

Model6253 – OverWatch™

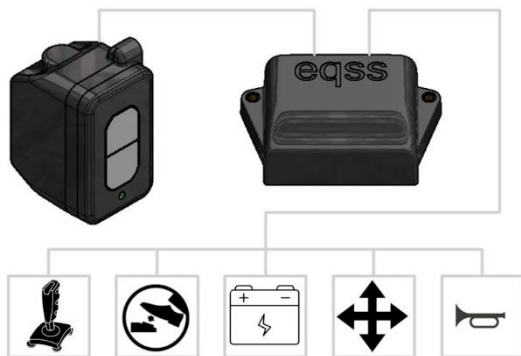
Patented Scissor Lift Secondary Guarding



MODEL6253 – OverWatch™ Scissor Operator Detection System



The EQSS **OverWatch™** is an innovative approach to secondary guarding for use with Scissor Lift EWP's. The system works on the premise of detecting the operator's position and movements, with respect to the EWP direction of movement. OverWatch™ uses the latest LIDAR and Inertial Measurement technologies, coupled with a powerful Wi-Fi enabled processor running EQSS proprietary AI and advanced sensor fusion algorithms. The OverWatch™ is the first truly usable, robust, unobtrusive and cost-effective secondary guarding solution presented to the market to date for Scissor Lifts.



Features:

- Real Time measurement of the operator
- Spatial movement measurement of the EWP
- Smart AI Algorithms for crush detection events
- Adaptive sensor fusion code for enhanced detection
- Small, robust and non-intrusive external sensor
- Wi-Fi configuration and diagnostics as standard
- Internal web page accessible by Wi-Fi
- Audio output with synthesised voice commands
- Multicolour RGB notification LED
- Simple aftermarket integration and installation
- Voice notification of movement direction
- Duck Through Doorway (DTD) Detection
- Wide operating voltage for 12V and 24V machines
- Optical inputs and solid-state high-power output
- Patented Concept and Technology
- Measurement of individual operator on dead man trigger
- Expandable hardware architecture for custom OEM control
- Real time data logging with event playback 8000+ samples
- Internal clock for time stamped event logging
- High Density, UV resistant ABS construction
- Rapid installation < 20 minutes for OEM supported models
- Automatic calibration, diagnostics and self-testing
- Functional Safety architecture to SIL1 / Plc

System Technical Specifications

ELECTRICAL

Supply Voltage	7VDC to 36VDC
Current	350mA @ 12VDC
Protection	1000mA Regulation

CONNECTIVITY

Outputs	4 x N/O 750mA
Inputs	4 x Buffered
Analogues	2 x 0-5V or 4-20mA
Wi-Fi	802.11 b/g/n
Bluetooth	V4.2 / BLE
Bandwidth	2.4GHz
Serial	Jtag
Diagnostics	Embedded Server
Static IP	192.168.1.5

ENVIRONMENTAL

Operating Temp	-20°C to +65°C
Storage Temp	-25°C to +90°C
Sensor Protection	IP67
ECU Protection	IP62
Humidity	5% to 98%
Vibration	EN60068-2-6
Shock	EN60068-2-7

PROCESSOR

Architecture	32Bit LX6 140MHz
RAM	524KB
Flash	16MB – Data Storage
RTC	Battery Back Up
Watchdog	250mS
Data Logging	5000 + Time Stamped
Bootloader	OTA

AUDIO

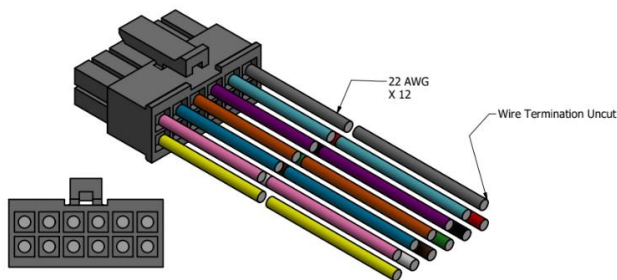
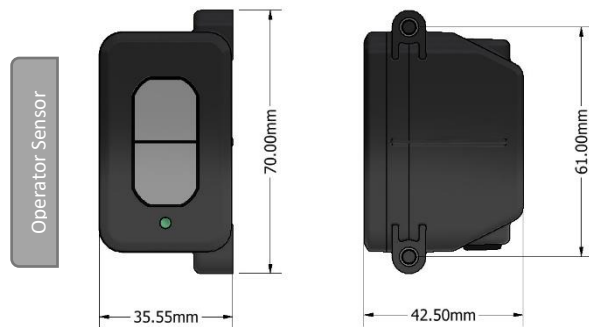
Feedback	Voice & Alarms
Language	Multilingual
Power	4W, 8Ω

OPERATOR SENSOR

Range	0.1 to 10m
Accuracy	±5mm
Light Source	LED IR – 550mW
Wavelength	850nm
FOV	4.2°

CERTIFICATIONS

CE	EN61000-6-1/2/3/4
Function Safety	SIL1 / CAT2 Plc



ECU CONNECTIONS

Brown	+12V / +24V
Blue	0V / Ground
Purple	Dead Man Switch Side
Orange	Dead Man ECU Side
Aqua	Horn Splice
Pink	Strobe Output
Red	Auxiliary Output COM
Black	Auxiliary Output N/C
Green	Input - 1
White	Input - 2
Grey	Input - 3
Yellow	Joystick Position Sense Input