TEC INTERNATIONAL

MICC BRAND FIRE WIRING

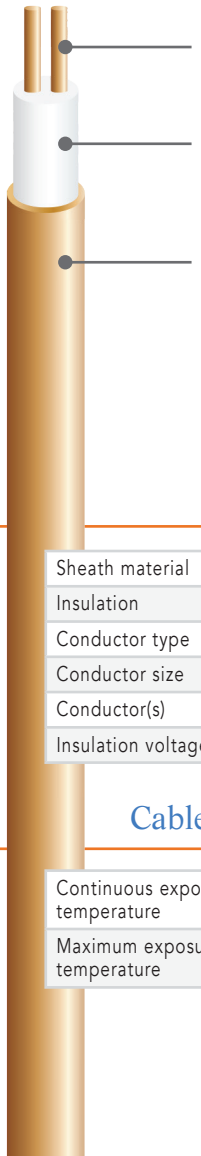
MICC 1083C CABLE RANGE

UL 1083C Approved
2 Hour Rated, Mineral Insulated
Copper Sheathed Wiring Cable

Life safety and firefighting equipment often relies on the integrity of the essential wiring system to enable evacuation & firefighting operations. MICC Group Copper Wiring Cable is a UL Classified 2-hour fire resistive cable tested to the UL 2196 fire test standard.

Copper MI (Magnesium Oxide) insulated wiring cables have been in existence since 1936, and their unique qualities, characteristics and unbeatable performance have remained the gold standard for fire rated wiring, as no conduits or concrete protection is required. Studies have shown copper MI insulated wiring cables to be the only fire rated cables that do not produce toxic smoke or gases under fire conditions as there are no organic materials in the cables construction.

Mineral Cable Construction



Standards & Approvals

- UL2196 (Standard for Tests for Fire Resistive Cables)
- UL 514B (Conduit, Tubing, and Cable Fittings - Edition 6 - Revision Date 2014/11/21)
- C22.2 NO. 18.3-12 (Conduit, Tubing and Cable Fittings Edition 2 - Revision Date 2014/11/21)
- UL 486A-486B (Wire Connectors Edition 3 - Issue Date 2018/04/27)
- CSA C22.2 NO. 65-18 (Wire Connectors Edition 6 - Issue Date 2018/04/27)
- UL504 (Outline of Investigation for Mineral-Insulated, Metal- Sheathed Cable)
- ISO9001
- IS014001

Specifications

Sheath material	Copper
Insulation	Magnesium Oxide (MgO)
Conductor type	Copper
Conductor size	16 AWG - 500 kcmil
Conductor(s)	1, 2, 3, 4, 7
Insulation voltage rating	600 V

Cable Temperature Rating

Continuous exposure temperature	482 °F (250 °C)
Maximum exposure temperature	1850 °F (1010 °C)

Wiring Cable Catalog Number

Position	1	2	3	4	5
Code	CC	1	H	10	W

Position	Characteristics	Code options
1	Sheath material	CC = Copper
2	Number of conductor(s)	1 = 1 Conductor
3	Insulation voltage rating	H = 600 V
4	Conductor size	10 = Conductor size (AWG)
5	Product category	W = Wiring

600 V Wiring Cable Type

See the MICC table below for Wiring Cable type.

Number of Conductor(s)	AWG Conductor Size	MICC Cable REF.	Conductor Diameter			Cable OD			COND. Resistance / 1000 FT.	Weight / 1000 FT
			MAX. Inch	NOM. Inch	MIN. Inch	MAX. Inch	NOM. Inch	MIN. Inch	MAX. Ω	NOM. LBS.
1	10	CC1H10W	0.113	0.102	0.094	0.279	0.277	0.275	1.080	141.4
1	8	CC1H8W	0.141	0.128	0.119	0.300	0.298	0.296	0.680	169.1
1	6	CC1H6W	0.177	0.162	0.150	0.342	0.340	0.338	0.427	222.1
1	4	CC1H4W	0.225	0.204	0.189	0.404	0.402	0.400	0.269	307.3
1	3	CC1H3W	0.239	0.229	0.221	0.451	0.449	0.447	0.210	377.8
1	2	CC1H2W	0.270	0.258	0.248	0.451	0.449	0.447	0.169	412.5
1	1	CC1H1W	0.299	0.289	0.278	0.498	0.496	0.494	0.130	501.4
1	1/0	CC1H1/0W	0.340	0.325	0.313	0.514	0.512	0.510	0.106	567.4
1	2/0	CC1H2/0W	0.383	0.365	0.351	0.582	0.580	0.578	0.084	715.1
1	3/0	CC1H3/0W	0.426	0.410	0.402	0.623	0.621	0.619	0.067	853.2
1	4/0	CC1H4/0W	0.481	0.460	0.443	0.686	0.684	0.682	0.052	1050.7
1	250MCM	CC1H250W	0.528	0.500	0.480	0.748	0.746	0.744	0.044	1239.1
1	350MCM	CC1H350W	0.618	0.590	0.569	0.836	0.834	0.832	0.032	1611.7
1	500MCM	CC1H500W	0.743	0.707	0.679	1.002	1.000	0.998	0.022	2269.3
2	10	CC2H10W	0.113	0.102	0.094	0.451	0.449	0.447	1.080	319.9
2	8	CC2H8W	0.141	0.128	0.119	0.514	0.512	0.510	0.680	415.8
2	6	CC2H6W	0.177	0.162	0.150	0.592	0.590	0.588	0.427	570.4
2	4	CC2H4W	0.225	0.204	0.189	0.686	0.684	0.682	0.269	795.6
2	3	CC2H3W	0.239	0.229	0.221	0.770	0.768	0.766	0.210	1001.8
2	2	CC2H2W	0.270	0.258	0.258	0.867	0.865	0.863	0.169	1265.5
2	1	CC2H1W	0.299	0.289	0.278	0.977	0.975	0.973	0.130	1591.9
3	10	CC3H10W	0.113	0.102	0.094	0.482	0.480	0.478	1.080	386.1
3	8	CC3H8W	0.141	0.128	0.119	0.592	0.590	0.588	0.680	558.9
3	6	CC3H6W	0.177	0.162	0.150	0.623	0.621	0.619	0.427	693.7
3	4	CC3H4W	0.225	0.204	0.189	0.748	0.746	0.744	0.269	1024.6
3	3	CC3H3W	0.239	0.229	0.221	0.836	0.834	0.832	0.210	1269.1
4	10	CC4H10W	0.113	0.102	0.094	0.592	0.590	0.588	1.080	541.0
4	8	CC4H8W	0.141	0.128	0.119	0.592	0.590	0.588	0.588	617.9
4	6	CC4H6W	0.177	0.162	0.150	0.732	0.730	0.728	0.427	940.9
7	10	CC7H10W	0.113	0.102	0.094	0.623	0.621	0.619	1.080	688.7
7	8	CC7H8W	0.141	0.128	0.119	0.712	0.710	0.708	0.680	960.2

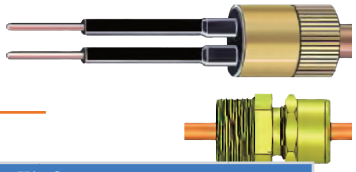
Termination Kits

MICC Group can offer a full range of accessories to suit your requirement.

MICC cable termination kits are provided by MICC to complement the cable range approved by UL. A complete termination consists of two basic units. They are the seal and the gland. The seal separates and insulates the conductors from each other and from the sheath yet also seals the cable insulation. The gland secures the cable into the apparatus, provides mechanical protection for the seal and provides earth continuity when required.

The brass pot seal is screwed on to the end of the cable and filled with MICC manufactured sealing putty before a disc and sleeving completes the end seal termination.

If a brass compression gland is employed this must be installed on the cable before the pot seal is fitted.



Termination By Cable Type

See the MICC table below for termination by cable type.

MICC Cable			MICC Seal Kit				Kit Contents			
							Assembled Gland	Brass Seal Pot	Cap with Insulating Sleeving	TRMX Putty
MICC PN	OD (Nom. inch)	Cond. OD (Min. inch)	Qty	Cable Config	Kit PN	Gland Thread Size (NPSM)	Qty	Qty	Qty	Qty
Single Conductor										
CC1H16W	0.215	0.047	1	1C 16	MI01016-050	1/2"	2	2	2	1
CC1H14W	0.230	0.059	1	1C 14	MI01014-050	1/2"	2	2	2	1
CC1H12W	0.246	0.075	1	1C 12	MI01012-050	1/2"	2	2	2	1
CC1H10W	0.277	0.094	1	1C 10	MI01010-050	1/2"	2	2	2	1
CC1H8W	0.298	0.119	1	1C 8	MI01008-050	1/2"	2	2	2	1
CC1H6W	0.340	0.150	1	1C 6	MI01006-050	1/2"	2	2	2	1
CC1H4W	0.402	0.189	1	1C 4	MI01004-050	1/2"	2	2	2	1
CC1H3W	0.449	0.221	1	1C 3	MI01003-075	3/4"	2	2	2	2
CC1H2W	0.449	0.248	1	1C 2	MI01002-075	3/4"	2	2	2	2
CC1H1W	0.496	0.278	1	1C 1	MI01001-075	3/4"	2	2	2	2
CC1H1/0W	0.512	0.313	1	1C 1/0	MI011X0-075	3/4"	2	2	2	2
CC1H2/0W	0.580	0.351	1	1C 2/0	MI012X0-075	3/4"	2	2	2	2
CC1H3/0W	0.621	0.402	1	1C 3/0	MI013X0-075	3/4"	2	2	2	2
CC1H4/0W	0.684	0.443	1	1C 4/0	MI014X0-100	1"	2	2	2	2
CC1H250W	0.746	0.480	1	1C 250	MI01250-125	1-1/4"	2	2	2	3
CC1H350W	0.834	0.569	1	1C 350	MI01350-125	1-1/4"	2	2	2	3
CC1H500W	1.000	0.679	1	1C 500	MI01500-125	1-1/4"	2	2	2	3
Two Conductors										
CC2H16W	0.340	0.047	1	2C 16	MI02016-050	1/2"	2	2	2	1
CC2H14W	0.371	0.059	1	2C 14	MI02014-050	1/2"	2	2	2	1
CC2H12W	0.402	0.075	1	2C 12	MI02012-050	1/2"	2	2	2	1
CC2H10W	0.449	0.094	1	2C 10	MI02010-075	3/4"	2	2	2	2
CC2H8W	0.512	0.119	1	2C 8	MI02008-075	3/4"	2	2	2	2
CC2H6W	0.590	0.150	1	2C 6	MI02006-075	3/4"	2	2	2	2
CC2H4W	0.684	0.189	1	2C 4	MI02004-100	1"	2	2	2	2
CC2H3W	0.768	0.221	1	2C 3	MI02003-125	1-1/4"	2	2	2	3
CC2H2W	0.865	0.248	1	2C 2	MI02002-125	1-1/4"	2	2	2	3
CC2H1W	0.975	0.278	1	2C 1	MI02001-125	1-1/4"	2	2	2	3
Three Conductors										
CC3H16W	0.355	0.047	1	3C 16	MI03016-050	1/2"	2	2	2	1
CC3H14W	0.387	0.059	1	3C 14	MI03014-050	1/2"	2	2	2	1
CC3H12W	0.480	0.075	1	3C 12	MI03012-075	3/4"	2	2	2	2
CC3H10W	0.480	0.094	1	3C 10	MI03010-075	3/4"	2	2	2	2
CC3H8W	0.590	0.119	1	3C 8	MI03008-075	3/4"	2	2	2	2
CC3H6W	0.621	0.150	1	3C 6	MI03006-075	3/4"	2	2	2	2
CC3H4W	0.746	0.189	1	3C 4	MI03004-125	1-1/4"	2	2	2	3
CC3H3W	0.834	0.221	1	3C 3	MI03003-125	1-1/4"	2	2	2	3
Four Conductors										
CC4H16W	0.387	0.047	1	4C 16	MI04016-050	1/2"	2	2	2	2
CC4H14W	0.465	0.059	1	4C 14	MI04014-075	3/4"	2	2	2	2
CC4H12W	0.465	0.075	1	4C 12	MI04012-075	3/4"	2	2	2	2
CC4H10W	0.590	0.094	1	4C 10	MI04010-075	3/4"	2	2	2	2
CC4H8W	0.590	0.119	1	4C 8	MI04008-075	3/4"	2	2	2	2
CC4H6W	0.730	0.150	1	4C 6	MI04006-125	1-1/4"	2	2	2	3
Seven Conductors										
CC7H16W	0.449	0.047	1	7C 16	MI07016-075	3/4"	2	2	2	2
CC7H14W	0.496	0.059	1	7C 14	MI07014-075	3/4"	2	2	2	2
CC7H12W	0.543	0.075	1	7C 12	MI07012-075	3/4"	2	2	2	2
CC7H10W	0.621	0.094	1	7C 10	MI07010-100	1"	2	2	2	2
CC7H8W	0.710	0.119	1	7C 8	MI07008-125	1-1/4"	2	2	2	3

MICC 1083C CABLE RANGE

UL 1083C Approved
2 Hour Rated, Mineral Insulated
Copper Sheathed Wiring Cable

Notes

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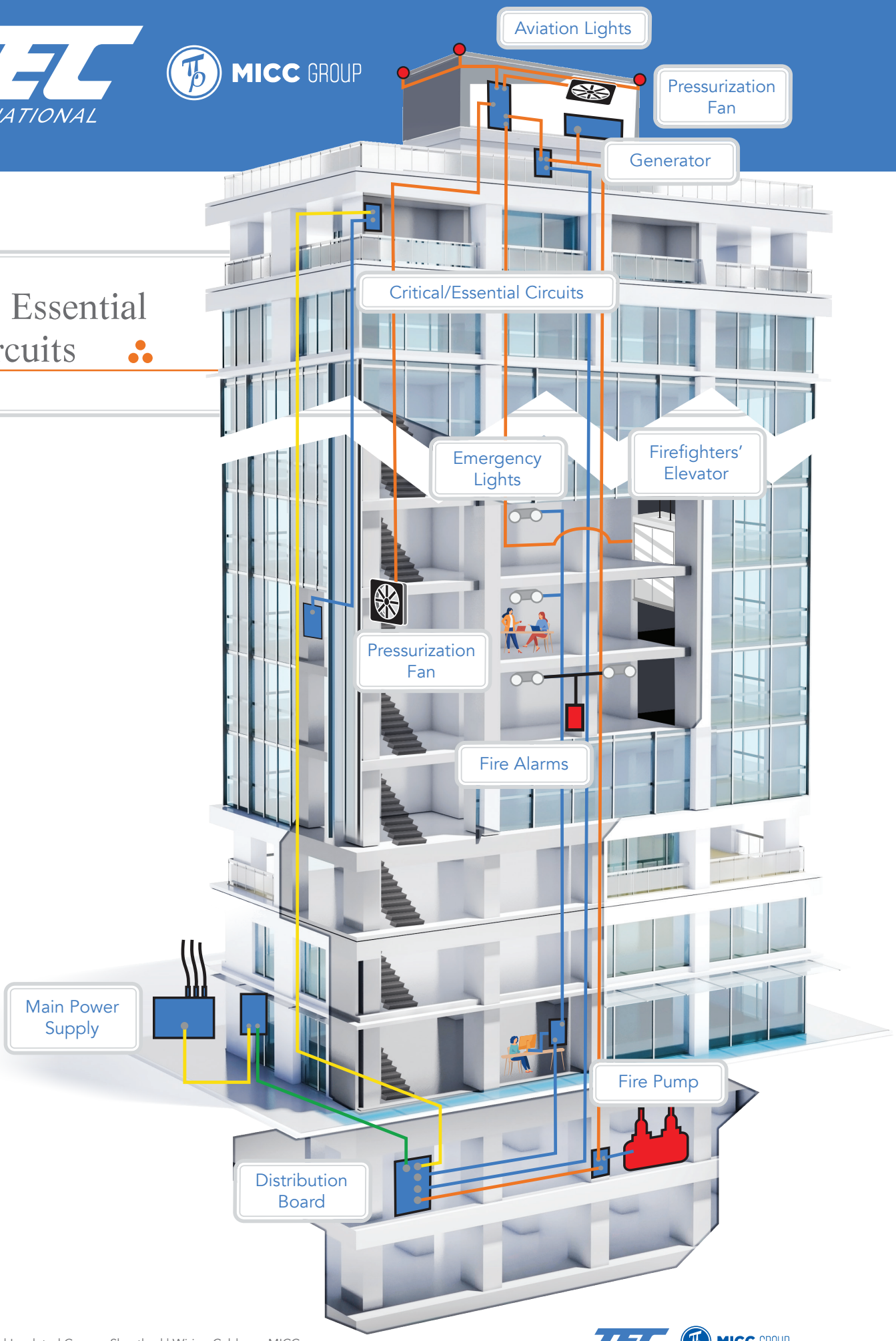
MI Essential Circuits



TEC MICC GROUP

Who Are We

- MICC Group manufacturers the full range of Mineral Insulated cable products
- We have the largest manufacturing facility of its type in the world, which allows us to manufacture every type of MI Cable
- We have the history and experience of BICC
- Strong R&D and engineering teams
- Global manufacturing network

Notable References

We have considerable experience working on MI Fire Survival Wiring as referenced below.

- UK Houses of Parliament
- Shanghai Tower
- Kuwait University
- Delhi Metro
- Sydney Metro
- Dubai Airport
- Royal Papworth Hospital UK
- Hong Kong Metro
- Every Nuclear Power Plant in the UK

TEC INTERNATIONAL

TEC International LLC
26695 Eckel Road Suite B
Perrysburg, Ohio 43551, USA
sales@tecwiring.com
www.tecwiring.com
1-419-442-0941

MICC BRAND FIRE WIRING

MMC Corp
26695 Eckel Road Suite B
Perrysburg, Ohio 43551, USA
sales@micccorp.com
www.micccorp.com
1-567-331-0101