

HITRONIC® PCF DUPLEX FD PNC PVC-PUR

DB28351702EN

valid from: 01.11.2014

1. Product Description

Cable designation: AT-V(ZN)Y(ZN) 11Y 2K200/230 *flex*
J-V(ZN)Y(ZN) 11Y 2K200/230 *flex*

Splittable duplex polymer clad glass optical fibre (PCF) indoor cable with non-metallic strain relief, PVC inner and PUR outer sheath, for applications in industrial environments with high mechanical stress, suitable for drag chains

2. Application

PCF bus cable for PROFINET applications; Type C special applications (highly flexible, permanent movement)
Applications with cable lengths up to 100m at 100Mbit/s data rate
For direct connector assembly (single cable diameter 2.2 mm)

3. Cable Design

Cable construction	2x PCF fibre (polymer clad glass fibre with ETFE buffer), non-metallic strain relief elements, PVC single cable sheath, stranded with two filler elements and central element, plastic fleece as wrapping, strain relief elements, PUR outer sheath
Cable inner sheath	PVC (special PVC-based compound)
Cable outer sheath	PUR (Polyurethane) mat, halogen-free
Colour of inner sheath	See colour coding
Colour of outer sheath	Green (similar to RAL 6018)
Colour coding	Black, orange (with arrow printing)
Strain relief	Aramid yarns (in single and total cable construction)
Type of armouring	-

4. Optical and Physical Properties of Fibre

Attenuation	@ 650 nm	dB/km	≤ 10
	@ 850 nm	dB/km	≤ 8
Bandwidth	@ 650 nm	MHz x km	≥ 17
	@ 850 nm	MHz x km	≥ 20
Numerical Aperture			0.37
Core diameter		µm	200
Cladding diameter		µm	230

5. Thermal Properties

Operating temperature	-20°C up to +70°C
Installation temperature	-10°C up to +50°C
Storage temperature	-30°C up to +70°C

HITRONIC® PCF DUPLEX FD PNC PVC-PUR**DB28351702EN**

valid from: 01.11.2014

6. Mechanical Properties

Max. number of fibres		2
Fibre outer diameter (with buffer)		500 µm
Sub cable outer diameter		2.2 mm
Cable outer diameter		8.8 ± 0.3 mm
Cable weight		71 kg/km
Min. bending radius	once several times	130 mm 175 mm
Max. tensile strength	fixed installation short term	800 N 1.000 N
Max. lateral pressure	fixed installation short term	3.000 N/10 cm 5.000 N/10 cm
For use in drag chains*	bending cycles	> 5.00.000
	chains length	4.5 m
	speed	3 m/s
	acceleration	3 m/s ²
* Please note assembly guidelines T3 (LAPP main catalogue)		

7. Chemical Properties

PVC sub unit sheath	Non-aging, flame retardant, abrasion resistant
PUR outer sheath	Flame-retardant, halogen-free, oil resistant, low adhesion

8. Features

- RoHS compliant
- Oil resistant according to IEC 60811-2-1 and DIN EN 50363-10-2 (100°C, 168h)
- PROFINET Optical Fibre Cable Type C according to guideline
"PROFINET Cabling and Interconnection Technology" Version 3.1 March 2014
- EC-Directive: This cable is conform to the 2011/65/EU (RoHS, Restriction of the use of hazardous substances)

9. Product Range Overview

Part number	Article designation	No. Of Fibres	Outer Ø (mm)
28351702	HITRONIC® PCF DUPLEX FD PNC PVC-PUR	2	8.8