

PUMA® Intrinsicly Safe

Scale Terminal



**The Low Power, High Performance Solution  
for Weighing in Hazardous Areas**

METTLER TOLEDO

# Everything You Need in a Intrinsically Safe Scale Terminal—and More

- Large 1 inch (25 mm) display
- Multiple power supply options
- Corrosion-resistant, stainless steel construction

Simple. Flexible. Durable. Smart. METTLER TOLEDO's PUMA terminal combines these characteristics and more in an intrinsically safe design to provide you with the most reliable, cost effective solution for your hazardous area weighing needs.

The leader in supplying instrumentation for hazardous classified environments, METTLER TOLEDO draws upon years of experience and industry knowledge to assure that the PUMA terminal meets the stringent requirements of hazardous area weighing applications while exceeding your expectations for reliability and cost effectiveness.

With the PUMA terminal, you get an intrinsically safe terminal that is:

## Simple

The PUMA terminal is designed specifically for ease of use, from its straight-forward calibration to its dual-labeled keyboard.

- The keyboard is labeled with both graphics and English words, making it easy to use by a variety of operators and in diverse markets.
- The enclosure lid is secured with a special fastening system that uses no external exposed latches for improved sanitation and simpler, quicker cleaning.
- The PUMA terminal's straight-forward calibration, accessed via the keyboard, reduces installation time and costs.
- The internally mounted battery pack simplifies installation and eliminates external connections.

## Flexible

The PUMA terminal has the built-in flexibility to start simple then expand to meet your changing requirements.

- The PUMA terminal works with a wide variety of stationary or portable scales, including tank, hopper, bench, and floor scales.



Internal battery access is quick and easy as shown here in the wall-mount configuration of the PUMA terminal.

- The PUMA terminal can be mounted on a wall or column or used on a desktop, whatever meets your specific application needs.
- The PUMA terminal has three available power sources (internal battery, external battery, and AC power), so you can match the power source to the application.
- With the PUMA terminal, you can weigh in various weight units—pounds, kilograms, grams, tons or custom unit.
- The PUMA terminal is designed for fast A/D rates for filling, making it ideal for use in process applications. Or, use it as a standard transaction terminal.
- Two optional, bi-directional, fiber optic serial interfaces simplify the transmission of data to peripheral devices and eliminate the need for costly intrinsic safe barriers and conduit.

The PUMA display (shown at approximately its actual size) is the largest in the industry, with 1 inch (25 mm) numbers and symbols that indicate weight units of measure, low battery, gross or net mode, tare status, and center of zero.

## METTLER TOLEDO



PUMA

FM

APPROVED

## Durable

The PUMA terminal is designed to weigh consistently and reliably in the toughest production environments.

- The tough polyester keyboard is chemical-resistant and long lasting.
- The PUMA terminal is constructed of corrosion-resistant, heavy-duty stainless steel throughout.
- Rated NEMA 4X, IP-65, the PUMA terminal is ideal for use in the harshest environments.
- The PUMA terminal is thoroughly tested to meet METTLER TOLEDO's high quality standards.

## Smart

The PUMA terminal incorporates a wide variety of "smart" features that make it more efficient, more useful, and more valuable to your operations.

- The LCD display has 1 inch (25 mm) numbers and symbols – the largest in the industry – that can be easily read at a distance or wide angles.
- ID, time and date fields allow you identify transactions or part numbers.
- A programmable "sleep" mode extends battery life, reducing maintenance and extending scale operation time.
- The PUMA terminal provides single-speed or two-speed setpoint control using the METTLER TOLEDO Model 3015 setpoint controller.
- Special calibration steps eliminate the non-linear affects of certain load cells.

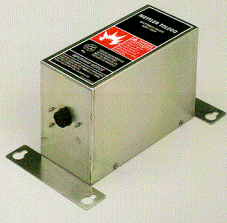
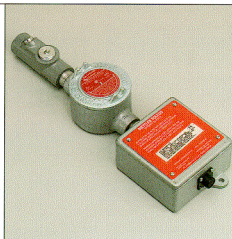
## Commitment to Safety

METTLER TOLEDO is dedicated to providing safe, well conceived, conservative, third-party approved designs for a wide variety of hazardous classified weighing applications.



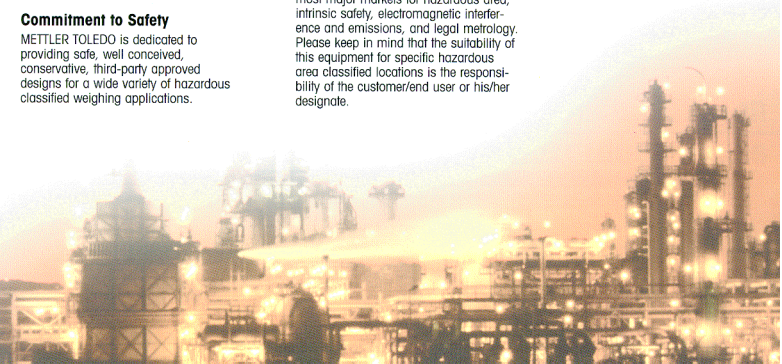
The safe area fiber optic converter, shown with fiber optic cable, provides two separate channels of RS-232/20MA communications.

The extended life, rechargeable external battery can be column- or wall-mounted, or placed on any flat surface.



The PUMA terminal can be powered by an external continuous AC power supply.

The PUMA terminal meets regulations in most major markets for hazardous area, intrinsic safety, electromagnetic interference and emissions, and legal metrology. Please keep in mind that the suitability of this equipment for specific hazardous area classified locations is the responsibility of the customer/end user or his/her designate.



	Specifications																
Enclosure	Stainless steel construction and meets NEMA 4X (IP65) requirements. Easy to clean and reduces potential contamination areas																
Display	1 inch (25 mm) tall, high contrast custom LCD																
Keyboard	Polyester overlay with hardcoat containing 20 keys with both English and graphic symbols																
Load Cells	Powers up to four 350 ohm analog load cells																
Operating Temperature	From 14°F to 104°F (-10° to 40° C) at 10 to 95% relative humidity, non condensing																
Display Divisions	Selectable from 1,000 to 25,000																
Selectable A/D Conversion Rate	Update rate is programmable from 7 to 16 samples per second to select the ultimate performance for each application																
Sleep Mode	To conserve battery life, an automatic sleep mode can be selected. Programmable to go to sleep after from 1 to 99 minutes of inactivity																
Keyboard ID (Identification)	Up to six digits of ID may be entered to identify a specific transaction																
Time and Date	Time selectable as 12- or 24- hour format. Date selectable as MM-DD-YY, DD-MM-YY or YY-MM-DD format																
Units Switching	Selectable as lb/kg, lb/oz, or kg/oz																
Serial Data Output	Two serial ports that require fiber optics option. Can be programmed for demand or continuous output and/or host mode. Fiber optic cable lengths up to 1000 feet (300 m).																
Setpoints	The fiber optic serial output of the PUMA terminal is compatible with the Mettler Toledo Model 3015 Setpoint Controller. Either four individual setpoints (with preact) or two 2-speed setpoints (with preact and tolerances) can be programmed																
Internal Battery	Operates continuously from 30 hours (four load cells and two fiber optic kits) up to 55 hours (single load cell and no fiber optic kit). Recharge time is approximately 30 hours																
External Battery	Operates continuously from 200 hours (four load cells and two fiber optic kits) to over 380 hours (single load cell and no fiber optic kits). Recharge time is approximately 14 hours																
Metrology	<table border="0"> <tr> <td>USA</td> <td>NTEP</td> <td>5000d</td> <td>96-160</td> </tr> <tr> <td>Canada</td> <td>LMB</td> <td>5000d</td> <td>AM-5195</td> </tr> <tr> <td>Australia</td> <td>NSC</td> <td>3000d</td> <td>S359</td> </tr> <tr> <td>Europe*</td> <td>PTB</td> <td>3000d</td> <td>D97-09-017</td> </tr> </table> <p>*(as ID3sTx)</p>	USA	NTEP	5000d	96-160	Canada	LMB	5000d	AM-5195	Australia	NSC	3000d	S359	Europe*	PTB	3000d	D97-09-017
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Canada	LMB	5000d	AM-5195														
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Europe*	PTB	3000d	D97-09-017														

United States



Canada



European Union



Approvals

Factory Mutual approved for the following classified areas when used with approved scales or load cells listed on METTLER TOLEDO drawing 122502R and installed per METTLER TOLEDO control drawings:

- PUMA with internal battery or external long life battery NEC Classes I and II, Divisions 1 and 2, Groups A-G, temperature rating T4A.
- PUMA with external AC power supply NEC Classes I and II, Divisions 1 and 2, Groups A-G, temperature rating T4A. (Power supply must be located in safe area for Groups A and B.)

CSA approved for the following classified areas when used with approved scales or load cells listed on METTLER TOLEDO drawing 156305R and installed per METTLER TOLEDO control drawings:

- PUMA with internal battery CSA Classes I and II, Division 1, Groups A, B, C, D, E, F, G, temperature rating T4A.
- PUMA with external long-life battery CSA Classes I and II, Division 1, Groups A-G, temperature rating T4A.
- PUMA with external AC power supply CSA Classes I and II, Division 1, Groups A-G, temperature rating T4A. (Power supply must be located in safe area for Groups A and B.)

(Model ID3sTx KEMA approved – available in Europe) KEMA approved for the following classified areas when used with approved scales or load cells and installed per METTLER TOLEDO control drawings:

- ID3sTx with internal battery or external long life battery Group II-A-IC, Zones 1 and 2, EEx ib IIC T4
- ID3sTx with internal 230WAC power supply Group II-A-IC, Zones 1 and 2, EEx me [ib] IIC T4



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Printed in the U.S.A.

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