# Max connectivity, mini footprint easy integration for weighing



IND331 Panel mount version



IND331 Harsh/desk/wall mount version



IND131 DIN rail mount version



IND131 J-box version



## Weigh

For end-users, the IND131/ IND331 delivers excellent diagnostics, reliability and efficiency.

# Comply

These superior weighing terminals feature the performance and reliability expected of instruments designed with Weights and Measures and product safety compliance in mind. They include features and functionality never before offered in such a compact and versatile form factor.

### Control

The inherent properties of process weighing terminals from METTLER TOLEDO make it easier for OEMs and system integrators to build best-in-class weighing systems cost-effectively.

#### Connect

Likewise, their easy integration into process-based network architectures provides valuable plant-floor information that can be used to optimize production and help reduce down-time.

# Multiple PLC interfaces

All IND131 and IND331 terminals can be equipped with any of a wide array of PLC options, including:

- Analog output
- Allen-Bradley RIO
- DeviceNet<sup>™</sup>
- EtherNet/IP™
- Modbus TCP
- PROFIBUS<sup>®</sup> DP



# IND131 and IND331 Weighing Terminals

The IND131 and IND331 scale terminals deliver precision measurement data in a single, cost-effective package. Each terminal features:

- Support for analog scale bases
- Ultra-fast A/D conversion rate and patented Trax-DSP™ digital filtering
- Crisp OLED (Organic LED) display readable in all light conditions
- Enclosures designed to match application environment – modular design enables multiple mounting possibilities
- Support for a wide variety of options, including DIO, additional COM port, and PLC interfaces
- Choice of AC or 24 VDC power supply
- Portable calibration and configuration settings, using SD memory card
- Scale calibration through PLC interface. CalFREE™ allows scales to be calibrated without test weights



# Technical data IND131 and IND331 scale terminals



IND131/DIN



3.112 0 000

IND131/JBox



IND331/Harsh

			ALLER MADE				
Enclosure types		Unit of Measure	DIN rail-mount plastic, back panel operator interface	Panel mount, stainless steel + DIN rail-mount plastic chassis	Stainless steel enclosure including internal board to sum load cells	Stainless steel desk- or wall-mountable enclosure, including operator interface	
Dimensions	L x H x D	mm in.	68 x 138 x 111 2.7 x 5.4 x 4.4	Front panel: 168 x 68 x 12 6.6 x 2.7 x 0.5	251 x 261 x 123 9.9 x 10.3 x 4.8	220 x 131 x 177 8.7 x 5.2 x 7.0	
Shipping weight	Shipping weight		1 / 2.2	1.5 / 3.3	4.5 / 10.1	3 / 6.5	
Environmental protec	Environmental protection		IP20, Type 1	IP65, Type 4x and 12	IP69K	IP66	
Ambient environmen	Operation	°C / °F	-10 to 40 / 14 to 104, 10% to 90% relative humidity, non-condensing				
	Storage	°C / °F	-20 to	0 60 / -4 to 140, 10% to 90%	relative humidity, non-cor	Idensing	
Power requirements	AC version	VAC / Hz / mA	85-264 / 49-61 / 27-73				
	DC version	VDC / mA	18-36; nominal 24 / 84-170; nominal 120 (IND131), nominal 130 (IND331)				
Display	Туре		Green OLED including weight display, weight units, gross/net indication and graphic symbols for motion and center of zero. 10 updates/sec.				
	Character height	mm / in.	4 / 0.16	12 / 0.47	4 (internal) / 0.16	12 / 0.47	
Weight display			Maximum displayed resolution of 100,000 divisions				
Scale type			Analog load cells				
Number of cells			Up to 4 350 $\Omega$ load cells (up to eleven 1,000 $\Omega$ load cells), 2 or 3 mV/V				
Number of scales			1				
Analog/Digital update rates		Hz	Internal analog: 366 / Target comparison: 50 / PLC Interface: 20				
Digital Filtering			TraxDSP®				
Memory			Stores two-speed target control values				
Load cell excitation v	voltage	VDC	5				
µV Build Minimum/A	pproved	microvolts	0.1 / 0.6				
Keypad			4 keys (Clear, Zero, Tare, Print); 1.22 mm thick polyester overlay (PET) with polycarbonate display lens				
Communications	Serial interfaces		Standard: One serial port (COM1), RS-232, 300 to 115,200 baud Optional: Serial port (COM2), RS232/485, 300 to 115,200 baud				
Communications	Protocol		Serial inputs: ASCII commands for CTPZ (Clear, Tare, Print, Zero), SICS (most commands, levels 0 and 1) Serial outputs: Continuous, Extended continuous, or Demand (limited formats)				
Approvals	Weights and Measures		USA: NTEP Class III/IIIL - 10,000d; CoC 09-051 Canada: Class III/IIIHD - 10,000d (pending) Europe: OIML, Class III, 6000e; R76/2006-NL1-09.26				
	Product safety		UL, cUL, CE				

#### IND131 / IND331 Options

	COM2 RS232/485 serial		Wall mounting bracket (for IND331)		
COM2 / DIO, includes:	4 discrete outputs, solid st	tate or relay	Swivel mounting bracket (for IND331)		
	2 discrete inputs		PTPN Terminal adapter plate (for IND331)		
	4-20 mA Analog Output	Ethernet/IP™	2GB Memory SD Card for configuration and cali- bration data backup and restore		
Programmable Logic Control (PLC) interfaces	PROFIBUS® DP	DeviceNet™			
	Allen-Bradley RIO™	Modbus TCP			



IND331 with PTPN adapter plate



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### Essential Services for Dependable Performance

METTLER TOLEDO is uniquely qualified to provide the installation, calibration and maintenance services essential to ensuring accuracy, optimizing uptime and prolonging equipment life. Our service representatives will be there at the right time, with the right parts, the right tools and the right skills to meet your needs.

#### www.mt.com

for more information