# **Intrinsically Safe Weighing**

## in Classified Hazardous Areas



#### Safe and Economical

The IND256x is a cost effective weighing terminal for basic and checkweighing operations. Using intrinsically safe circuitry and increased safety elements, the IND256x delivers safe weighing in classified hazardous areas covered by ATEX and IECEx regulations.



#### **Faster Installation**

Reduce installation time by as much as half when connecting power lines directly from the power mains to the IND256x's internal power supply. Select AC or DC power input to match local site preference. Eliminate communication cabling costs with WiFi.



#### **Reduce Maintenance Cost**

Reduce total maintenance cost up to 60% compared to flame and explosion-proof solutions by choosing intrinsic safety (I.S.) method of protection. The IND256x's I.S. circuitry assures safety over multiple maintenance cycles beyond commissioning.



### I.S. Wireless Communication

Simplify data transfer from fixed and mobile installations from within hazardous locations using IND256x terminals configured with I.S. WiFi. The integral design of the WiFi module eliminates cabling complexity.



### IND256x Terminal

Cost-Effective and Site-Friendly

Designed to operate safely in environments with explosive gases or dusts, the economical IND256x meets ATEX and IECEx hazardous area approvals.

- Simple installation with direct connection to AC or DC mains
- Easy scale mobility using external NiMH battery
- Simplified data transfer using intrinsically secure WiFi
- Flexible workplace location thanks to WiFi connectivity
- Easy cleanability and protection against corrosion and ingress for most industrial environments

## Technical Specifications, IND256x

Dimensions (HxWxD)	$173 \text{ mm} \times 230 \text{ mm} \times 127 \text{ mm}$ (6.8 in. $\times$ 9.1 in. $\times$ 5.0 in.)						
Construction	AISI 304 Stainless Steel						
Power	AC: 187 - 250 VAC						
	DC: 18 - 30 VDC  Battery: External NiMH, charged in safe area. External charger sold separately.						
Mounting	Desk, wall or column						
Storage	Storage temperature range: –20°C to 60° C (–4° to 140°F). Relative humidity: 10% to 95%, non-condensing						
Environment							
Service	Operating temperature range: -10°C to 40° C (14° to 104°F). Relative humidity: 10% to 95%, non-condensing						
Environment							
Protection	IP66						
Display	240 x 96 pixel white backlit LCD, 25mm high digits. Display update rate: 10 Hz						
Weight Display	Maximum 100,000 divisions						
Scale Interface		Analog, 4 x 350Ω, 2-3 mV/V					
Weight Update Rate	>366 Hz						
<b>Load Cell Excitation</b>	4.5 VDC						
Keypad	26 keys; 1.5mm thick membrane keyboard						
Alibi Memory	Storage for up to 60,000 records						
Communication	Standard	One intrinsically safe	RS-232 interface included on main	board			
	Interface Options	Intrinsically safe Analog Output: 16-bit D/A conversion with 25 Hz update rate to PLC, or					
		Intrinsically safe active current loop, or					
		Intrinsically safe passive current loop					
	Protocols	Serial port input: ASCII commands - CTPZ (Clear, Tare, Print, Zero), SICS commands (supports SICS levels 0 and 1)					
		Serial port output: Toledo continuous output, demand print output (5 configurable templates), SICS					
		responses and report print					
Metrology Europe: OIML R76; Class III, 6000e; TC10878							
monology	Global: OIML R76; Class III, 6000e; R76-2006-A-NL1-18.27						
Approvals	ATEX/IECEx		AC and DC version:	Battery version:			
••		version	II 2G Ex eb ib [ib] mb IIC T4 Gb	II 2G Ex ib IIC T4 Gb			
			II 2D Ex tb [ib] IIIC T60°C Db	II 2D Ex tb [ib] IIIC T60°C Db			
			-10°C ≤ Ta ≤ +40°C	-10°C ≤ Ta ≤ +40°C			
		Factory-	AC and DC version:	Battery version:			
		configured WiFi	II 2G Ex eb ib [ib] mb IIB T4 Gb	II 2G Ex ib IIB T4 Gb			
		version	II 2D Ex tb [ib] IIIC T60°C Db	II 2D Ex tb [ib] IIIC T60°C Db			
			-10°C ≤ Ta ≤ +40°C	-10°C ≤ Ta ≤ +40°C			
		ATEX Cert. No.: BVS 17 ATEX E 076 X IECEx Cert. No.: IECEx BVS 17.0064X					

## **WiFi Specification**

Installation	Available only as factory-installed module					
Standard	802.11 b/g/n					
Max Ave. RF output	14 dBm					
RF Frequency Range	2.412 GHz - 2.462 GHz					
Encryption	WEP-PSK/WPA2-PSK, WEP					
Protocol	TCP/IP					
Work Mode	Server (only valid via Port 1701), Client					
Transmitting distance	Max 40 meters in open air; typical 20 meters with limited obstruction					
Radio Approval	Europe: CE/EMC+CE/RED China: SRRC US: FCC					

## **Technical Specifications, Battery**

Enclosure Type	Stainless steel enclosure with built-in mounting bracket and nickel plated connector. The stainless steel contains				
	less than 7.5% magnesium.				
Dimensions (I x w x d)	236 mm x 133 mm x 76 mm (9.3 in. x 5.3 in. x 3.0 in.)				
Shipping Weight	4.0 kg (8.7 lb)				
<b>Environmental Protection</b>	Provides IP66 protection—comparable to Type 4x sealing. Connector has IP67 rating.				
Operating Environment	Can be operated at temperatures ranging from -10° to 40° C (14° to 104° F) at 10% to 95% relative humidity				
	non-condensing.				
Туре	Consists of eight NiMH battery cells in an encapsulated pack for a total power of 8Ah.				
Charging Time (est.)	11 hours				
Operating Time (est.)	1 load cell: 30-60 hours				
	4 load cells: 25-35 hours				
Output Power	Output voltage 7.5 to 10 VDC nominal @ 130mA minimum (170mA minimum for IDNet) to 3 A maximum. Cable				
	not designed to be extended.				
Hazardous Area Approvals	II 2 G Ex ib IIC T4 Gb				
	II 2 D Ex ib IIIC T111°C Db				
	$-10^{\circ}\text{C} \le \text{Ta} \le +40^{\circ}\text{C}$				
	ATEX Cert. No.: FM19ATEXO216X				
	IECEx Cert. No.: IECEx FMG 19.0046X				

### **Dimensions**



### **Utility**

Use IND256x File Transfer Tool to transfer and save transaction logs and upload Tare and Target tables. The File Transfer Tool is available for download at www.mt.com/IND256x.

## **Options and Accessories**

30590909	IND256x Battery Kit (including cable, charger with Schuko plug)	30541569	IND256x Battery Charger with Australia plug
30590467	IND256x Battery Kit (including cable, charger with US plug)	30541570	IND256x Battery Charger with Japan plug
30590910	IND256x Battery Kit (including cable, charger with UK plug)	30538111	IND256x Battery Spare
30592070	IND256x Battery Kit (including cable, charger with Brazil plug)	30543268	IND256x Battery Cable Spare
30590911	IND256x Battery Kit (including cable, charger with Australia plug)	30516677	4-20 mA Analog Output Interface
30590912	IND256x Battery Kit (including cable, charger with Japan plug)	30344950	Active Current Loop Interface
30541517	IND256x Battery Charger with Schuko plug	30344951	Passive Current Loop Interface
30542935	IND256x Battery Charger with US plug	72188182	Wall-Mount Bracket (Fixed)
30541568	IND256x Battery Charger with UK plug	00504130	Wall-Mount Bracket (Adjustable)
30592071	IND256x Battery Charger with Brazil plug	72200039	Column-Mount Bracket

## **System Layout**

### Zone 1/21, Cat 2 **Non-Hazardous Area** Intrinsically Safe External Battery Power from mains Third party barrier Intrinsically safe RS-232, max. 10 m. or Intrinsically safe current loop communication, max. 300 m. or Intrinsically safe Analog Output, 4-20 mA, max. 300 m. Communication Interface RS-232 or RS-485 ACM200 Tank Scale IND256x Terminal Wireless communication (20 m typical, 40 m max.) Bench Scale or DCS/PLC Third party barrier Floor Scale Ethernet TCP/IP

www.mt.com/IND256x =

For more information