

AXE950IRM

The **AXE950IRM** motorized laser is a precision alignment solution for patient setup in the field of radiation therapy. The unit creates a remote-controlled adjustable laser plane by projecting a single high-quality red, green or blue laser line. When combined with other similar units, this allows the creation of a virtual isocenter in all three body planes.

Features

- High-accuracy positioning
- Radio or cabled PC remote control
- 3 degrees of freedom: translation, tilt and rotation
- Long-range translation: 700 mm travel distance
- Securized translation: belt drive with optical linear encoder
- Dual laser: two laser lines modules of any color
- Flexible on-wall, in ceiling or on post mounting
- Usable with MRI/MR-Linac machines
- MR conditional

Applications

- Patient setup and marking during MRI or CT/PET simulation
- Patient alignment and setup for external beam radiation therapy

Technical specifications

Power supply	100–240 V _{AC} @ 50/60 Hz
Power consumption	49 W max.
Internal voltage	12 V _{DC}
Operating humidity	≤ 80%, non-condensing
Operating temperature	15–30 °C
Dimensions (H×W×D)	98×950×102 mm
Weight	5.4 kg

Laser output*

Laser class	2
Output power**	< 1 mW
Focus range	1.5–7 m
Line width	≤ 1 mm @ 4 m
Line length	≥ 4 m @ 4 m

* with laser modules **WLCxxx-5-LGCP**, not included (see separate datasheet)

** measured on a 7 mm aperture at 100 mm

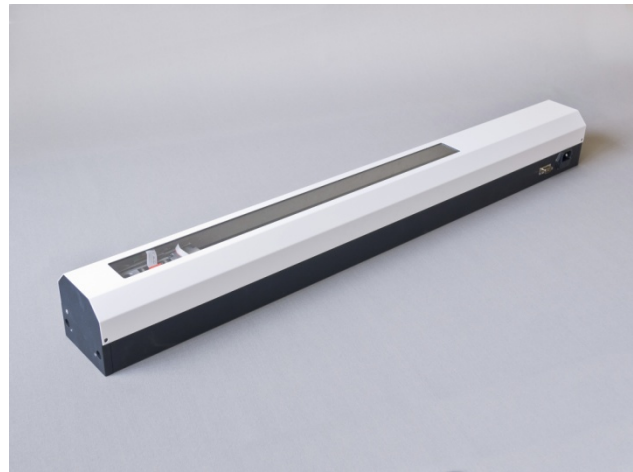
Mechanical

Adjustment accuracy	±0.1 mm @ 3 m
Translation range	0–700 mm
Translation resolution	1.25 μm/step
Tilt range	±2.2 deg
Tilt resolution	25 μm/m
Rotation range	±3.5 deg
Rotation resolution	40 μm/m

Connectivity

Physical layer	RS485 or radio*
Data rate	115200 Baud
Protocol	proprietary
5 V _{DC} output	100 mA max.

* with the **RDB9-2.4G** external adapter



External connections

The **AXE950IRM** unit embeds a DB9 male connector for communication and an IEC/EN 60601-1 compliant 100–240 V_{AC} IEC inlet.

DB9 connector	Function
1	5 V _{DC} power supply output, 100 mA max.
5	Ground
8	RS485 L+ (high for logic 1, low for logic 0)
9	RS485 L- (low for logic 1, high for logic 0)

Related products

AXE900	Motorized long-range medical alignment laser
AXE20-XY	Motorized medical alignment crosshair lasers
AXE20-X	Motorized medical alignment horizontal lasers
AXE20-Y	Motorized medical alignment vertical lasers
AXE20F-XY	Manual medical MR alignment crosshair lasers
AXE20F-X	Manual medical MR alignment horizontal lasers
AXE20F-Y	Manual medical MR alignment vertical lasers
WLC635-5-LGCP	Modulated red laser-line module
WLC532-5-LGCP	Modulated green laser-line module
RDB9-2.4G	Radio to RS485 ATB protocol converter
USBRF-2.4G	Radio to USB ATB protocol converter
ISOUSB485	USB to RS485 isolated serial converter

Ordering code

AXE950IRM*	Standard model
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* laser modules not included (see **WLCxxx-5-LGCP**)