



| SENSATA AND CONTROLS FOR LIFT TRUCKS

We help engineers take their designs to the next level.

Our experts work closely with engineers on four continents to make material handling equipment safer and easier to use. Those collaborations have resulted in a host of advanced sensing technologies, including heavy-duty designed joysticks with proven Hall effect sensing technology, SIL3/PLe encoders for functional safety controls and sealed contactors to withstand inrush currents and demanding environments.



Sensata manufactures and supplies to heavily loaded fork-lift trucks or fast narrow aisle vehicles, both manned, driverless or partially autonomous, the most variety of sensors and controllers for movement, stability, collision avoidance and positioning in order to reach the maximum performances and safety levels.

CABIN CONTROL



Joystick (AJN + custom grip)

- Custom design
- Front and rear rockers availability
- Soft-touch over molding for different hand sizes



Rockers (AR3, SR3, AR5)

- Hall effect (contactless) sensing
- Optional second sensor for redundancy
- Short circuit protection



Armrest (Custom)

- Highly customizable
- Combination of switches, grips, joysticks and rockers
- Improve vehicle performance, efficiency and safety



Steering Encoder (DH05)

- High accuracy and resolution
- Withstanding high shock and vibration level
- Longer life expectancy



Pedal position (9810)

- Mechanical rotation 120°
- 5M cycles mechanical life
- Working temperature -40°C +135°C

STABILITY CONTROL



Load weight (PTE71)

- Up to 8700 PSI (600 Bar)
- Compact Size
- Stainless steel and hermetically sealed



Tire angle position (9960)

- Single or dual output
- 360° capability
- IP69K sealing



Steer axle and reach & tilt position (9810)

- Mechanical rotation 120°
- 5M cycles mechanical life
- Working temperature -40°C +135°C



Chassis and fork inclination (TSD)

- Gyro-compensated
- 3 sensors redundant and fault tolerant
- SAE J1939 output

Sensata Technologies is one of the world's leading suppliers of sensing, electrical protection, control and power management solutions with operations and business centers in twelve countries. Sensata's products improve safety, efficiency and comfort for millions of people every day in automotive, appliance, aircraft, industrial, military, heavy vehicle, heating, air-conditioning and ventilation, data, telecommunications, recreational vehicle and marine applications.

ELECTRIFICATION



Traction, Charging and BMS switching (GV & MX)

- Epoxy Sealed allows high fault interrupt capability
- EPIC® ceramic sealed for operation in extreme temperature up to 175°C
- Voltage ratings from 12Vdc to 1200Vdc for switching loads up to of 500Amps



Main power on/off (HBD)

- Manual switches meets CE conformance standards
- Sealed contacts ensures low voltage drop
- Fiber composite housing and hermetic seal prevent corrosion inside and out



ENGINE

Oil Pressure (6xCP)

- Enhanced accuracy over wide operating range
- Exceptional shake and vibration tolerance
- Overvoltage and reverse polarity protection



Fuel tank pressure switch (20PS)

- Automatic reset
- Hermetically sealed sensor
- Up to 55 Bar



Filter pressure (DPF)

- Differential Pressure Sensor 0-100kPa
- Increased robustness in harsh exhaust gas enviro.
- Working temperature -40°C +125°C



Exhaust Gas Temperature (HTS)

- High temperature sensor 850°C
- Helps reduce emissions
- Protection against overheating



AUTONOMOUS NAVIGATION (AGV)

Speed and direction control- SIL3 Encoder (DSM5H)

- Usable up to SIL3 and Cat.4 / PLe according to IEC 61508 / EN ISO 13849a
- Suitable for safe motor feedback according to IEC 61800-5-2
- Digital TTL/RS422 or HTL or sine/cosine 1Vpp output



LiDAR for localization and collision avoidance (S3-1)

- Solid state technology, no moving or vibrating parts
- High reliability, Small footprint
- Visualization software for easy integration



Digital RADAR for localization and collision avoidance

- High resolution approaching LiDAR performance
- High dynamic range for object discrimination
- Robust to weather and other interference

