

# qSCALE I2 TH

➤ RCI / RCL system for telehandlers



## ➤ Application

- Aftermarket telehandler machines with:
  - Fork as main attachment
  - Searcher hook as second attachment

## ➤ Advantages

- Reduced risk of accidents from tipping
- Increased productivity through maximizing the machine's utilization
- Reduction of operator error
- Monitor for potential misuse with internal data logger

## ➤ System Features

### General:

- Option to include Longitudinal Load Moment Indicator / Control (LLMI / LLMC)
- Calculates and displays the machine status according to the selected operation mode and sensor values
- Displays actual and allowable load, boom length, boom angle, load radius & height
- Audible and visual warning
- Customizable to different machine types in both capacity and machine dimensions
- System settings are password protected
- Option to include camera

### Service & Diagnostics:

- Integrated data logger tracks machine usage and helps to determine whether a machine has been misused
- Calibration:
  - Calibration can be done easily by the installer
  - Previous system calibration can be utilized on subsequent machine models
  - Calibration through the console without additional software tools
- Error codes with diagnostic messages on user interface
- Easy software backup by USB drive

## System Layout



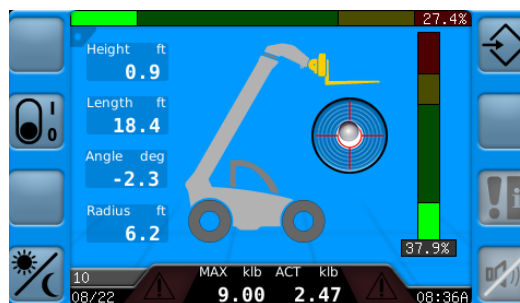
## System Components

### 1 qSCALE I2 TH Console:

- 4.3" Color graphic display with integrated controller
- Operating temperature: -30°C to +70°C
- Protection rating: IP66
- Communication: CANopen
- Power Supply: 9-36V DC



### Main Working Screen



## **2 gSENS LWG Cable Reel:**

- Measures length & angle
- Operating temperature: -25°C to +85°C
- Protection rating: IP65
- Communication: CANopen
- Power Supply: 9-36V DC
- Accuracy:
  - Length Accuracy: < 1,2% FS
  - Angle Accuracy: < ± 0.5°
- Measurement range:
  - Length: 0m...15m (larger ranges possible on request)
  - Angle: -180° to +180°



## **3 pSENS Pressure Sensors:**

- Measures hydraulic pressure in the cylinders
- Operating temperature: -40°C to +125°C
- Protection rating: IP66
- Communication: CANopen
- Power Supply: 10-35V DC
- Accuracy: Overall accuracy <±1% including non-linearity, air pressure, temperature
- Measurement range: 300 bar, larger scale on request



## **4 CAN Breakout Box:**

- CAN breakout 4 or 8 port configuration
- Operating temperature: -40°C to +85°C
- Protection rating: IP66
- Power Supply: 9-30V



## **5 Camera:**

- Hardwired camera with horizontal or vertical orientation
- Operating temperature: -40°C to +85°C
- Protection rating: IP68 / IP69k
- Communication: NTSC



## **6 Rear Axle Sensor (for LLMI)**

- Measures the strain on the rear axle
- Operating temperature: -30°C to +80°C
- Protection rating: IP66/67 in accordance with DIN EN 60529
- Communication: CANopen
- Power Supply: 9-36V DC
- Accuracy: Minimal temperature drift 0.1%/10K
- Measurement range: 0...1500 N



## **7 gSENS WGX Sensor**

- Chassis tilt indication
- Operating temperature: -40°C to +85°C
- Protection rating: IP66 or IP69k
- Communication: CANopen
- Power Supply: 10-30V DC
- Accuracy:  $\pm 0,1^\circ$  Accuracy
- Angle range:  $\pm 80^\circ$



## **8 cSCALE DIO module (for lockout)**

- Digital IO and analog inputs
- Operating temperature: -40°C to +70°C
- Protection rating: IP66/67
- Communication: CAN
- Power supply: 6-36V DC
- Measurement range:
  - Analog (4...20mA) and digital inputs
  - Digital outputs up to 2A

