
APPLICATION NOTE

RTI Electronics AB, Sweden

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RTI Electronics

RTI Electronics AB
Göteborgsvägen 97 / 50
SE-431 37 MÖLNDAL
SWEDEN

Phone: Int +46 31 746 3600
Fax: Int +46 31 270 573

E-mail info@rti-e.se
Web: www.rti-e.se

Short Form Detector Selection Guide

This application note describes the typical use, and measuring ranges for detectors used with the PMX-III electrometer.

By

R&D and Sales Department, RTI Electronics AB
Sören Sturesson, M.Sc.Ph., Med. Phys.

APPLICATION NOTE

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Standard calibrations and measuring ranges with PMX-III

Type	ADI code	Beam Quality	Typical use	Typical rate range with PMX-III
R25	7/A	50-150 kV, W/23 mm Al	Film dose & dose rate	4,0-185000 ^A µGy/s r1: 4,0-1850 r2: 250-18500 ^A r3: 2000-185000 ^A
R25	7/AP1	50-150 kV, W/23 mm Al	Image I. dose rate input	0,120-18,4 µGy/s 13,7-2100 µR/s
R25	7/AP2	50-150 kV, W/23 mm Al	Image I. dose rate input	0,40-185 µGy/s 46-21000 ^A µR/s
R25	7/B	50-150 kV, W/3 mm Al	Skin dose & dose rate	0,004-185 mGy/s r1: 0,004-1,85 r2: 0,25-18,5 r3: 2,0-185
R25	7/D	25-35 kV, Mo/30 µm Mo	Skin dose & dose rate (breast)	0,008-370 mGy/s r1: 0,008-3,7 r2: 0,5-37 r3: 4,0-370
R100	8/A	50-150 kV, W/23 mm Al	Film dose & dose rate	1,0-46000 ^A µGy/s r1: 1,0-460 r2: 60-4600 r3: 500-46000 ^A
R100	8/AP1	50-150 kV, W/23 mm Al	Image I. dose rate input	0,030-4,6 µGy/s 3,3-525 µR/s
R100	8/AP2	50-150 kV, W/23 mm Al	Image I. dose rate input	0,10-46 µGy/s 11-5250 µR/s
R100	8/B	50-150 kV, W/3 mm Al	Skin dose & dose rate	0,001-46 mGy/s r1: 0,001-0,46 r2: 0,06-4,6 r3: 0,5-46
R100	8/D	25-35 kV, Mo/30 µm Mo	Skin dose & dose rate (breast)	0,002-92 mGy/s r1: 0,002-0,92 r2: 0,12-9,2 r3: 1,0-92
L100	6/U	Luminance, MON adapter	Film viewing box CRT ^B	0,5-23000 ^A cd/m ² r1: 0,5-230 r2: 30-2300 r3: 250-23000 ^A 0,05-1000 cd/m ²
L100	6/Y	Illuminance, diffuser	Ambient light levels	0,25-4000 lx r1: 0,25-40 r2: 5-400 r3: 45-4000
MAS-1	5	Invasive mA and mAs	mA and mAs	0,10-2000 mA r1: 0,1-20 r2: 3-200 r3: 25-2000
MAS-2	4	non-invasive mA & mAs	mA and mAs	50-2000 mA
MAS-3	J	non-invasive mA & mAs	mA and mAs	0,10-2000 mA r1: 0,1-20 r2: 3-200 r3: 25-2000

Special mammographic calibrations

R25	7/(E)	22-40 kV, Mo/25 µm Rh	Skin dose & dose rate	Same as for 7/D
R25	7/(F)	25-46 kV, Rh/25µm Rh	Skin dose & dose rate	Same as for 7/D
R25	7/(I)	25-40 kV, Rh/1,0 mm Al	Skin dose & dose rate	Same as for 7/D
R25	7/(J)	23-35 kV, W/50 µm Rh	Skin dose & dose rate	Same as for 7/D
R100	8/(E)	22-40 kV, Mo/25 µm Rh	Skin dose & dose rate	Same as for 7/D
R100	8/(F)	25-46 kV, Rh/25µm Rh	Skin dose & dose rate	Same as for 7/D
R100	8/(I)	25-40 kV, Rh/1,0 mm Al	Skin dose & dose rate	Same as for 7/D
R100	8/(J)	23-35 kV, W/50 µm Rh	Skin dose & dose rate	Same as for 7/D

^A Note that the PMX-III display can not show higher values than 9999. With oRTIgo also higher rate values can be shown.

^B When measuring on CRTs, the measuring range depends on the frequency and the after glowing time in the phosphors. The table shows a typical range.