

CARDIOLINE

xr100

The **xr100** is a new development created as a future-proof product concept, which once more sets trends and defines standards.

They are characterized by their high performance during exercise testing and for simplicity and completeness of programs using independent control of heart rate during exercise.

The version **xr100bp** integrates automatic blood pressure measurement module.

Technical Specifications

Ergometer

Model	modular ergometer system xr100
Operating Mode.....	continuous operation
Power.....	100 - 240 V / 50 - 60 Hz (60 VA max.)

specification power cord US:

SJT 2xAWG16 125 V / 10 A
„hospital“ or „hospital grade“

specification internal backup battery:

IEC: CR 2032 / 3 V 230 mAh

Braking Principle	computer-controlled eddy current brake with torque measurement; speed independent to DIN VDE 0750-0238
-------------------------	--

Load Range.....	6 – 999 watts, speed independent (see diagrams)
-----------------	---

Speed Range	30 to 130 RPM
-------------------	---------------

Deviation of Measured Load.....	to DIN VDE 0750-0238
---------------------------------	----------------------

Load Increments.....	user programmable
----------------------	-------------------

Internal Protocols	Control Terminal P:
--------------------------	----------------------------

- 5 fixed incremental exercise test protocols (e.g. WHO)
- 10 user-programmable protocols
- manual load control

Control Terminal K:

- 5 fixed incremental exercise test protocols (e.g. WHO)
- 10 user-programmable protocols
- manual load control

4 fixed test protocols (e.g. PWC)

10 user-programmable training protocols

Permitted Patient Weight.....	160 kg
-------------------------------	--------

Saddle Height Adjustment	continuous, for patients between 120 cm and 210 cm manual adjustment of saddle height
--------------------------------	--

Handlebar Adjustment.....	for patient heights between 120 cm and 210 cm continuous handlebar adjustment over 360°, rigid steering column
---------------------------	---

Crank Length.....	170 mm (cranks with adjustable length are optional accessories)
-------------------	---

Displays	LCD:
----------------	------

68 x 34 mm, 128 x 64 pixels (Control Terminal P)

115 x 88 mm, 320 x 240 pixels (Control Terminal K)

additional LED display for speed (RPM)

Interfaces	PORT 1 (DSUB-9-pole):
------------------	------------------------------

digital remote control by PC or ECG recorder,
remote start of ECG recorder (optional)

USB:

digital remote control by PC (driver required)

Dimensions, Weight.....	length: 900 mm
-------------------------	----------------

width: 460 mm

(width of handlebar: approx. 575 mm)

height: 900 mm to 1350 mm

weight: approx. 64 kg

Safety Standards.....	DIN EN 60601-1, DIN EN 60601-1-2, DIN VDE 0750-238
-----------------------	--

Protection Class / Degree of	
------------------------------	--

xr100



CARDIOLINE

protection	II / B (to DIN EN 60601-1)
MDD Classification	class IIa to 93/42 EEC
RF Emission.....	class B to DIN EN 55011 / 5.0 DIN EN 60601-1-2
Environment	<i>operation:</i> temperature: +10 to +40 °C (50 to 104 °F) rel. humidity: 30 to 75%, no condensation atmospheric pressure: 700 to 1060 hPa <i>transport and storage:</i> temperature: -40 to +70 °C (-40 to +158 °F) rel. humidity: 10 to 90%, no condensation atmospheric pressure: 500 to 1060 hPa

Blood Pressure Module

Measuring Method.....	auscultatory method, oscillometric; for resting BP, the results from both measurements are compared for plausibility
Measuring Range	systolic pressure: 40 to 280 mmHg diastolic pressure: 40 to 280 mmHg pulse rate: 35 to 230 P/min
Measurement Error.....	pressure readout error: +/- 3 mmHg readout resolution: +/- 1 mmHg
Inflation Pressure	300 mmHg max.; during inflation the inflation pressure automatically adapts to patient's BP
Inflation Rate	between approx. 6 seconds (to 140 mmHg) and approx. 18 seconds (to 300 mmHg)
Max. Cuff Pressure.....	300 mmHg
Cuff Deflation Method.....	pulse-dependent deflation rate approx. 3 mmHg/beat or approx. 3 mmHg/s
Calibration	calibration with external pressure meter
Artifact Rejection	automatic artifact rejection and comparison of the resting BP readings from both methods for plausibility

xr100

