  | 17,4                               | 235,0           | 415                        |
|   | 0092 014       | 48 x (2 x 0,5c)  | 24,3                               | 466,0           | 810                        |

TECHNOKABEL S.A. reserves the right to change specifications without prior notice.

<sup>\*)</sup> this value can be higher by 20 % in four or less pair cable

Other cross-sections and pair counts available on request.