Prysmian Group

AIRGUARD® CATALOG

Low and Medium Voltage Cable Products and Accessories

PRYSMIAN GROUP

VISION, MISSION, VALUES

Vision

The Prysmian Group believes in the effective, efficient and sustainable supply of Energy and Information as a primary driver in the development of communities

Mission

The Prysmian Group provides its customers worldwide with superior cable solutions based on pioneering technology and consistent excellence in execution, ultimately delivering sustainable growth and profit.

Values

Excellence
Every day we relentlessly purse excellence in all we do

Understanding
We listen closely to our customers to really understand their needs

Integrity
We uphold the highest standards of integrity in our actions

Prysmian Group

Market, innovation and technology leader in the global cables industry.

Prysmian Group is world leader in the energy and telecom cables and systems industry. With more than 130 years of experience, sales in excess of 7.5 billion dollars in 2015, over 19,000 employees in 50 countries and 88 production sites, the Group offers the widest possible range of products, services, technology and know-how for every type of industry thanks to an extensive commercial presence and 17 R&D centers in Europe, the United States, South America and China, with more than 500 qualified R&D professionals.

Prysmian is a public company, listed on the Italian Stock Exchange in the FTSE MIB index.

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Prysmian Group

INTRODUCTION

Today's customers are looking for solutions to the ever-growing demands before them including reduced construction and installation costs, and improved reliability and safety levels for man and machine. Prysmian's AIRGUARD® cable is making that happen today. Yesterday's metallic armored cable technology is a hindrance to meeting the installation efficiencies and safety levels that customers require today. Medium Voltage Airguard eliminates or reduces splices, increasing reliability while reducing the total installation cost. Low Voltage Airguard's construction allows the cable to be stripped in minutes, is extremely flexible with a minimum bending radius, for non-shielded cables, of 4 times the OD and is stronger than MCHL cables. Low Voltage Airguard is rated Class I Div. I for the entire size range. All of this allows for AIRGUARD connections to be performed in minutes, not hours. AIRGUARD's polymeric armor makes the need for power tools and knives a thing of the past while insuring a faster, more reliable and safer cable installation.

The Prysmian AIRGUARD polymeric armored cable solution completely eliminates the need for outdated interlocked and continuously corrugated and welded cables as it is now available in High Voltage, Medium Voltage, Low Voltage, Instrumentation and Fiber Optic cable constructions. The combination of AIRGUARD cable and Prysmian's extensive offering of terminations, splices, cable glands and tools provides a turnkey system and makes Prysmian the right choice for the demands of today.

APPLICATIONS:

- ARTIFICIAL LIFT
- CHEMICALS
- CHEMICAL WASHDOWN
- DRILLING
- FOOD INDUSTRY
- FRACKING
- MINING
- OFFSHORE PRODUCTION PLATFORM
- PETROCHEMICALS
- PIPELINE
- PULP & PAPER
- PUMPING STATION
- REFINING
- STEEL
- TANK BATTERY

Low Voltage AIRGUARD® Cables

Cable solutions to support OGP, Mining, Food Processing, and other industries around the world

Prysmian's state-of-the-art cable systems support many major customer's applications include drilling, extraction and storage equipment, platform and processing facilities operation, refining, petrochemicals, and mining.

Our cable solutions minimize harsh environmental impact and achieve sustainable, profitable growth.

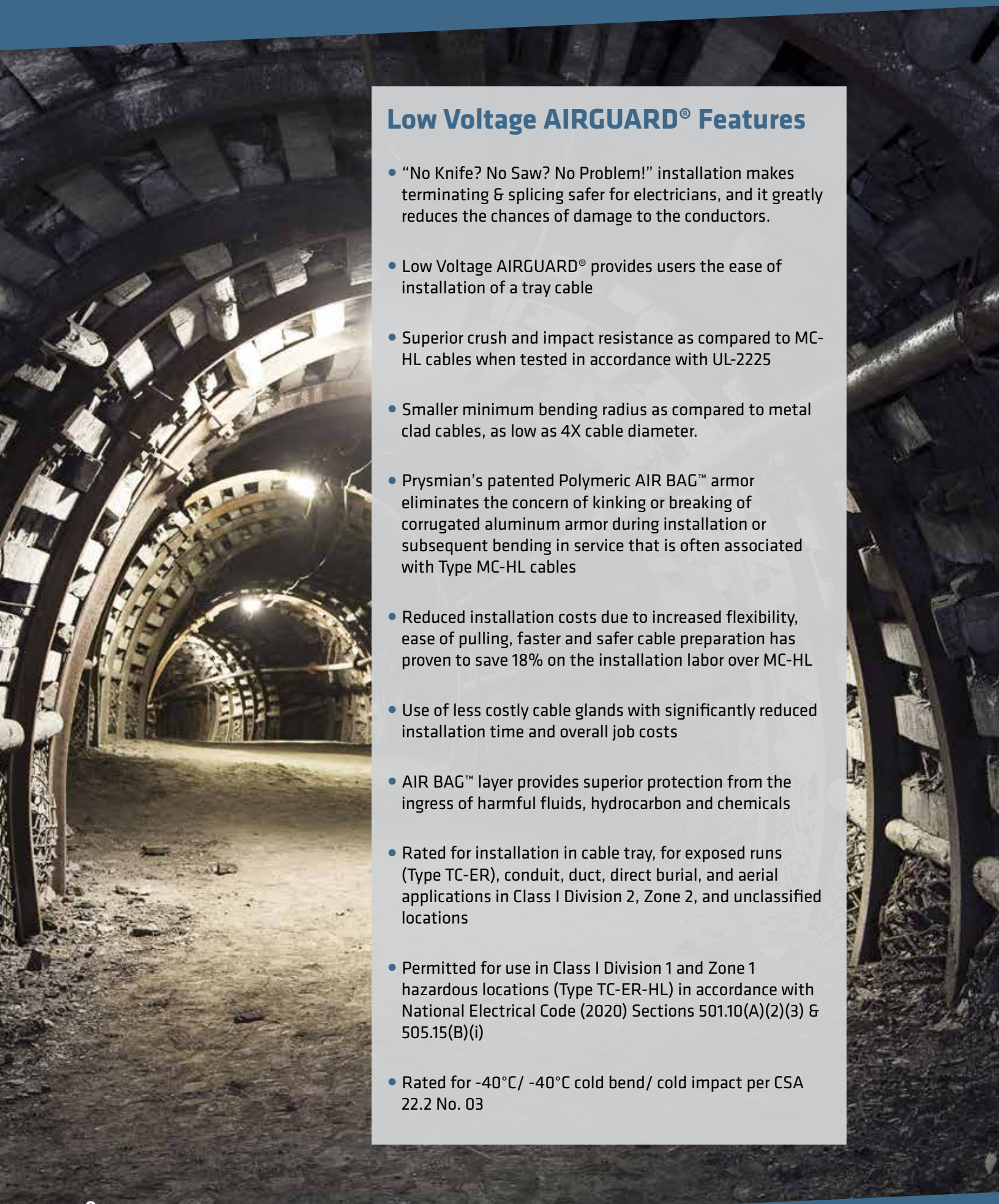
Low Voltage AIRGUARD® Overview

Prysmian's Low Voltage AIRGUARD® Power Cables are primarily designed for applications in environments found in heavy industrial and offshore markets. Its rugged polymeric AIR BAG™ armor and chemical barrier protection package makes it the ideal cable choice for tough harsh environmental conditions. AIRGUARD provides the solution to the deficiencies often encountered with MC-HL cables including armor breakage encountered during installation and in applications requiring recurring bending after installation (as is typical during scheduled maintenance and calibration of controls and instrumentation), as well as poor performance in areas of high vibration (e.g. motor connections)and reduced OSHA related incidents due to the sharp edges of cut armor, knifes or saws used to remove the armor. AIRGUARD also provides a safer alternative to MC-HL due to its "No Knife/No Saw" preparation, Installation costs have been proven to save as much as 18% of the installation labor. Material costs are also reduced as bulky, expensive metallic armor grounding glands are not required.

Low Voltage AIRGUARD is rated for installations in cable tray for exposed runs (Type TC-ER), conduit, and direct burial. It significantly exceeds the stringent crush and impact resistance of UL 2225 for MC-HL cables and is permitted for use in Class I Division 1 and Zone 1 hazardous locations (TC-ER-HL) in accordance with National Electrical Code (2020) Sections 501.10(A)(2)(3) and 505.15(B)(i). Prysmian's patented AIRGUARD design affords far better mechanical protection than traditional MC Armored Cables. It also provides users the ease of installation of a tray cable while providing better mechanical and environmental protection than traditional metal clad cables.

SPECIFICATIONS

ASTM B3 & ASTM B8	Class B Soft Drawn Concentric Lay Stranded Bare Copper Conductors
S095-658 (NEMA WC70) **UL 44 (XHHW-2) 600V**	Cable Rating XHHW-2 Multiple Conductors Direct Buried Sunlight Resistant Oil Resistant
IEEE 1202/FT-4 **IEEE 383**	Flame Retardant
UL 1277 TC-ER **NEC Article 336.10(7)**	Exposed Run Rating
UL 2225	TC-ER- HL
NEC Article 501.10(A)(2)(3)	TC-ER- HL Class I Division 1
NEC Article 505.15(B)(1)(i)	TC-ER-HL Class I Zone 1 600v TC-ER 1000v
CSA 22.2 No. 03	-40°C/ -35°C Cold Bend/Cold Impact
MSHA	Mine Safety & Health Administration
IEEE 1580	Marine Shipboard Cable Rating
ABS	American Bureau of Shipping Type Approval



Low Voltage AIRGUARD® Features

- "No Knife? No Saw? No Problem!" installation makes terminating & splicing safer for electricians, and it greatly reduces the chances of damage to the conductors.
- Low Voltage AIRGUARD® provides users the ease of installation of a tray cable
- Superior crush and impact resistance as compared to MC-HL cables when tested in accordance with UL-2225
- Smaller minimum bending radius as compared to metal clad cables, as low as 4X cable diameter.
- Prysmian's patented Polymeric AIR BAG™ armor eliminates the concern of kinking or breaking of corrugated aluminum armor during installation or subsequent bending in service that is often associated with Type MC-HL cables
- Reduced installation costs due to increased flexibility, ease of pulling, faster and safer cable preparation has proven to save 18% on the installation labor over MC-HL
- Use of less costly cable glands with significantly reduced installation time and overall job costs
- AIR BAG™ layer provides superior protection from the ingress of harmful fluids, hydrocarbon and chemicals
- Rated for installation in cable tray, for exposed runs (Type TC-ER), conduit, duct, direct burial, and aerial applications in Class I Division 2, Zone 2, and unclassified locations
- Permitted for use in Class I Division 1 and Zone 1 hazardous locations (Type TC-ER-HL) in accordance with National Electrical Code (2020) Sections 501.10(A)(2)(3) & 505.15(B)(i)
- Rated for -40°C/ -40°C cold bend/ cold impact per CSA 22.2 No. 03

Control Cable

Instrumentation Cable

VFD Cable

Low Voltage AIRGUARD® Advantages

Reduced installation costs while improving the overall cable performance in harsh environments!

Strippability – No Knife!? No Saw? No Problem! The ability to strip a cable quickly without damaging the phase conductors is critical in reducing installation costs. The combination of Low Voltage AIRGUARD'S unique design and strategically placed rip cords allows it to be stripped up to four (4) times faster than Metal Clad cables without the worry of nicked or damaged phase conductors. Low Voltage AIRGUARD cables do not require the use of a saw (as in the case of MC-HL cables) which results in increased personnel safety and reduces the potential for damage to the underlying core.

Chemical Resistance – Industrial plants require cable that will stand up to corrosive chemicals and hydrocarbons. Whether installing in a direct burial application, in tray, or in the air, Low Voltage AIRGUARD's proprietary polymeric layer provides the best protection in the market for the broadest range of chemicals.

Mechanical Resistance – AIRGUARD is known for its mechanical strength. When Prysmian's R&D engineers were designing Prysmian's new Low Voltage AIRGUARD it was imperative that the traditional toughness of the prior medium voltage designs be passed on to the Low Voltage AIRGUARD. In crush and impact testing, it is proven to be significantly stronger than metallic armored cables.

Flame – Not propagating a fire is a critical design parameter of any cable for the industrial market. Low voltage AIRGUARD passes all the industry standard flame tests, including IEEE 1202, FT-4 and IEEE 383 210,000 BTU flame test.

VFD – Low Voltage AIRGUARD VFD cables are designed with three symmetrically placed ground wires and an aluminum or copper sheath to contain the generation of high frequency electromagnetic interference (EMI) imposed on the cable when installed in a circuit containing a Variable Frequency Drive. In the event of catastrophic cable damage, this shield, plus the 3 segmented ground wires, should contain any arcing and effectively conduct system fault current to ground.

Product Range – Low Voltage AIRGUARD is available in 600V Power, Control & Instrumentation, from #16 AWG to 1000 kcmil. Standard stocked items include instrumentation cables, control cables to 37/C, and power cables to 3/C 750 kcmil.

LSOH Option – AIRGUARD is available in Low Smoke Zero Halogen (LSOH) construction. Add "LSOH" to the part number to specify as such.

Low Voltage AIRGUARD® Product Range

Low Voltage AIRGUARD® is available in 600V Power, Control & Instrumentation, from #16 AWG to 1000 kcmil. Standard stocked items include instrumentation cables, control cables to 37/C, and power cables to 3/C 750 kcmil.

All items listed in these Low Voltage item tables are rated TC-ER-HL except the single astorist (*) items

Power - Low Voltage | 3/C & 4/C | 600 Volt/1000 Volt | Onshore/Marine Rated

Product Number	Number and Circuit Conductor Size (AWG)	Nominal Insulation Thickness (mils)	Number & Grounding Conductor Size (AWG)	Nominal Jacket Thickness (mils)	Nominal Overall Cable O.D. (in)	Nominal Cable Weight (lbs/ Mft)	Minimum Bending Radius (in)	‡ Ampacity (Amps)
20260580	3/C #14	30	3 – #18	60	0.63	230	2.5	25
20260540	4/C #14	30	1 – #14	60	0.69	263	2.7	20
20260581	3/C #12	30	3 – #16	60	0.67	281	2.7	30
20260542	4/C #12	30	1 – #12	60	0.73	320	2.9	24
20260582	3/C #10	30	3 – #14	60	0.72	355	2.9	40
20260546	4/C #10	30	1 – #10	60	0.79	408	3.2	32
20260583	3/C #8	45	3 – #14	80	0.89	521	3.6	55
20260596	4/C #8	45	1 – #10	80	0.97	603	3.9	44
20260584	3/C #6	45	3 – #12	80	0.96	675	3.9	75
*20260597	4/C #6	45	1 – #8	80	1.06	782	4.4	60
*20260585	3/C #4	45	3 – #12	80	1.09	923	4.5	95
*20260586	3/C #2	45	3 – #10	80	1.22	1264	5	130
*20260598	4/C #2	45	1 – #6	80	1.31	1442	5.3	104
*20260587	3/C #1/0	55	3 – #10	80	1.42	1836	5.7	170

VFD - Low Voltage | 3/C | 600 Volt/1000 Volt | Onshore/Marine Rated

Product Number	Number and Circuit Conductor Size (AWG/kcmil)	Nominal Insulation Thickness (mils)	Number & Grounding Conductor Size (AWG)	Nominal Jacket Thickness (mils)	Nominal Overall Cable O.D. (in)	Nominal Cable Weight (lbs/ Mft)	Minimum Bending Radius (in)	‡ Ampacity (Amps)
20260539	3/C #14	30	3 – #18	60	0.63	247	3.9	25
20260541	3/C #12	30	3 – #16	60	0.67	297	4.2	30
20260544	3/C #10	30	3 – #14	60	0.725	374	4.5	40
20266649	3/C #8	45	3 – #14	80	0.89	542	5.5	55
20266650	3/C #6	45	3 – #12	80	0.97	701	5.9	75
20260550	3/C #4	45	3 – #12	80	1.09	960	6.7	95
20260551	3/C #2	45	3 – #10	80	1.23	1309	7.5	130
20267132	3/C #1/0	55	3 – #10	80	1.41	1872	8.6	170
20262625	3/C #2/0	55	3 – #10	80	1.51	2273	9.2	195
20262626	3/C #3/0	55	3 – #8	80	1.62	2766	9.9	225
20262624	3/C #4/0	55	3 – #8	80	1.8	3398	10.9	260
20127514	3/C 250	65	3 – #8	110	2.02	3903	12.3	290
20172246	3/C 350	65	3 – #5	110	2.24	5220	13.6	350
20127513	3/C 500	65	3 – #6	110	2.51	6940	15.3	430

PRODUCT NOTES:

‡ Per 2014 NEC TABLE 310.15(B)(16) “Allowable Ampacities of Insulated Conductors Rated up to and including 2000 Volts, 60°C through 90°C (140°F through 194°F), Not More Than Three Current-Carrying Conductors”

*Cables not marked "-HL" (per UL 2225, cables with an overall OD of 1 inch or greater need to be shielded to be marked "-HL")

Instrumentation - Low Voltage 600 Volt | IS/OS Cables | Onshore Rated

Product Number	Number and Circuit Conductor Size (AWG)	Insulation Thickness (mils)		Nominal Jacket Thickness (mils)	Nominal Overall Cable O.D. (in.)	Nominal Cable Weight (lbs/Mft)	Minimum Bending Radius (in.)	‡ Ampacity (Amps)
		Avg PVC	Min Nylon					
20260591	1/PR #18	15	4	45	0.51	132	5.7	14
20266660	1/TR #18	15	4	45	0.52	147	5.9	14
20260592	2/PR #18	15	4	60	0.66	229	7.7	11.2
20260593	4/PR #18	15	4	60	0.73	294	8.5	9.8
20260594	8/PR #18	15	4	80	0.91	468	4.6	7
20260554	1/PR #16	15	4	45	0.53	144	6	18
20260556	1/TR #16	15	4	60	0.57	178	6.2	18
20280364	2/PR #16	15	4	60	0.72	270	8.3	14.4
20280365	4/PR #16	15	4	60	0.79	343	9.3	12.6
20260563	4/TR #16	15	4	80	0.93	456	11.2	9
20280366	8/PR #16	15	4	80	0.99	557	11.8	9
20280367	12/PR #16	15	4	80	1.15	725	13.3	8.1
20310836	12/TR #16	15	4	80	1.27	907	16	7.2
20280368	24/PR #16	15	4	80	1.45	1266	17.7	6.3
20346812	36/PR #16	15	4	110	1.79	1670	19.8	6.3

Instrumentation - Low Voltage 600 Volt | IS/OS Cables | Marine Rated

Product Number	Number and Circuit Conductor Size (AWG)	XLP Insulation Thickness (mils)	Nominal Jacket Thickness (mils)	Nominal Overall Cable O.D. (in.)	Nominal Cable Weight (lbs/Mft)	Minimum Bending Radius (in.)	‡ Ampacity (Amps)
20352361	1/PR #18	30	45	0.58	160	5.7	14
20352236	1/TR #18	30	45	0.6	179	5.9	14
20352352	2/PR #18	30	60	0.77	274	7.7	11.2
20352297	4/PR #18	30	80	0.89	375	8.5	9.8
20352334	8/PR #18	30	80	1.07	557	4.6	7
20342161	1/PR #16	30	45	0.502	177	3.66	18
20342162	1/TR #16	30	60	0.62	199	3.72	18
20342152	2/PR #16	30	60	0.763	299	4.74	14.4
20342106	4/PR #16	30	60	0.92	412	5.52	12.6
20342132	4/TR #16	30	80	1.04	513	6.24	9
20342153	8/PR #16	30	80	1.1	632	6.6	9
20342163	12/PR #16	30	80	1.28	825	7.68	8.1
20342181	12/TR #16	30	80	1.51	1097	9.06	7.2
20342171	24/PR #16	30	80	1.68	1395	10.08	6.3

Control - Low Voltage 600 Volt/1000 Volt | Onshore/Marine Rated

Product Number	Number and Circuit Conductor Size (AWG)	Green Grounding Conductor Size (AWG)	Nominal Insulation Thickness (mils)	Nominal Jacket Thickness (mils)	Nominal Overall Cable O.D. (in.)	Nominal Cable Weight (lbs/ Mft)	Minimum Bending Radius (in.)	‡ Ampacity (Amps)
20354132	2/C #14 + Grd	#14	30	60	0.63	213	2.6	25
20354059	4/C #14 + Grd	#14	30	60	0.73	283	3	20
20354157	4/C #12 + Grd	#12	30	60	0.77	344	3.1	24
20354096	4/C #10 + Grd	#10	30	60	0.78	429	3.2	32
20354194	6/C #14 + Grd	#14	30	60	0.77	331	3.1	17.5
20354177	6/C #12 + Grd	#12	30	60	0.82	410	3.3	21
20354192	6/C #10 + Grd	#10	30	80	0.93	559	3.8	28
20354178	7/C #14 + Grd	#14	30	60	0.81	368	3.7	17.5
20354195	7/C #10 + Grd	#10	30	80	0.99	627	4	28
20354158	8/C #14 + Grd	#14	30	80	0.89	432	3.6	17.5
20354193	8/C #12 + Grd	#12	30	80	0.96	536	3.9	21
**20354184	9/C #10 + Grd	#10	30	80	1.05	753	6.3	28
20354183	11/C #14 + Grd	#14	30	80	0.96	511	3.9	12.5
**20354060	12/C #12 + Grd	#12	30	80	1.04	694	6.3	15
**20354179	19/C #14 + Grd	#14	30	80	1.07	715	6.4	12.5
**20354145	19/C #12 + Grd	#12	30	80	1.16	928	7.0	15

PRODUCT NOTES:

‡ Per 2014 NEC TABLE 310.15(B)(16) "Allowable Ampacities of Insulated Conductors Rated up to and including 2000 Volts, 60°C through 90°C (140°F through 194°F), Not More Than Three Current-Carrying Conductors"

*Cables not marked "-HL" (per UL 2225, cables with an overall OD of 1 inch or greater need to be shielded to be marked "-HL")

** Materials have 1 bare equipment ground and an overall shield.

Medium Voltage AIRGUARD® Cables

Medium Voltage AIRGUARD® Overview

Prysmian's patented AIRGUARD® cable is a direct replacement for continuously corrugated and welded aluminum armored cables (*in Class 1 Div 2 locations) with 5X the impact performance and up to 3X the sidewall bearing pressure limit. This enables longer pulls than MC-HL thus reduces splices and cost. Please call in regards to the product literature and performance testing and videos.

Three conductor cable with stranded copper or aluminum conductors, extruded insulation system consisting of a thermosetting semiconducting conductor shield, high dielectric strength EPROTENAX™ EPR insulation, thermosetting semiconducting insulation shield, helically applied bare copper tape shield, cabled with fillers and grounding conductors, overall binder tape, foamed polymeric AIR BAG™layer for superior mechanical protection, longitudinally applied aluminum tape, extruded oil and hydrocarbon resistant polymeric DRYLAM™ layer, and overall sunlight resistant PVC jacket. Suitable for Class I Division 2 locations. Single Conductor Airguard cables are also available.

DESIGN PARAMETERS

CONDUCTOR: Class B Compact concentric strand aluminum alloy 1350 or soft drawn annealed copper per ASTM.

CONDUCTOR SHIELD: Extruded thermosetting semiconducting shield which is free stripping from the conductor and bonded to the insulation.

INSULATION: Natural high dielectric strength EPROTENAX™ EPR-based insulation, combined with other materials and agents that enhance the electrical and mechanical characteristics assuring extended cable life.

INSULATION SHIELD: Extruded thermosetting semiconducting shield with controlled adhesion to the insulation providing the required balance between electrical integrity and ease of stripping.

METALLIC SHIELD: Helically applied non-magnetic copper tape(s) over the insulation shield with a nominal overlap of 25%. A mylar ribbon is longitudinally applied under the copper tape shield for phase identification - 1C w/ Red, 1C w/ Blue, and 1C w/ Black.

GROUNDING CONDUCTORS: Bare stranded copper conductor per UL, ICEA, and ASTM.

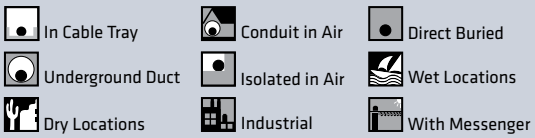
ASSEMBLY: Phase identified conductors cabled with fillers and grounding conductors, forming a firm and cylindrical cable core. A binder tape is applied to maintain core symmetry and mechanical stability.

MECHANICAL PROTECTION: High strength and high crush resistant AIR BAG layer extruded over the core assembly.

CHEMICAL PROTECTION: A layer of DRYLAM™ which consists of a 6mil longitudinally applied aluminum tape and a chemical resistant extruded polymer layer is applied.

JACKET: Sunlight and moisture resistant polyvinyl chloride (PVC) jacket.

INSTALLATION



OPTIONS

- Mine Power Type MP-GC
- Low Smoke Zero Halogen Jacket
- 100% Insulation Level
- Colored Jackets
- Manufactured to CSA

SPECIFICATIONS	RATINGS
ICEA S-93-639 (NEMA WC74)	
UL 1072	Type MV-105, For CT USE Direct Buried/Sunlight Resistant
IEEE	Flame Retardant
UL 1277 TC-ER	Exposed Run Rating
CSA	CSA FT4 Flame Test CSA Cold Impact/Bend Test (-40C
MSHA	Type MP and Type MP-GC
IEEE 1580	Marine Shipboard Cable Rating
ABS	American Bureau of Shipping Type Approval

Medium Voltage AIRGUARD® Product Range

Product Number	Conductor	Insulation Thickness (mils)	Ground Wires		Conductor Diameter (in)	Insulation Diameter (in)	Insulation Shield Diameter (in)	Overall Jacket Diameter (in)	Cable Weight (lbs/kft)	Minimum Bending Radius (in)	‡ Ampacity (Amps)		† † Impedance (micro-ohms/ft)	
			#	Size	(A)	(B)	(C)	(D)			‡105°C In Duct	‡105°C In Air/Tray	Pos/Neg Seq.	Zero Seq.
5kV 133%/8kV 100% Copper Three Conductor														
20261774	2 AWG CU	115	3	#10	0.271	0.56	0.6	1.85	2182	12	160	185	212 + j42	1134 + j26
20127601	1/0 AWG CU	115	3	#8	0.339	0.63	0.68	2.05	2914	14	210	240	134 + j39	954 + j22
20127489	2/0 AWG CU	115	3	#8	0.380	0.67	0.71	2.13	3281	14	235	275	106 + j37	888 + j21
20127495	4/0 AWG CU	115	3	#7	0.470	0.76	0.76	2.32	4344	16	305	360	67 + j35	752 + j19
20131914	250 AWG CU	115	3	#6	0.525	0.82	0.86	2.46	4974	17	335	400	57 + j34	704 + j18
20131375	350 AWG CU	115	3	#6	0.622	0.91	0.96	2.67	6247	18	400	490	41 + j32	622 + j16
20127490	500 AWG CU	115	3	#5	0.743	1.03	1.08	3.00	8349	20	485	600	29 + j31	548 + j15
20152787	750 AWG CU	115	3	#4	0.917	1.22	1.27	3.44	11635	23	585	745	20 + j30	465 + j13
15kV 133% Copper Three Conductor														
20131374	2 AWG CU	220	3	#10	0.271	0.76	0.8	2.34	3147	16	160	185	212 + j49	898 + j33
20127538	1/0 AWG CU	220	3	#8	0.339	0.83	0.88	2.48	3830	17	210	240	134 + j44	763 + j28
20149514	2/0 AWG CU	220	3	#8	0.380	0.86	0.91	2.56	4228	17	235	275	107 + j43	710 + j27
20127496	4/0 AWG CU	220	3	#7	0.470	0.96	1.02	2.75	5370	19	305	360	67 + j40	612 + j24
20127943	250 MCM CU	220	3	#6	0.525	1.01	1.06	2.89	6054	20	335	400	57 + j39	577 + j23
20127482	350 MCM CU	220	3	#6	0.622	1.11	1.16	3.20	7652	22	400	490	41 + j37	518 + j21
20127483	500 MCM CU	220	3	#5	0.743	1.23	1.28	3.48	9745	24	485	600	29 + j34	463 + j19
20127488	750 MCM CU	220	3	#4	0.917	1.42	1.47	3.87	13102	26	585	745	20 + j33	401 + j17
20138192	1000 MCM CU	220	3	#3	1.071	1.57	1.62	4.22	16432	30	660	860	16 + j32	361 + j16

Prysmian Cable Gland Selector Chart

	2 AWG	1/0 AWG	2/0 AWG	4/0 AWG	250 kcmil	350 kcmil	500 kcmil	750 kcmil	1000 kcmil
5kV 133%/8kV, 100%	494NE-38V	494NE-38V	494NE-44V	494NE-45V	494NE-45V	494AG-09V	494AG-10V	494AG-10V	494AG-11V
15kV, 133%	494NE-45V	494AG-09V	494AG-09V	494AG-09V	494AG-09V	494AG-10V	494AG-11V	494AG-11V	494AG-12V
25kV, 133%		494AG-09V	494AG-10V	494AG-10V	494AG-10V	494AG-11V	494AG-11V	494AG-12V	494AG-13V
35kV, 133%		494AG-10V	494AG-11V	494AG-11V	494AG-11V	494AG-12V	494AG-12V	494AG-13V	494AG-13V

(SEE PAGE 13 FOR PRODUCT NOTES)

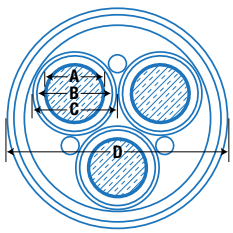
Medium Voltage AIRGUARD® Product Range

Product Number	Conductor	Insulation Thickness (mils)	Ground Wires		Conductor Diameter (in)	Insulation Diameter (in)	Insulation Shield Diameter (in)	Overall Jacket Diameter (in)	Cable Weight (lbs/kft)	Minimum Bending Radius (in)	‡Ampacity (Amps)		†† Impedance (micro-ohms/ft)	
			#	Size	(A)	(B)	(C)	(D)			‡105°C In Duct	‡105°C In Air/ Tray	Pos/Neg Seq.	Zero Seq.
25kV 133% Copper Three Conductor# Size														
QQ8580A	1/0AWG CU	320	3	#8	0.339	1.03	1.08	2.88	4855	21	210	240	134 + j49	636 + j33
QQ9580A	2/0AWG CU	320	3	#8	0.380	1.06	1.12	3.01	5410	22	235	275	107 + j48	594 + j32
QQB580A	4/0AWG CU	320	3	#7	0.470	1.16	1.22	3.28	6811	23	305	360	68 + j44	516 + j28
QQC580A	250 AWG CU	320	3	#6	0.525	1.24	1.3	3.45	7667	25	335	400	57 + j43	489 + j27
QQD580A	350 MCM CU	320	3	#6	0.622	1.31	1.37	3.6	8962	26	400	490	41 + j40	443 + j24
QQE580A	500 MCM CU	320	3	#5	0.743	1.43	1.49	3.86	11097	28	485	600	29 + j38	400 + j22
QQF580A	750 MCM CU	320	3	#4	0.917	1.62	1.67	4.28	14730	30	585	745	20 + j36	352 + j20
QQG580A	1000 MCM CU	320	3	#3	1.071	1.77	1.83	4.65	18141	33	660	860	16 + j34	321 + j18
35kV 133% Copper Three Conductor														
QR8580A	1/0 AWG CU	420	3	#8	0.339	1.22	1.27	3.39	6291	24	210	240	134 + j53	561 + j37
QR9580A	2/0 AWG CU	420	3	#8	0.380	1.24	1.31	3.5	7326	25	235	275	107 + j51	520 + j35
QRB580A	4/0 AWG CU	420	3	#7	0.470	1.35	1.41	3.69	8130	26	305	360	68 + j47	454 + j31
QRC580A	250 MCM CU	420	3	#6	0.525	1.4	1.46	3.78	9472	27	335	400	57 + j46	432 + j30
QRD580A	350 MCM CU	420	3	#6	0.622	1.5	1.56	4.02	11116	29	400	490	41 + j43	392 + j27
QRE580A	500 MCM CU	420	3	#5	0.743	1.62	1.68	4.3	12697	31	485	600	30 + j41	356 + j25
QRF580A	750 MCM CU	420	3	#4	0.917	1.81	1.86	4.73	16566	34	585	745	10 + j38	316 + j22
QRG580A	1000 MCM CU	420	3	#3	1.071	1.96	2.05	5	20786	35	660	860	16 + j37	290 + j21

PRODUCT NOTES:

s Items are Prysmian authorized stock.

The above dimensions are approximate and subject to normal manufacturing tolerances.



†Ampacities are based on the following:

Three Phase Operation

In Duct: Cable in underground electrical ducts; one cable per duct; based on ambient temperature of 20°C; 2014 NEC Table 310.60(C)(79)

Air: Cable isolated in air and an ambient temperature of 40°C; per 2014 NEC Table 310.60(C)(71)

In Cable Tray: Per 2014 NEC Article 392.80(B)(1)(b), where multi-conductor cables installed in a single layer in an uncovered cable tray, with maintained spacing of not less than one cable diameter between cables, the ampacities shall not exceed the allowable ampacities stated in Table 310.60(C)(71) (Copper).

‡EPROTENAX™ EPR-insulated cables are capable of operating at 105°C. However, the maximum operating temperature of the cable should be based on the maximum operating temperature of the cable accessories to be used.

††Impedance based on 105°C operating temperature, shields short-circuited with no return in earth. At 90°C, the resistive portion of the impedances can be estimated at 96% of the values at 105°C, the reactive portions remain unchanged.

Accessories

Putty Sealing Gland 424BT Series

For LV AIRGUARD® TC-ER-HL Cables, Class I Div 1

Features and Benefits:

- Fast, easy installation
- Large sealing range
- Space and weight savings
- Tested to UL and CSA standards
- Suitable for unarmored tray cables - TC-ER-HL and TC-ER
- 8hr cure time at 68°F

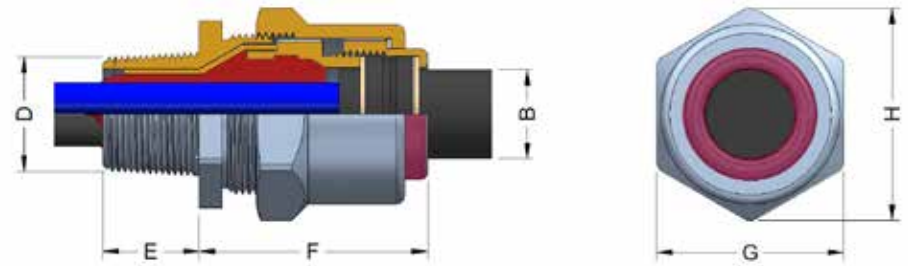
Technical Information:

- Suitable for unarmored tray cables-category TC-ER-HL
- All parts are brass. Threaded hub is nickel-plated brass.

Connector listed as follows:

1/2" to **3- 1/2**" CSA Class I groups ABCD, Class II groups EFG, Class III
1/2" to **1- 1/2**" UL Class I groups ABCD (Div 1) with TC-ER-HL cable (up to 1 inch): Class II groups FG (Div 2), Class III
1-1/4" to **3**" W' UL Class I groups CD (Div 2); Class II groups FG (Div 2), Class III

For use in most climatic conditions, rated to IP66 for wet location.
For use with explosion proof equipment in Zone 1 and 2 hazardous areas and for Class I, Div 1 & 2 applications.
Full installation instructions supplied.



Specifications

Gland Reference		Cable Dimensions Overall ∅ (B)			Gland Dimensions			Weight
Design Reference (Standard)	Hub Size NPT (D)	Min.	Max.	Hub Length (E)	Protrusion Length (F)	Hexagon		Lbs
						A/F (G)	A/C (H)	
424BT-02	1/2"	0.35"	0.62"	0.85"	1.85"	1.42"	1.57"	0.66
424BT-03	3/4"	0.51"	0.76"	0.86"	1.96"	1.67"	1.89"	0.88
424BT-04	1"	0.67"	1.06"	1.07"	2.08"	1.86"	2.11"	1.10
424BT-05	1 - 1/4"	0.95"	1.26"	1.10"	2.16"	2.22"	2.42"	1.76
424BT-15	1 - 1/2"	0.95"	1.26"	1.11"	2.16"	2.22"	2.42"	2.09
424BT-06	2"	1.14"	1.65"	1.15"	2.32"	2.76"	3.04"	2.87
424BT-07	2 - 1/2"	1.61"	2.08"	1.70"	2.24"	3.15"	3.44"	4.08
424BT-08	3"	1.96"	2.42"	1.76"	2.83"	3.89"	4.30"	6.64
424BT-09	3 - 1/2"	2.15"	2.91"	1.81"	2.91"	4.18"	4.50"	8.36

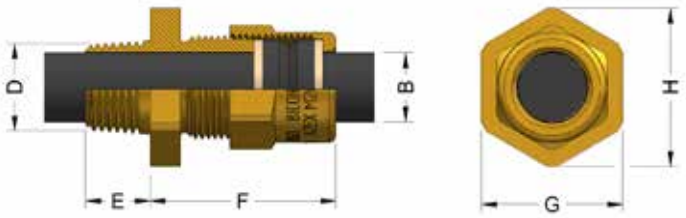
A2EX
494NE Series

The A2EX is a cable gland that provides high performance in high temperatures in deluge and IP68 conditions.

Key Features:
- Brass indoor and outdoor cable gland for use in hazardous areas
- Suitable for circular unarmored cables with extruded oversheath
- Fitted with silicone rubber low smoke, zero halogen seal
- Achieves IP66, IP68 (1 bar) and deluge proof (DTS01:1991) seal onto cable and to enclosure with suitable sealing washer or thread sealant
- Suitable for most climatic conditions – weatherproof, waterproof and deluge proof
- Nickel plated and standard versions available
- Certified II 2GD, Ex e II & Ex d IIC under ATEX directive 94/9/EC
- Certificate number Sira99ATEX1086X. IECEx 10.0069X
- Service temperature range –50°C to +200°C
- UL Classified in accordance with IEC 60079-0, 60079-1 and 60079-7 for use in hazardous locations
- UL Listed for use in Class I, Zone 0, 1 and 2 hazardous locations for Canada
- Full installation instructions supplied

May be used in:
- Zones 0, 1 & 2 with Ex ia IIA, B & C equipment
- Zones 1 & 2 with Ex ib IIA, B & C equipment
- Zones 1 & 2 with Ex e II equipment
- Zones 1 & 2 with Ex p II equipment
- Zone 2 with Ex nA II equipment
- Zones 21 & 22 with Ex tD II equipment

Where the cable is effectively filled, may also be used in:
- Zones 1 & 2 with Ex d IIC equipment not containing a source of ignition & with a volume less than 2000 cm³
- Zones 1 & 2 with Ex d IIA & Ex d IIB equipment not containing a source of ignition & with any volume
- Zone 1 with Ex d IIA & Ex d IIB equipment containing a source of ignition & with a volume less than 2000 cm³
- Zone 2 with Ex d IIA & Ex d IIB equipment containing a source of ignition & with any volume
- Zone 2 with Ex nR II equipment



Specifications

Gland Reference			Cable Dimensions Overall ∅ (B)				Gland Dimensions			Weight
Design Reference		Hub Size NPT (D)	Basic Metric	Min.	Max.	Hub Length (E)	Protrusion Length (F)	Hexagon		Lbs
Fully Plated	Un Plated							A/F (G)	A/C (H)	
494NE-03V	494NE-03	1/2"	16	0.138"	0.335"	0.60"	1.42"	0.85"	0.97"	0.209
494NE-04V	494NE-04	1/2"	20s	0.315"	0.453"	0.60"	1.34"	0.85"	0.97"	0.176
494NE-05V	494NE-05	1/2"	20	0.315"	0.530"	0.64"	1.73"	1.00"	1.13"	0.198
494NE-08V	494NE-08	3/4"	20	0.315"	0.630"	0.64"	1.73"	1.00"	1.13"	0.198
494NE-10V	494NE-10	3/4"	25	0.453"	0.827"	0.76"	1.81"	1.29"	1.45"	0.320
494NE-14V	494NE-14	1"	25	0.453"	0.827"	0.76"	1.81"	1.29"	1.45"	0.320
494NE-15V	494NE-15	1"	32	0.728"	1.083"	0.80"	1.50"	1.47"	1.65"	0.310
494NE-20V	494NE-20	1-1/4"	32	0.728"	1.083"	0.80"	1.50"	1.47"	1.65"	0.309
494NE-21V	494NE-21	1-1/4"	40	0.945"	1.339"	0.82"	1.81"	1.85"	2.11"	0.595
494NE-27V	494NE-27	1-1/2"	40	0.945"	1.339"	0.82"	1.81"	2.21"	2.47"	0.595
494NE-31V	494NE-31	1-1/2"	50	1.220"	1.614"	0.86"	1.73"	2.21"	2.40"	0.849
494NE-32V	494NE-32	2"	50	1.220"	1.614"	0.86"	1.73"	2.21"	2.40"	0.849
494NE-38V	494NE-38	2-1/2"	63	1.575"	2.067"	1.27"	2.40"	2.75"	3.02"	1.620
494NE-44V	494NE-44	3"	75s	2.067"	2.283"	1.31"	1.81"	3.13"	3.42"	1.962
494NE-45V	494NE-45	3"	75	2.146"	2.579"	1.31"	2.60"	3.13"	3.42"	1.709

Matching Glands for Low Voltage AIRGUARD®

Power - Low Voltage | 3/C & 4/C | 600 Volt/1000 Volt | Onshore/Marine Rated

Cable Product Number	Cable Description	Non-Potted Gland Class 1 Division 2		Putty Sealing Gland Class 1 Division 2	
20260580	3/C #14 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260540	4/C #14 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260581	3/C #12 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260542	4/C #12 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260582	3/C #10 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260546	4/C #10 AWG	494NE10V	3/4" NPT	424BT04	1" NPT
20260583	3/C #8 AWG	494NE15V	1" NPT	424BT04	1" NPT
20260584	3/C #6 AWG	494NE15V	1" NPT	424BT04	1" NPT
20260585	3/C #4 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20260586	3/C #2 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20260587	3/C #1/0 AWG	494NE32V	2" NPT	424BT06	2" NPT

VFD - Low Voltage | 3/C | 600 Volt/1000 Volt | Onshore/Marine Rated

Cable Product Number	Cable Description	Non-Potted Gland Class 1 Division 2		Putty Sealing Gland Class 1 Division 2	
20260539	3/C #14 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260541	3/C #12 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260544	3/C #10 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20266649	3/C #8 AWG	494NE15V	1" NPT	424BT04	1" NPT
20266650	3/C #6 AWG	494NE15V	1" NPT	424BT04	1" NPT
20260550	3/C #4 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20260551	3/C #2 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20267132	3/C #1/0 MCM	494NE32V	2" NPT	424BT06	2" NPT
20262625	3/C #2/0 MCM	494NE32V	2" NPT	424BT06	2" NPT
20262624	3/C #4/0 KCM	494NE38V	2-1/2" NPT	424BT07	2-1/2" NPT
20127514	3/C #250 KCM	494NE38V	2-1/2" NPT	424BT07	2-1/2" NPT
20172246	3/C #350 KCM	494NE45V	3" NPT	424BT08	3" NPT
20127513	3/C #500 KCM	494AG09V	3" NPT	424BT09	3-1/2" NPT
20147056	3/C #750 KCM	494AG09V	3" NPT	TBD	TBD

Matching Glands for Low Voltage AIRGUARD®

Control - Low Voltage 600 Volt/1000 Volt | Onshore/Marine Rated

Cable Product Number	Cable Description	Non-Potted Gland Class 1 Division 2		Putty Sealing Gland Class 1 Division 2	
20354059	5/C #14 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20354157	5/C #12 AWG	494NE10V	3/4" NPT	424BT04	1" NPT
20354096	5/C #10 AWG	494NE10V	3/4" NPT	424BT04	1" NPT
20354194	7/C #14 AWG	494NE10V	3/4" NPT	424BT04	1" NPT
20354177	7/C #12 AWG	494NE15V	1" NPT	424BT04	1" NPT
20354192	7/C #10 AWG	494NE15V	1" NPT	424BT04	1" NPT
20354158	9/C #14 AWG	494NE15V	1" NPT	424BT04	1" NPT
20354193	9/C #12 AWG	494NE15V	1" NPT	424BT04	1" NPT
20354183	12/C #14 AWG	494NE15V	1" NPT	424BT04	1" NPT
20354060	12/C #12 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20354179	19/C #14 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20354145	19/C #12 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT

Instrumentation - Low Voltage 600 Volt | IS/OS Cables | Onshore Rated

Cable Product Number	Cable Description	Non-Potted Gland Class 1 Division 2		Putty Sealing Gland Class 1 Division 2	
20260591	1/PR #18 AWG	494NE05V	1/2" NPT	424BT02	1/2" NPT
20266660	1/TR #18 AWG	494NE10V	3/4" NPT	424BT02	1/2" NPT
20260592	2/PR#18 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260593	4/PR #18 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20260594	8/PR #18 AWG	494NE15V	1" NPT	424BT04	1" NPT
20260554	1/PR #16 AWG	494NE10V	3/4" NPT	424BT02	1/2" NPT
20260556	1/TR #16 AWG	494NE10V	3/4" NPT	424BT02	1/2" NPT
20280364	2/PR#16 AWG	494NE10V	3/4" NPT	424BT03	3/4" NPT
20280365	4/PR #16 AWG	494NE10V	3/4" NPT	424BT04	1" NPT
20260563	4/TR #16 AWG	494NE15V	1" NPT	424BT04	1" NPT
20280366	8/PR #16 AWG	494NE15V	1" NPT	424BT05	1-1/4" NPT
20280367	12/PR #16 AWG	494NE21V	1-1/4" NPT	424BT05	1-1/4" NPT
20310836	12/TR #16 AWG	494NE21V	1-1/4" NPT	424BT06	2" NPT
20280368	24/PR #16 AWG	494NE32V	2" NPT	424BT06	2" NPT
20346812	36/PR #16 AWG	494NE38V	2-1/2" NPT	424BT07	2-1/2" NPT

Instrumentation - Low Voltage 600 Volt | IS/OS Cables | Marine Rated

Cable Product Number	Cable Description	Non-Potted Gland Class 1 Division 2		Putty Sealing Gland Class 1 Division 2	
20352361	1/PR #18 AWG	494NE10V	1/2" NPT	424BT02	1/2" NPT
20352236	1/TR #18 AWG	494NE10V	3/4" NPT	424BT03	1/2" NPT
20352352	2/PR#18 AWG	494NE10V	3/4" NPT	424BT04	3/4" NPT
20352297	4/PR #18 AWG	494NE15V	3/4" NPT	424BT04	3/4" NPT
20352334	8/PR #18 AWG	494NE21V	1" NPT	424BT05	1" NPT
20342161	1/PR #16 AWG	494NE05V	3/4" NPT	424BT02	1/2" NPT
20342162	1/TR #16 AWG	494NE10V	3/4" NPT	424BT03	1/2" NPT
20342152	2/PR#16 AWG	494NE10V	3/4" NPT	424BT04	3/4" NPT
20342106	4/PR #16 AWG	494NE15V	3/4" NPT	424BT04	1" NPT
20342132	4/TR #16 AWG	494NE21V	1" NPT	424BT05	1" NPT
20342153	8/PR #16 AWG	494NE21V	1" NPT	424BT05	1-1/4" NPT
20342163	12/PR #16 AWG	494NE21V	1-1/4" NPT	424BT06	1-1/4" NPT
20342181	12/TR #16 AWG	494NE32V	1-1/4" NPT	424BT06	2" NPT
20342171	24/PR #16 AWG	494NE38V	2" NPT	424BT07	2" NPT

MV AIRGUARD® 3/C AND 1/C SPLICES

Prysmian's patented AIRGUARD® cable is a superior alternative for CCW type armored cables. Prysmian has developed a quick and easy splice for single and three conductor AIRGUARD cable. Connectors can be supplied in the kit as required. Prysmian Elaspeed splices meet IEEE 404 specifications. Contact your Prysmian sales representative for more information, including data on size transition limits.

1/C 5kV Splices

Part Number	Cable Size Range
AGJ1CD5H	1/0 - 250
AGJ1CE5H	350 - 500
AGJ1CF5H	750 - 1000

3/C 5kV Splices

Part Number	Cable Size Range
AGJ3CD5H	1/0 - 250
AGJ3CE5H	350 - 500
AGJ3CF5H	750 - 1000

1/C 15kV Splices

Part Number	Cable Size Range
AGJ1CD15H	#2 - 2/0
AGJ1CE15H	4/0 - 250
AGJ1CIP15H	350 - 500
AGJ1CI15H	750 - 1000

3/C 15kV Splices

Part Number	Cable Size Range
AGJ3CD15H	#2 - 2/0
AGJ3CE15H	4/0 - 250
AGJ3CIF15H	350 - 500
AGJ3CIP15H	750 - 1000

1/C 25kV Splices

Part Number	Cable Size Range
AGJ1CF25H	#1 - 350
AGJ1CIP25H	500 - 750
AGJ1CI25H	1000

3/C 25kV Splices

Part Number	Cable Size Range
AGJ3CF25H	#1 - 350
AGJ3CIP25H	500 - 750
AGJ3CI25H	1000

1/C 35kV Splices

Part Number	Cable Size Range
AGJ1CH35H	1/0 - 250
AGJ1CIP35H	500 - 750
AGJ1CI35H	750 – 1000

3/C 35kV Splices

Part Number	Cable Size Range
AGJ3CH35H	1/0 - 250
AGJ3CIP35H	500 - 750
AGJ3CI35H	750 – 1000

Choosing the correct connector number (if required):
Connectors can be included by adding the appropriate part number suffix:

Conductor Size Part Number Suffixes

Conductor Size	Suffix
2	-2
1	-1
1/0	-1/0
2/0	-2/0
4/0	-4/0

Conductor Size	Suffix
250	-250
350	-350
500	-500
750	-750
1000	-1000

Specify either a copper (CU) or aluminum (AL) connector.

Example:

A copper connector for a splice kit for a 750 kcmil conductor, 15kV three conductor would be AGJ3CIP15H-750-CU.

MV AIRGUARD® TERMINATIONS

Prysmian Group's patented AIRGUARD™ cable is a superior replacement for CCW type armored cables. Prysmian has developed a quick and easy termination for AIRGUARD™ cable.

Two-hole lugs can be provided so that a complete kit is ready for the jobsite.

Add "-O" to below product number for outdoor or "-I" for indoor termination kits. If not specified, outdoor rated terminations will be assumed as requested.

1/C 5kV Terminations (Indoor or Outdoor)

Product Number	Cable Range	Insulation OD
AGT1CA5	1/0 – 3/0	0.57" – 0.98"
AGT1CB5	4/0 – 250	0.67" – 1.10"
AGT1CC5	350 – 500	0.85" – 1.50"
AGT1CD5	750 – 1000	1.08" – 1.97"
AGT1CE5	Larger Size	1.41" – 2.56"

3/C 5kV Terminations (Indoor or Outdoor)

Product Number	Cable Range	Insulation OD
AGT3CA5	1/0 – 3/0	0.57" – 0.98"
AGT3CB5	4/0 – 250	0.67" – 1.10"
AGT3CC5	350 – 500	0.85" – 1.50"
AGT3CD5	750 – 1000	1.08" – 1.97"
AGT3CE5	Larger Size	1.41" – 2.56"

1/C 15kV Terminations (Indoor or Outdoor)

Product Number	Cable Range	Insulation OD
AGT1CA15	#2 – 3/0	0.57" – 0.98"
AGT1CB15	#1 – 250	0.67" – 1.10"
AGT1CC15	2/0 – 500	0.85" – 1.50"
AGT1CD15	350 – 750	1.08" – 1.97"
AGT1CE15	1000 – 1500	1.41" – 2.56"

3/C 15kV Terminations (Indoor or Outdoor)

Product Number	Cable Range	Insulation OD
AGT3CA15	#2 – 3/0	0.57" – 0.98"
AGT3CB15	#1 – 250	0.67" – 1.10"
AGT3CC15	2/0 – 500	0.85" – 1.50"
AGT3CD15	350 – 750	1.08" – 1.97"
AGT3CE15	1000 – 1500	1.41" – 2.56"

1/C 25kV Terminations (Outdoor Only)

Product Number	Cable Range	Insulation OD
AGT1CB25	#2 – 2/0	0.67" – 1.10"
AGT1CC25	3/0 – 250	0.85" – 1.50"
AGT1CD25	350 – 800	1.08" – 1.97"
AGT1CE25	500 – 1500	1.41" – 2.56"

3/C 25kV Terminations (Outdoor Only)

Product Number	Cable Range	Insulation OD
AGT3CB25	#2 – 2/0	0.67" – 1.10"
AGT3CC25	3/0 – 250	0.85" – 1.50"
AGT3CD25	350 – 800	1.08" – 1.97"
AGT3CE25	750 – 1500	1.41" – 2.56"

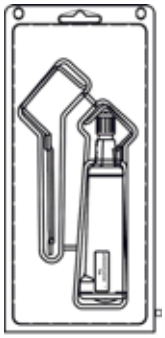
1/C 35kV Terminations (Outdoor Only)

Product Number	Cable Range	Insulation OD
AGT1CC35	1/0 – 4/0	0.85" – 1.35"
AGT1CD35	250 – 350	1.08" – 1.70"
AGT1CE35	500 – 750	1.41" – 2.20"
AGT1CF35	750 – 1000	1.41" – 2.20"

3/C 35kV Terminations (Outdoor Only)

Product Number	Cable Range	Insulation OD
AGT3CC35	1/0 – 4/0	0.85" – 1.35"
AGT3CD35	250 – 350	1.08" – 1.70"
AGT3CE35	500 – 750	1.41" – 2.20"
AGT3CF35	750 – 1000	1.41" – 2.20"

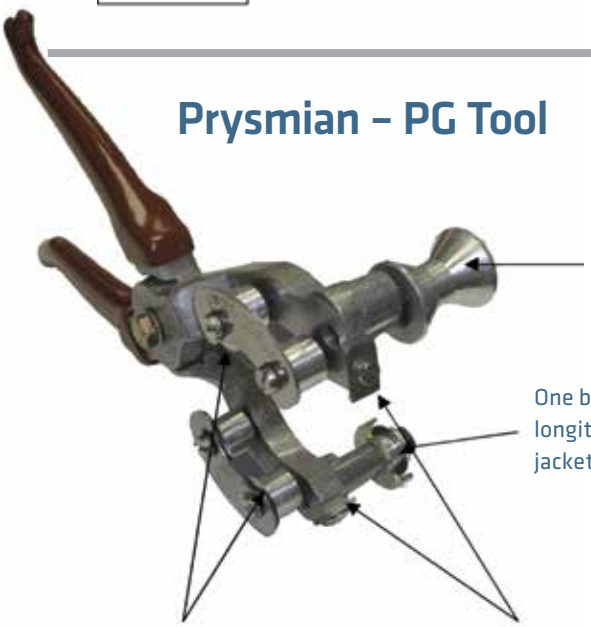
Prysmian – Flexi Peeler Tool



Includes:
- Tool with blade
- Two hooks (small & large)
- Replacement blade (inside base of tool)

Cutting Patterns: Circular, Spiral and Lengthwise
Cable OD Range: 0.18" to 1.57" Up to 2/0, 3C LV AirGuard
Tool Part Number: 4320-1030
Blade Part Number: 4320-0618
Large Hook Part Number: 4320-0619

Prysmian – PG Tool



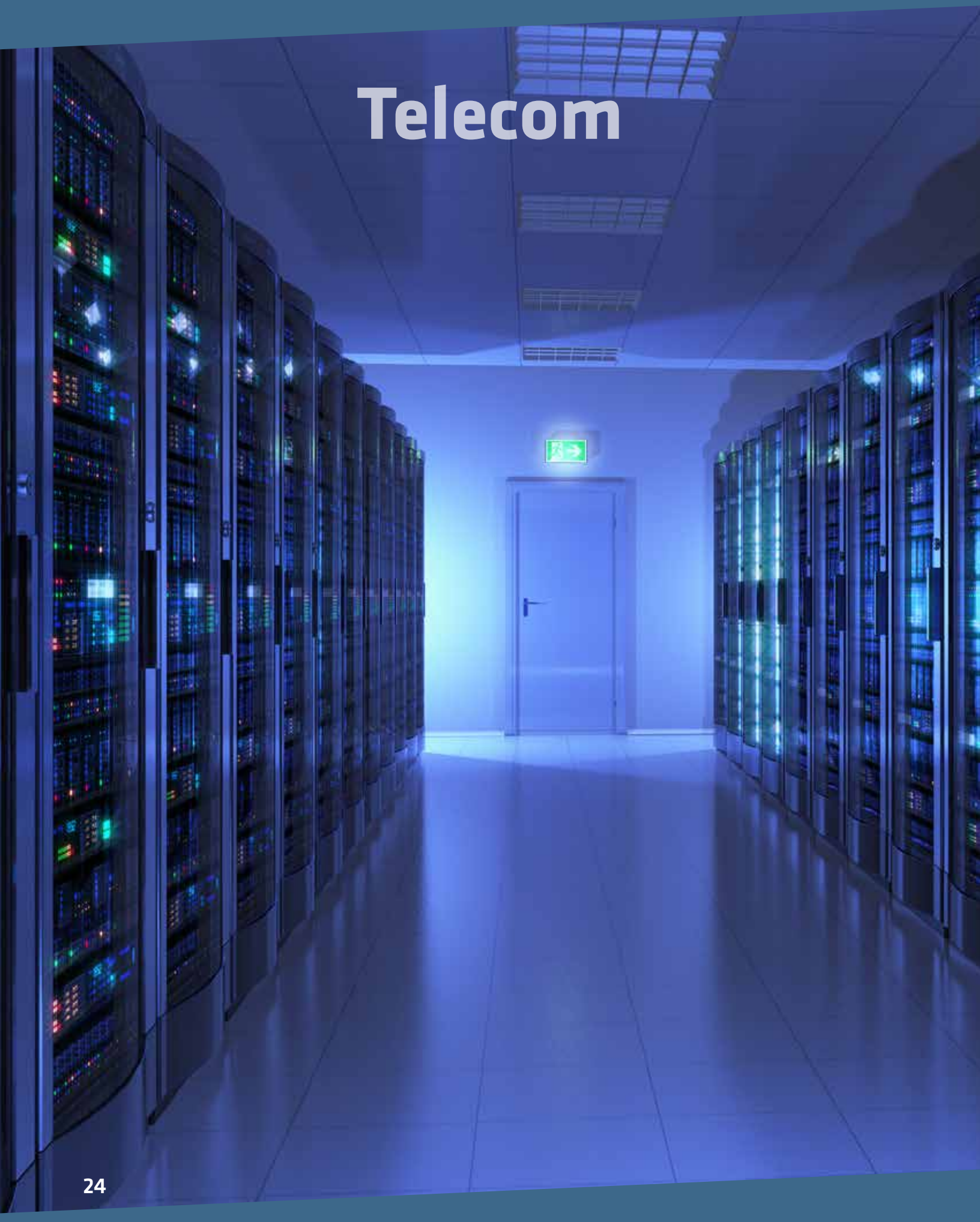
SHEATH DIAMETER	TOOL DESIGNATION
1.00" - 2.00"	PG3 MV
1.85" - 3.00"	PG4 MV
2.55" - 3.70"	PG5 MV

Longitudinal Jacket Cut

Radial Cut

Teeth Gripping and Pulling Off Laminate Layer.

Telecom



AIRGUARD® XP Fiber Optic Cable

Oil & Gas | Chemical | Low Temp | High Crush | Harsh Environment

Prysmian's AIRGUARD® XP cable will assure long term reliability of up to 288 fibers in a variety of severe conditions.

Overview

AIRGUARD® XP combines world-class mechanical protection, chemical protection, and user friendliness into a family of robust industrial optical fiber cables. AIRGUARD® XP joins Prysmian's existing brands of AIRGUARD® low voltage and medium voltage cables.
In the industrial and harsh environment, the presence of aggressive chemicals such as hydrocarbons, solvents, acids, and bases can destroy a traditional fiber cable. AIRGUARD®XP resists those harsh elements. In fact, the AIRGUARD® XP family surpasses the rigorous UL 2556 requirements for Oil & Gas Resistance.

AIRGUARD® XP goes head to head with interlocking armor cables in the areas of impact and crush resistance. Because interlock armor contains metallic armoring, they are stiff, heavy, and require grounding. A severe impact or crush may cause permanent deformation to the metallic armor. The AIRGUARD® XP, all-dielectric versions, overcome these un-desirable factors and can be installed in trays/ladders along with copper communications or power conducting cables, thus providing greater flexibility & user friendliness.

AIRGUARD® XP cables meet or exceed key industry standards such as ANSI/ICEA 696, CSA 22.2, UL 1277, and Telcordia GR20.

The robust all-dielectric double jacket also carries listings for sunlight resistance (SUN RES) and direct burial (DIR BUR). This cable is extremely versatile and may be utilized in low temperature applications down to -50°C (-58°F) and in properly engineered self-supporting aerial applications. The dual jacket, single corrugated steel tape option provides optimal rodent protection in direct buried applications. The single jacket all-dielectric option is best suited for duct installations.

Features and Benefits

- Suitable for tray installations
- Hydrocarbon (kerosene, gasoline, lubricating oil) resistant
- Resists chemical degradation in industrial environments
- Resistant to jet fuel & de-icing chemicals for airport applications
- Flame-retardant, black UV-resistant outer jacket
- Smaller & lighter than comparable metallic armored designs
- Available with bend-insensitive single-mode & multimode fibers
- Proven stranded loose tube cable design for long term reliability

Product Snapshot

Applications	AIRGUARD® XP cables are extremely rugged, indoor/outdoor loose tube cables providing unsurpassed performance in the most challenging applications where extreme exposures to chemicals, oils, temperature, or compressive and tensile loads are present.
Flame Rating	XPRLTM = OFNG- LS/FT4 ST1 flame and low smoke rating XPRLTMB = OFN flame rating XPRLTMD = OFC flame rating
Fiber Count	2 to 288
Fiber Types	Single-mode (SMF, bend-insensitive) Multimode (62.5/125-OM1, 50/125-OM2, OM3 & OM4)
Performance	ANSI/ICEA S-104-696, CSA C22.2 No 230/232, UL-1277 UL-2556 4.2.8.3 "Oil Resistance" PR11, UL-2556 4.2.8.4 "Gasoline Resistance" GR11, Direct Buried Rated: DIR BUR UV Resistance Rated: SUN RES Telcordia GR-20, CE RoHS Compliant
Registered Supplier	TL 9000, ISO 9001, ISO 14001, and OHSAS 18001

CE
RoHS Compliant

Flame | Low Smoke | Chemical | Oil | Gasoline | Tray | Crush | Tensile | Low Temp | UV

Chemical Resistance Performance

Compound	Test Criteria
ASTM No. 2 Oil	96 hours at 100°C
Kerosene	168 hours at 50°C
MIL-T-5624N JP-4 (jet fuel)	168 hours at 50°C
MIL-H-5606 Hydraulic Fluid	168 hours at 50°C
Vegetation Killer	168 hours at 50°C
De-Icing Fluid	24 hours at 50°C
Hydrogen Sulfide (H2S)	24 hours at 100°C

AIRGUARD® XP Fiber Optic Cable

Oil & Gas | Chemical | Low Temp | High Crush | Harsh Environment

Dielectric (Double Jacket) XPRLTM Series | OFNG-LS/FT4 ST1

Fiber Count	Number of Buffer Tubes	Fibers Per Unit	Diameter inches (mm)	Cable Weight lb/kft (kg/km)	Bend Radius UNDER LOAD inches (cm)	Bend Radius NO LOAD inches (cm)
2 to 72	6	12	0.60 (15.3)	159 (237)	12.0 (30.5)	6.0 (15.3)
74 to 84	7	12	0.64 (16.2)	176 (262)	12.8 (32.6)	6.4 (16.3)
86 to 96	8	12	0.67 (17.1)	198 (294)	13.4 (34.1)	6.7 (17.1)
98 to 108	9	12	0.72 (18.2)	216 (322)	14.2 (36.1)	7.1 (18.1)
110 to 120	10	12	0.74 (18.8)	238 (354)	14.8 (37.6)	7.4 (18.4)
122 to 132	11	12	0.78 (19.7)	260 (387)	15.6 (39.7)	7.8 (19.9)
134 to 144	12	12	0.83 (21.0)	294 (438)	16.6 (42.2)	8.3 (21.1)
146 to 216	12 / 6	12	0.81 (20.5)	267 (398)	16.2 (41.2)	8.1 (20.6)
218 to 264	14 / 8	12	0.90 (22.8)	333 (496)	18.0 (45.8)	9.0 (22.9)
266 to 288	15 / 9	12	0.94 (24.0)	358 (532)	18.6 (47.3)	9.3 (23.7)

Temperature Range

Shipping and Storage:	-58° F to +158° F	(-50° C to +70° C)
Installation:	-22° F to +140° F	(-30° C to +60° C)
Operation:	-58° F to +158° F	(-50° C to +70° C)

Mechanical Specifications

Maximum installation load:	1000 lbf (4500 N)
Maximum operation load:	300 lbf (1335 N)
Crush resistance:	4500 N
Impact force resistance:	11.8 N*M
Cold impact load:	5.88 N*M at -22° F (-30° C)

Note:
Single layer, 12 position = OD 21 mm
Dual layer, 12/6 position = OD 20.5 mm

Dielectric (Double Jacket) XPRLTM SAG and TENSION

	NESC Light 1.5% Initial Sag			CSA Medium A 1.5% Initial Sag			CSA Heavy A 1.5% Initial Sag			PLP Attachment Hardware Part Numbers	
Fiber Count	Span (m)	Weather Load MRCL (N)	Installation Tension (N)	Span (m)	Weather Load MRCL (N)	Installation Tension (N)	Span (m)	Weather Load MRCL (N)	Installation Tension (N)	Dead End	Aluminum Support
2 - 72	130	4026	2514	87	4026	1700	62	4026	1215	2872007C1E1	4450102
74 to 84	120	4026	2585	83	4026	1771	60	4026	1281	2872008C1E1	4450103
86 to 96	133	4827	3194	93	4827	2247	68	4827	1646	2872009C1E1	4450103
98 to 108	123	4827	3257	88	4827	2331	66	4827	1726	2872010C1E1	4450104
110 to 120	115	4827	3332	83	4827	2411	62	4827	1811	2872011C1E1	4450104
122 to 132	107	4827	3390	79	4827	2491	60	4827	1895	2872011C1E1	4450105
134 to 144	97	4827	3479	73	4827	2603	56	4827	2011	2872012C1E1	4450106
146 to 216	87	4026	2821	64	4026	2087	49	4026	1588	2872012C1E1	4450105
218 to 264	87	4827	3541	66	4827	2687	52	4827	2118	2872014C1E1	4450106
266 to 288	82	4827	3586	63	4827	2749	50	4827	2180	2872014C1E1	4450107

Note. Cable damage may occur if installation temperature limits are exceeded; therefore, Prysmian Group recommends storing I/O cables in appropriate temperature conditions ≥ 24 hours prior to placement.

AIRGUARD® XP Fiber Optic Cable

Oil & Gas | Chemical | Low Temp | High Crush | Harsh Environment

Dielectric (Single Jacket) XPRLTMB Series | OFN

Fiber Count	# of Buffer Tubes Outer/Inner	Fibers per unit or # of units	Diameter inches (mm)	Cable Weight lb/kft (kg/km)	Bend Radius Load inches (cm)	Bend Radius No Load inches (cm)
2 to 60	5	12	0.41 (10.3)	62 (93)	8.2 (20.9)	4.1 (10.5)
62 to 72	6	12	0.44 (11.2)	73 (109)	8.8 (22.4)	4.4 (11.2)
74 to 84	7	12	0.47 (11.9)	83 (123)	9.4 (23.9)	4.7 (12.0)
86 to 96	8	12	0.51 (12.9)	95 (142)	10.2 (25.9)	5.1 (13.0)
98 to 108	9	12	0.55 (13.9)	111 (165)	11.0 (28.0)	5.5 (14.0)
110 to 120	10	12	0.58 (14.8)	125 (186)	11.6 (29.5)	5.8 (14.8)
122 to 132	11	12	0.62 (15.7)	140 (209)	12.4 (31.5)	6.2 (15.8)
134 to 216	12 / 6	12	0.65 (16.5)	154 (229)	13.0 (33.0)	6.5 (16.6)

Temperature Range

Shipping and Storage:	-40° F to +176° F	(-40° C to +80° C)
Installation:	+14° F to +140° F	(-10° C to +60° C)
Operation:	-40° F to +176° F	(-40° C to +80° C)

Mechanical Specifications

Maximum installation load:	600 lbf	(2670 N)
Maximum operation load:	180 lbf	(801 N)
Cold impact load:	5.88 N*M at -22° F (-30° C)	

Dielectric (Double Jacket and Steel Tape Armored) XPRLTMD Series | OFC

Fiber Count	# of Buffer Tubes Outer/Inner	Fibers per unit or # of units	Diameter inches (mm)	Cable Weight lb/kft (kg/km)	Bend Radius Load inches (cm)	Bend Radius No Load inches (cm)
2 to 60	5	12	0.60 (15.2)	169 (251)	12.0 (30.5)	6.0 (15.3)
62 to 72	6	12	0.64 (16.3)	184 (274)	12.8 (32.6)	6.4 (16.3)
74 to 84	7	12	0.66 (16.8)	192 (286)	13.2 (33.6)	6.6 (16.8)
86 to 96	8	12	0.70 (17.8)	210 (313)	14.0 (35.6)	7.0 (17.8)
98 to 108	9	12	0.74 (18.8)	230 (342)	14.8 (37.6)	7.4 (18.8)
110 to 120	10	12	0.78 (19.8)	251 (373)	15.6 (39.7)	7.8 (19.9)
122 to 132	11	12	0.81 (20.6)	268 (399)	16.2 (41.2)	8.1 (20.6)
134 to 216	12 / 6	12	0.86 (21.7)	286 (426)	17.2 (43.7)	8.6 (21.9)

Temperature Range

Shipping and Storage:	-40° F to +176° F	(-40° C to +80° C)
Installation:	+14° F to +140° F	(-10° C to +60° C)
Operation:	-40° F to +176° F	(-40° C to +80° C)

Mechanical Specifications

Maximum installation load:	600 lbf	(2670 N)
Maximum operation load:	180 lbf	(801 N)
Cold impact load:	5.88 N*M at -22° F (-30° C)	

Note. Cable damage may occur if installation temperature limits are exceeded; therefore, Prysmian Group recommends storing I/O cables in appropriate temperature conditions ≥ 24 hours prior to placement.

AIRGUARD® XP Fiber Optic Cable

Oil & Gas | Chemical | Low Temp | High Crush | Harsh Environment

Ordering Guide

The Prysmian Group part number incorporates several significant attributes involving cable design and optical performance. The appropriate part number can be configured using the process described below

EXAMPLE: Indoor/Outdoor Loose Tube | AIRGUARD® Series, Dielectric (double Jacket) | General Purpose rated | 12 fibers per buffer tube 48 62.5/125 multimode fibers total (printed in feet)

1 LENGTH MARKINGS	2 PRODUCT FAMILY	3 CONSTRUCTION	4 FIBER GROUPING	5 FIBER TYPE	6 FIBER COUNT	7 FIBER GRADE
F	XPRLTM	BLANK	12	G6	048	M2

CABLE INFORMATION

1 LENGTH MARKINGS

F = Feet or M = Meters

2 PRODUCT FAMILY

XPRLTM = 2-288f AIRGUARD® XP (double jacket)

XPRLTMB = 2-216f AIRGUARD® XP (single jacket)

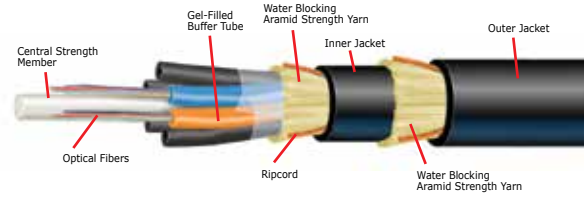
XPRLTMD= 2-216f AIRGUARD® XP (double jacket & steel tape armored)

3 CONSTRUCTION

(blank) = Not available with interlock armor

4 FIBER GROUPING

12 = 12f per unit or tube



FIBER INFORMATION

5 FIBER TYPE

SINGLE-MODE

HB = Single-Mode (ITU G.652 C & D) Low Water Peak

ES = Draka™ Enhanced Single-Mode (ITU G.652 C & D)

CE = Corning™ SMF28e+ Single-Mode

B1 = Bend-Insensitive Single-Mode (ITU G.657.A1 & G.652.D)

B2 = Bend-Insensitive Single-Mode (ITU G.657.A2 & .B2, & G.652.D)

MULTIMODE	Wavelength (nm)	Bandwidth (MHz)	1 GbE Dist (m)	10 GbE Dist (m)
G6 = OM1 (62.5µm)	850/1300	200/500	300/550	33/___
G5 = OM2+ BIF (50µm)	850/1300	700/500	800	150/___
G3 = OM3 BIF (50µm)	850/1300	1500/500	1000	300/___
G4 = OM4 BIF (50µm)	850/1300	3500/500	1100	550/___

6 FIBER COUNT

002 to 288 fibers

7 FIBER GRADE

SINGLE-MODE Attenuation (dB/km)	Wavelength (nm)	Fiber Type
E1 = 0.40/0.40/0.30	1310/1383/1550	HB, ES, or CE
E3 = 0.35/0.35/0.25	1310/1383/1550	HB, ES, B1, B2 or CE

MULTIMODE Attenuation (dB/km)	Wavelength (nm)	Fiber Type
M2 = 3.5/1.0	850/1300	OM1 (62.5µm)
M3 = 3.0/1.0	850/1300	OM2+, OM3, OM4 (50µm)

Other cable constructions and fiber performance grades available on request.

Prysmian Group

LINKING the FUTURE

United States - 1610 Greens Road, Suite 300 | Houston, TX 77032 | 281-645-7350

Canada - 137 Commerce Drive | R. R #3 | Johnstown, Ontario K0E1T1 | 1-800-845-8507

na.prysmiangroup.com/oil-gas

Prysmian Group

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