

(N)GRDGÖU-O(C) / (N)GRDGÖEU-O(C) 0.6/1 kV Screened Round Rubber Festoon Cable

(N)GRDGÖU-O(C) is a 0.6/1 kV flexible round polychloroprene rubber festoon cable built to DIN VDE 0250-809 for crane cable trolleys, hoists, container-handling bridges, and transport systems where analog/digital feedback signals require individual copper shielding inside a continuous-flexing festoon loop.

1. CABLE CONSTRUCTION

1. Conductors	Fine-stranded bare copper conductors in accordance with DIN VDE 0295 / IEC 60228 Class 5 or Class 6
2. Core Insulation	Cross-linked ethylene-propylene rubber (EPR, compound type 3GI3) rated up to +90°C continuous conductor temperature
3. Core Identification	Up to 5 cores color-coded; 6 cores and above black with white sequential numbers (-0 without GN/YE earth; -J with GN/YE earth available on request)
4. Individual Screen (C)	Helical/braided flexible copper screen applied directly over designated 1 (C) single cores or 2×1 (C) twisted pairs (~85% optical coverage) with polymeric separating layer
5. Core Stranding & Bedding	Short-lay concentric round festoon stranding around central elastomeric cradle filler, encased in an inner rubber bedding compound to lock core geometry
6. Outer Sheath	Heavy-duty black polychloroprene (PCP / Neoprene, type 5GM3) compound — oil, ozone, UV, moisture, and abrasion resistant

Cross-Section Reference



Reference hybrid cross-section: concentric 2.5 mm² numbered EPR control cores combined with individually copper-screened 1(C) signal elements under a dual rubber bedding/5GM3 PCP jacket.

2. ELECTRICAL, MECHANICAL & ENVIRONMENTAL DATA

Nominal Voltage (U0/U)	0.6 / 1 kV (600 / 1,000 V AC)
AC Test Voltage	3,000 V (3 kV, 50 Hz)
Max. Conductor Operating Temp.	+90°C continuous; +250°C short-circuit limit
Ambient Temperature (Mobile)	-25°C to +90°C (festoon trolleys, hoists, moving machinery)
Ambient Temperature (Fixed)	-35°C to +90°C
Minimum Bending Radius (Mobile)	Approx. 5 × overall cable diameter (D) in guided festoon loops
Environmental Resistance	Dry, damp, and wet rooms plus outdoor crane runways; resistant to mineral oils, ozone, and UV
Flame & Environmental Compliance	Flame-retardant per IEC 60332-1-2; RoHS & REACH compliant

TEBAOFLEX CABLE

(N)GRDGÖU-O(C) / (N)GRDGOEU-O(C) 0.6/1 kV Screened Round Rubber Festoon Cable — Dimensional & Engineering Schedule SKU: NGRDGOEU-OC-0.6-1KV
<https://tebaoflexrubbercable.com/>

3. DIMENSIONAL, WEIGHT & PERFORMANCE SPECIFICATIONS

1. Individually Screened Multi-Core Control Series — 12×1(C) to 36×1(C) (0.6/1 kV)				
Part Designation	Configuration Architecture	Nominal Outer Diameter (mm)	Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
NGRDGÖU-O 12×1(C)	12 individually Cu-screened 1.0 mm² cores	23.50	239	755
NGRDGÖU-O 18×1(C)	18 individually Cu-screened 1.0 mm² cores	28.40	346	1,100
NGRDGÖU-O 24×1(C)	24 individually Cu-screened 1.0 mm² cores	33.20	478	1,510
NGRDGÖU-O 30×1(C)	30 individually Cu-screened 1.0 mm² cores	33.30	585	1,660
NGRDGÖU-O 36×1(C)	36 individually Cu-screened 1.0 mm² cores	36.20	717	1,960

2. Individually Screened Twisted-Pair & Hybrid Control/Signal Series (0.6/1 kV)				
Part Designation	Configuration Architecture	Nominal Outer Diameter (mm)	Copper Weight (kg/km)	Approx. Cable Weight (kg/km)
NGRDGÖU-O 6×2×1(C)	6 individually Cu-screened 2×1.0 mm² pairs	32.10	427	1,260
NGRDGÖU-O 9×2×1(C)	9 individually Cu-screened 2×1.0 mm² pairs	40.20	641	2,030
NGRDGÖU-O 19×2.5 + 5×1(C)	19×2.5 mm² control + 5 individually screened 1.0 mm² cores	31.00	556	1,650
NGRDGÖU-O 25×2.5 + 5×1(C)	25×2.5 mm² control + 5 individually screened 1.0 mm² cores	33.00	700	1,920

Standard Delivery & Custom Options: Standard factory export packing is 500 m on wooden drums; cut-to-length crane loop reels and –J variants incorporating a dedicated green/yellow protective earth conductor are manufactured to project schedule.