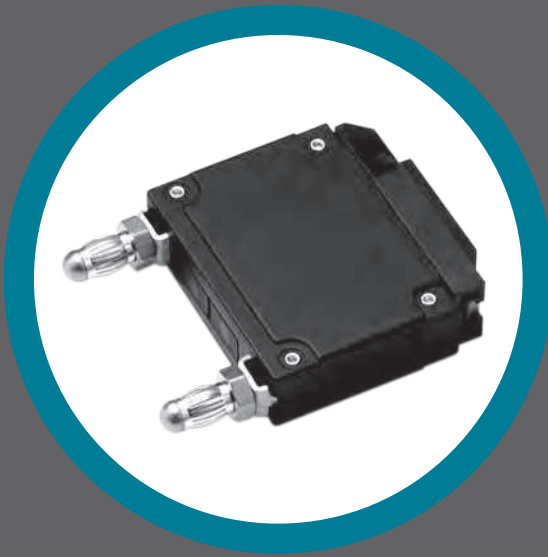


# AIRPAX®

## MDS2 Series Modular Distribution Systems



- Introduction* • 207
- 8-Position Configuration* • 208
- Decision Tables* • 209





# AIRPAX® | MDS2 Series

## Modular Distribution Systems

### INTRODUCTION

Sensata Technologies provides circuit-on-demand from a pre-wired power bus. The Airpax™ modular distribution system utilizes “plug ‘n play” capabilities to simplify the design of your power bus system.

The module design simplifies line/load interface, saving both money and valuable time by eliminating the need for shutdown when expanding the equipment. Additionally, this flexible

interface allows for adjacent circuits to be fused or protected, while parallel alarm conductors simplify signal wiring. By specifying the number of protected circuits, the MDS2 can be designed to meet your application requirements.

Sensata, known for our high quality products and outstanding customer service, once again sets the standard in innovative and precision technology with our new MDS2.

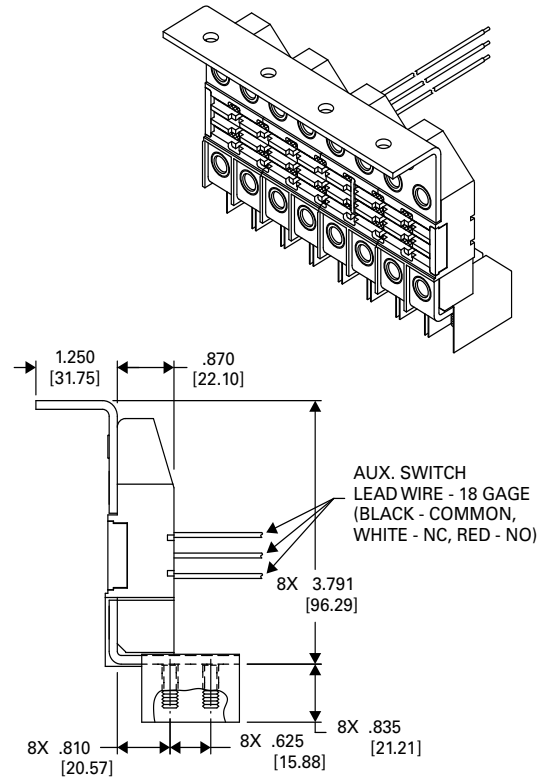
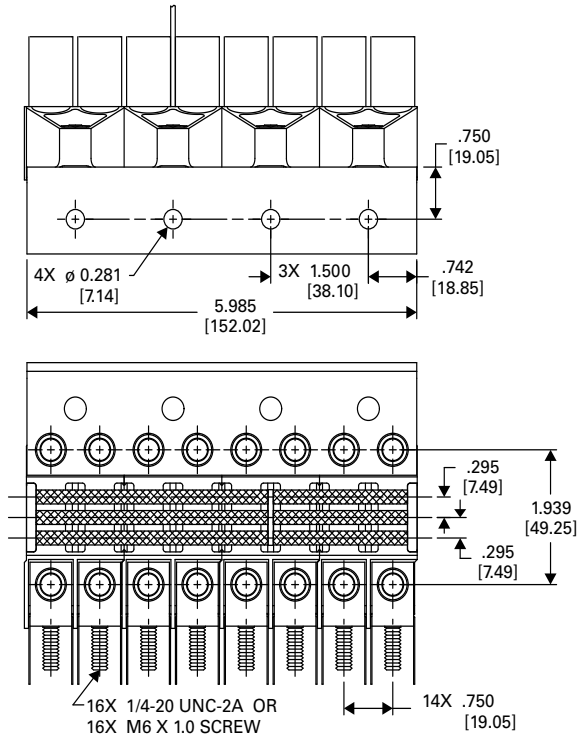
### FEATURES & HIGHLIGHTS

- Lightweight, space-saving modular distribution system specifically designed for flexibility in DC power distribution
- Building-block concept allows users the flexibility to specify units in blocks of 2 positions up to 24 positions
- Modules allow for equipment expansion without power shutdown
- Mounts horizontally or vertically directly to the bus bar or mounting rail
- Unique alarm conductors simplify signal wiring
- Modular load terminals available with front or rear access

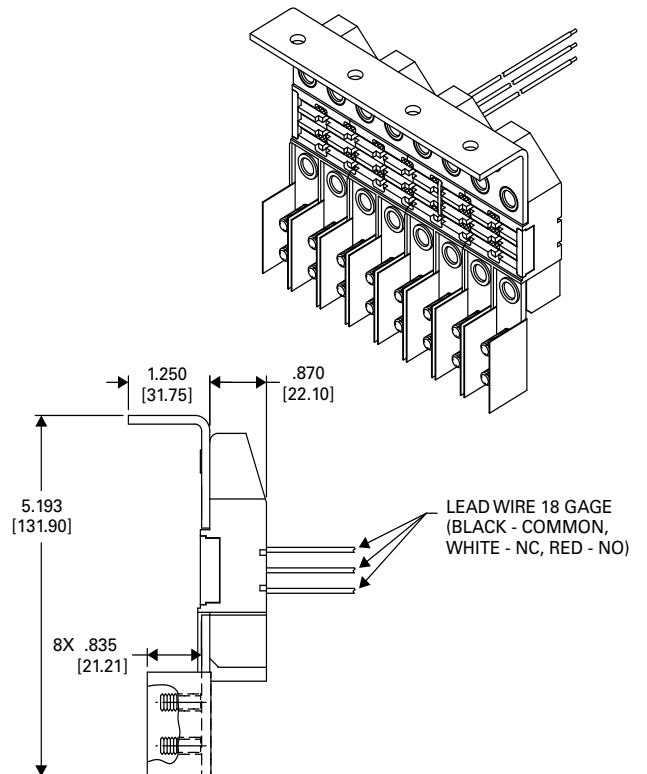
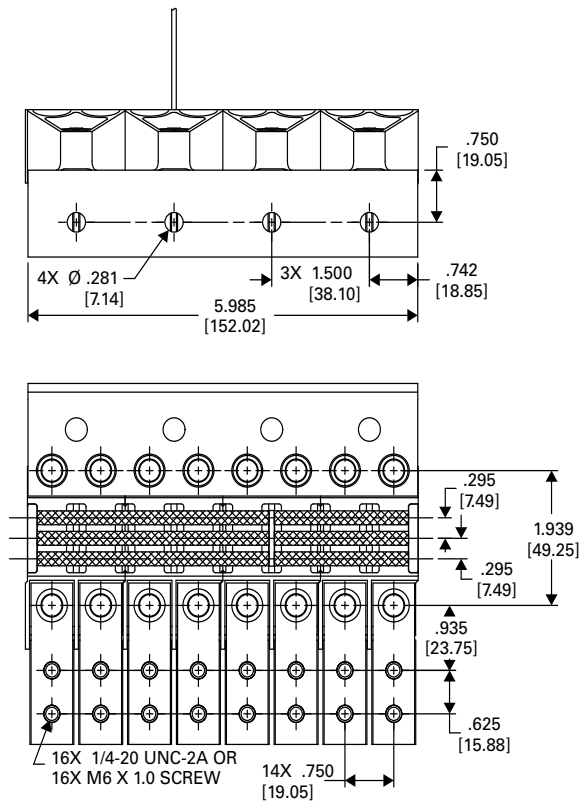
### SPECIFICATIONS

<b>Application</b>	For use with Airpax™ IEL, IML, LEL and LML type circuit protectors and breakers using 5/16 inch diameter bullet terminals
<b>Electrical Ratings</b>	100 amperes max. load bus rating per position max. common bus of the 8 position system is 600 amperes. Voltage rating is 125 vdc
<b>Flammability</b>	All modular distribution system parts have UL 94 V0 flammability rating
<b>Insulation Resistance</b>	Min. 100 megohms @ 500 vdc
<b>High-Low Temperature Operation</b>	-40°C to +85°C
<b>Dielectric Strength</b>	2000 VDC
<b>Recommended Torque Specifications</b>	Load bus 1/4-20 UNC: 40 to 45 inch pounds Load bus m6 x 1.0: 4 to 5 Nm Mechanical support must be provided to terminals while applying torque.
<b>Auxiliary Switch Wire</b>	18 awg (ul 1213)
<b>Ampacity</b>	Line bus 600 amperes: 800 amps/sq. inch Load bus 100 amperes: 1250 amps/sq. inch

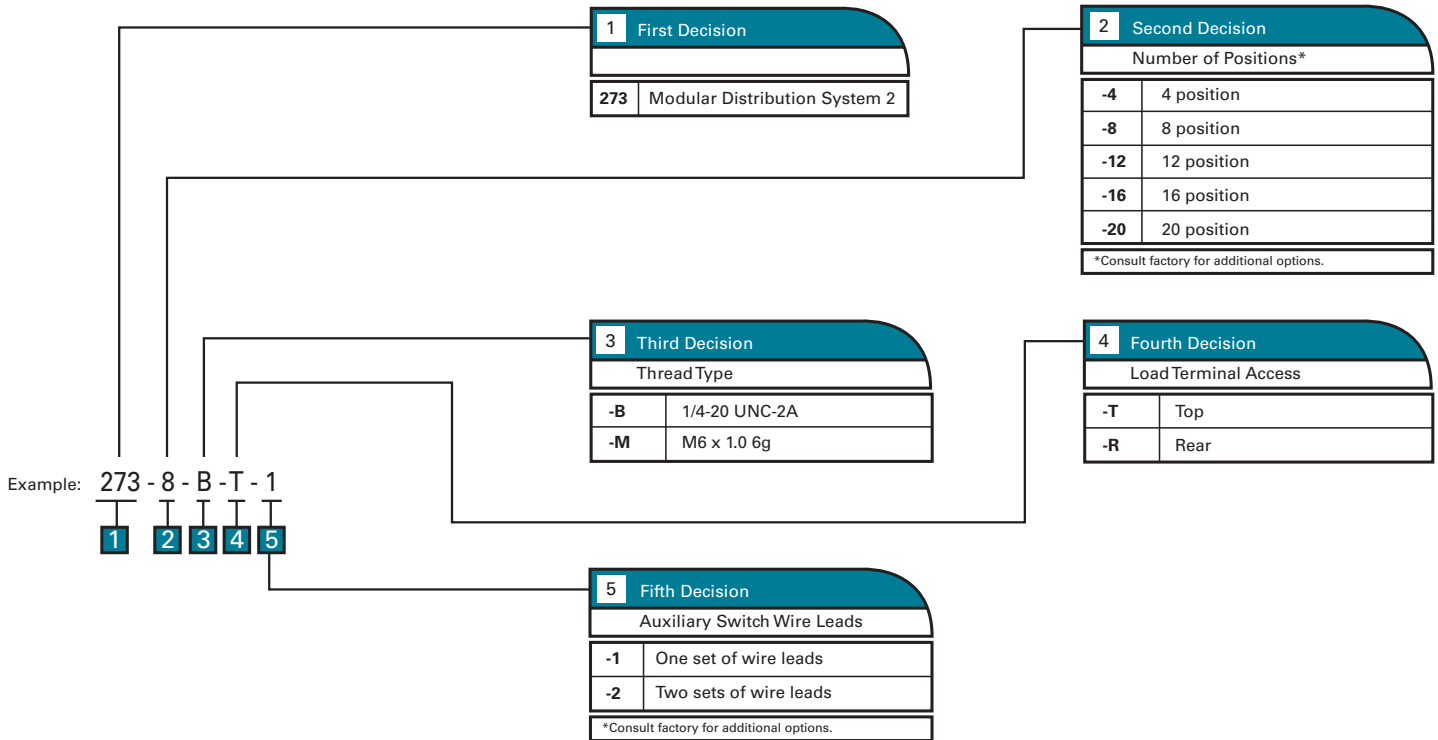
### EIGHT-POSITION REAR CONNECT



### EIGHT-POSITION FRONT CONNECT



## DECISION TABLES



### Notes:

- This specification covers Airpax four and eight position Modular Distribution Systems for LEL, LML, IEL, IML type circuit protectors using 5/16 inch diameter bullet terminals.
- High-Low Temperature Operation: The Modular Distribution System shall operate in a range from  $-40^{\circ}\text{C}$  to  $+85^{\circ}\text{C}$ .
- Dielectric Strength: The Modular Distribution System shall withstand DC voltage for 60 seconds between all electrically isolated parts as follows:  
Between line and load bus bars: Minimum 2000 VDC  
Between line and load bus bars and aux. switch contact strips: Minimum 2000 VDC  
Between line and load bus bars and clamp up rods: Minimum 2000 VDC
- Insulation Resistance: Shall not be less than 100 megohms at 500 volts DC.
- Flammability: All Modular Distribution System parts have an U.L. 94 V-0 flammability rating.
- Electrical Ratings:  
Current Ratings:  
Maximum load bus rating per position is 100 amps.  
Maximum common bus rating of the eight position Modular Distribution system is 600 amps.  
Maximum common bus rating of the four position Modular Distribution System is 300 amps.  
Voltage Rating: 125 VDC max.
- Recommended Torque Specifications:  
Load bus 1/4 - 20 UNC 72 inch pounds  
Line bus 3/8 - 16 UNC 192 inch pounds  
Mounting channel #10 x 0.750 long 20 inch pounds
- Auxiliary Switch Wire Rating:  
200° C; 600 volts; UL recognized (UL 1199)
- Ampacity:  
Line bus @ 600 amps: 850 amps/sq inch  
Line bus @ 300 amps: 850 amps/sq inch  
Load bus @ 100 amps: 1140 amps/sq inch
- Plating: Common and load bus bars are available with either silver or tin plating.  
Silver Plating: The plating of the louvertec bands of the Airpax circuit breakers used in the Modular distribution System are silver plated. Silver plated bus bars on the Airpax Modular Distribution System product significantly reduce the possibility of galvanic corrosion.  
Tin Plating: The use of tin plated bus bars with the silver plated louvertec bands on the circuit breaker increases the possibility of galvanic corrosion at the joint interface.  
The use of a conductive polymer such as Stabilant 22 or CAIG 100 is recommended with both silver plated and tin plated bus bars in order to negate galvanic corrosion and to improve the conductivity of the joint interface.
- Beryllium Copper Contact Strip: Beryllium copper strips are used to conduct current to and from the terminals of the circuit breaker auxiliary switch. The beryllium copper strips have a minimum compression set and will return to their original size with as much as a 30% deflection. Repeated insertion and removal of the circuit breaker in this application will have an insignificant effect on the contact force between the auxiliary switch terminals and the beryllium copper strips.

©2013 Sensata Technologies, Inc. All rights reserved worldwide. The following data sheet is an excerpt from our Airpax™ Power Protection Catalog, **Literature # 2455005000**, printed in the USA, **May 9th, 2013**.

**Important Notice:** Sensata Technologies reserves the right to make changes to, or to discontinue, any product or service identified in this publication without notice. Before placing orders, users should obtain the latest version of the relevant information to verify that the information being relied upon is current.

Sensata Technologies assumes no responsibility for customers' product designs or applications. Users must determine the suitability of the Sensata device described in this publication for their application, including the level of reliability required. Many factors beyond Sensata's control can affect the use and performance of a Sensata product in a particular application, including the conditions under which the product is used and the time and environmental conditions in which the product is expected to perform. As these factors are uniquely within the user's knowledge and control, it is essential that the user evaluate the Sensata product to determine whether it is fit for a particular purpose and suitable for the user's application.

Sensata Technologies products are sold subject to Sensata's Terms and Conditions of Sale which can be found at: [www.sensata.com/terms.htm](http://www.sensata.com/terms.htm)



**Sensata**  
**Technologies**

**Sensata Technologies Inc.**  
529 Pleasant Street  
Attleboro, MA 02703, USA  
Phone: +1 508-236-3287

<http://airpax.sensata.com/>