

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

Technical Specifications, IND256x

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. 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	<table border="0"> <tr> <td>Standard</td> <td colspan="2">One intrinsically safe RS-232 interface included on mainboard</td> </tr> <tr> <td>Interface</td> <td colspan="2">Intrinsically safe Analog Output: 16-bit D/A conversion with 25 Hz update rate to PLC, or</td> </tr> <tr> <td>Options</td> <td colspan="2">Intrinsically safe active current loop, or Intrinsically safe passive current loop</td> </tr> <tr> <td>Protocols</td> <td colspan="2">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</td> </tr> </table>		Standard	One intrinsically safe RS-232 interface included on mainboard		Interface	Intrinsically safe Analog Output: 16-bit D/A conversion with 25 Hz update rate to PLC, or		Options	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	
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Metrology	US NTEP: Class III/IIIL, nmax=10,000; CC No.: 18-099 Canada: Class III/IIHD, nmax=10,000; AM-6115													
Approvals	FM	<table border="0"> <tr> <td>Non Wi-Fi version Only with intrinsically safe external power supply or battery</td> <td>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</td> </tr> <tr> <td>Factory-configured WiFi version Only with intrinsically safe external power supply or battery</td> <td>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</td> </tr> <tr> <td>FM-US Cert. No.:</td> <td>FM18USO258X</td> </tr> <tr> <td>FM-Canada Cert. No.:</td> <td>FM18CA0123X</td> </tr> </table>	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.:	FM18USO258X	FM-Canada Cert. No.:	FM18CA0123X				
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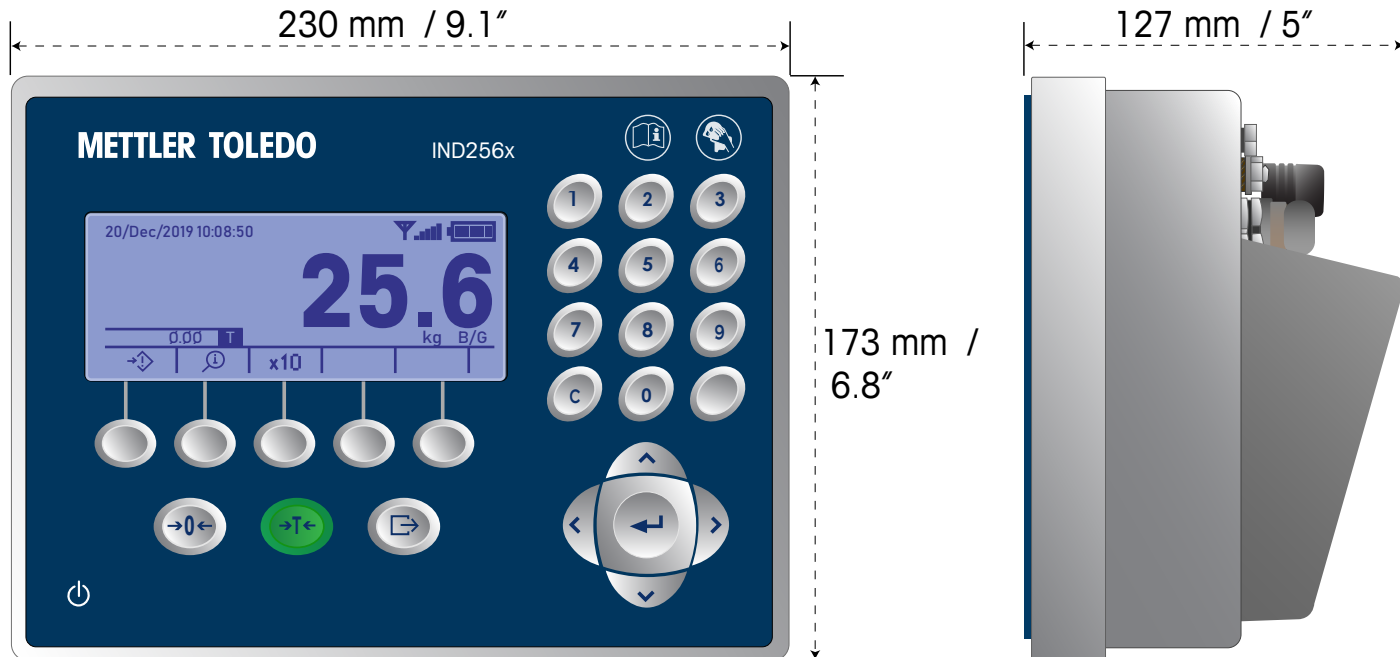
WiFi Specification

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

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 (l 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)
Environmental Protection	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.
Type	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	<p>United States</p> <p>IS CL I/II/III/Div I/GP ABCDEFG/T5 -10°C to +40°C; CL I, Zone I IIC Ta = -10°C to +40°C; Zone 21 IIIC T93°C -10°C ≤ Ta ≤ 40°C</p> <p>Canada</p> <p>IS CL I/II/III/Div I/GP ABCDEFG/T5 -10°C ≤ Ta ≤ +40°C; Zone 1 Ex ib IIC T5 Gb -10°C ≤ Ta ≤ +40°C; Zone 21 Ex ib IIIC T93°C Db</p> <p>FM-US Cert. No.: FM19US0232 FM-Canada Cert. No.: FM19CA0125</p>

Dimensions



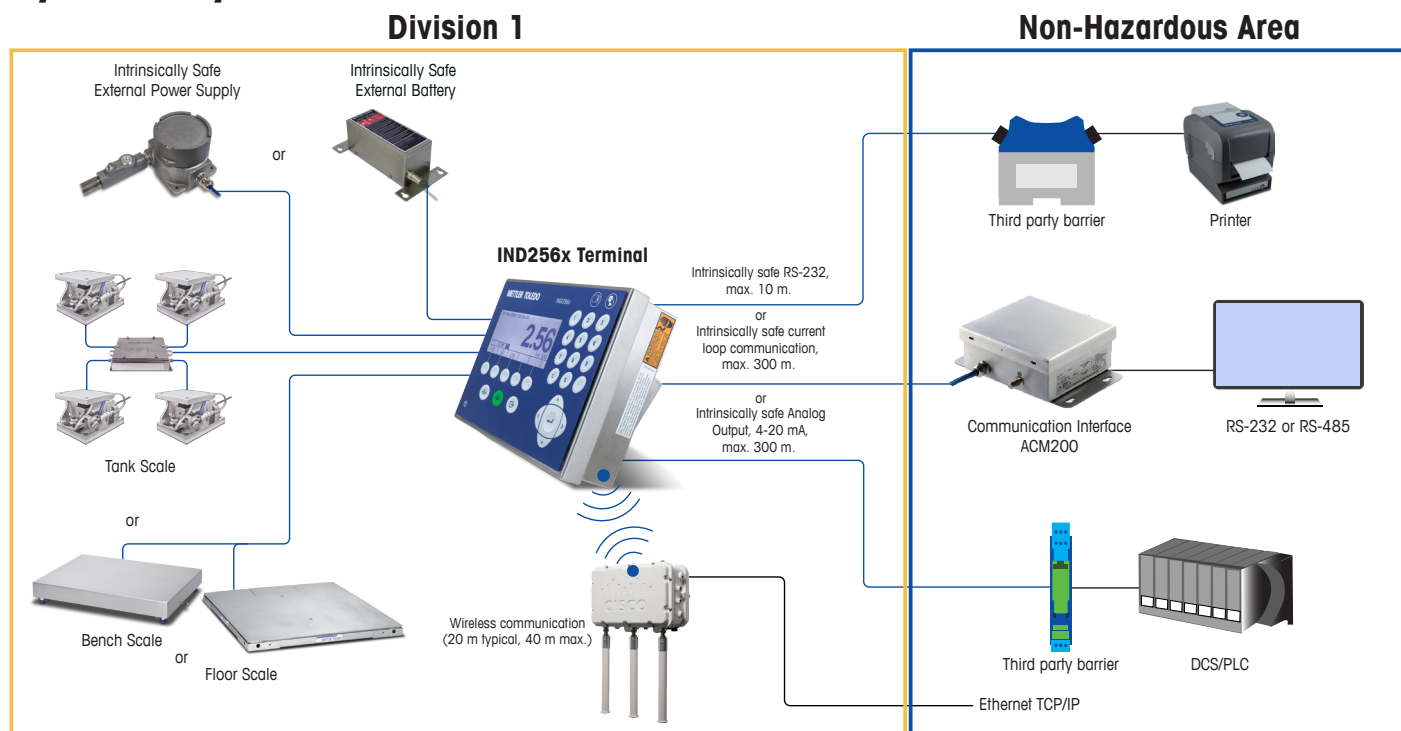
Utility

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

64056319	APS500 120 VAC Power Supply	30592071	IND256x Battery Charger with Brazil plug
64058025	APS501 240 VAC Power Supply	30541569	IND256x Battery Charger with Australia plug
30590909	IND256x Battery Kit (including cable, charger with Schuko plug)	30541570	IND256x Battery Charger with Japan plug
30590467	IND256x Battery Kit (including cable, charger with US plug)	30538111	IND256x Battery Spare
30590910	IND256x Battery Kit (including cable, charger with UK plug)	30543268	IND256x Battery Cable Spare
30592070	IND256x Battery Kit (including cable, charger with Brazil plug)	30516677	4-20 mA Analog Output Interface
30590911	IND256x Battery Kit (including cable, charger with Australia plug)	30344950	Active Current Loop Interface
30590912	IND256x Battery Kit (including cable, charger with Japan plug)	30344951	Passive Current Loop Interface
30541517	IND256x Battery Charger with Schuko plug	72188182	Wall-Mount Bracket (Fixed)
30542935	IND256x Battery Charger with US plug	00504130	Wall-Mount Bracket (Adjustable)
30541568	IND256x Battery Charger with UK plug	72200039	Column-Mount Bracket

System Layout



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Subject to technical changes
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For more information