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 cFMus, ATEX and IECEx regulations.

Simple Connectivity

Simplify communication and reduce costs by eliminating the external communication module typically required in hazardous area process applications. An integrated, intrinsically safe 4-20 mA analog output interface enables efficient data transfer to the safe area through a simple barrier.

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 intrinsically safe circuitry of the IND256x 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 integrated design of the WiFi module eliminates cabling complexity.

IND256x Terminal
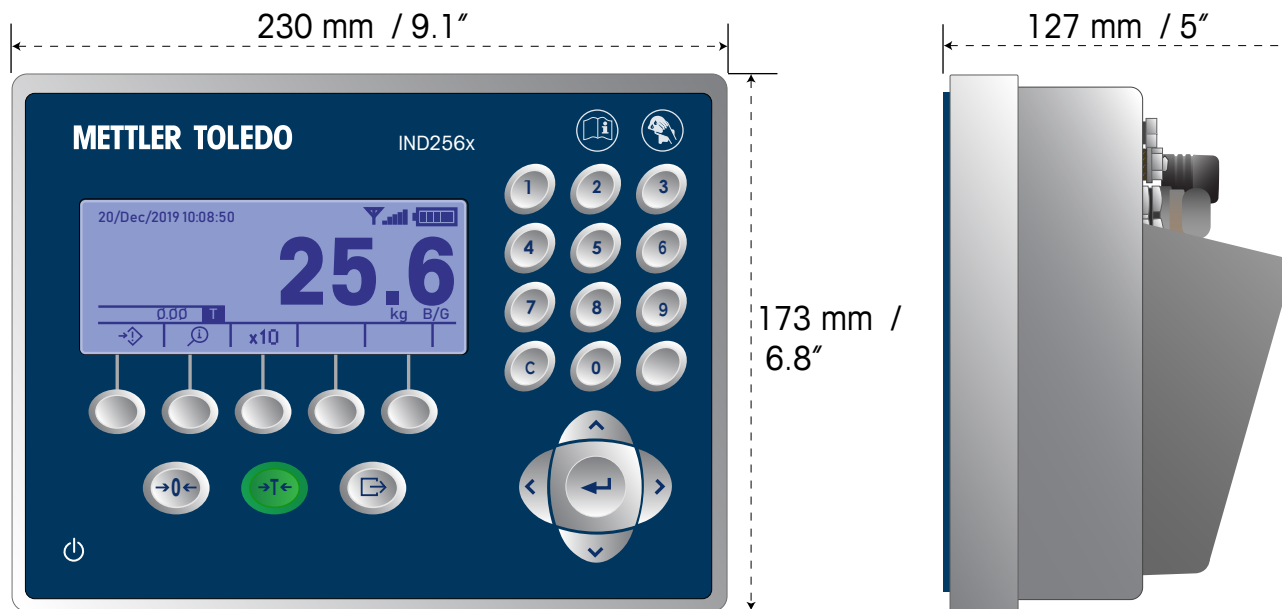### Cost-Effective and Site-Friendly

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

- Easy scale mobility using external NiMH battery
- Simplified data transfer using intrinsically safe WiFi
- Efficient and cost-saving communication in process application is enabled by an intrinsically safe 4-20 mA analog output interface
- Flexible workplace location thanks to WiFi connectivity
- Easy cleanability and protection against corrosion and ingress for most industrial environments

METTLER TOLEDO

Technical Specifications

Dimensions (HxWxD)	173 mm × 230 mm × 127 mm (6.8 in. × 9.1 in. × 5.0 in.)
Construction	AISI 304 Stainless Steel
Power	AC: APS500 (85-132 V, 50/60 Hz); APS501 (168-250 V, 50/60 Hz)
	Battery: External NiMH, charged in safe area. 1 load cell - 45 hours; 4 load cells - 35 hours. External charger sold separately
Mounting	Desk, wall or column
Storage Environment	Storage temperature range: −20°C to 60° C (−4° to 140°F). Relative humidity: 10% to 95%, non-condensing
Service Environment	Operating temperature range: −10°C to 40° C (14° to 104°F). Relative humidity: 10% to 95%, non-condensing
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
Load Cell Excitation	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 mainboard	
	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	US NTEP: Class III/IIIL, nmax=10,000; CC No.: 18-099		
	Canada: Class III/IIIHD, nmax=10,000; AM-6115		

Approvals	FM	Non Wi-Fi version	Only with intrinsically safe external power supply or battery: IS CL I,II,III/DIV 1/GP ABCDEFG/T4 CL I, Zone 1 AEx/Ex ib IIC T4 Gb Zone 21 AEx/Ex tb [ib] IIIC T60°C Db
		Factory-configured WiFi version	Only with intrinsically safe external power supply or battery: IS CL I,II,III/DIV 1/GP CDEFG/T4 CL I, Zone 1, AEx/Ex ib IIB T4 Gb Zone 21, AEx/Ex tb [ib] IIIC T60°C Db
		FM-US Cert. No.: FM-Canada Cert. No.:	FM18US0258X FM18CA0123X

Dimensions

230 mm / 9.1″

127 mm / 5″

173 mm / 6.8″

Options and Accessories

64056319	APS500 120 VAC Power Supply
64058025	APS501 240 VAC Power Supply
30590909	IND256x Battery Kit (including cable, charger with Schuko plug)
30590467	IND256x Battery Kit (including cable, charger with US plug)
30590910	IND256x Battery Kit (including cable, charger with UK plug)
30592070	IND256x Battery Kit (including cable, charger with Brazil plug)
30541517	IND256x Battery Charger with Schuko plug
30542935	IND256x Battery Charger with US plug
30541568	IND256x Battery Charger with UK plug

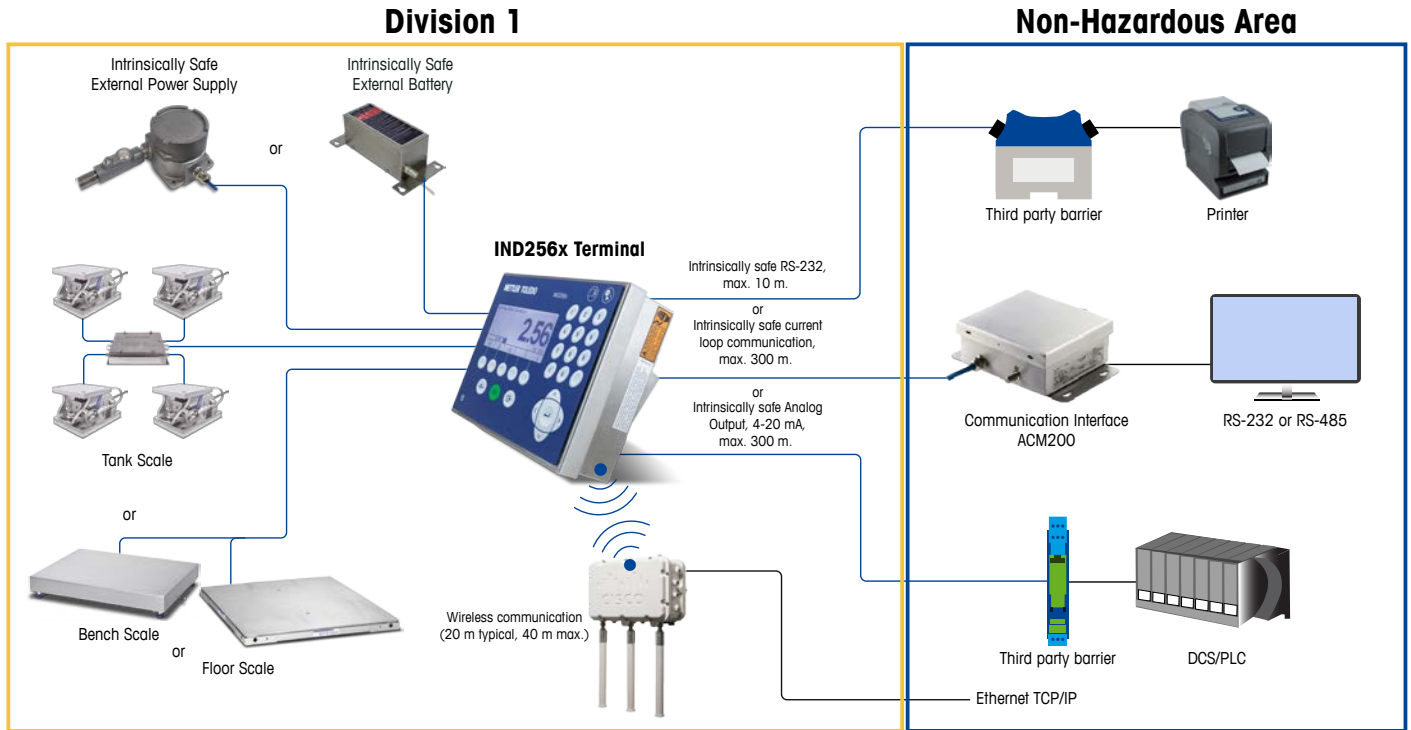|	
30592071	IND256x Battery Charger with Brazil plug
30538111	IND256x Battery Spare
30543268	IND256x Battery Cable Spare
30516677	4-20 mA Analog Output Interface
30344950	Active Current Loop Interface
30344951	Passive Current Loop Interface
72188182	Wall-Mount Bracket (Fixed)
00504130	Wall-Mount Bracket (Adjustable)
72200039	Column-Mount Bracket

Utility

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

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, WPA
WEP	64 bit, 128 bit
WPA	WPA-TKIP, WPA2-AES
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

System Layout

Intrinsically Safe
External Power Supply

or

Intrinsically Safe
External Battery

Tank Scale

or

Bench Scale

or

Floor Scale

IND256x Terminal

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.

Wireless communication
(20 m typical, 40 m max.)

Third party barrier

Printer

Communication Interface
ACM200

RS-232 or RS-485

Third party barrier

DCS/PLC

Ethernet TCP/IP

www.mt.com/IND256x

For more information