

Airscale System

FEATURES

- Up to 2% of net payload
- Gross/Net weight displayed with no driver interaction
- Axle group weight displayed with no driver interaction
- Easy to operate
- Extensive self diagnostic
- Easy two-step calibration
- Post calibration
- Weight set-alarm points
- Supervisor lock-out
- Graphic color TFT display with LED backlight
- **Optional:**
 - Remote display using free smartphone application (through Bluetooth link)
 - Printer
 - Scoreboard

APPLICATIONS

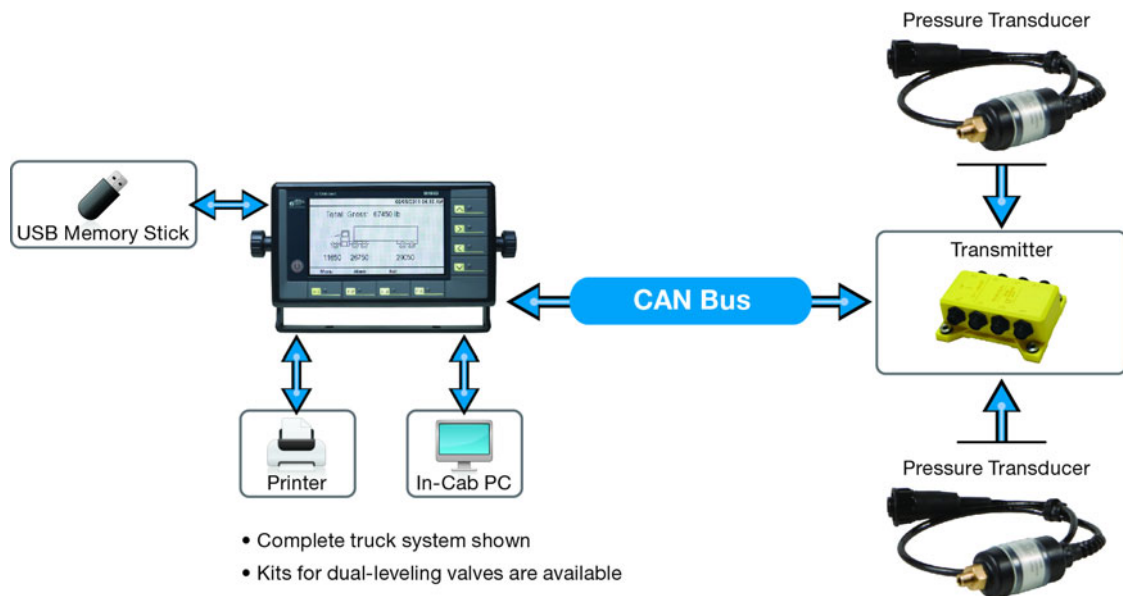
- Forestry/logging
- Waste
- Bulk hauling
- Aggregate
- Dump truck
- Roll offs
- Agriculture
- Tow trucks



DESCRIPTION

The SI Onboard Airscale system provides gross or net vehicle weight by monitoring air pressure from your air suspension and converting this to a weight. This information is used in avoiding overload fines, choosing disposal sites, and reducing truck maintenance. The system can be installed on any truck with an air suspension. Axle group weights are provided, as well as gross and net weights. Rear-axle-group-only and front-axle-group-only systems are also available. The system is designed for easy operation and is built for accuracy, reliability and longevity. Extensive self diagnostics allows easy identification of faults and quick recovery. Setup and calibration may be stored on a USB memory stick for backup.

SYSTEM BLOCK DIAGRAM



Airscale Suspension-Based Weighing System

SI Onboard



Airscale System

SPECIFICATIONS						
PARAMETERS		MIN.	TYP.	MAX.	UNIT	
Accuracy		0.5%	1.0%	2.0%	Full Scale	
Capacity (GVW)				Unlimited		
Number of transducers		1 or 4				
Number of Channels		Up to 32				
METER						
Display		4.3", 480x272, graphic color TFT with LED backlight				
Size		6.3 x 3.34 x 1 (W x H x D) 160 x 85 x 25 (W x H x D)			inch mm	
Count by (Divisions)		1, 10, 20, 50, 100				
Weighing units		Pounds (lbs.) or kilograms (kg)				
Communication		RS232, USB, CAN Bluetooth dongle for smartphone remote control application (Optional)				
Inputs / Outputs	Digital inputs	2				
	Digital outputs	2, solid state, short circuit proof. Triggers: • Alarm condition • Programmable set point level reached (overload or target payload)				
Expansion slots		2				
Audible alarm			75		dB	
Setup and calibration		Protected by password				
Remote display		Smartphone application* using Bluetooth link to the meter * Android-based phones, iOS-based phones in development				
Power	Operating voltage	10.5		32	VDC	
	Current consumption		40	95	mA	
Environmental conditions	Shocks and vibration	Suitable for in-cab automotive environment				
	Humidity (non-condensing)	30		85	% R.H.	
	Operating temperature		-4		158	°F
				-20	70	°C
	Storage temperature		-4		185	°F
			-20	85	°C	
Protection level		IP20				
TRANSMITTERS						
Number of load cells		2	4	6		
Sample rate (per load cell)			1		kHz	
Load cell excitation voltage			5		VDC	
Load cell input range				3	mV/V	
Offset drift				10	PPM/°C	
Gain drift				5	PPM/°C	
Tilt measurement accuracy			0.2		Deg.	
Communication		CAN				
Diagnostics		Extensive diagnostics of sensors, hardware and communication				
Power	Input voltage	10.5		32	VDC	
	Current consumption			120	mA	

Airscale System

SPECIFICATIONS					
PARAMETERS	MIN.	TYP.	MAX.	UNIT	
TRANSMITTERS (CONTINUED)					
Environmental conditions	Shock and vibrations	Per ISO 16750-3 standard			
	Operating temperature	-40 -40		158 70	°F °C
	Storage temperature	-40 -40		185 85	°F °C
	Humidity	100% condensing			
	Protection level	IP67 and IP69K NEMA 4X			
	Resistance to solvent	Per automotive requirements for chassis installed units			
Size	4.5 x 1.9 x 5.5 (W x H x D) 114 x 48 x 140 (W x H x D)			inch mm	
TRANSDUCER					
Material	Aluminum Alloy				
Size	4" + 2' cable				
Output (@ 150 PSIG)	0.5	1	1.5	mV/V	
Impedance	350			ohm	
Pressure			150	PSI	



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