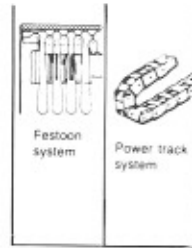


PLANOFLEX® Fiber-Optic Composite Cable

Composite Flat Festoon Cable-EP Insulation,
Optical Fiber Bundle, HYPALON® Jacket, 90°C, 600 Volt



2

Applications

PLANOFLEX® designed for use in flat cable festoon systems found on equipment such as high speed timber gantry cranes, shiploaders and unloaders, and container cranes. The small bend radius and high quality EPR/HYPALON® construction allow PLANOFLEX® cable to be used both indoors and outdoors, over a wide temperature range.

Advantages

- Elimination of multiple copper control cables.
- Reduced trolley system weight decreases size and weight of costly trolley system hardware
- Immune to EMI from adjacent power cables.
- Low temperature capability.

Design

PLANOFLEX® Fiber-optic composite cable consists of four finely stranded #6 AWG copper conductors which are EP insulated. The fiber-optic assembly is sheathed with a highly deformation resistant ETFE.

To provide mechanical stability to the cable while flexing, the power conductor insulation is sheathed with a nylon jacket which approximates the O.D. and

mechanical characteristics of the ETFE optical fiber jacket.

The cable is extruded over-all with an oil and low temperature resistant, flame retardant HYPALON® jacket.

See Section 2 for additional details on the design of the fiberoptic assembly.

Temperature Ratings

- Maximum conductor temperature: 90°C
- Minimum ambient temperature for optimum fully flexible operation: -35°C
- Minimum permissible ambient temperature: -55°C

Ampacity and Voltage Drop

Tables 3/3 to 3/9 on pages 40 & 41 may be used to determine the appropriate ampacity for PLANOFLEX

cables. Table 3/12 on page 42 can then be applied to calculate voltage drop.

Voltage Ratings

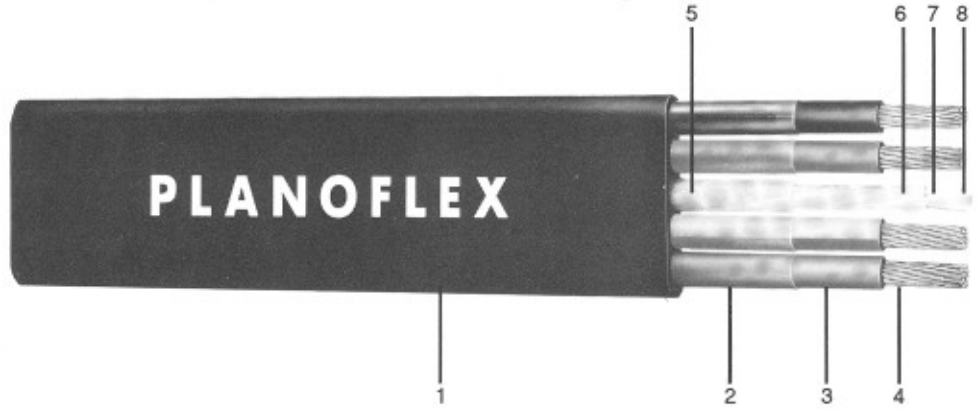
Rated Voltage: 600 Volts
A.C. factory test voltage: 2000 volts (r.m.s.)

Color Sequence for PLANOFLEX® Fiber-optic Composite Cable

The four power conductors are color coded Brown, Blue, Black, and Green with a Yellow stripe. Green with a Yellow stripe designates earth or ground.

PLANOFLEX® Composite Cable

- 1 Cold, oil and flame resistant HYPALON® jacket
- 2 Clear Nylon sheath
- 3 PROTON® EP insulation
- 4 Extra finely stranded copper conductor
- 5 Clear ETFE deformation resistant fiber optic assembly jacket
- 6 ETFE loose buffer tube
- 7 62.5/125 μm glass multimode optical fiber
- 8 fiber glass composite central strength member



Arister Part Number	Number of Conductors	Conductor Size		Approx Number of Strands per Conductor	Number of Glass Fibers	Nominal Diameter of Fiber Core (μm)	Nominal Diameter of Fiber Cladding (μm)	Diameter of Optical Fiber Assembly		Nominal Overall Dimensions Thickness x Width		Cable Weight	
		Approx AWG	mm2					Inches	mm			lber 1000ft	kg/km
4EF-0604-40F-HYP	4	6	16	510	4	62.5	125	0.3	7.8	0.409 x 1.435	12.4 x 47.2	887	1320

Note: Two non functional dummy fibers are present with two functional fibers available as an option.