

# PROTOMONT MSR Data, Signal and Control Cables for Mining Installations





BUIS\_69 III

### Selection and dimensioning criteria

Refer to Section 4 for further details

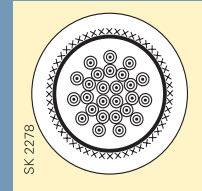


	Type	<b>PROTOMONT MSR-Mining</b>	Page	4/2
	Type designation	2YSLGCGÖU	Page	4/3
	Approvals/standards	Based on DIN VDE 0250, Part 812, WUG GE-1/99	Page	4/4
	Application (refer also to DIN VDE 0298, Part 3)	Control, signalling and bus cables with the necessary transmission characteristics used for electric and electronic equipment, such as for measured value and process data processing and automation units in open-cast mining applications. Suitable for laying alongside conveyor belts and on material handling equipment	Page	4/6
<b>Electrical parameters</b>	Rated voltage	$U = 250 \text{ V}/250 \text{ V}$	Pages to	4/14
	Maximum permissible operating voltage in AC systems	$U = 350 \text{ V}$ (peak value)		4/17
	Maximum permissible operating voltage in DC systems	$U = 350 \text{ V}$ (peak value)		
	AC test voltage	1.5 kV		
	Current-carrying capacity	According to DIN VDE 0298, Part 4		
<b>Thermal parameters</b>	Ambient temperature		Pages to	4/18
	• Fully flexible operation	- 25 °C to + 60 °C		4/19
	• Fixed installation	- 40 °C to + 60 °C		
	Maximum permissible operating temperature of the conductor	60 °C		
	Short-circuit temperature of the conductor	150 °C		
<b>Mechanical parameters</b>	Tensile load	Up to 15 N/mm <sup>2</sup>	Page	4/20
	Torsional stresses	± 25 °/m	Page	4/21
	Minimum bending radii	According to DIN VDE 0298, Part 3	Page	4/22
<b>Chemical parameters</b>	Resistance to oil	Given to DIN VDE 0473, Part 811-2-1, Para. 10	Page	4/28
	Behaviour in case of fire	Given to DIN VDE 0482, Part 265-2-1, Para. 10		
	Weather resistance	Unrestricted use outdoors and indoors, resistant to ozone and moisture		

# PROTOMONT MSR Data, Signal and Control Cables for Mining Installations

- 1 Conductor
- 2 Insulation
- 3 Inner sheath
- 4 Cu screen
- 5 Outer sheath

BUS\_067.eps



Design features		Refer to Section 4 for further details →
Type	<b>PROTOMONT MSR-Mining</b>	Page 4/2
Conductor (refer also to DIN VDE 0295)	Finely stranded copper conductor, Class 5	Page 4/29
Insulation (refer also to DIN VDE 0207, Part 20)	Basic material: Polyethylene (PE), compound type: 2Y11	Page 4/32
Core identification	Cores black with white digits printed thereon	
Core arrangement	Cores are laid-up in pairs in layers with a continuous serving of non-hygroscopic material over the conductor assembly	
Inner sheath (refer also to DIN VDE 0207, Part 21)	Basic material (special compound type) CM, compound type: EM2	Pages to 4/33 4/34
Screen	Screen braiding of tinned copper wires between inner and outer sheath	Page 4/35
Outer sheath (refer also to DIN VDE 0207, Part 21)	Basic material (special compound type) CM, compound type: EM2	Pages to 4/33 4/34
Marking	PROTOMONT MSR 2YSLGCG0U (number of cores) x (cross-section) (rated voltage)	Page 4/40

**Selection and ordering data**

Number of cores and nominal cross-section  mm <sup>2</sup>	Order No.	Cu factor for 1000 m	Conductor diameter  Max. value mm	Overall diameter of cable (guidance value)		Conductor resistance at 20 °C  Ω/km	Current-carrying capacity at 30 °C  A	Operating capacitance per unit length at 800 Hz  Max. value nF/km	Attenuation per unit length (max. value)		Coupling resistance of shield  Max. value at 30 MHz Ω/km	Approx. net weight for 1000 m  kg	Maximum permissible tensile force  N
				Min. value mm	Max. value mm				800 Hz dB/km	100 kHz dB/km			

**2YSLGCGÖU**

2 x 2 x 1	<b>5DM4 995</b>	142	1,5	11	13	19,5	12	65	1	3(+0.5)	25	245	60
5 x 2 x 1	<b>5DM4 996</b>	238	1,5	16	19	19,5	8,5	65	1	3(+0.5)	10	440	150
10 x 2 x 1	<b>5DM4 997</b>	353	1,5	20	23	19,5	6,5	65	1	3(+0.5)	10	700	300
20 x 2 x 1	<b>5DM4 998</b>	576	1,5	25	29	19,5	5	65	1	3(+0.5)	20	1040	600