EWELLIX
A Schaeffler Company

CAFL
Electric floor lock actuator

Compact, robust and simple solution

Electromechanical floor locking system to hold and level wheeled equipment in place

The Ewellix compact floor lock actuator is used to lift a chair, a table, a trolley, a cart or other wheeled equipment off the wheels and hold the device in the raised position. Floor locks prevent portable equipment used in many industries from shifting or creeping when in the locked position.

They are used in medical procedures and diagnostic applications where the devices must be completely stable, levelled and secured and do not vibrate, even if the floor is uneven. Other applications include production or warehouse operations to ensure mobile workbenches, carts, and dollies don't slip during mounting, loading, and unloading operations.

The main benefits of using a floor lock actuator are:

- Precise positioning and levelling adjustment
- High flexibility and easy design integration
- Stable and rigid base
- No maintenance

Traditional hydraulic floor lock system

- Hydraulic pump
- Fluid reservoir
- Hoses and fittings to each lock cylinder
- Hydraulic cylinders at each caster

Electromechanical floor lock system

Modern electromechanical floor lock system requires fewer components

- Control unit
- Easy cable installation
- Electromechanical actuators at each caster

Ewellix solutions

Precise positioning

An integrated encoder can be used to ensure each corner is lifted at the same distance to evenly support the patient table, robot, chair, trolley, cart or C-arm.

Controlled movement

Regardless of whether the system has to be raised, blocked or levelled, the electromechanical floor actuators will take care of it.

Leakage and maintenance free

Ewellix floor lock actuators are lubricated for life, have no hoses or reservoirs, and don't need maintenance throughout their service life.

Locked position

A nonslip rubber-bottom pad secures the floor grip to lock the mobile equipment safety and prevents it from shifting or creeping when in the locked position.

Self-locking

Ewellix floor lock actuators will maintain their position in the event of power failure up to the maximum static load rating.

Function

In the traditional application, the Ewellix floor lock actuator is mounted parallel to the caster. When the actuator is extending and lifting the equipment, the neoprene rubber pad at the end of the push tube will securely hold the device.

Tecnical data

	unit	CAFL
Mechanical performance		
Lifting capacity	N	1 700
Deploy/Retract speed	mm/s	12
Static load capacity	N	6 800 (push)
Mechanical dimensions		
Minimum Stroke	mm	36
Retracted Length	mm	Stroke + 88,5
Mounting footprint	mm	87×50
Foot pad	mm	38 Ø
Electrical characteristic		
Operating voltage	V DC	24
Operating current	A	5 @ 1 700 N
Encoder	2 channel hall effect, resolution 0.064 mm/pulse, 5 VDC voltage supply	
Safety features	integrated 95C thermal cut-off	

Ewellix floor lock actuator

Electromechanical floor lock actuators are small and compact low-voltage linear actuators. They are driven and controlled by a control unit (CU). The processing of encoder signals enables the control unit to synchronise the actuators's speeds, which is particularly important when the actuators are loaded differently. Thanks to the intelligence in the control unit, it is also possible to level the system by individually controlling and positioning the floor lock actuators. The extended push tube with the plastic pad gives a reliable and fixed stand on the floor. Due to the robust design of the drive, it also keeps the mobile application in position when it is not being powered. In addition, the Ewellix floor lock actuator is maintenance-free for its working life.

Application examples

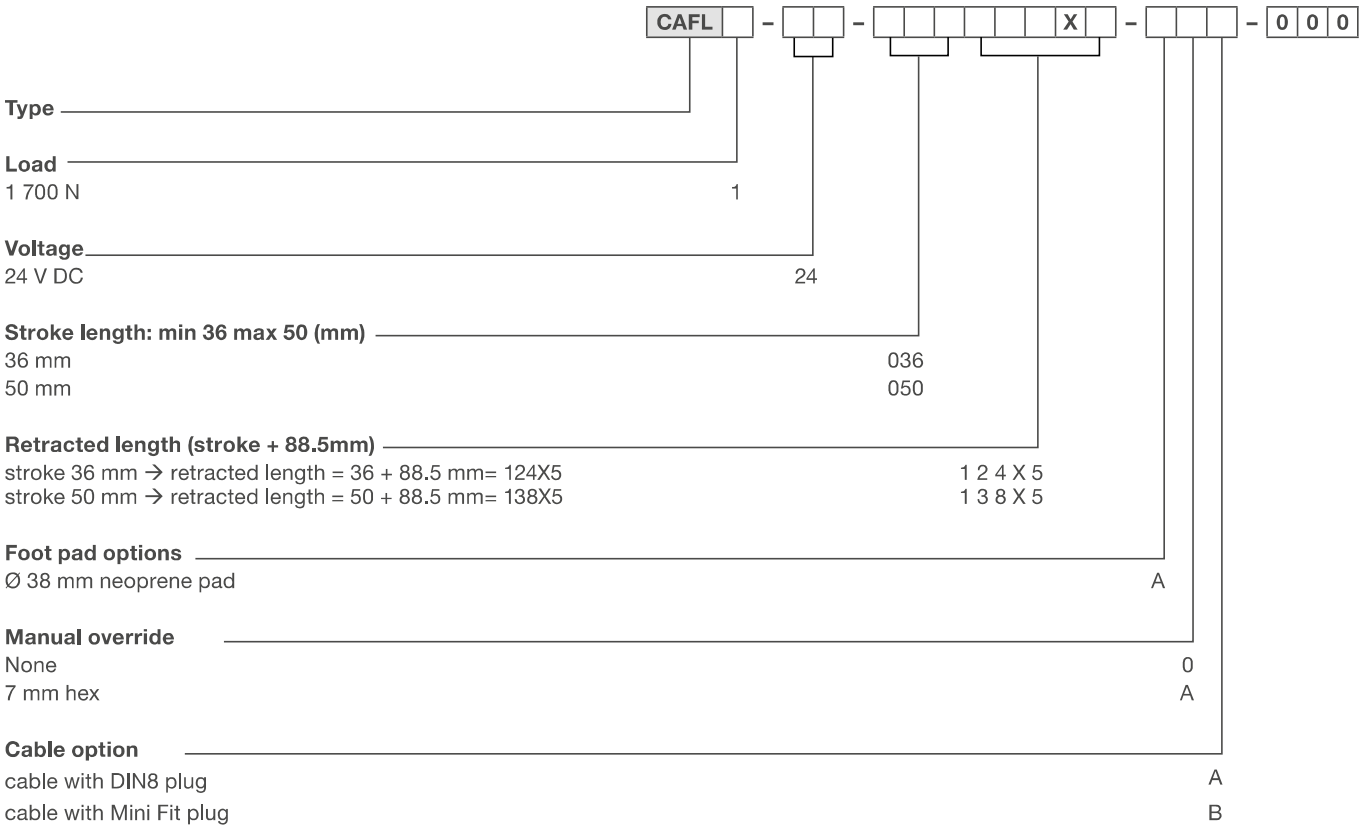
Surgical table

Surgical robot

Laboratory robot

Mobile machinary

Ordering key



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