



Control & signal cable

2YSLGCGÖU

Mining Data and Control Cable

300/500 V low-capacitance PE double-screened 5GM3 rubber mining data & control cable



DIN VDE 0250 / 0819

300/500 V Low-Cap PE

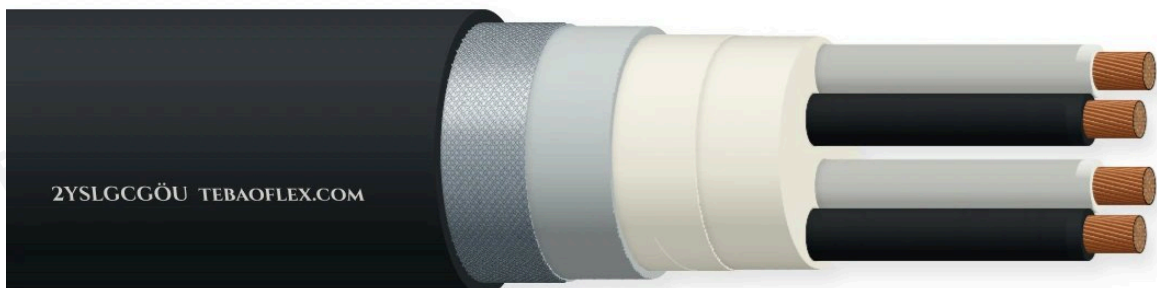
GCG Double EMC Screen

Application

2YSLGCGÖU low-capacitance screened mining data and control cable (DIN VDE 0250 / 0819, 300/500 V) with low-loss polyethylene ('2Y') core insulation, conductive rubber + tinned copper braid screen ('GCG'), and a heavy 5GM3 PCP outer jacket ('ÖU').

Typical uses: Open-Cast Bucket-Wheel Excavators, Underground Longwall & Roadway Mining, Tunnel Boring Machines (TBM), Overland Conveyor Telemetry, Heavy Industrial VFD Control

Construction



Cross-section, not to scale

- 1 Fine-stranded copper (SL)
- 2 Low-capacitance 2Y PE insulation
- 3 Elastomer inner sheath (G)
- 4 Conductive rubber + Sn-Cu braid (CG)
- 5 5GM3 polychloroprene sheath (ÖU)

Technical data

Typical values

Rated voltage U0/U	300/500 V AC	AC dielectric test voltage	2,000 V AC (core/core) · 1,000 V (screen)
Mutual capacitance (800 Hz)	Approx. 70–85 nF/km (core/core)	Insulation resistance	≥ 500 MΩ·km at +20 °C (2Y PE)
Fixed installation temp.	-40 °C to +80 °C	Flexible mining service	-25 °C to +70 °C
Short-circuit conductor temp.	+150 °C (PE core limit)	Conductor stranding	IEC 60228 Class 5 flexible copper
Min. bending radius (flex)	10 × overall cable diameter	Min. bending radius (fixed)	5 × overall cable diameter
Max. tensile pull on Cu	15 N/mm² total conductor area	Oil & chemical resistance	EN 60811-404 (5GM3 polychloroprene)
Flame retardance	IEC 60332-1-2 self-extinguishing ('U')	Mine water & ozone	Heavy-duty mining & tunnel grade
Standards	DIN VDE 0250 / DIN VDE 0819		

Sizes

20 standard constructions

Tick the sizes you need and send this page to info@tebaoflex.com or WhatsApp +86 185 9591 3361.

Order designation	Cross-section / size	Conductor build	Wall ≈ mm	Outer Ø ≈ mm	Metal kg/km	Weight ≈ kg/km	Min. bend R fixed mm
Standard 2YSLGCGÖU configurations 20 sizes							
☐ 2YSLGCGÖU 4G0.75	4G0.75 mm²	Class 5 Cu (SL) (0.75 mm²)	1.95	8.90	60.8	162.2	89
☐ 2YSLGCGÖU 7G0.75	7G0.75 mm²	Class 5 Cu (SL) (0.75 mm²)	1.95	10.10	86.8	217.4	101
☐ 2YSLGCGÖU 12G0.75	12G0.75 mm²	Class 5 Cu (SL) (0.75 mm²)	2.15	12.80	132.5	342.2	128
☐ 2YSLGCGÖU 18G0.75	18G0.75 mm²	Class 5 Cu (SL) (0.75 mm²)	2.15	14.60	182.2	455.0	146
☐ 2YSLGCGÖU 24G0.75	24G0.75 mm²	Class 5 Cu (SL) (0.75 mm²)	2.15	16.40	231.8	576.1	164
☐ 2YSLGCGÖU 4G1	4G1 mm²	Class 5 Cu (SL) (1 mm²)	1.95	9.30	71.9	182.6	93
☐ 2YSLGCGÖU 7G1	7G1 mm²	Class 5 Cu (SL) (1 mm²)	1.95	10.60	105.4	249.2	106
☐ 2YSLGCGÖU 12G1	12G1 mm²	Class 5 Cu (SL) (1 mm²)	2.15	13.60	164.2	400.9	136
☐ 2YSLGCGÖU 18G1	18G1 mm²	Class 5 Cu (SL) (1 mm²)	2.15	15.50	228.6	536.1	155
☐ 2YSLGCGÖU 24G1	24G1 mm²	Class 5 Cu (SL) (1 mm²)	2.15	17.50	293.4	685.4	175
☐ 2YSLGCGÖU 4G1.5	4G1.5 mm²	Class 5 Cu (SL) (1.5 mm²)	1.95	10.50	95.4	236.5	105
☐ 2YSLGCGÖU 7G1.5	7G1.5 mm²	Class 5 Cu (SL) (1.5 mm²)	1.95	12.10	144.4	331.8	121
☐ 2YSLGCGÖU 12G1.5	12G1.5 mm²	Class 5 Cu (SL) (1.5 mm²)	2.15	15.70	229.3	544.8	157
☐ 2YSLGCGÖU 18G1.5	18G1.5 mm²	Class 5 Cu (SL) (1.5 mm²)	2.15	18.00	324.0	738.7	180
☐ 2YSLGCGÖU 24G1.5	24G1.5 mm²	Class 5 Cu (SL) (1.5 mm²)	2.15	20.40	419.0	951.7	204
☐ 2YSLGCGÖU 30G1.5	30G1.5 mm²	Class 5 Cu (SL) (1.5 mm²)	2.15	22.00	511.2	1,130.7	220
☐ 2YSLGCGÖU 4G2.5	4G2.5 mm²	Class 5 Cu (SL) (2.5 mm²)	1.95	11.70	138.1	313.3	117
☐ 2YSLGCGÖU 7G2.5	7G2.5 mm²	Class 5 Cu (SL) (2.5 mm²)	1.95	13.50	216.6	449.9	135
☐ 2YSLGCGÖU 12G2.5	12G2.5 mm²	Class 5 Cu (SL) (2.5 mm²)	2.15	17.60	351.4	747.9	176
☐ 2YSLGCGÖU 18G2.5	18G2.5 mm²	Class 5 Cu (SL) (2.5 mm²)	2.15	20.30	505.1	1,032.6	203

- Outer diameters and weights are nominal engineering values for 2YSLGCGÖU subject to standard manufacturing tolerances per DIN VDE 0250 / DIN VDE 0819 / DIN VDE 0298-3.

Electrical & rating data

20 sizes

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test V AC rms
4G0.75 mm²	26.00	12.0	9.0	2,000
7G0.75 mm²	26.00	12.0	9.0	2,000
12G0.75 mm²	26.00	12.0	9.0	2,000

Configuration	Max. DC R @ 20 °C Ω/km	Primary rating (A or nF/km)	Secondary rating	Dielectric test V AC rms
18G0.75 mm ²	26.00	12.0	9.0	2,000
24G0.75 mm ²	26.00	12.0	9.0	2,000
4G1 mm ²	19.50	15.0	11.0	2,000
7G1 mm ²	19.50	15.0	11.0	2,000
12G1 mm ²	19.50	15.0	11.0	2,000
18G1 mm ²	19.50	15.0	11.0	2,000
24G1 mm ²	19.50	15.0	11.0	2,000
4G1.5 mm ²	13.30	18.0	14.0	2,000
7G1.5 mm ²	13.30	18.0	14.0	2,000
12G1.5 mm ²	13.30	18.0	14.0	2,000
18G1.5 mm ²	13.30	18.0	14.0	2,000
24G1.5 mm ²	13.30	18.0	14.0	2,000
30G1.5 mm ²	13.30	18.0	14.0	2,000
4G2.5 mm ²	7.98	26.0	20.0	2,000
7G2.5 mm ²	7.98	26.0	20.0	2,000
12G2.5 mm ²	7.98	26.0	20.0	2,000
18G2.5 mm ²	7.98	26.0	20.0	2,000

– Electrical resistance at +20 °C and dielectric withstand voltages verified per DIN VDE 0250 / DIN VDE 0819 / DIN VDE 0298-3.

Standards and approvals

- ✓ DIN VDE 0250 / DIN VDE 0819 / DIN VDE 0298-3
- ✓ CE (2014/35/EU) & RoHS 3 (2015/863/EU) Compliant
- ✓ REACH SVHC Compliance Verified

Certifications



Management systems: ISO 9001, ISO 14001, ISO 45001

Request a quotation

Send the size, length and destination. An application engineer replies within 2 business hours.

WhatsApp / phone

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Email

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Web

tebaoflex.com/cables/2yslsgcgoeu-mining-data-and-control-cable



Typical values for this cable type, based on DIN VDE 0250 / DIN VDE 0819 / DIN VDE 0298-3. Values for your order are confirmed in the quotation. Subject to change without notice. Jiangsu Tebaoflex Special Cable Co., Ltd., Taicang, Jiangsu, China.