



## CONTACT

Market information  
 industryprojects.business@lynxéo  
 ogroup.com

**International Designation:** TCX® ( C ) 331 150/250V 10T0.75

## INSTRUMENTATION CABLES

### STANDARDS

**Product** IEC 60228

**Installation** IEC 60092-350; IEC 60092-360; IEC 60092-376

**Test** a; IEC 60331-1 or 2; IEC 60332-1; IEC 60332-3-22; IEC 60754-1; IEC 61034

### APPLICATION

TCX® (C) 331 150/250 V fire resistant armoured twisted pair cables maintain circuit integrity in case of fire by meeting performances requirements from the IEC 60331 series for 180 minutes. These telecommunication and instrumentation cables show a low transfer impedance in low frequency and an effective screening in high frequency, making them very suitable for polluted electromagnetic surroundings. TCX(C) 331 cables are used for detection and warning systems where enhanced mechanical protection is required. Designed with halogen-free fire retardant materials, they provide optimum safety for people and maximal asset protection against all risks of fire.

### Design

#### 1. Conductor

Stranded bare copper class 2

#### 2. Insulation

Mica tape + XLPE (cross-linked polyethylene)

#### 3. Inner covering

Lapped polyester tape

#### 4. Armouring

Bare copper braid

#### 5. Outer sheath

Polyolefin SHF1

Colour: orange

Example of marking:

LYNXEO 279 TCX (C) 331 150/250 V "n" 2 or 3 "s" mm<sup>2</sup> 90°C IEC 60092-376 IEC 60332-3-22 Cat. A IEC 60331-1/2 "ww/yy" \* CE \* TCF + metric marking

Core Identification

Pair: white / blue with printed with pair number

Triad: white / blue / red with printed with triad number



Halogen free  
IEC 60754-1



Conductor flexibility  
Stranded class 2



Rated Voltage U<sub>o</sub>/U  
(Um)  
150 / 250 (300) V



Fire resistant  
IEC 60331-1 or -2



Fire retardant  
EN IEC 60332-3-22  
(cat A)



Smoke density  
IEC 61034



Gases corrosivity  
IEC 60754-2



Electro magnetic  
interference  
resistance  
Yes

## CHARACTERISTICS

### Construction characteristics

Halogen free	IEC 60754-1
Conductor flexibility	Stranded class 2
Insulation	XLPE + Mica tape
Outer sheath	Polyolefin
Conductor material	Bare copper
Sheath colour	Orange
Armour type	Bare copper braid
Drain wire	Tinned copper
Protection	Polyester tape(s)

### Dimensional characteristics

Number of pairs	-
Number of triples	10
Conductor cross-section	0.75 mm <sup>2</sup>
Nominal outer diameter	- mm
Minimum outer diameter	20.5 mm
Maximum outer diameter	26.5 mm
Approximate weight	670 kg/km

### Electrical characteristics

Rated Voltage U <sub>0</sub> /U (U <sub>m</sub> )	150 / 250 (300) V
Max. DC resistance of the conductor at 20°C	52 Ohm/km

### Usage characteristics

Fire resistant	IEC 60331-1 or -2
Fire retardant	EN IEC 60332-3-22 (cat A)
Smoke density	IEC 61034
Gases corrosivity	IEC 60754-2
Electro magnetic interference resistance	Yes
Operating temperature, range	-30 ... 80 °C
Max. conductor temperature in service	90 °C

## OTHER CHARACTERISTICS

### Test Voltage

AC between cores of the same unit..... 1.5 kV AC

### Minimum bending radius for fixed installations

• TCX® 331..... 6 x outer diameter