

### Product Description

Standardisation bodies (DESINA®, PNO=Profibus User Organisation) have defined a standard hybrid cable with copper conductors and POF for equipment and assemblies in distributed machine and system applications that guarantees the data transmission via a fibre-optic cable and the supply of power from a remote source via copper conductors.;Combines the advantages of FD technology and optical fibre engineering



### Benefits

- Standardisation bodies (DESINA®, PNO=Profibus User Organisation) have defined a standard hybrid cable with copper conductors and POF for equipment and assemblies in distributed machine and system applications that guarantees the data transmission via a fibre-optic cable and the supply of power from a remote source via copper conductors.
- Combines the advantages of FD technology and optical fibre engineering

### Design

- Superfine strands of plain copper wires; PVC core insulation black with white printed numbers 1 - 4
- Twisted together with 2 polymer optical fibres 980/1000
- The protective cover /buffer tube directly over the step index fibre is made of black polyethylene (PE)
- PUR outer sheath, colour: violet according to RAL 4001
- Standard designation: J-2Y11Y2P 980/1000 220A 10 FFLiY 4x1,5 300/500V

### Product features

- For the application described, Lapp Kabel offers the HITRONIC® HYBRID FD P DESINA®, which maintains the cable specification.
- An increased resistance against oil, wear and tear and microbes is achieved by the polyurethane outer sheath
- The polyurethane outer sheath is also halogen free, adhesion free and resistant against hydrolysis.
- Flame retardant according to IEC 60332-1-2



Cross-References

Accessories

Connectors, tools and further accessories on request

Technical Data

Core identification code

Black with printed white numbers

Conductor stranding

Extra fine wire

Minimum bending radius

7,5 x outer diameter

Rated voltage

U0/U:

300/500 V

Optical values

Attenuation at 650 nm wavelength: 160 dB/km

Bandwidth-length product: 10 MHz x 100 m Numerical aperture: 0.5±0.05

Optical fibre type

Step index fibre made of polymethylmethacrylate (PMMA)

Dimension: POF 980/1000 µm

Range of temperature

Flexible use: -5°C up to +70°C

Fixed installation: -40°C up to +80°C

Tension load

max. 100 N

Article List

Part number	Article designation	Number of cores and mm <sup>2</sup> per conductor	Outer diameter mm	Copper index kg/km	Weight kg/km
2186001	HITRONIC® HYBRID FD P DESINA®	4 x 1,5 + 2 x POF 980 / 1000	10 ± 0,4 mm	57.6	135

Footnote:

All product related values as shown are nominal values unless specified differently. Further values, e.g. tolerances we submit on request - if available and released for publication.

Copper price basis: EUR 150 / 100 kg; For utilization and definition of 'Metal price basis' and 'Metal index' see Appendix T17

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