

Crane Control Class 9999

Catalog

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The Electric Controller and
Manufacturing Company, LLC

Crane Control Class 9999

User Modification Kits

FOR CLASSES 7004 AND 8503 TYPE M CONTACTORS

Electrical Interlocks, Mechanical Interlocks, Arc Suppressors

Class 9999 user modification kits can be added to the Class 7004 and Class 8503 Type M contactors used in DC starters and AC and DC crane and mill control panels. The kits include all necessary mounting hardware and illustrated installation instructions.

Electrical Interlocks

Control circuit interlocks are available as units of one normally open and one normally closed contact. On each single pole normally open or normally closed contactor a maximum of two interlock kits can be used. For maximum number of accessories or accessory combinations, refer to Class 7004 catalog sheets. Interlock kits include the movable and stationary contacts plus all necessary hardware for mounting.



**Class 9999 Type MX11
Electrical Interlock Kit**

Kit Description	Contactors Size	Type
1 Normally Open & 1 Normally Closed	1 to 8	MX11

Mechanical Interlocks

A horizontal mechanical interlock is available for use between two single pole, normally open or two double pole, normally open tied contactors mounted side by side. This interlock prevents the two contactors from opening simultaneously.



**Class 9999
Type MM2
Mechanical
Interlock Kit**

Kit Description	Contactors Size	Type
Mechanical Interlock	1 & 2	MM1
Mechanical Interlock	3 & 4	MM2
Mechanical Interlock	5 & 5A	MM3
Mechanical Interlock	6 & 6A	MM4
Mechanical Interlock	8	MM5

Arc Suppressor

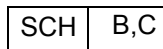
The Class 9999 AI1 arc suppressor is designed to reduce arcing of pilot devices in DC inductive control circuits of 250 VDC or less.

Class 9999 Type AI1 Arc Suppressor

The AI1 arc suppressor will limit the inductive voltage surge to a maximum of 600 VDC when applied in accordance with the application chart. When applying the arc suppressor to a circuit, two factors must be considered – the current drawn by the inductive load and the number of times per minute that the load will be interrupted. Once these two factors are determined, the application is checked against the application chart. The chart shows the maximum interruptions per minute that the arc suppressor can handle at a given current. As long as an application falls below the curve, the arc suppressor will handle the load. The arc suppressor is connected in parallel with the inductive load and is in the circuit at all times.



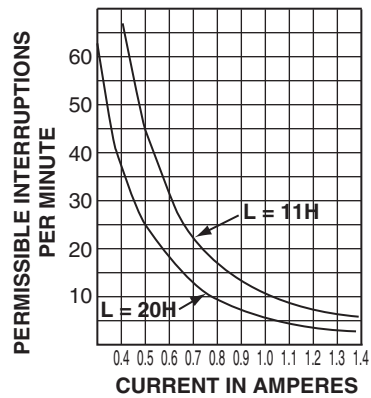
**Class 9999 AI1
Arc Suppressor**



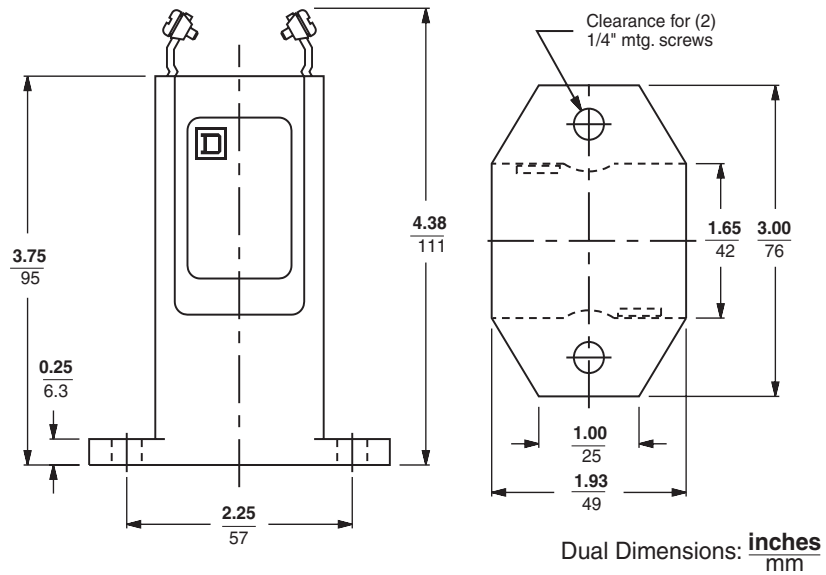
★ = Disc Sch Ó
◇ = Disc Sch C



Application Chart for AI1 Arc Suppressor



APPROXIMATE DIMENSIONS AND WEIGHTS



Net Weight – 1 lb (0.45 kg)

Ordering Information Required:

1. Class
2. Type

Crane Control Class 9999 User Modification Kits

FOR CLASS 7001 TYPE K RELAYS AND CLASSES 7004 AND 8503 TYPE M CONTACTORS



Class 9999 Type MT2
Tie Bar Kit

Tie Bar - Power Lugs - Control Circuit Contacts

Tie Bar

Applications requiring double pole normally open Type M contactors can be met by supplying single pole normally open contactors with tie bars. The tie bar is made from an insulating material and connects the armatures of the contactors together. For double pole contactors, it is recommended that the operating coils be connected in series. Each coil should be rated for one half of line voltage.

For Use With Class 7004 DC & 8503 AC Contactors

Kit Description	Contactors Size	Type
Tie Bar Kit	1 & 2	MT1
Tie Bar Kit	3 & 4	MT2
Tie Bar Kit	5 & 5A	MT3
Tie Bar Kit	6 & 6A	MT4
Tie Bar Kit	7 & 8	MT5



Class 9999 Type ML1
Lug Kit

Power Lugs for Type M Contactors

Type M contactors are furnished without power lugs. A kit is available consisting of lugs and hardware for mounting on Size 3 and larger contactors. No power lug kits are available for the NEMA Size 1 and 2 contactors. These contactors are designed to use lugs supplied by the user.

Kit Description		Contactors Size	Type ▲
Min. Wire Size	Max. Wire Size		
#8	#00	4	ML1
#0	300 MCM	5 & 5A	ML2
250 MCM	500 MCM	6, 6A, 7 & 8	ML3

▲ Contains four clam shell type lugs. For copper conductors only.



Class 9999
Type KX3 Contact Kit

Control Circuit Contacts for Class 7001 Type K Relays

Description	For Use on Relay Type	Type
1 N.O. and 1 N.C. Contact	KG, KE, KI, KP	KX3
1 N.O. Contact	KF	KX4
1 N.C. Contact	KF	KX5

Ordering Information Required:

1. Class
2. Type

& DISCOUNT SCHEDULE B

@ DISCOUNT SCHEDULE C



Class 9999
Type KX5 Contact Kit

SCH	B,C		
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