

# Feedback cables PUR high flexible feedback cables for drag chain, EMC-preferred type, meter marking



HELUKABEL TOPFLEX-PUR

CE



## Technical data

- **Temperature range**  
flexing -30°C to +80°C  
fixed installation -40°C to +80°C
- **Nominal voltage**  
TOPFLEX®-PUR 350 V  
Tachofeedback-cable-C-PUR 450 V  
Incremental Feedback-cable-C-PUR 250 V
- **Test voltage**  
core/core 2000 V  
core/screen 1000 V
- **Insulation resistance**  
min. 20 MOhm x km
- **Minimum bending radius**  
flexing 10x cable Ø  
fixed installation 5x cable Ø
- **Coupling resistance**  
max. 250 Ohm/km
- **Radiation resistance**  
up to 100x10<sup>6</sup> cJ/kg (up to 100 Mrad)

## Cable structure

- Bare copper-conductor, to DIN VDE 0295 cl.6, extra fine-wire, BS 6360 cl.6, IEC 60228 cl.6
- Core insulation of PP
- Part No. 22847 Cu-screen of single pairs or single cores and PETP (polyethylene terephthalate) sheath
- Core identification see table below
- Single cores or pairs stranded in layer with optimal lay-length (pairs part no. 22818)
- Drain wire
- Tinned copper braided screen, approx. 85% coverage
- Outer sheath of special PUR, matt
- Sheath colour see table below

## Properties

- Special PUR outer sheath low adhesion
- **Resistant to**  
Oils and fats  
Acids and alkalis  
Hydraulic fluids  
Oxygen and ozone  
UV-radiation  
Hydrolysis  
Microbial attack  
Water and weathering effects
- The high abrasion resistance and notch resistance meet the highest requirements
- The materials used in manufacture are cadmium-free and contain no silicone and free from substances harmful to the wetting properties of lacquers

## Note

- For extreme applications extending beyond standard solutions we recommend that you request our questionnaire, which has been especially designed for energy supply systems.
- Please observe the assembly instruction for use in energy supply chains.
- AWG sizes are approximate equivalent values. The actual cross-section is in mm<sup>2</sup>.

## Application

Both cables fulfil different tasks for the control of servo-motors. The tachofeedback-cable or response cable serves the regulation of the motor speed and measurement of the actual values. The incremental feedback-cable or position response cable transfers the control signals for positioning and engineering characteristics and is used as the flexible connecting cable for tachometer, brakes and pulse transmitter in case of high mechanical stress in plant, machine and control engineering in dry, moist and wet rooms. Particularly suitable for continuous operating in drag chains, industrial robotics and handling equipment as these cables enable an excellent transmission of data and signals. Additional cores for the power supply to individual components are available. The braided screen guarantees reliable signal transmission. Optimum functionality, long service life and an excellent cost-performance ratio are given for the mentioned applications by the special compounds used for insulation and sheath.

**EMC** = Electromagnetic compatibility

To optimize the EMC features we recommend a large round contact of the copper braiding on both ends.

CE= The product is conformed with the EC Low-Voltage Directive 2006/95/EC.

### TOPFLEX®-PUR

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Core marking 0,14 mm <sup>2</sup>	Core marking 0,5 mm <sup>2</sup>	Sheath colour	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
22847	(3 x (2 x 0,14) + (2 x 0,5))	DIN 47100	WH, BN	Grey	8,3	78,0	103,0	26
22852	4 x 2 x 0,14 + 4 x 0,5	BN+GN, YE+VT, GY+PK, RD+BU	WH, BN, WH/GN, BN/GN	Grey	8,4	73,0	105,0	26
22849	(10 x 0,14 + 2 x 0,5)	DIN 47100	WH, BN	Grey	7,2	39,0	83,0	26

### Tachofeedback-cable

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Core marking 0,5 mm <sup>2</sup>	Core marking -	Sheath colour	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
22823	(9 x 0,5)	WH, BN, GN, YE, GY, PK, BU, RD, BK	-	Orange	8,8	80,8	128,0	20

### Incremental feedback cable

Part no.	No. cores x cross-sec. mm <sup>2</sup>	Core marking 0,14 mm <sup>2</sup>	Core marking 1 mm <sup>2</sup>	Sheath colour	Outer Ø app. mm	Cop. weight kg / km	Weight app. kg / km	AWG-No.
22818	(4 x 2 x 0,25 + 2 x 1,0)	RD+BK, BN+GN, YE+VT, GN+PK	WH, BN	Orange	8,8	65,2	105,0	24

Dimensions and specifications may be changed without prior notice. (RD01)