

High-Performance Digital Load Cell Interface

FEATURES

- USB (Universal Serial Bus) 2.0 interface
- Weighing functionality: zero, tare, initial zero setting, automatic zero tracking, unit conversion, and more
- Full setup and calibration through the USB interface
- Simple calibration, test and setting via Revere's software, or HyperTerminal program
- Suitable for PC-based, or PLC-based applications
- Gravity factor compensation
- CE Compliance

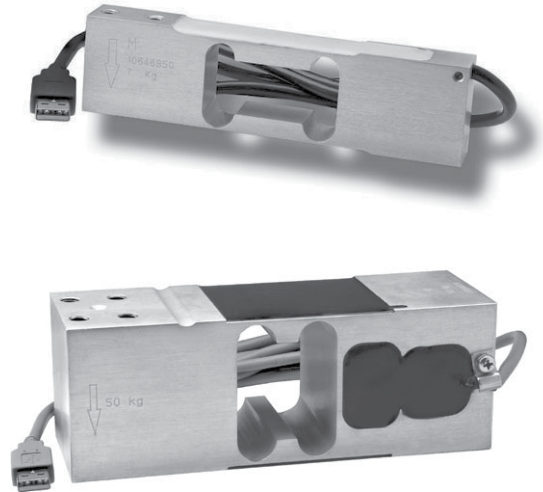
APPLICATIONS

- PC-based systems
- Inventory control
- Load/force monitoring
- Load cell digitizers
- OEM machinery

DESCRIPTION

The Model DLC09 is a high performance digital load cell with USB interface to a PC. Just connect and start measuring, no need for power supply, or special software.

With DLC09 technology, most analog load cells can be converted to a full-function digital load cell. The interface circuit board can be embedded in the load cell (space



permitting), or installed in a sealed connector housing attached to the USB cable.

Calibration, setup and operating functions are available through the USB port. DLC09 Open Protocol allows easy access to all configuration and calibration parameters.

DLC09-enabled summing junction boxes offer digital interface for multiple load cell scales.

High-Performance Digital Load Cell Interface

SPECIFICATIONS					
PARAMETER	SYMBOL	MIN	TYP	MAX	UNIT
Bridge input					
Bridge excitation	V_{exc}	4.8	5.0	5.2	V
Bridge resistance	R_{LC}	79	350	10k	Ω
Full scale input signal	F_S	2.50	10.00	19.50	$\pm mV$
Common mode voltage		1.50	2.50	3.50	V
USB Bus – 2.0 Full speed compatible					
Supply voltage	V_p	4.75	5.00	5.25	V
Max. supply current (with four 350 Ω load cells)			41	62	mA
Over voltage protect				6	V
ESD capability (D+, D-)				2000	V
Reverse power protection		yes			
Output type		USB with virtual com port, protocol defined by Revere			
Virtual com port					
Baud rate		115200			Bit/sec
Data bits		8			Bits
Start bits		1			Bits
Stop bits		1			Bits
Maximum cable length		5			m
Performance					
Input impedance		10 ⁷			Ω
Internal resolution		24			Bits
Noise (ref to input, filter 1/1/2, warm up 2 hours, catch 2 minutes)			0.2	0.3	μV p-p
Digital filters		3 stage filters, software selectable			
Measurement rate		10 or 80			Hz
Zero stability (-10 ~40°C)			3.2	6.5	$\pm ppm F_S/^\circ C$
Gain stability (-10 ~40°C)			2.3	3.7	$\pm ppm F_S/^\circ C$
Typical OIML V_{min} value (2 mV/V)			10000		
Software upgrade		Download new software via USB without hardware setting			
Environmental conditions					
Specification temperature (full performance)	T_S	-10	+20	+40	$^\circ C$
Operating temperature		-40		+85	$^\circ C$
Storage temperature		-40		+85	$^\circ C$
Drop test (concrete surface)				1.5	m
Power supply		Power from USB			

All specifications subject to change without notice.

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