

General Terms

Ambient Temperature	– All encompassing temperature within a given area	MC	– Metal-clad Cable
Armour	– Mechanical protection usually accomplished by a metallic layer of tape, braid or served wires; normally found under the outer sheath of a cable	MC-HL	– Metal-clad Cable-Hazardous Location, for Class I Division 1 locations
Armoured Cable	– A cable provided with a wrapping of metal, usually steel wires, flat tapes, or interlocked tapes, primarily for the purpose of mechanical protection	MI	– Mineral Insulated
ATEX	– French term Atmosphères Explosibles (EU directive 94/9/EC)	MV	– Medium Voltage
AWG	– American Wire Gauge	NB	– Notified Body
Braid Armour	– A fibrous or metallic group of filaments interwoven in cylindrical form covering one or more conductors	PLTC	– Power Limited Tray Cable
Cable Gland	– A device used for the entry of cables or cords into electrical equipment providing armour clamping, sealing and/or strain relief	Primary Seal	– A seal that isolates process fluids from an electrical system and has one side of the seal in contact with the process fluid
CB	– Certification Body	QAR	– Quality Assurance Report – quality portion of IECEx certification
Cold Flow	– Any permanent deformation of the inner sheath of a cable due to pressure or mechanical force, without the aid of heat softening	QAN	– Quality Assurance Notice – quality portion of ATEX certification
CWCMC	– Continuously Welded Corrugated Metal-clad Cable	Secondary Seal	– A seal that is designed to prevent the passage of process fluids at the pressure it will be subjected to upon failure of the primary seal (secondary seals are required for sealing conduits and cables in Class I explosive gas atmospheres, where failure of a primary seal could allow flammable process fluids to leak into electrical equipment, with disastrous results)
DTS01	– Deluge Test developed by Shell, mainly used on off-shore rigs	SWA	– Steel Wire Armour
Directive	– A legislative act of the European Union	STA	– Steel Tape Armour (also DSTA for double steel wire armour)
EHSR	– Essential Health and Safety Requirements – Requirements from new approach Directives, e.g., LVD, ATEX	SWB	– Steel Wire Braid
Hazardous Location	– Location where fire or explosion hazards may exist due to the presence of flammable gases, dusts, or fibers	TC	– Tray Cable
IECEx CB	– IECEx Certifying Body	TC-ER	– Tray Cable Exposed Run
IECEx TR	– IECEx Test Report	TECK	– A type of metal-clad interlocked armour cable (mainly used in Canada)
IP	– Ingress Protection	Wet Locations	– Installations underground or in concrete slabs or masonry in direct contact with the earth; locations subject to saturation with water or other liquids, such as washdown areas; and in unprotected locations exposed to weather
ITC	– Instrument tray cable		
ITC-HL	– Instrument Tray Cable Hazardous location		
LVD	– Low Voltage Directive (EU directive 2006/95/EC)		



Agencies and Associations

ABS	– American Bureau of Shipping	INMETRO	– National Institute of Metrology, Standardization and Industrial Quality (Brazil)
ANSI	– American National Standards Institute	ISA	– Instrument Society of America
ASTM	– American Society for Testing and Materials	ISO	– International Standards Organization
BASEEFA	– British Approvals Service for Electrical Equipment in Flammable Atmospheres (UK)	ITS	– Intertek Testing Service
CEC	– Canadian Electrical Code	Lloyd's Register	– Ship Classification and Risk Management Organization
CENELEC	– European Committee for Electrotechnical Standardization	MSHA	– Mine Safety and Health Administration
CEPEL	– Brazilian Certification Body	NEC	– National Electrical Code
CFR	– Code of Federal Regulations (USA)	NEMA	– National Electrical Manufacturers Association
CSA	– Canadian Standards Association	NFPA	– National Fire Protection Association
DNV	– Det Norske Veritas	NRTL	– Nationally Recognized Testing Laboratory
ETL	– Electrical Testing Labs	OSHA	– Occupational Safety and Health Administration
FM	– Factory Mutual	PTB	– Physikalisch-Technische Bundesanstalt (Germany)
IEC	– International Electrotechnical Commission	TUV	– Technischer Überwachungs-Verein (Germany)
IECEX	– IEC scheme for certification to standards relating to equipment for use in explosive atmospheres	UL	– Underwriters Laboratories (USA)
IEEE	– Institute of Electronic and Electrical Engineers	USCG	– United States Coast Guard

AWG to mm² Conversion Table

AWG	Diameter mm	Area mm ²	Diameter in
30	0.252	0.05	0.01
28	0.319	0.08	0.013
26	0.422	0.14	0.017
24	0.564	0.25	0.022
22	0.658	0.34	0.026
20	0.798	0.5	0.031
18	0.977	0.75	0.038
16	1.382	1.5	0.054
14	1.784	2.5	0.07
12	2.257	4	0.089
10	2.764	6	0.109
8	3.568	10	0.14
6	4.514	16	0.178

AWG	Diameter mm	Area mm ²	Diameter in
4	5.642	25	0.222
2	6.676	35	0.263
1	7.979	50	0.314
1/0	8.368	55	0.329
2/0	9.441	70	0.372
3/0	10.998	95	0.433
4/0	12.361	120	0.487
300MCM	13.820	150	0.544
350MCM	15.348	185	0.604
500MCM	17.481	240	0.688
600MCM	19.544	300	0.769
750MCM	22.568	400	0.888
1000MCM	25.231	500	0.993

