



# 1 TYPE EXAMINATION CERTIFICATE

2 Equipment or Protective systems intended for use in Potentially  
Explosive Atmospheres - Directive 2014/34/EU

3 Type Examination Certificate No: FM19ATEX0193X

4 Equipment or protective system:  
(Type Reference and Name) RPA455xx Paint Mixing Scales

5 Name of Applicant: Mettler-Toledo GmbH

6 Address of Applicant: Im Langacher44,  
CH-8606 Greifensee,  
Switzerland

7 This equipment or protective system and any acceptable variation thereto is specified in the schedule to this certificate and documents therein referred to.

8 FM Approvals Europe Ltd. certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report number:

PR452658 dated 01<sup>st</sup> November 2019

9 Compliance with the Essential Health and Safety Requirements, with the exception of those identified in item 15 of the schedule to this certificate, has been assessed by compliance with the following documents:

EN IEC 60079-0:2018, EN 60079-11:2012 and EN 60529:1991+A1:2000+A2:2013

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to specific conditions of use specified in the schedule to this certificate.

11 This Type Examination certificate relates only to the design, examination and tests of the specified equipment or protective system in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this equipment or protective system. These are not covered by this certificate.

12 The marking of the equipment or protective system shall include:



II 3 G Ex ic IIB T4 Gc Ta = 0°C to +40°C

**Damien Mc Ardle**  
Certification Manager, FM Approvals Europe Ltd.

Issue date: 04<sup>th</sup> November 2019

**THIS CERTIFICATE MAY ONLY BE REPRODUCED IN ITS ENTIRETY AND WITHOUT CHANGE**

FM Approvals Europe Limited, One Georges Quay Plaza, Dublin. Ireland. D02 E440  
T: +353 (0) 1761 4200 E-mail: [atex@fmaprovals.com](mailto:atex@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

# SCHEDULE

to Type Examination Certificate No. FM19ATEX0193X

## 13 Description of Equipment or Protective System:

The RPA455xx Paint Mixing Scales are single-range or multiple-range scales which are designed mainly for paint mixing applications.

The RPA455x Paint Mixing Scales are powered from intrinsically safe power supplies or barriers with compatible energy limitation parameters. Connection is made to the RJ45 socket underneath the scale using one of two RJ45 intrinsically safe connector cable assemblies 30470188 (20 Meters) or 30470195 (10 Meters) supplied by Mettler-Toledo GmbH.

Construction - The enclosures are constructed from both metal and plastic and are intended for indoor use only. Ingress protection provided by the enclosure is IP40.

Electrical: The energy limitation parameters are listed below:

Pin #s	Name/ Remark	Ui	Ii	Pi	Ci	Li
1	+ V1 (P1)	10.72V	191mA	2.048W	5.324uF	0
4	+ V2 (P2)	10.72V	213mA	2.284W	10.725uF	0
7, 8	RS232_TXD/RXD	± 10.72V	191mA	275mW	1.41nF	0
		Uo	Io	Po	Co	Lo
7, 8	RS232_TXD/RXD	± 10.72V	21.7mA	58.1mW	0.18uF	180uH
2, 3, 5, 6	Ground Pins					

## 14 Specific Conditions of Use:

1. Only the Mettler-Toledo intrinsically safe cable 30470188 (20 Meters) or 30470195 (10 Meters) shall be used for connection to the intrinsically safe outputs of the associated apparatus.
2. The enclosure contains aluminum and is considered to present a potential risk of ignition by impact or friction. Care must be taken during installation and use to prevent impact or friction.
3. Parts of the enclosure are constructed of plastic. The risk of electrostatic discharge shall be minimized at installation, following the direction given in the instruction manual.
4. The Paint Mixing Scale does not withstand a 500Vrms dielectric strength test between the circuits and the earth ground. This must be taken into account during installation.

## 15 Essential Health and Safety Requirements:

The relevant EHSRs that have not been addressed by the standards listed in this certificate have been identified and assessed in the confidential report identified in item 8.

## 16 Test and Assessment Procedure and Conditions:

This Type Examination Certificate is the result of testing of a sample of the product submitted, in accordance with the provisions of the relevant specific standard(s), and assessment of supporting documentation. It does not imply an assessment of the whole production.

Whilst this certificate may be used in support of a manufacturer's claim for CE Marking, FM Approvals Europe Ltd accepts no responsibility for the compliance of the equipment against all applicable Directives in all applications.

This Certificate has been issued in accordance with FM Approvals Europe Ltd's ATEX Certification Scheme.

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# **SCHEDULE**

to Type Examination Certificate No. FM19ATEX0193X

**17 Schedule Drawings**

A list of the significant parts of the technical documentation is annexed to this certificate and a copy has been kept by FM Approvals Europe Ltd.

**18 Certificate History**

Details of the supplements to this certificate are described below:

Date	Description
04 <sup>th</sup> November 2019	Original Issue.

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T: +353 (0) 1761 4200 E-mail: [atex@fmaprovals.com](mailto:atex@fmaprovals.com) [www.fmaprovals.com](http://www.fmaprovals.com)

# Blueprint Report

**Mettler-Toledo GmbH (Greifensee) (1000007391)**

**Class No 3610**

**Original Project I.D. 452658**

**Certificate I.D. FM19ATEX0193X**

<u>Drawing No.</u>	<u>Revision</u>	<u>Drawing Title</u>	<u>Last Report</u>
125514	D	Wiring diagram of AMI Refinish load cell	452658
153844	F	(Load Cell Cable)	452658
30430317 (Gerb)	D	AD Board Gerber	452658
30430317	D	PCB Refinish Scale AD and Comm (Drill drawing and trace routing)	452658
30430361	D	PNL Refinish Scale AD and Comm (PCB panel for manufacturing)	452658
30430444 (BOM)	D	BOM of AD board	452658
30430444 (EAD)	D	PCBA Refinish Scale AD and Comm	452658
30450080	E	PNL Display Refinish Scale (PCB panel for manufacturing of Display board)	452658
30450089 (BOM)	E	PCBA Display Refinish Scale (BOM of Display board)	452658
30450089 (EAD)	E	PCBA Display Refinish Scale (Components assembly drawing of Display board)	452658
30450108 (Gerb)	E	Display Board Gerber	452658
30450108	E	PCBA Display Refinish Scale (Drill drawing and trace routing of Display board)	452658
30470108	A	BASE RPA455	452658
30470109	A	UPPPER SPIDER RPA455	452658
30470110	A	PLATTER RPA455	452658
30470111	A	PCB COVER RPA455	452658
30470112	A	CABLE COVER RPA455	452658
30470113	A	COLUMN RPA455	452658
30470114	A	COLUMN COVER RPA455	452658
30470115	A	DISPLAY BACK COVER RPA455	452658
30470116	A	DISPLAY FRONT COVER RPA455	452658
30470117	A	CABLE CLAMP RPA455	452658
30470119	A	COLUMN BOTTOM PLATE RPA455	452658
30470125	A	MAJOR ASSEMBLY RPA455 No Appr	452658
30470126	A	Display and Touch Module RPA455	452658
30470134	A	Wall-mounting Column RPA455	452658
30470135	A	Wall-mounting Column cover RPA455	452658
30470136	A	Wall-mounting Bracket RPA455	452658
30470139	A	MAJOR ASSEMBLY Wall-mounting RPA455	452658
30470144	B	Label RPA455x On Base	452658
30470145	B	Label RPA455xx On Base	452658
30470189	B	Cable DB15-M to 15pin-1.25mm 2m	452658
30470200	B	Electrical block diagram RPA455	452658
30470202	C	Label RPA455x	452658
30470203	C	Label RPA455xx	452658
30470204	B	Installation Drawing RPA455x	452658
30470205	B	Installation Drawing RPA455xx	452658
30470206	1.20	RPA455x RPA455xx Safety Description Document	452658
30470209	B	Embossing INFO RPA	452658
30518461	A	Load Cell AMI-11kg B7.5 Refinish	452658
30542729	A	RPA455x / RPA455xx Smart Paint Scales Installation Manual	452658
SCH-30430444	D	PCBA PCBA Refinish Scale AD and Comm Schematic1	452658
SCH-30450089	E	PCBA Display Refinish Scale Schematic1 (Schematic of Display board)	452658