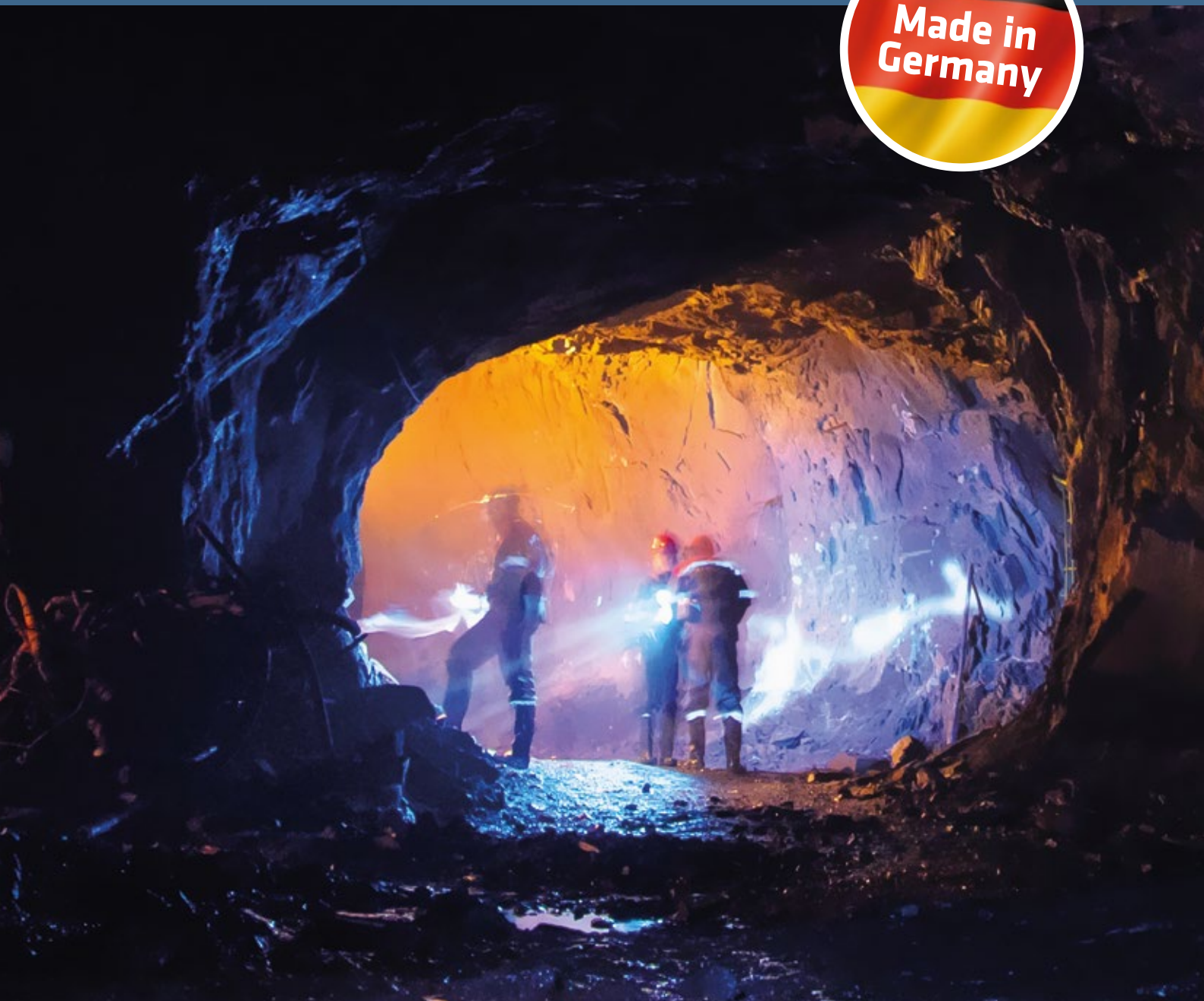


Mining cables

Product overview



Prysmian
Group

Linking the future

As the worldwide leader in the cable industry, Prysmian Group believes in the effective, efficient and sustainable supply of energy and information as a primary driver in the development of communities.

With this in mind, we provide major global organisations in many industries with best-in-class cable solutions, based on state-of-the-art technology. Through three renowned commercial brands – Prysmian, Draka and General Cable – based in almost 50 countries, we're constantly close to our customers, enabling them to further develop the world's energy and telecoms infrastructures, and achieve sustainable, profitable growth.

In our energy business, we design, produce, distribute and install cables and systems for the transmission and distribution of power at low, medium and high voltage.

In telecoms, the Group is a leading manufacturer of all types of copper and fibre cables, systems and accessories – covering voice, video and data transmission.

Drawing on over 130 years' experience and continuously investing in R&D, we apply excellence, understanding and integrity to everything we do, meeting and exceeding the precise needs of our customers across all continents, at the same time shaping the evolution of our industry.





What we offer

Elastomeric cables are the natural choice for applications where durability, flexibility, and safe operation under extreme conditions are important. The Prysmian Group's elastomeric cables have been "field proven" in thousands of operations, and with continuous development, utilise the best features of cables offered around the world.

Prysmian Group has developed extensive know-how over many years regarding the special operational conditions of mining equipment. The decisive factor was close cooperation with many significant mining operators. The experience we gain every day contributes to the design of our cables. The high operational reliability and service life of our cable solutions are based on this experience.

The force will be with you.

TENAX-LUMEN
– our self-luminous cable
safely bring power to your
mobile mining equipment.

TENAX-LUMEN self-luminous power cable is like a modern version of the canary in a coal mine, adding safety to miners and equipment. This extremely robust trailing cable supplies power to large mobile mining equipment in environments where it is crucial the cable is visible at all times. An enlightened choice in dark places.

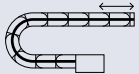



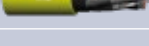
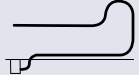

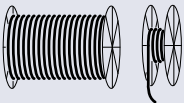




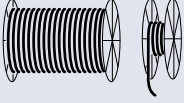



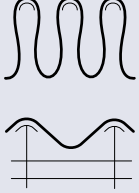







Applications overview – Opencast

Application group	Product name	Designation	Description	
MEDIUM VOLTAGE REELING CABLES				
		PROTOLON(M)	R-(N)TSCGEW0EU	MV reeling cable
		PROTOLON(M) with FO	R-(N)TSCGEW0EU	MV reeling cable with integrated fiber optic
		PROTOLON(IQ)	(N)TSKCGEW0EU	MV reeling cable with embedded sensor
MEDIUM VOLTAGE TRAILING CABLES				
		TENAX-SAS	NTSCGEW0EU	MV trailing cable abrasion and cold resistant (-50 °)
		PROTOLON(SB)	NTSCGEW0EU / NTSCGECEW0EU	MV trailing cable with or without metallic screen
		PROTOLON(SB-SAM)	(N)TSCGEW0EU / (N)TSCGECEW0EU	MV trailing cable with optimized dimensions
		TENAX-LUMEN	(N)TSCGEH3S	MV trailing cable with self-illuminating function
MEDIUM VOLTAGE DREDGING CABLES				
		PROTOLON(ST).../3E	NTSCGEW0EU	MV water resistant cable with individual concentric earth
		PROTOLON(ST)	NTSCGEW0EU	MV water resistant cable with earth into interstices
CABLES FOR SEMI-FLEXIBLE INSTALLATION				
		PROTOLON(M)	F-(N)TSCGEW0EU	MV cable for semi-flexible use
		PROTOMONT	NSSH0EU	LV cable for semi-flexible use, water resistant
		PROTOMONT	NSHX0EU	LV cable for semi-flexible use, LSOH
		PROTOMONT(MT)	(N)SSH0EU	LV cable for semi-flexible use, with optimized dimensions
		PROTOMONT EMV-FC	(N)SSHCOEU	LV screened cable EMC compliant for VFD
		PROTOMONT EMV-FC (-45°C)	(N)SSHCOEU	LV screened cable EMC compliant for VFD, cold-resistant
MEDIUM VOLTAGE SINGLE CORE CABLES				
		FELTOFLEX	NTMCW0EU	MV single-core cable with cold removable semi-con. layer
		PROTOLON	NTMCGCW0EU	MV single-core cable
		PROTOLON(M)	(N)TMCGCW0EU	MV single-core cable with optimized dimensions
CONTROL AND SIGNALING CABLES				
		OPTOFLEX(M)	G62.5/125, G50/125, E9/125	Flexible fibre optic cable, also suitable for underground installation
		PROTOMONT(MSR)	2YSLGCG0EU	Rubber sheathed screened data cable, also suitable for underground installation

Voltage range	Travel speed max.	Tensile force max.	Torsion max.	Sheath quality	Abrasion resistance	Water resistance	S-bendings in operation	Temp. range in fully flexible operation (°C)	Certificate/Approvals
3.6/6 kV – 20/35 kV	120 m/min	25 N/mm ²	+/- 100 °/m	5GM5	Very good	Good	Multiple planes	-35 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 20/35 kV	120 m/min	25 N/mm ²	+/- 100 °/m	5GM5	Very good	Good	Multiple planes	-35 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 20/35 kV	240 m/min	30 N/mm ²	+/- 100 °/m	5GM5	Very good	Good	Multiple planes	-35 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 12/20 kV	–	25 N/mm ²	+/- 100 °/m	5GM5+	Excellent	Very good	–	-50 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 12/20 kV	–	15 N/mm ²	+/- 100 °/m*	5GM5	Very good	Very good	–	-20 to +80	VDE, MSHA, Gost-R/-K/-B, TR-CU
3.6/6 kV – 12/20 kV	–	20 N/mm ²	+/- 100 °/m*	5GM5	Very good	Very good	–	-30 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 12/20 kV	–	25 N/mm ²	+/- 100 °/m	PUR	Very good	Very good	–	-50 to +80	–
1.8/3 kV – 18/30 kV	–	15 N/mm ²	+/- 25 °/m	5GM3	Good	Excellent	–	-25 to +80	Gost-R/-K/-B, TR-CU
1.8/3 kV – 18/30 kV	–	15 N/mm ²	+/- 100 °/m	5GM3	Good	Excellent	–	-25 to +80	Gost-R/-K/-B, TR-CU
1.8/3 kV – 18/30 kV	–	15 N/mm ²	+/- 100 °/m	5GM3	Good	Very good	–	-25 to +80	Gost-R/-K/-B, TR-CU
0.6/1 kV	–	15 N/mm ²	+/- 100 °/m	5GM5	Very good	Very good	–	-25 to +80	VDE, MA-China, MSHA, EAC
0.6/1 kV	–	15 N/mm ²	+/- 100 °/m	5GM3 (LSOH)	Good	Very good	–	-25 to +80	–
0.6/1 kV	–	15 N/mm ²	+/- 100 °/m	5GM5	Very good	Very good	–	-25 to +80	VDE
0.6/1 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	Very good	Very good	–	-25 to +80	MSHA, EAC
0.6/1 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	Very good	Very good	–	-45 to +80	MSHA, EAC
3.6/6 kV – 18/30 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	Very good	Very good	–	-25 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 18/30 kV	–	15 N/mm ²	+/- 25 °/m	5GM3	Good	Very good	–	-25 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV – 18/30 kV	–	15 N/mm ²	+/- 25 °/m	5GM3	Good	Very good	–	-25 to +80	Gost-R/-K/-B, TR-CU
–	–	max. 2000 N	+/- 100 °/m	5GM5	Very good	Very good	–	-30 to +80	–
250/250 V	–	max. 15 N/mm ²	+/- 25 °/m	EM2	Good	Good	–	-25 to +60	EAC

* +/- 25 °/m if with metallic screen

Applications overview – Underground/Tunneling

Application group	Product name	Designation	Description	
LOW AND MEDIUM VOLTAGE SHEARER CABLES				
		PROTOMONT(V)	NSSHCGE0EU	LV chain cable for shearers with double screen techn. and cold removable semi-con. layer
		PROTOMONT(V)	NTSKCGECW0EU	MV chain cable for shearers with double screen techn. and cold removable semi-con. layer
		PROTOMONT(V0)	(N)TSKCGEWOEU	MV chain cable for shearers with single screen techn. and cold removable semi-con. layer
		TENAX-CTE	NSSHKCGE0EU	LV chain cable for shearers with single screen techn. and semi-con. inner sheath
		PROTOMONT(Z)	NSSHKCGE0EU	LV trailing cable for shearers with double screen techn., cold removable semi-con. layer and steel armour
UNDERGROUND REELING CABLES				
		TENAX-LK	NTSKCGEWOEU	LV reeling cable with single screen techn. and semi-con. inner sheath
		PROTOMONT(S)	(N)SSHCGE0EU	LV reeling cable with single screen techn. and cold removable semi-con. layer
		CORDAFLEX(S)	NSHT0EU	LV reeling cable for fast-moving LHDs, rubber sheathed
		TROMMELFLEX M-PUR	D2X11Y	LV reeling cable for slow-moving LHDs, PUR sheathed, halogen-free
TBM REELING				
		PROTOMONT TBM	(N)TSCGECW0EU	MV reeling cable for TBMs, with double screen techn. and cold removable semi-con. layer
		PROTOMONT TBM	(N)TSCGECWHX0EU	MV reeling cable for TBMs, with double screen techn., cold removable semi-con. layer, LSOH
		TENAX-HTT	(N)TSCGEWOEU	MV reeling cable for TBMs, with single screen techn.
CABLES FOR SEMI-FIXED INSTALLATION IN UNDEGROUND MINES AND TUNNELS				
		PROTOMONT (Festoon)	NTSKCGECW0EU	MV cable for semi-flexible use, with double screen techn. and cold removable semi-con. layer
		SUPROMONT	(N)3GHSSYCY	MV armoured cable for fixed installation, with double screen techn. and cold removable semi-con. layer
		SUPROMONT	(N)3GHSSHCH	MV armoured cable for fixed installation, with double screen techn. cold removable semi-con. layer, LSOH
		PROTOMONT(MT)	(N)SSHOEU	LV cable for semi-flexible use, with optimized dimensions
		PROTOMONT ../3E	NSSHOEU	LV cable for semi-flexible use with individual concentric earth
		PROTOMONT EMV-FC	(N)SSHCOEU	LV screened cable EMC compliant for VFD
		PROTOMONT EMV-FC (-45°C)	(N)SSHCOEU	LV screened cable EMC compliant for VFD, cold-resistant

Voltage range	Travel speed max.	Tensile force max.	Torsion max.	Sheath quality	Min. bending radii at		S-bendings in operation	Temp. range in fully flexible operation (°C)	Certificate/Approvals
					max. 5N/mm ²	max. 15N/mm ²			
0.6/1 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	2.3xD	5xD	–	-20 to +80	MA – China, MSHA, EAC, BAS
1.8/3 kV – 3.6/6 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	2.3xD	5xD	–	-20 to +80	MA – China, MSHA, WUG, Gost -R/-K/-B, TR-CU
1.8/3 kV	–	15 N/mm ²	+/- 50 °/m	5GM3	2.3xD	5xD	–	-20 to +80	MA – China, Gost -R/-K/-B
0.6/1 kV	–	15 N/mm ²	+/- 50 °/m	5GM5	2.3xD	5xD	–	-20 to +80	EAC
0.6/1 kV	–	40 N/mm ²	+/- 10 °/m	5GM5	–	5xD	–	-20 to +80	MA – China, MSHA, EAC, BAS
0.6/1 kV	160 m/min	30 N/mm ²	+/- 100 °/m	5GM5	–	6xD	Multiple planes	-25 to +80	EAC
0.6/1 kV	160 m/min	30 N/mm ²	+/- 50 °/m	5GM5	–	6xD	Multiple planes	-25 to +80	MA - China, EAC
0.6/1 kV	160 m/min	30 N/mm ²	+/- 25 °/m	5GM5	–	6xD	Multiple planes	-25 to +80	MSHA, EAC
0.6/1 kV	60 m/min	25 N/mm ²	+/- 50 °/m	PUR (HF)	–	8xD	Single plane	-30 to +60	–
6/10 kV – 18/30 kV	30 m/min	30 N/mm ²	+/- 25 °/m	5GM5	–	12xD	Multiple planes	-20 to +80	Gost-R/-K/-B, TR-CU
6/10 kV – 18/30 kV	30 m/min	30 N/mm ²	+/- 25 °/m	5GM3 (LS0H)	–	12xD	Multiple planes	-20 to +80	Gost-R/-K/-B, TR-CU
6/10 kV – 18/30 kV	30 m/min	15 N/mm ²	+/- 100 °/m	5GM5	–	12xD	Multiple planes	-20 to +80	Gost-R/-K/-B, TR-CU
3.6/6 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	–	Fix 6xD Flex 10xD	–	-25 to +80	MA – China, WUG, BAS, Gost-R/-K/-B, TR-CU
3.6/6 kV – 18/30 kV	–	15 N/mm ²	+/- 25 °/m	PVC YM5	–	Fix 6xD Flex 10xD	–	-5 to +60	VDE
3.6/6 kV – 18/30 kV	–	15 N/mm ²	+/- 25 °/m	HM4 (LS0H)	–	Fix 6xD Flex 10xD	–	-5 to +60	VDE
0.6/1 kV	–	15 N/mm ²	+/- 100 °/m	5GM5	–	Fix 4xD Flex 5xD	–	-25 to +80	VDE
0.6/1 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	–	Fix 4xD Flex 5xD	–	-25 to +80	MA-China, MSHA, EAC, BAS
0.6/1 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	–	Fix 4xD Flex 5xD	–	-25 to +80	MSHA, EAC
0.6/1 kV	–	15 N/mm ²	+/- 25 °/m	5GM5	–	Fix 4xD Flex 5xD	–	-45 to +80	MSHA, EAC

Linking the future

Technical data, dimensions and weights are subject to change. All sizes and values without tolerances are reference values. Specifications are for product as supplied by Prysmian Group: any modification or alteration afterwards of product may give different result. The information contained within this document must not be copied, reprinted or reproduced in any form, either wholly or in part, without the written consent of Prysmian Group. The information is believed to be correct at the time of issue. Prysmian Group reserves the right to amend this specification without prior notice. This specification is not contractually valid unless specifically authorised by Prysmian Group.