

SELF-PROPELLED SCISSOR LIFTS

Background

Self-propelled scissor lifts, the most common type of Mobile Elevating Work Platforms (MEWPs) move vertically through folding supports in a 'X' pattern, known as scissor mechanism. They are classified in 2 main categories based on how these are powered and where they are used. Battery powered (or electric) scissor lifts are used mainly indoors on slab surfaces, while the engine powered ones are used outdoors where the surfaces are frequently uneven (for this reason they are commonly referred to be for 'rough terrain'). Regardless of how they are powered, they have many sensors and controls to manage movement, safety, and mainly stability (operators on the platform are subject to fall hazards, therefore safety is a priority).

Solution

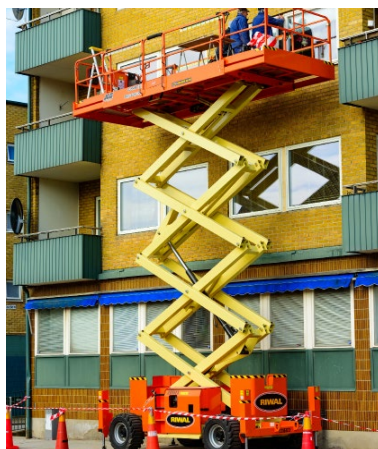
For decades, Sensata through its DeltaTech Controls branded products, has been a market

leading supplier of complete platform control systems for scissor lifts, either battery or engine powered. The platform control unit and the electronic control unit (or ground control unit for the engine powered) can connect and control a variety of digital and analog machine interface as joysticks, sensors, limit switches, motor controllers, pushbuttons, alarms and control them through a dedicated CAN-bus system. Sensata can also supply a complete set of main sensors: the high-pressure sensor (PP series) that controls the hydraulic pressure of the main cylinder, the angle sensor (9360 Series) used to determine the height of the platform; and the inclinometer (T series or other) to control the chassis inclination for safety reasons. The pressure sensor and the angle sensors used in combination are also aimed to control the platform overload condition, another important condition to be controlled to comply with ANSI92 and EN280 safety standards.

"All functions and movements are controlled using Sensata's platform control systems and sensors to guarantee compliance with international safety standards"










Slab (battery-powered) scissor lift



Rough Terrain (engine-powered) scissor lift



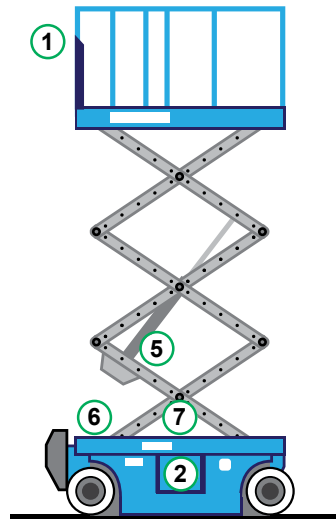
RELATED PRODUCTS

Reference on Diagram	Product	Features	Function	Brand
1	 PCU500	<ul style="list-style-type: none"> Switches integrated in joystick IP65 	Platform Control Unit	DeltaTech Controls
2	 ECU500	<ul style="list-style-type: none"> CAN, USB, GPS 40 input/output 	Electronic Control Unit	DeltaTech Controls
3	 PCU100	<ul style="list-style-type: none"> Extensive integrated controls IP65 	Platform Control Unit	DeltaTech Controls
4	 GCU100	<ul style="list-style-type: none"> CAN, MCU 58 input/output 	Ground Control Unit	DeltaTech Controls
5	 PTE7100	<ul style="list-style-type: none"> High pressure MSG (Microfused Strain Gauge) 	Pressure sensor	Sensata
6	 9360 Series	<ul style="list-style-type: none"> Hall effect sensor IP67 	Angle Sensor	BEI Sensors
7	 T Series	<ul style="list-style-type: none"> High resolution 0.01° High accuracy 0.1° 	Inclinometer	BEI Sensors

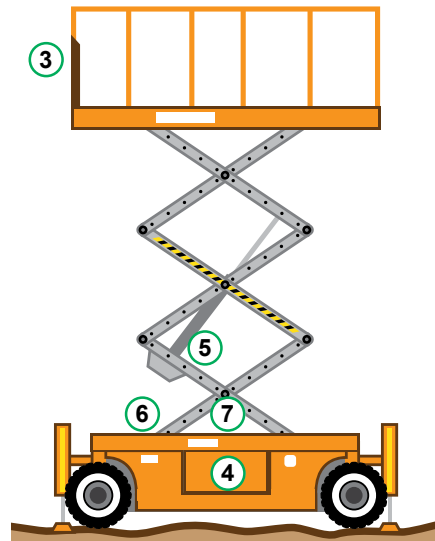


GENERAL DIAGRAM

Slab (battery-powered) scissor Lift



Rough Terrain (engine-powered) scissor lift



Sensata Technologies, Inc. ("Sensata") data sheets and application notes are solely intended to assist designers ("Buyers") who are developing systems that incorporate Sensata products (also referred to herein as "components"). Buyer understands and agrees that Buyer remains responsible for using its independent analysis, evaluation and judgment in designing Buyer's systems and products. Sensata data sheets and application notes have been created using standard laboratory conditions and engineering practices. Sensata has not conducted any testing other than that specifically described in the published documentation for a particular data sheet and application notes. Sensata may make corrections, enhancements, improvements and other changes to its data sheets and application notes or components without notice.

Buyers are authorized to use Sensata data sheets and application notes with the Sensata component(s) identified in each particular data sheet and application notes. HOWEVER, NO OTHER LICENSE, EXPRESS OR IMPLIED, BY ESTOPPEL OR OTHERWISE TO ANY OTHER SENSATA INTELLECTUAL PROPERTY RIGHT, AND NO LICENSE TO ANY THIRD PARTY TECHNOLOGY OR INTELLECTUAL PROPERTY RIGHT, IS GRANTED HEREIN. SENSATA DATA SHEETS AND APPLICATION NOTES ARE PROVIDED "AS IS". SENSATA MAKES NO WARRANTIES OR REPRESENTATIONS WITH REGARD TO THE DATA SHEETS OR USE OF THE DATA SHEETS AND APPLICATION NOTES, EXPRESS, IMPLIED OR STATUTORY, INCLUDING ACCURACY OR COMPLETENESS. SENSATA DISCLAIMS ANY WARRANTY OF TITLE AND ANY IMPLIED WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE, QUIET ENJOYMENT, QUIET POSSESSION, AND NON-INFRINGEMENT OF ANY THIRD PARTY INTELLECTUAL PROPERTY RIGHTS WITH REGARD TO SENSATA DATA SHEETS AND APPLICATION NOTES OR USE THEREOF.

All products are sold subject to Sensata's terms and conditions of sale supplied at www.sensata.com SENSATA ASSUMES NO LIABILITY FOR APPLICATIONS ASSISTANCE OR THE DESIGN OF BUYERS' PRODUCTS. BUYER ACKNOWLEDGES AND AGREES THAT IT IS SOLELY RESPONSIBLE FOR COMPLIANCE WITH ALL LEGAL, REGULATORY AND SAFETY-RELATED REQUIREMENTS CONCERNING ITS PRODUCTS, AND ANY USE OF SENSATA COMPONENTS IN ITS APPLICATIONS, NOTWITHSTANDING ANY APPLICATIONS-RELATED INFORMATION OR SUPPORT THAT MAY BE PROVIDED BY SENSATA.

Mailing Address: Sensata Technologies, Inc., 529 Pleasant Street, Attleboro, MA 02703, USA.

CONTACT US

INDUSTRIAL SOLUTIONS DIVISION

Americas

+1 (800) 350 2727
sensors.deltatech@sensata.com

Europe, Middle East & Africa

+359 (2) 809 1826
ost-info.eu@sensata.com

Asia Pacific

sales.isasia@list.sensata.com

China +86 (21) 2306 1500

Japan +81 (45) 277 7117

Korea +82 (31) 601 2004

India +91 (80) 67920890

Rest of Asia +886 (2) 27602006
 ext 2808

HEAVY VEHICLE & OFF-ROAD DIVISION

Americas

+1 508 236 2196
products@sensata.com

Europe, Middle East & Africa

+49 30 43 999 0
products@sensata.com

Asia Pacific

products@sensata.com

China +86 (21) 2306 1500

Japan +81 (45) 277 7001

Korea +82 (31) 601 2004