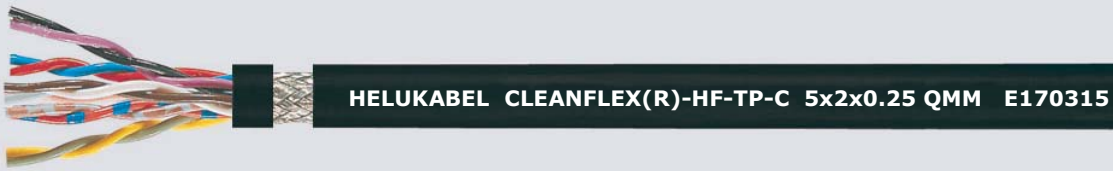
# HELUKABEL CLEANFLEX®-HF-TP-C

twisted pairs, screened cable for drag chain applications in clean rooms




## Technical Data

- Special cable for drag chain applications in clean rooms
- **Temperature range**
  flexing -20°C up to +80°C
  fixed -40°C up to +80°C
- **Nominal voltage**
  $U_0$/U 300/500 V
- **Test voltage**
  core/core 1500 V
  core/screen 1000 V
- **Insulation resistance**
  min. 100 MOhm x km
- **Minimum bending radius**
  flexing 7.5 x cable Ø
  fixed 4.0 x cable Ø
- **Radiation Resistance**
  up to $100x10^6$ cJ/kg (up to 100Mrad)

## Approbations

- UL-Style 20233
- IPA

## Cable construction

- Bare copper, extra fine wire conductors to DIN VDE 0295 cl. 6, column 5 and IEC 60228 cl. 6, column 5
- Core insulation TPE-E
- Cores colour coded according to DIN 47100
- Cores stranded into pairs
- Pairs stranded in torsion-free layers with optimal lay-length
- Wrapping with polyester-fleece-tape
- Screened with tinned copper wire braiding, tinned copper drain wire
- Wrapping with fleece-tape over the screen
- Outer sheath full polyurethane TMPU according to DIN VDE 0281 part 10, annex A and according to UL standard 1581 Tab. 50227 80°C
- Colour of outer sheath: black, dull, RAL 9004
- Printing:
  HELUKABEL CLEANFLEX®-HF-TP-C 8x2x0.25 QMM E 170315 RU AWM STYLE 20233 24AWG 16C VW1 cRU AWM I/II A/B 80°C 300V FT1 / 708313 production order No. CE RoHS continuous meter marking

## Properties

- Flame retardant according to VDE 0482-332-1-2, DIN EN 60332-1-2 / IEC 60332-1 (equivalent DIN VDE 0472 part 804 test method B)
- Oil resistance according to IEC 60092-350
- Halogen free
- Weather, ozone and UV resistant
- Chemical resistance to solvents, acids, alkalis and hydraulic fluids
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of laquers

## Advantages

- Very high resistance to mechanical stresses
- Very good alternating bending strength
- High tear, abrasion and impact resistance, even at low temperatures

**EMC** = Electromagnetic Compatibility - To optimise the EMC characteristics we recommend a large area of contact of the copper braiding around the entire circumference on both ends
**CE** = the product is conformed with the EC Low-Voltage Directive 73/23/EEC and 93/68/EEC

| Part No. | No.pairs x cross section mm² | outer Ø ca. mm | Copper weight kg / km | Part No. | No.pairs x cross section mm² | outer Ø ca. mm | Copper weight kg / km |
|---|---|---|---|---|---|---|---|
| 708309 | 2 x 2 x 0.25 | 6.0 | 24.0 | 708313 | 8 x 2 x 0.25 | 9.2 | 67.9 |
| 708310 | 3 x 2 x 0.25 | 6.4 | 28.8 | 708414 | 10 x 2 x 0.25 | 10.4 | 79.5 |
| 708311 | 4 x 2 x 0.25 | 7.1 | 35.0 | 708415 | 12 x 2 x 0.25 | 10.7 | 92.4 |
| 708312 | 5 x 2 x 0.25 | 7.9 | 42.4 | | | | |

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