

VERTICAL RAIL SLIDER

GRXRLSX01

TECHNICAL SPECIFICATION

GROXX VERTICAL RAIL SLIDER

HIGH-PRECISION VERTICAL FALL ARREST COMPONENT

The **Groxx GRXRLSX01** is a sophisticated vertical rail slider engineered specifically for integration with rigid vertical rail lifeline systems. Designed for use on ladders, pylons, and wind turbine internals, this slider functions as a guided-type fall arrester, providing workers with hands-free vertical mobility while maintaining an instantaneous lock-on capability in the event of a descent acceleration.

CORE PERFORMANCE & KINEMATICS

- Guided-Type Fall Arrest:** The GRXRLSX01 is designed to glide effortlessly along the vertical rail profile during normal ascent and descent. Its internal cam mechanism is gravity-biased to remain open during steady movement but reacts immediately to gravitational acceleration.
- Bi-Directional Locking:** Engineered with a specialized locking pawl that engages with the rail profile. In the event of a fall, the slider locks within centimeters, significantly reducing the total fall distance compared to flexible cable systems.
- Anti-Inversion Logic:** The slider incorporates a "fail-safe" orientation feature that prevents the device from being installed upside down on the rail, eliminating a common cause of vertical system failure.
- Integrated Shock Dissipation:** While the rail is rigid, the GRXRLSX01 is designed to interface with an energy-absorbing lanyard to cap the Maximum Arrest Force (MAF) below the critical 6 kN threshold.



TECHNICAL SPECIFICATIONS

FEATURE	SPECIFICATION
Model Number	GRXRLSX01
Primary Material	AISI 304/316 Stainless Steel
Locking Mechanism	Cam-Inertia Gravity Brake
Compatibility	Groxx Vertical Rigid Rail Systems
Static Strength	$\geq 15\text{ kN}$
Safe Working Load	Rated for 1 User (140 kg) max capacity
Unit Weight	800 g

HARDWARE & OPERATIONAL SAFETY

- Stainless Steel Construction:** Manufactured from high-grade stainless steel to ensure the locking cams and springs remain free of corrosion, which is vital for the mechanical timing of the fall arrest function.
- Ergonomic Release:** Features a manual bypass or release trigger that allows the user to easily remove or attach the slider at designated "gate" sections of the vertical rail.
- Smooth Transit:** Internal low-friction bushings are utilized to ensure the slider does not "chatter" or hang up during climbing, reducing user fatigue.

COMPLIANCE & EN REGULATIONS

The **GRXRLSX01** is engineered and certified according to the most stringent European standards for vertical fall protection:

- EN 353-1:2014+A1:2017:** This is the primary regulation for *Guided type fall arresters including a rigid anchor line*. The GRXRLSX01 meets the updated requirements for "function testing" under cold, hot, and sandy conditions, ensuring the locking mechanism works in all environments.
- PPE Regulation (EU) 2016/425:** Complies with the essential health and safety requirements for Category III personal protective equipment.
- Lateral Pull Test:** Meets the specific EN 353-1 requirements for lateral loading, ensuring the slider stays captured by the rail even if the user falls sideways or away from the ladder.

THE GROXX ADVANTAGE

The **GRXRLSX01** provides a level of security and comfort that cable-based vertical lifelines cannot match. By utilizing a rigid track, the slider eliminates "cable whip" and the elastic "bounce" associated with fall arrests on wire rope, providing the climber with a much higher degree of actual and perceived safety during high-elevation transitions.