

*axis*

Automatic Entrance Systems *ax85*

# Automatic Swing Doors

UNIVERSAL DRIVE SYSTEM FOR SWING DOORS  
LOW ENERGY OR FULLY AUTOMATIC



### **ax85 UNIVERSALLY APPLICABLE**

The universal qualities of the **ax85** drive system are due to its electro-mechanical construction and its modular design. When the door drive motor operates, it simultaneously tensions a spring integrated in the drive housing. The closing movement uses energy stored in the spring, which, if necessary, is motor-assisted. Optimum power deployment is achieved in the entire door swing area, even without motor assistance. This moves the door reliably to its end position against draft resistance, for example, and also complies with the norms and standards of current safety requirements.

The **ax85** is available to operate doors in sizes EN4 to EN6. The different spring forces required can be quickly and precisely adjusted on the spot using the special adjustment screw.

The system also provides many other sophisticated features, allowing pre-defined door types to be quickly and easily adapted to local circumstances.

### **FEATURES:**

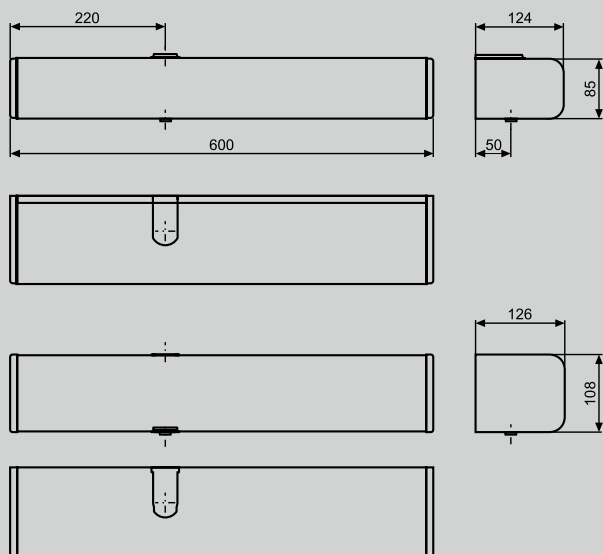
- DIN 18 650-compliant technology, approved worldwide
- Approved as a hold-open system for fire protection barriers
- Can be used with various fire-protection profile systems such as Jansen, Forster, Heroal and Schüco
- Features gerontology technology for barrier free access

### **VARIATIONS:**

- Double swing doors with or without master/slave operation
- Power saving mode: adjustable opening of one or both door panels (stretcher opening)
- Integrated sequential closing control for double-leaf fire door applications
- Interlock function for two single doors installed consecutively
- Direction-oriented opening for oncoming traffic in corridors
- Opening or closing without current







Dimensions of the operator (H x W x L)	85 x 124 x 600 mm or 110 x 126 x 600 mm
Door closer size	EN4 – EN6 for standard arm and slide arm
Opening time / closing time	3 – 20 s / 5 – 20 s
Opening angle	70 – 115° (INVERSE up to 95°)
Electrical power supply	230VAC, 50 / 60 Hz
Rated power	67W
Consumption in standby mode	13W

**Operating modes with internal BDI operating switch**

- Automatic operation
- Continuously open
- Manual operation

**Operating modes with BDE-D control panel with display (optional)**  
In addition to the standard modes

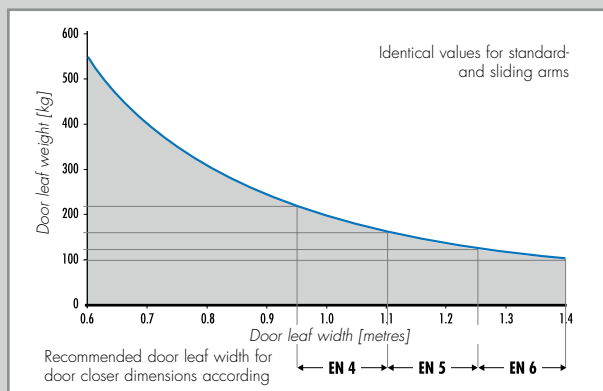
- Locked
- One-way traffic
- Operation lock

**Functions**

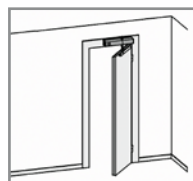
- Automatic reverse
- Touch control (push and go)
- Emergency stop, interlock control or 2-leaf doors
- Customer-specific door parameters

**Options**

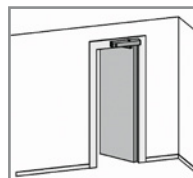
- Electro-magnetic brake
- Integrated mechanical sequential control
- Special control option: «barrier-free WC access»
- Hold-open system for fire and smoke protection doors



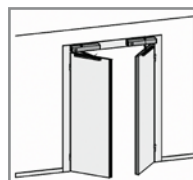
**Installation variants**



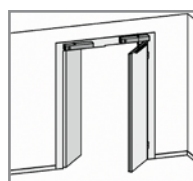
**Lintel installation**  
(1-leaf door)  
ax85T tracked arm left or right pulling



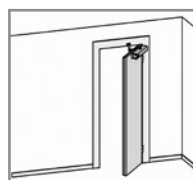
**Lintel installation**  
(1-leaf door)  
ax85A articulated arm left or right pushing.  
Drive variant for pushing tracked arm available



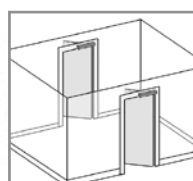
**Lintel installation**  
(2-leaf door, master / slave operation)  
Two electrically coupled drives with tracked arm pulling or articulated arm pushing.



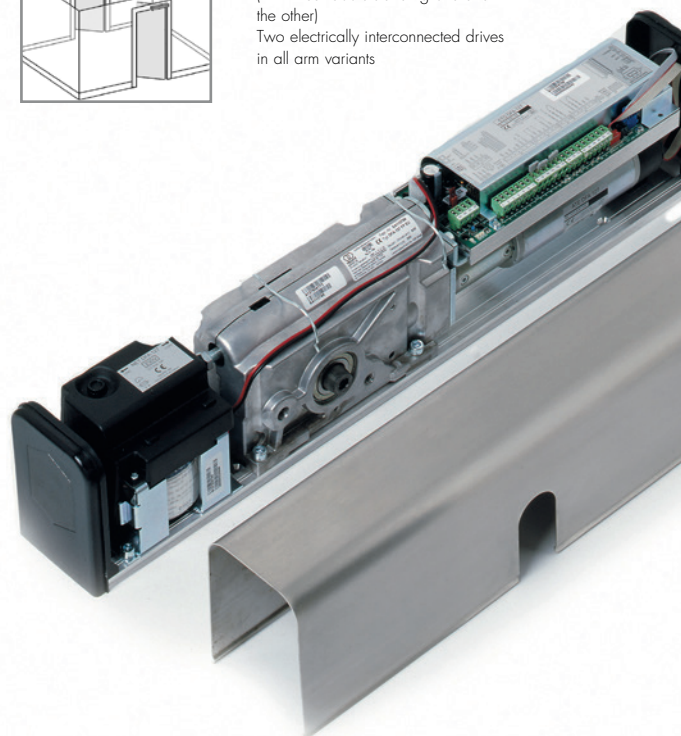
**Lintel installation**  
(2-leaf door with two-way traffic)  
Alternating operation of two drives independent of each other.



**Door leaf installation**  
(1-leaf door)  
Arm and possible combinations as lintel installations.



**Interlock operation**  
(2 x 1-leaf doors standing one after the other)  
Two electrically interconnected drives in all arm variants



## **ax85 – THE RIGHT CHOICE EVERY TIME**

The Full Power and Low Energy versions demonstrate that the *ax85* is the correct choice for all requirements. The strength of the Full Power version can move doors of several hundred kilos in weight, whereas the Low Energy version is limited to 1.6 joules of kinetic energy to enable it to operate safely without special sensors.

## **ax85 FULL POWER** **THE VERSATILE STRONG ONE**



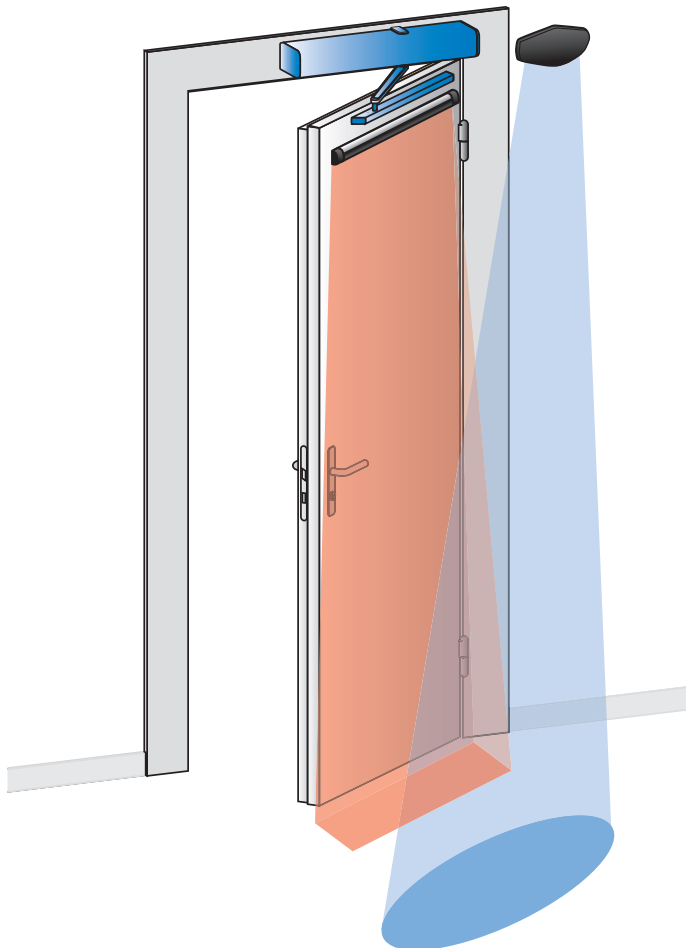
The *ax85* Full Power is the powerhouse in the family of axis swing door operators. Its adjustable spring force gives it great versatility, and can be adjusted on the spot, to suit door sizes from EN4 to EN6. This enhances its flexibility, enabling it to take additional customer-specific settings. Its sophisticated technology enables complex functions with optimum power deployment in the entire swing area.

- Universal, powerful programmable
- Extensive functionality without additional modules
- Robust, reliable mechanics
- Optimized for the use of large, heavy doors
- Provides a high level of dynamism

### **The *ax85* Full Power is especially suitable for use in:**

- Retail outlets
- Airports
- Administration and office buildings
- Restaurants and hotels

## **Typical Single Door Installation**





## ***ax85* LOW ENERGY - THE GENTLE ONE WITH REDUCED MOTION ENERGY**

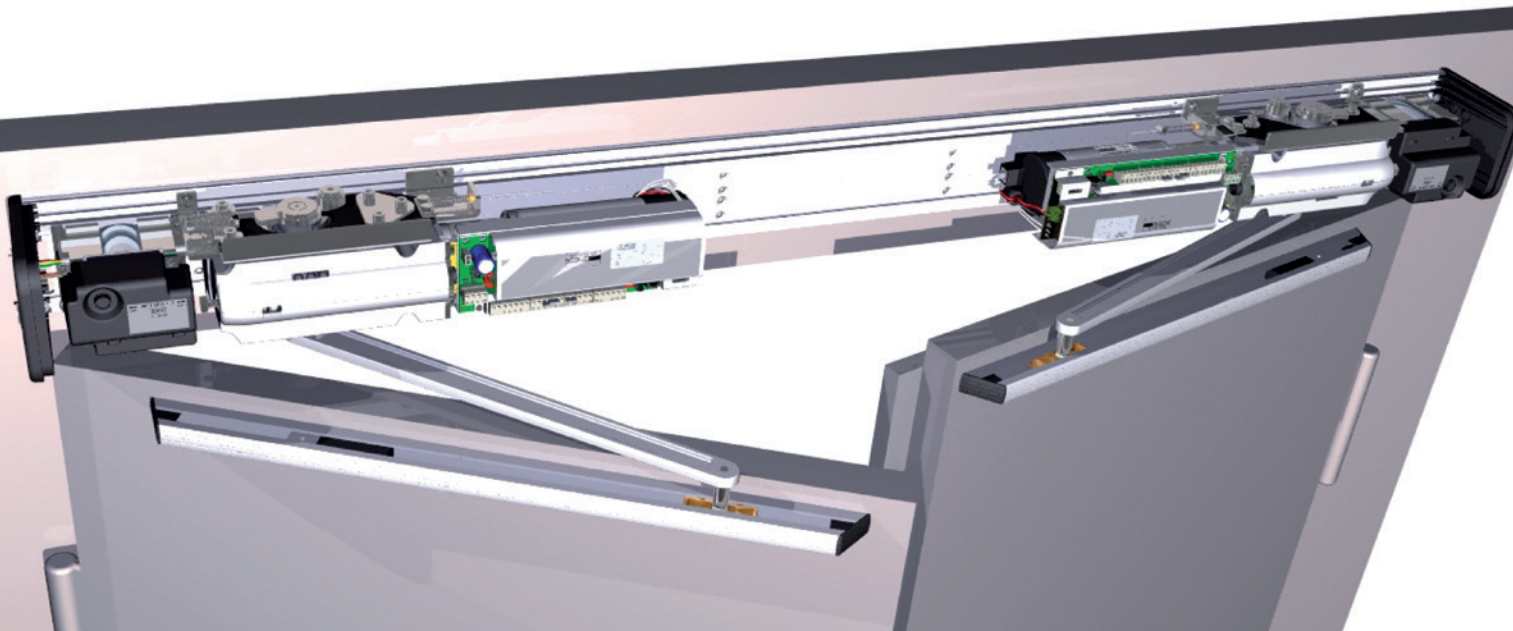
The *ax85* Low Energy is the ideal drive for environments where people move only slowly and have limited reaction capacity. Kinetic energy is limited to 1.6 joules, which means the safety of people in the swing area, even in the absence of additional security sensors, is not compromised.

- Depending on location, little or no additional sensors required
- Lowers the inhibition threshold, even in elderly people
- Gentle operation is convenient and inspires confidence
- Practically silent operation preserves the peace and quiet of living areas

The *ax85* Low Energy is especially suitable for use in:

- Homes for the elderly and disabled
- Hospitals, clinics and retirement homes
- Private homes and apartments

Suitable for environments with people of limited or slow reactions





## ax85 OPTIONS & ACCESSORIES

### Arm types

The power transmission from the drive to the door works by means of a bar, which, depending on the mounting situation is available as a tracked (sliding) arm pulling and pushing with an integrated stop. Alternatively an articulated arm of different lengths can be used, pushing.

### Standard Systems

- ax85T** Tracked Arm  
**ax85TP** Tracked Arm Pair of Doors  
**ax85A** Articulated Arm  
**ax85AP** Articulated Arm Pair of Doors



*Tracked Arm pulling*

*Articulated Arm, pushing or pushing*

Arms are available in different lengths to compensate for a range of lintel sizes.

Through the use of optional axle extension pieces, so-called spacer bushes, different lintel heights can be compensated for.

All versions are available as Full Power or Low Energy options. Currentless drive units function like mechanical door closers.

### Operator casing

- Satin Stainless steel 85 mm
- Coloured or Anodised Aluminium 85 mm or 108 mm
- Extended as required
- Extended for double swing doors (master/slave operators)

### Installation versions

- Lintel installation on hinge side or opposite hinge side
- Door panel assembly
- Hold-open systems for fire protection barriers
- Master / slave operation applied as fire proof doors require also a mechanical sequential control

### Lintel depths

<b>Type</b> Tracked Arm GG	<b>Type</b> Articulated arm SG1 – SG3
<b>Lintel depths</b> X = 0 + / - 10 mm	<b>Lintel depths</b> X = 0 – 330 mm

### Axis extensions

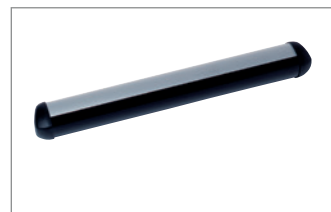
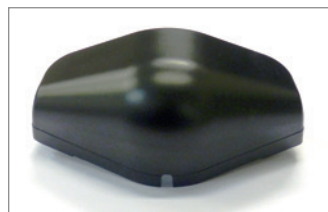
For Tracked or Articulated arms

<b>Type</b> Tracked arm pulling	<b>Type</b> Articulated Arm pushing
<b>20 – 80</b> 32.0 – 92.0 mm	<b>20 – 80</b> 42.5 – 102.5 mm

### Spring Tension

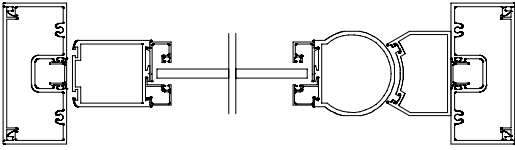
Adjustable spring pre-tensioning EN4 – EN6

### Activation devices

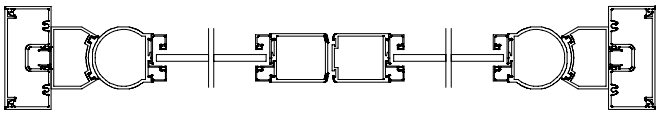


- Radar motion detector
- Infrared presence detector
- Security sensors for the monitoring of the door swivel area
- Push Button(s)

## Standard Aluminium Doorset Specification



*Single swing aluminium doors with finger trap protection system*



*Pair of aluminium swing doors with finger trap protection system*

The aluminium doorset is formed from non-thermal aluminium extruded box section. The outer framework is constructed from 100mm by 45mm box section and the door leaves are constructed with 55mm wide stiles and 100mm deep, top and bottom rails. Weather stripping is standard on door stiles and top and bottom rails.

All doors are fitted with a euro-cylinder operated hook lock and various manual and electronic locking options are also available. On pairs of doors, a top and bottom flush bolt are installed to secure the secondary leaf.

The doors are glazed with either 6.4mm clear laminated glass stamped with BS kite mark or with clear double-glazed sealed units (24mm). Tinted glass and solid infill panels are also available.

Aluminium swing doors are fabricated with "built in" finger trap prevention systems. "Low-level" aluminium tapered thresholds

and midrails (130mm deep, to increase the strength of the door) are included. Standard pad handles, powder coated the same finish as the doors and colour contrasting nylon handles are available.

Polyester powder coat finished to a standard RAL or BS colour is included. SAA and Bronze Anodised finishes can be supplied on request.

Outward opening external doors are often more vulnerable to variances in climatic conditions. To reduce the risk of damage, it is recommended that manual and automatic swing doors do not open beyond 90 degrees and installing a suitable barrier to protect the door should be considered.

Other door formats including thermally broken doors are also available.



## **MAINTENANCE**

To ensure safe operation, long term reliability and working efficiency, a powered door installation should be regularly maintained by the powered door system authorized technician.

Because automatic door operators are electromechanical pieces of equipment and microprocessor controlled, we recommend they be serviced at least every six months from date of installation.

All parts supplied and installed by us are covered by a twelve-month warranty for faulty components (unless due to misuse, abuse or negligence, etc.) providing the doors are regularly serviced by an approved authorized technician.

## **IMPORTANT SAFETY INFORMATION - EN16005 2012**

Axis recommends that all installations comply with EN16005:2012 (formerly BS7036:1996) with regard to safety. Axis employs ADSA Authorised Technicians (Automatic Door Suppliers' Association) for the specification, supply, installation and maintenance of automatic door operators as per the guidelines of EN16005 (formerly BS7036:1996 - Code of Practice for safety at powered doors for pedestrian use).

The Specifier should ensure that equipment specified for a door installation conforms to the recommendations of the standard. At the design specification stage, the Specifier should seek specialist advice from, and work in close liaison with, the powered door manufacturers or their approved distributors. It is particularly important that the Specifier should establish predicted user requirements to enable account to be taken of the volume and type of pedestrian traffic (such as the elderly, the infirm, disabled persons and young children) that is likely to pass through the particular installation at different times of the day.

## **OTHER AXIS PRODUCTS**

Axis Automatic Entrance Systems also supply, install and maintain a wide range of automatic sliding doors, folding doors, bypass doors and bifolding doors. The range also includes specialist doors for specialist installations such as hospital intensive care units as well as shopfronts, curtain walling, security roller shutters, turnstiles, car park barriers and architectural ironmongery. Complete access control systems can also be supplied and installed.



**Axis Automatic Entrance Systems Ltd**  
Unit 6, Queens Park Industrial Estate, Studland Road,  
Northampton, NN2 6NA.  
Tel: 01604 212500 · Fax 01604 212495  
Email: sales@axisautomatic.com  
www.axisautomatic.com

