

**INSTALLATION, OPERATION & MAINTENANCE DATA SHEET MC SERIES CABLE GLANDS** 

# MC SERIES CABLE GLANDS

See Tables 1 & 2 below for HazLoc ratings based on installed cable/conductor types (per the NEC and CEC).



## Type 3, 4, 4X, IP66 Operating Temperature Range -50°C +60°C



Table 1: US Cable Ratings							
Cable Type	Armor	US Class & Division Rating	US Class & Zone Rating				
MC-HL*	Continuous	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
ITC-HL*	Continuous	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
TC-ER-HL*	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
PLTC	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
PLTC-ER	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
ITC	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
ITC-ER	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
MC	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
MV	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
TC	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				
TC-ER	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III	Cl. I, Zone 2, IIC, IIB, IIA, Zone 22				

#### Table 2: Canadian Cable Ratings

Cable Type	Armor	Canada Rating
AC90-HL*	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
ACG90-HL*	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
ACWU90-HL*	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
ACGWU90-HL*	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
TECK-90-HL*	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
RA-90-HL*	Continuous	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
тс	Unarmored	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
TECK-90	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
ACWU90	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
RA-90	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
RC-90	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
ACIC	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III
CIC	Interlocked	Cl. I, Div. 2, ABCD, Cl. II, Div. 2 EFG, Cl. III

\* indicates cables that are de-rated when used with Killark MC Series Glands

#### CAUTION:

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Before installing, make sure you are compliant with area classifications, as failure to do so may result in bodily injury, death and property damage. Do not attempt installation until you are familiar with the following procedures. All installation must comply with the applicable Electrical Code(s). Make sure that the circuit is deenergized before starting installation or maintenance. Verify that the installation is grounded. Failure to ground will create electrical shock hazards, which can cause serious injury and or death.

#### **IMPORTANT:**

Please read these instructions carefully before installing or maintaining this equipment. Good electrical practices should be followed at all times and this data should be used as a guide only.

Technical information, advice and recommendations contained in these documents is based upon information that Killark believes to be reliable. All the information and advice contained in these documents is intended for use only by persons having been trained and possessing the requisite skill and know-how and to be used by such persons only at their own discretion and risk. The nature of these instructions is informative only and does not cover all of the details, variations or combinations in which this equipment may be used, its storage, delivery, installation, check out, safe operation and maintenance. Since conditions of use of the product are outside of the care, custody and control of Killark, the purchaser should determine the suitability of the product for his intended use, and assumes all risk and liability whatsoever in connection there with.

P/N KIL00921405 FORM NO, K1405 R04/22 ECO-8-021-22





HUBBELL INCORPORATED (Delaware) 2112 Fenton Logistics Park Blvd Fenton, Missouri 63026 USA

### **INSTALLATION, OPERATION & MAINTENANCE DATA SHEET MC SERIES CABLE GLANDS**

# **MC Components**



- 1. Backnut
- 2. Environmental Seal
- 3. Middlenut
- 4. Ground Spring
- 5. Submersion Proof O-Ring
- 6. Armor Stop
- 7. Captive O-Ring
- 8. Entry Component

# **Cable Preparation**

### Armored Cable



### Tray Cable



CAUTION: For medium voltage cables 5kV through 35kV - Remove the copper shield, phase identification tape, & semiconducting insulation screen before installing the sealing compounds.

1. Strip cable to suit equipment as shown.

2. For armored cable, see Table 1 for exposed armor length (L).

TABLE 1					
Catalog Number	Entry Thread Size (NPT)	Armored & Tray Cable			
		Max Number of Cores	Min O.D.	Max O.D.	L (mm)
MC1B	1/2"	6	0.51	0.63	1.25 (32)
MC1C	1/2"	10	0.60	0.82	1.22 (31)
MC2	3/4"	21	0.73	1.03	1.31 (33)
MC3	1"	42	0.97	1.31	1.32 (34)
MC4	1-1/4"	73	1.23	1.56	1.63 (41)
MC5	1-1/2"	80	1.47	1.78	2.50 (64)
MC6	2"	80	1.47	2.04	2.50 (64)
MC7	2-1/2"	100	1.93	2.51	2.75 (70)
MC8	3"	120	2.27	3.01	2.90 (74)
MC9	3-1/2"	120	2.77	3.46	2.62 (67)
MC0	4"	120	3.46	4.07	3.00 (76)

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P/N KIL00921405 FORM NO, K1405 R04/22 ECO-8-021-22 Chalmut HAWKE KILLARK BIGPOWER

Vantage Victor

HUBBELL Harsh & Hazardous



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INSTALLATION, OPERATION & MAINTENANCE DATA SHEET MC SERIES CABLE GLANDS

# **Installation Instructions**



# A)

Push the cable through the back nut (1), middle nut (3), and grounding spring (4). Locate the armor stop (6) at the end of the armor as shown above. If the conductors are too large to fit through the armor stop (6) it can be removed from the assembly. The entry component (8) has a built in armor stop for larger cables.



If the gland is to be installed into a threaded NPT opening, **first** thread the entry component (8) into the threaded NPT opening. The entry component (8) should be installed hand tight and then one additional turn with a wrench. This is to prevent twisting of the cable during assembly.

B)

If the entry component (8) is installed into a thru hole with a locknut, **first** thread the entry component (8) into the locknut. The entry component (8) should be tighten to the torque shown in Table 2 (Approximately hand tight +1 turn). This is to prevent twisting of the cable during assembly.

Thread the middle nut (3) onto the entry component (8) to the torque shown in Table 2 (Approximately hand tight +1 turn). This will compress the grounding spring (4) to grip the armor for grounding.



Thread the back nut (1) onto the middle nut (3) to the torque show in Table 2 (Approximately hand tight +1 turn). This will compress the seal inside the back nut (1) to grip the jacket of the cable for mechanical retention and the formation of an environmental seal.

C)

**CAUTION:** Cable Glands rated for IPX8 should use an Anaerobic Thread Sealant on the NPT threads.

Table 2			
Cland Size	Assembly		
Giariu Size	Torque (lbf-ft)		
1/2"	20		
3/4"	20		
1"	30		
1-1/4"	40		
1-1/2"	100		
2"	100		
2-1/2"	116		
3"	133		
3-1/2"	133		
4"	133		

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C RIGPOWER

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