



CONTACT

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APPLICATION

Special application in places with poor ventilation, where, in case of fire, the emission of corrosive, toxic gases and smoke threatens life and destroys electrical and electronic equipment. In case of fire, possible victims have higher chances of surviving because they don't breathe in toxic gases and have good visibility to escape the area. They are usually installed in conduits and in indoor areas in tray. Not recommended for outdoor installations

STANDARDS

PRODUCT

NTP-IEC 60228; NTP 370.252; NTP 370.266-3-31; NTP 370.264-7; IEC 60228

TEST

IEC 60332-1-2; UL 2556; IEC 60332-3-24; IEC 60754-1; IEC 60754-2; IEC 61034-2

CONSTRUCTION

1. Conductor: Soft copper, class 2.
2. Insulation: Halogen free thermoplastic sliding material HFFR.

MAIN CHARACTERISTICS

- Fire retardant, zero dense smoke emission and halogen free.
- Easy and fast opening due to its innovative OPEN FAST die-cut packaging.
- Easy installation due to its sliding insulation, it does not need any type of lubricant for installation in pipes.
- Easy to measure due to its double sequential marking called METRIUM which allows to quickly read the installed lengths.
- Use of VIGICHECK technology product originality identification hologram.

CROSS SECTION

From 1,5 mm² up to 6 mm².

MARKING

INDECO BY NEXANS PC NH-90 450/750 V - Section - H07Z1-R TYPE 2 - Year - MADE IN PERU (- sequential length m. || sequential length m. +).

PACKING

From 1,5 mm² to 6 mm² in standard 100 meter rolls with VIGICHECK hologram.

COLOUR

Black, Red, Blue and White.



Conductor flexibility
Class 2 IEC 60228



Rated Voltage U₀/U
(Um)
450/750 V



Maximum operating
temperature
90 °C



Halogen free
Low content
Halogen IEC
60754-1



Gases corrosivity
Low Corrosivity
IEC 60754-2



Smoke density
Low Smoke
Emission IEC
61034-2



Flame retardant
IEC 60332-1-2; FT1



Fire retardant
EN IEC 60332-3-24
(cat C)

PRODUCT STANDARDS

NTP-IEC 60228: Conductors of insulated cables.

NTP 370.252: Thermoplastic and thermoset insulated cables of rated voltages up to and including 450/750 V.

NTP 370.266-3-31: Low voltage electrical cables. Cable with nominal voltage less than or equal to 450/750 V - **Part 3-31:** Cables with special properties before the fire. Single core cables without cover with halogen-free thermoplastic insulation and low smoke emission.

NTP 370.264-7: Insulation, covering and coating materials for low voltage electrical power cables - **Part 7:** Halogen-free thermoplastic compounds for insulation.

IEC 60228: Conductors of insulated cables.

TESTING STANDARDS

IEC 60228: Conductors of insulated cables.

IEC 60332-1-2: Test for vertical flame propagation for a single insulated wire or cable - Procedure for 1 kW pre-mixed flame.

UL 2556: Wire and Cable Test Methods. **Section 9.3:** FT1 (Vertical-Specimen) Flame Test.

IEC 60332-3-24: Test for vertical flame spread of vertically-mounted bunched wires or cables - Category C.

IEC 60684-2: Flexible insulating sleeving - **Part 2:** Methods of test.

IEC 60754-1: Test on gases evolved during combustion of materials from cables - **Part 1:** Determination of the halogen acid gas content.

IEC 60754-2: Test on gases evolved during combustion of materials from cables - **Part 2:** Determination of acidity (by pH measurement) and conductivity.

IEC 61034-2: Measurement of smoke density of cables burning under defined conditions.

CHARACTERISTICS

Construction characteristics

Conductor material	Soft copper
Insulation	Halogen free thermoplastic material sliding
Conductor flexibility	Class 2 IEC 60228

Electrical characteristics

Rated Voltage U ₀ /U (U _m)	450/750 V
Dielectric strength	2.5 kV
Time of application Dielectric strength core to screen AC	5 min.

Usage characteristics

Metric marking	Double marking of sequential footage METRIUM
Maximum operating temperature	90 °C
Short-circuit max. conductor temperature	160 °C

Fire safety characteristics

Halogen free	Low content Halogen IEC 60754-1
Gases corrosivity	Low Corrosivity IEC 60754-2
Smoke density	Low Smoke Emission IEC 61034-2
Flame retardant	IEC 60332-1-2; FT1

Fire safety characteristics

Fire retardant

EN IEC 60332-3-24 (cat C)

DIMENSIONAL DATA

Cross section [mm²]	Total nb wires	Conductor diam. [mm]	Min. insulation thick. [mm]	Nom. outer diam. [mm]	Approx. weight [kg/km]
1.5	7	1.5	0.7	3.0	21
2.5	7	1.9	0.8	3.6	33
4	7	2.4	0.8	4.1	48
6	7	3.0	0.8	4.6	68

ELECTRICAL DATA

Cross section [mm²]	Max. DC Resist. Cond. 20°C [Ohm/km]	Perm rating in duct 30°C [A]	Nominal capacitance [pF/m]
1.5	12.1	20	641.0
2.5	7.41	27	695.0
4	4.61	33	830.0
6	3.08	44	1040.0

PRODUCT LIST

Nexans Ref.	Country Ref.	Name	Colour	Nominal outer diameter [mm]	Approximate weight [kg/km]
 P00039266-6	10053662	PC NH-90 450/750 V 1,5 mm2	White	3.0	21
 P00039269-6	10053673	PC NH-90 450/750 V 1,5 mm2	Black	3.0	21
 P00039267-6	10053674	PC NH-90 450/750 V 1,5 mm2	Blue	3.0	21
 P00039299-5	10053676	PC NH-90 450/750 V 2,5 mm2	Red	3.6	33
 P00039301-5	10053679	PC NH-90 450/750 V 2,5 mm2	White	3.6	33
 P00039298-5	10053677	PC NH-90 450/750 V 2,5 mm2	Black	3.6	33
 P00039300-6	10053680	PC NH-90 450/750 V 2,5 mm2	Blue	3.6	33
 P00039306-5	10053681	PC NH-90 450/750 V 4 mm2	Red	4.1	48
 P00039308-5	10053684	PC NH-90 450/750 V 4 mm2	White	4.1	48
 P00039305-6	10053682	PC NH-90 450/750 V 4 mm2	Black	4.1	48
 P00039307-5	10053685	PC NH-90 450/750 V 4 mm2	Blue	4.1	48
 P00039312-5	10053687	PC NH-90 450/750 V 6 mm2	Red	4.6	68
 P00039314-5	10053689	PC NH-90 450/750 V 6 mm2	White	4.6	68

 = Make to order,  = In stock,

Nexans Ref.	Country Ref.	Name	Colour	Nominal outer diameter [mm]	Approximate weight [kg/km]
 P00039311-6	10053686	PC NH-90 450/750 V 6 mm2	Black	4.6	68
 P00039313-5	10053688	PC NH-90 450/750 V 6 mm2	Blue	4.6	68
 P00039268-6	10053661	PC NH-90 450/750 V 1,5 mm2	Red	3.0	21

 = Make to order,  = In stock,

CALCULATION OF CURRENT CONDITION L.V.; NH-90

CALCULATION OF CURRENT CONDITION

Calculation of current capacity based on NEC (National Electrical Code NFPA 70) table 310.16 and table 310.17.

Maximum conductor temperature : 90°C.
Ambient air temperature : 30°C.