

**Applications**

SIMBAL ‘FLATFLEX ‘N’ Neoprene flat cables are typically used on festoon systems on cranes & handling equipment, in applications with high mechanical stress & frequent bending in one plane.

**Design**

1. **Conductor** :- <= 25mm<sup>2</sup>—Extra Flexible plain copper, Class 6  
                  >= 35mm<sup>2</sup> - Flexible plain copper, Class 5 to IEC 60228 / DIN VDE 0295
2. **Insulation** :- EPR Rubber compound 3GI3 to VDE 0207 pt 20
3. **Outer Sheath** :- PCP Rubber compound 5GM3, to VDE 0207 pt 21 Colour - Black

**Marking**

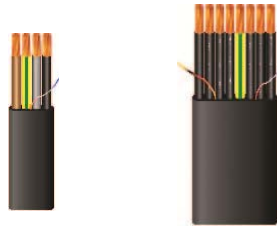
NGFLGOU-J, Number of cores - Cross section, 300/500 V, Year of manufacture

**Core Identification**

In accordance with HD 308 S2  
4 cores :- Black, Grey, Green/Yellow, Brown  
5 cores :- Black, Grey, Green/Yellow, Brown, Blue  
> 5 cores :- Black with white printed numbers (with or without green/yellow earth).

**Standards**

DIN VDE 0250 part 809



Mechanical Properties			
Tensile strength of the conductor	Static	15 N/mm <sup>2</sup>	
	Dynamic	30 N/mm <sup>2</sup>	
Bending Radii	Cable Thickness	< 8mm	8 - 12mm >12mm
	Festoon Systems :-	3 x t	4 x t 5 x t
	Cable Chains :-	4 x t	4 x t 5 x t
	Fixed Installation :-	3 x t	3 x t 4 x t
Max travelling speed of festoon system 180 m/min			

Chemical Properties
Oil, Acid & Alkaline resistant
For Indoor & Outdoor applications, Moisture, UV & Ozone resistant
Flame retardant in accordance with IEC 60332 part 1

Electrical & Thermal Properties	
Nominal Voltage	U <sub>0</sub> / U 300 / 500 V
Test Voltage	2.0 kV - 50Hz in AC
Max surface temperature	
- fixed installation	- 40 deg C up to + 85 deg C
- mobile installation	- 35 deg C up to + 85 deg C
Maximum temperature at the conductor	
- in operation	+ 90 deg C
- in short circuit	+ 150 deg C

**Technical data**

Number of cores & nominal cross section	Part No.	Gland PG (Metric)	Current rating at 30 deg C	U (cos 0.8) Voltage drop (V/A x km)	Outer dimensions Approx w x t	Weight Approx
4c x 1.5mm <sup>2</sup>	08014 0150 04	2121 (M25/21)	23 Amps	20.2	17 x 6.5mm	0.190 kg/m
4c x 2.5mm <sup>2</sup>	08014 0250 04	2121 (M25/21)	32 Amps	12.3	21 x 8mm	0.280 kg/m
4c x 4mm <sup>2</sup>	08014 0400 04	2930 (M32/29)	43 Amps	7.8	25 x 9mm	0.395 kg/m
4c x 6mm <sup>2</sup>	08014 0600 04	2930 (M32/29)	56 Amps	5.3	28 x 10mm	0.540 kg/m
4c x 10mm <sup>2</sup>	08014 1000 04	3640 (M40/36)	78 Amps	3.2	33 x 11mm	0.775 kg/m
4c x 16mm <sup>2</sup>	08014 1600 04	3640 (M40/36)	104 Amps	2.0	39 x 13mm	1.110 kg/m
4c x 25mm <sup>2</sup>	08014 2500 04	8107 Plate Gland	138 Amps	1.3	46 x 15mm	1.465 kg/m
4c x 35mm <sup>2</sup>	08014 3500 04	8108 Plate Gland	171 Amps	0.97	53 x 18mm	2.175 kg/m
4c x 50mm <sup>2</sup>	08014 5000 04	8108 Plate Gland	213 Amps	0.74	62 x 20mm	3.020 kg/m
4c x 70mm <sup>2</sup>	08014 7000 04	8108 Plate Gland	263 Amps	0.55	71 x 23mm	4.325 kg/m
4c x 95mm <sup>2</sup>	08014 9500 04	8110 Plate Gland	317 Amps	0.42	81 x 25.5mm	5.110 kg/m
4c x 120mm <sup>2</sup>	08014 1200 04	8110 Plate Gland	370 Amps	0.30	91 x 28mm	6.340 kg/m
5c x 1.5mm <sup>2</sup>	08014 0150 05	2930 (M32/29)	23 Amps	20.2	21.5 x 6.5mm	0.240 kg/m
5c x 2.5mm <sup>2</sup>	08014 0250 05	2930 (M32/29)	32 Amps	12.3	26 x 8mm	0.355 kg/m
5c x 4mm <sup>2</sup>	08014 0400 05	3640 (M40/36)	43 Amps	7.8	32 x 9mm	0.520 kg/m
5c x 6mm <sup>2</sup>	08014 0600 05	3640 (M40/36)	56 Amps	5.3	35 x 10mm	0.705 kg/m
5c x 10mm <sup>2</sup>	08014 1000 05	4245 (M50/42)	78 Amps	3.2	41.5 x 11mm	0.985 kg/m
5c x 16mm <sup>2</sup>	08014 1600 05	8107 Plate Gland	104 Amps	2.0	50 x 13mm	1.410 kg/m
5c x 25mm <sup>2</sup>	08014 2500 05	8108 Plate Gland	138 Amps	1.3	60 x 16mm	2.200 kg/m
7c x 1.5mm <sup>2</sup>	08014 0150 07	2930 (M32/29)	17 Amps	20.2	29 x 6.5mm	0.300 kg/m
7c x 2.5mm <sup>2</sup>	08014 0250 07	3640 (M40/36)	22 Amps	12.3	33 x 8mm	0.485 kg/m
7c x 4mm <sup>2</sup>	08014 0400 07	4245 (M50/42)	31 Amps	7.8	40 x 9mm	0.675 kg/m
7c x 6mm <sup>2</sup>	08014 0600 07	8107 Plate Gland	41 Amps	5.3	46 x 10mm	0.910 kg/m
8c x 1.5mm <sup>2</sup>	08014 0150 08	3640 (M40/36)	16 Amps	20.2	32 x 6.5mm	0.340 kg/m
8c x 2.5mm <sup>2</sup>	08014 0250 08	3640 (M40/36)	21 Amps	12.3	38 x 8mm	0.510 kg/m
12c x 1.5mm <sup>2</sup>	08014 0150 12	4250 (M63/48)	12 Amps	20.2	47.5 x 7mm	0.550 kg/m
12c x 2.5mm <sup>2</sup>	08014 0250 12	8107 Plate Gland	17 Amps	12.3	55 x 8mm	0.795 kg/m
24c x 1.5mm <sup>2</sup>	08014 0150 18	8107 Plate Gland	10 Amps	20.2	55 x 12mm	1.050 kg/m