

Moisture Analyzers EM 120-HR

EXECUTIVE PRO Series 330 XM



High Resolution

Precision

EXECUTIVE PRO Series 330 XM



With model EM 120-HR, Precisa is setting new standards in the demanding area of high-end moisture analyzers.

The new top model combines ease-of-use and sophisticated customizing features for advanced and most demanding applications.

EM 120-HR is an innovative, high-tech moisture analyzer, which includes latest technical developments, unique performance features, best user-interface in a modern design. Yet in a compact form with a small footprint. Those users who will not accept any compromise in their working environment may enjoy the reassuring certainty that for many years they can rely on an extremely accurate instrument which features the latest technology and renowned Swiss Quality. Day after day.

**Moisture Analyzers from Precisa -
for efficient measurements and accurate results.**

**As the leading manufacturer of thermo-
gravimetric analytical equipment, Precisa excels
with an extensive range of thermogravimetric
equipment, meeting highest demands in research,
production and quality control.**



Compactly styled design



3 different heat sources are optional



Outstanding graphic Display

EXECUTIVE PRO

Precisa EM 120-HR

READABILITY 0.001 % / 0.01%

The high-end EXECUTIVE PRO CLASS instrument for the fast and accurate moisture analysis with a wide range of methods; sophisticated and simple to operate, complying to the most stringent standards.

HIGHLY PRECISE TECHNOLOGY

- Weighing range 124 g
- Adjustable readability:
0.1 mg / 0.001 % and 1 mg / 0.01 %
- High temperature range up to 230 C°
- Automatic self calibration system (SCS)
- Bright graphic display
- Extended memory capacity, 100 methods
- Choice of heat element:
halogen, infrared, dark radiator
- USB and RS232 interfaces as standard

INTUITIVE USER INTERFACE

- Freely programmable display
- Graphic presentation of the analysis
- Big choice of auto stop criteria settings

QUALITY ASSURANCE

- Compliance with GLP and GMP
- Numerical and statistical analysis available
- Real-time observation of analysis

VERSATILE CONNECTIVITY

Advanced slide-in module technology:
USB Host, Ethernet wired, Ethernet wireless, Bluetooth and others.



LIFE-LONG RELIABILITY

The Moisture analyzers offer a high degree of protection against mechanical and electrical interference and operate with highest levels of precision from the initial weigh-in procedure to the final result. The premium workmanship of our robust housing and chemically-resistant sealed keypad offers protection against spills, makes moisture analyzers amazingly resistant to the ambient conditions of the surrounding environment.

Technical Specification:	EM 120-HR
Heat Source	Halogen / Infrared / Dark
Weighing range (g)	124
Readability (g)	0.001 / 0.0001
Pan Size Ø (mm)	100
Smallest sample weight (g)	0.2
Readability (%)	0.01 / 0.001
Reproducibility (%) at approx ... g / ... %	1 / 0.1
Reproducibility (%) at approx ... g / ... %	10 / 0.01
Results calculations:	
Risidual weight (g), Weight loss (g), g/kg	•
100% ... 0%, 0% ... 100%	•
ATRO 100% ... 999%, ATRO 0% ... 999%	•
Temperature range / Step (°C)	50 - 230 / 1
Heating modes	standard, boost, ramp
Auto Stop (d/s) / (%/s)	free definable
Minimum Stop (%)	01 - 99.9
Timer Stop	1 s - 600 min
AdapStop	•
Print-out GLP	•
Methods (with all settings)	100
Dimensions WxLxH (mm)	240x380x177
Weight (kg)	6.7
Power Consumption (W)	420

Accessories	EM 120-HR
Aluminium dishes, Ø 100 mm, (Box with 80 pcs.)	350-2032
Stainless steel dish, reusable, Ø 100 mm (1 pcs.)	330-2018
Fibreglass-filters, Ø 90 mm, (box with 80 pcs.)	350-4130
Temperature sensor plate, Sensor - type K	350-8580
Temperature calibration set, Sensor - Typ K with certificate	350-8585
Temperature calibration set, Sensor - Typ K without certificate	350-8584
Calibration weight, 50 g	350-8241
Printer CBM910 230V - with cable and paper roll	350-8379
Printer CBM910 115V - with cable and paper roll	350-8380
Paper roll for Printer CMB910	350-8366
Ribbon for printer CBM910	350-8367
Data cable DB9 male / DB9 female 1.5 m (PC)	350-8672
Data cable DB9 male / DB25 male 1.5 m (Printer)	350-8673

Options	EM 120-HR
Halogen heating system	standard
Infrared heating system	available
Dark radiator heating system	available

Slide-in Modules	EM 120-HR
USB Host	350-8665
Ethernet wired	350-8666
Ethernet wireless	350-8667
Bluetooth	350-8668
PS 2 Female & RS 232 DB9 Female	350-8670

Features and Applications



Swiss made



Support IQ/OQ/PQ



Interface RS232 for PC/Printer



Automatic Repeatability Test (ART)



LCD backlit graphic display



Anti theft protection - password and mechanical security



USB Device



Check weighing plus/minus



Fully automatic internal calibration system SCS



Communication options (USB Host, Bluetooth, Wireless etc.)



Clock (Printout GLP/GMP, Auto-Cal etc.)



Statistics



Easy alpha-numeric input



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Moisture Analyzers

PREMIUM AND **MASTER** Series 330 XM



High Resolution

Precision

Precisa

■ The Balance of Quality ■

PREMIUM AND MASTER Series 330 XM



**Moisture Analyzers from Precisa -
for efficient measurements and accurate
results.**

**As the leading manufacturer of thermo-
gravimetric analytical equipment,
Precisa excels with an extensive range
of moisture analysis equipment, meeting
highest demands in research, production
and quality control.**

Moisture and water content have a defining influence on the quality and processing of materials, as well as on the price of raw materials and finished products in many industries including food, animal feeds, chemical and pharmaceutical products, construction materials etc.

The use of compact and robust precision moisture measuring instruments in the laboratory and in production increases efficiency and saves time and costs. Furthermore, productivity is enhanced by the fully automatic moisture analysis of samples, and the corresponding generation of measurement documentation.

All models of the Series 330 XM provide fast, error-free moisture analysis, using highest degrees of measurement performance and precision.

Simple to use and service-friendly to maintain, the Series 330 XM is the result of Swiss precision in engineering and production, which guarantees reliability, robustness and an extensive life of error-free operation at highest levels of precision.



Compactly styled design



3 different radiation heat sources are optional



Outstanding Touch Screen Display

PREMIUM

Precisa XM 120-HR

READABILITY 0.001%

The top-level PREMIUM CLASS unit, developed for the most demanding applications with a wide range of methods, fastest sample throughput and conforming to the most stringent international standards.

TOP QUALITY TECHNOLOGY

- Weighing technology which meets all international metrological regulations
- Weighing range 124 g
- Readability 0.1 mg / 0.001%
- High temperature range up to 230°C
- Temperature step of 1°C
- 3.4" touch-screen LCD backlit graphic display
- Graphic print-out (RS232 interface)
- Extended method memory capacity
- Choice of radiation heat source: halogen, infrared, dark radiator

USER FRIENDLY

- Pictogramm driven user guidance
- Variety of start-up and end-point control selections
- Three-phase drying for total control
- Easy access sample holder
- Practical construction to enable easy cleaning

QUALITY ASSURANCE

- Results printed in GLP guideline format
- Numerical and statistical analysis available
- Real-time observation in graphic display
- Fast sample throughput with optimum precision analysis
- **XM 120-HR KW** Special model for rapid gypsum analysis.



Robust and simple to operate



Easy sample access



Menu-driven, screen-guided applications

MASTER

Precisa XM 60-HR/XM 60/XM 66

READABILITY 0.001% - 0.01%

High-end MASTER CLASS units for customers with limited number of methods. These instruments are robust, provide a high degree of precision and are simple to operate.

THE VERSATILE ALL-ROUND MOISTURE DETERMINATION SOLUTION

- Sturdy construction, perfect for all laboratory and production environments
- Weighing range up to 124 g
- Readability up to 0.1 mg / 0.001%
- High temperature range of 230 °C
- Temperature step of 1 °C
- Practical construction to enable easy cleaning
- High contrast, bright vacuum fluorescent display
- Memory storage of up to 20 methods
- Interface RS232
- Choice of radiation heat source: halogen, infrared, dark radiator

SIMPLE, FAST AND ACCURATE

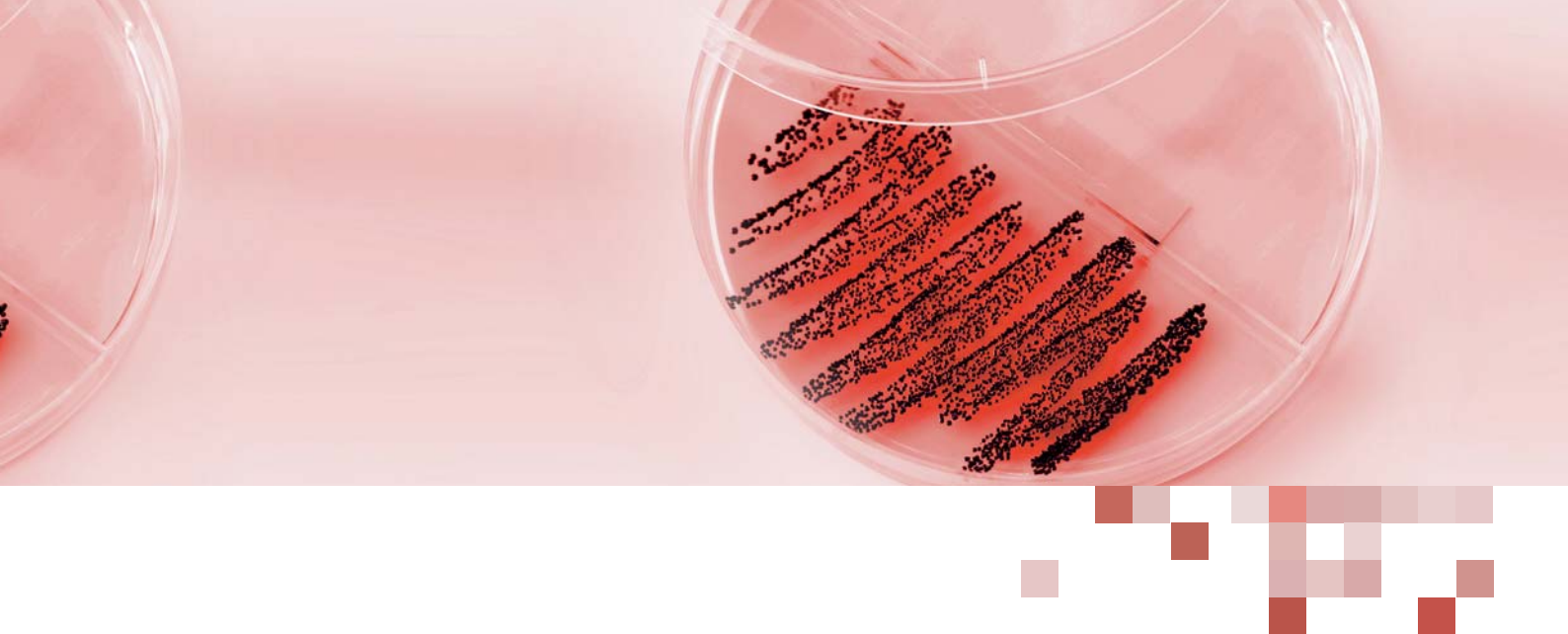
- Variety of start-up and end-point control selections for optimum control
- Language independent prompts operated by symbol keys
- Easy access sample holder

QUALITY ASSURANCE

- Results printed in GLP guideline format
- Numerical and statistical analysis available
- Real-time results shown in display

- Special version without glass for the food industry

- **XM 66** with increased weighing range of 310 g and special software for the rapid moisture results for sewage and waste water treatment plants



PREMIUM Series 330 XM



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm/inch)
XM 120-HR	124 g	0.1 mg / 0.001 %	1 g / 0.1 % 10 g / 0.01 %	0.2 mg	Ø 100 / 3.9



MASTER Series 330 XM



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm/inch)
XM 60-HR	124 g	0.1 mg / 0.001 %	1 g / 0.1 % 10 g / 0.01 %	0.2 mg	Ø 100 / 3.9
XM 60	124 g	1 mg / 0.01 %	1 g / 0.2 % 10 g / 0.02 %	1.5 mg	Ø 100 / 3.9
XM 66	310 g	1 mg / 0.01 %	1 g / 0.2 % 10 g / 0.02 %	1.5 mg	Ø 100 / 3.9



STANDARD Series 330 XM



Model	Capacity	Readability	Repeatability	Linearity	Pan Size (mm/inch)
XM 50	52 g	1 mg / 0.01 %	1 g / 0.5 % 10 g / 0.05 %	3.0 mg	Ø 100 / 3.9

Accessories	XM 330 Series
Aluminum dishes, Ø 100 mm, (box with 80 pcs.)	350-2032
Fibreglass-filters, Ø 90 mm, (box with 80 pcs)	350-4130
Temperature sensor plate (Sensor - type K)	350-8580
Temperature calibration set (Sensor - type K) with certificate	350-8585
Temperature calibration set (Sensor - type K) without certificate	350-8584
Stainless steel dish, reusable, Ø 100 mm, (1 pcs.)	330-2018
Calibration weight, 50 g	350-8241
Dust cover over display, set of 20 pieces	350-8590
Printer CBM910 230V - with cable and paper roll	350-8363
Printer CBM910 115V - with cable and paper roll	350-8370
Paper roll for Printer CMB910	350-8366
Ribbon for Printer CBM910	350-8367

Options	XM 120-HR	XM 60-HR	XM 60	XM 66	XM 50
Halogen heating system	standard	standard	standard	standard	available
Infrared heating system	available	available	available	available	available
Dark radiator heating system	available	available	available	available	standard
Application for rapid gypsum analysis	available	-	-	-	-

Features and Applications



Swiss made



Easy alpha-numeric input



Support IQ/OQ/PQ



Vacuum Fluorescent Display



Interface RS232 for PC printer



Touch screen LCD backlit graphic display



Clock (Printout GLP/GMP, etc.)



External calibration system



Anti theft protection - password and mechanical

Moisture Analyzers

PREMIUM AND MASTER Series 330 XM

Technical Specification	XM 120-HR	XM 60-HR	XM 60	XM 66	XM 50
Heat Source:					
Radiator type	Halogen / Infrared / Dark	Halogen / Infrared / Dark	Halogen / Infrared / Dark	Halogen / Infrared / Dark	Dark / Infrared / Halogen
Weighing system:					
Weighing range (g)	124	124	124	310	52
Pan Size [Ø mm]	100	100	100	100	100
Smallest sample weight (g)	0.2	0.2	0.2	0.2	0.2
Readability (g)	0.0001	0.0001	0.001	0.001	0.001
Moisture Analysis:					
Readability (%)	0.001	0.001	0.01	0.01	0.01
Reproducibility (%)					
at approx ... g / ...%	1 / 0.1	1 / 0.1	1 / 0.2	1 / 0.2	1 / 0.5
at approx ... g / ...%	10 / 0.01	10 / 0.01	10 / 0.02	10 / 0.02	10 / 0.05
Results calculations:					
100% ... 0%	•	•	•	•	•
0% ... 100%	•	•	•	•	•
ATRO 100% ... 999%	•	•	•	•	•
ATRO 0% ... 999%	•	•	•	•	•
g/kg	•	•	•	•	•
Residual weight (g)	•	•	•	•	•
Weight loss (g)	•	•	•	•	•
Heating:					
Temperature range / Step (°C)	30 - 230 / 1	30 - 230 / 1	30 - 230 / 1	30 - 230 / 1	30 - 170 / 1
Intervals	3	boost + 1	boost + 1	boost + 1	boost + 1
Heating modes	standard, boost, smooth	standard, boost, smooth	standard, boost, smooth	standard, boost, smooth	standard, boost, smooth
Switch-off (min)	0.1 - 99.9				
Switch-off (%)	0.1 - 99.9				
Switch-off Criteria:					
Auto Stop (d/s)	freely definable	freely definable	freely definable	freely definable	freely definable
Auto Stop (%/s)	freely definable	freely definable	freely definable		
Timer Stop (min)	0.1 - 240	0.1 - 240	0.1 - 240	0.1 - 240	0.1 - 240
Minimum Stop (%)	0.1 - 99.9				
AdapStop	•	•	•	•	•
Sequence control system:					
Semi-Automatic	•	•	•	•	•
Standby temperature (°C)	30 - 100	30 - 100	30 - 100	30 - 100	30 - 100
Monitoring:					
Inspection window	•	•	•	•	
Buzzer	•	•	•	•	
Print-out:					
GLP	•	•	•	•	•
Print interval (min)	0.1 - 10.0	0.1 - 10.0	0.1 - 10.0	0.1 - 10.0	0.1 - 10.0
User texts	•				
Freely definable formats	•				
Sample numbering	•	•	•	•	•
Memory Capacity:					
Article (with all settings)	50	20	20	3 fix, 2 free	1
User texts	20				
Operation:					
Display	Graphics, LCD, backlit	VFD, 20 characters, alphanumeric	VFD, 20 characters, alphanumeric	VFD, 20 characters, alphanumeric	VFD, 20 characters, alphanumeric
Keyboard	various keys and a touch screen	10 keys	10 keys	10 keys	10 keys
Menu controlled	•	•	•	•	•
Sample feed	manual	manual	manual	manual	manual
Password protection	•	•	•	•	•
Special Features:					
Weighing-in guidance	•	•	•	•	•
Statistics	•	•	•	•	•
Remote control (heater)	•	•	•	•	•
Ash residue	•	•	•	•	
Calibration:					
Balance	external	external	external	external	external
Temperature	100°C und 160°C, selectable	100°C und 160°C, selectable	100°C und 160°C, selectable	100°C und 160°C, selectable	100°C und 160°C, selectable
Miscellaneous:					
Clock for date and time	•	•	•	•	•
PC / Printer interface	RS 232	RS 232	RS 232	RS 232	RS 232
Anti-theft protection	code and mechanical	code and mechanical	code and mechanical	code and mechanical	code and mechanical

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Technical modifications reserved

Moisture Analyzer XM 50

STANDARD Series 330 XM

SWISS MADE 

Moisture Analyzers from Precisa – for efficient measurements and accurate results.

Model XM 50, the new basic unit within Precisa's family of Moisture Analyzers is specifically designed for routine applications in production and incoming goods inspection.



- Robust construction
- Weighing range 52 g
- Readability 1 mg / 0.01%
- Temperature range up to 170 °C
- Temperature step 1 °C
- High contrast, bright vacuum fluorescent display
- Memory storage 1 method
- Dark radiator as standard and optional: halogen or infrared radiator
- Practical construction to enable easy cleaning
- Results printed in GLP guideline format
- Interface RS232



Precisa XM 50 - simply accurate

Easy to use, reliable and extremely precise in measurement.

The XM 50 comes with a rugged and durable infrared dark radiator which supports the operation in harsh industrial environment or in applications where the use of glass is not allowed. The well known Precisa flexibility also allows to supply the XM 50 with halogen or infrared heating systems at no extra cost.

Precisa

■ The Balance of Quality ■



High contrast vacuum fluorescent display

Optimum readability combined with easy menu structure.

Pictogram driven user guidance allows language independent operation and supports efficient work.



Rugged load cell

The sturdy weighing cell is designed specifically for the harsh everyday measurement in production and quality control and meets the highest requirements for durability and precise measurement performance.

Technical Specification	XM 50
Heat Source	Dark radiator
Weighing range (g)	52
Readability (g)	0.001
Pan Size Ø (mm)	100
Smallest sample weight (g)	0.2
Readability (%)	0.01
Reproducibility (%) at approx ... g / ...%	1 / 0.5
Reproducibility (%) at approx ... g / ...%	10 / 0.05
Results calculations:	
Residual weight (g), Weight loss (g), g/kg	•
100% ... 0%, 0% ... 100%	•
ATRO 100% ... 999%, ATRO 0% ... 999%	•
Temperature range / Step (°C)	30 -170 / 1
Heating modes	standard, boost, smooth
Auto Stop (d/s)	freely definable
Timer Stop (min)	0.1 - 240
AdapStop	•
Print-out in accordance with GLP	•
Methods (with all settings)	1
Anti-theft protection	code and mechanical
PC / Printer interface	RS232
Dimensions WxLxH (mm)	218x340x177
Net Weight (kg)	4.3
Power consumption (W)	420

Accessories	Series XM 330
Aluminum dishes, Ø 100 mm, (box with 80 pcs.)	350-2032
Stainless steel dish, reusable, Ø 100 mm (1 pcs.)	330-2018
Fiberglass-filters, Ø 90 mm (box with 80 pcs)	350-4130
Temperature sensor plate (Sensor - type K)	350-8580
Temperature calibration set (Sensor - type K) with certificate	350-8585
Temperature calibration set (Sensor - type K) without certificate	350-8584
Calibration weight, 50 g	350-8241
Dust cover over display (set of 20 pieces)	350-8590
Printer CBM910 230V - with cable and paper roll	350-8363
Printer CBM910 115V - with cable and paper roll	350-8370
Paper roll for printer CMB910	350-8366
Ribbon for printer CBM910	350-8367

Options	XM 50
Dark radiator heating system	standard
Infrared heating system*	available
Halogen heating system*	available

* optional, without surcharge

Features and Applications



Swiss made



Vacuum Fluorescent Display



Support IQ/OQ/PQ



Interface RS232 for PC printer



Clock (Printout GLP/GMP, etc.)



Anti theft protection - password and mechanical



External calibration system

Precisa

■ The Balance of Quality ■

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