# ACTUATOR LA12 PLC

#### **Features:**

- 24V DC permanent magnetic motor
- Max. thrust 750 N
- Max. speed 40 mm/sec
- Built-in limit switches, relays and EOP
- Compact design
- · Colour: black
- 2300 mm straight cable without plug (8 x 0,5 mm<sup>2</sup>)
- Reinforced glass fibre piston rod
- High-strength plastic housing protects motor and gear
- Protection class IP51

## **Options:**

- Hall-sensor or potentiometer for relative or absolute positioning
- Protection class IP51 or IP66 (Not washable)
- 3 different spindle pitches
- 4 different stroke lengths
- Back fixture available in 3 different variants:
  01 or 02 (factory mounted)
- Protection class IP66 mounted with Hallite 610
  Scraper ring
- Stainless steel innertube and piston rod eye
- Back fixtures in aluminium or stainless steel

## **Usage:**

- Duty cycle up to 100 % at 0-20°C ambient temperature (see Duty Cycle graphs)
- Ambient temperatures: 0°C to + 40°C



The PLC-actuator is ideal for factory automation, ventilation plants and other industrial equipment controlled by Programmable Logic Controllers (PLC). The Actuator is designed for easy interface with most common PLC's. The integrated relays and electronic overload protection (EOP) makes it possible and safe to connect the PLC-actuator directly to the In-/outputs at the PLC.

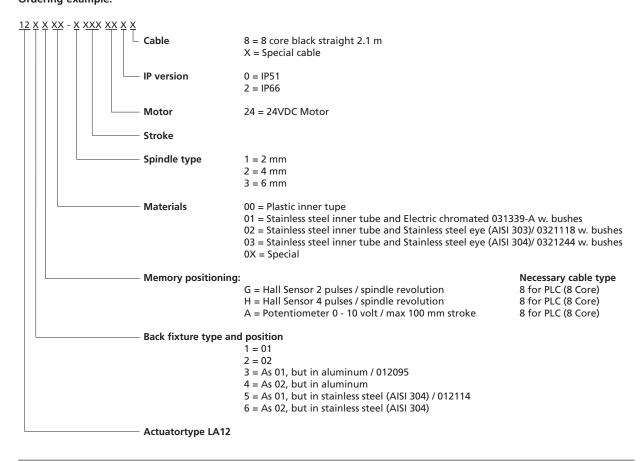


## **Technical specifications:**

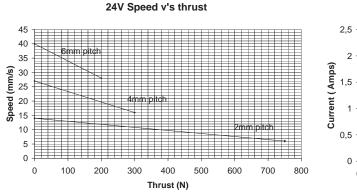
Туре	Spindle pitch	Thrust max.	Self- lock max.	Typical speed 0/full load		Stroke length (in steps of 30 mm) (potentiometer max.			Typical amp. at full	Encoder pulses for positioning (mm/pulse)	
	(mm)	(N)	(N)	(mr	n/s)	100 mm stroke) (mm)		load 24V	2 pulses/ rev	4 pulses/ rev	
12XX00-1XXX24XX	2	750	750	14	8	40	-	130	1.8	1	0.5
12XX00-2XXX24XX	4	300	300	27	16	40	-	130	1.5	2	1
12XX00-3XXX24XX	6	200	80	40	28	40	-	130	1.0	3	1.5

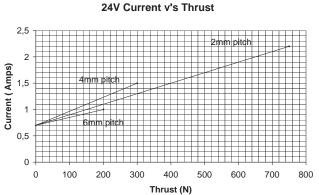
The above values are with an ambient temperature of 20° C.

# LA12 PLC Ordering example:

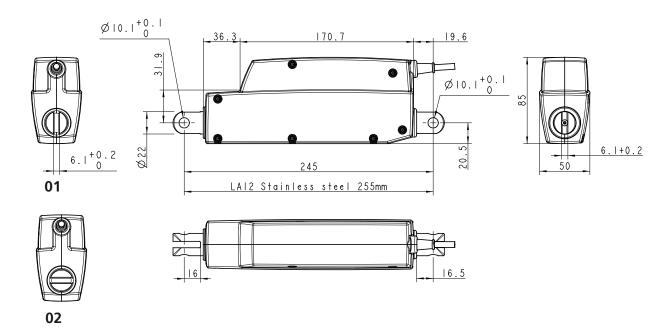


## Speed & current v's thrust:

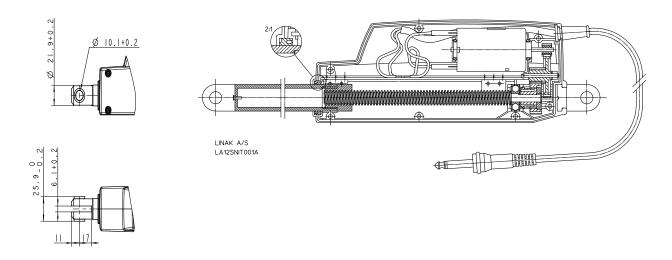




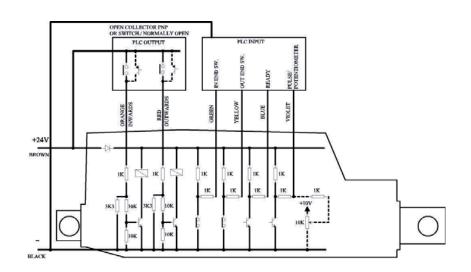
# Dimensions:



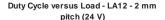
# Piston rod eye:

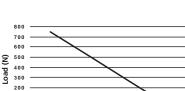


# Connections:



## **Duty Cycle:**

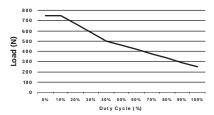


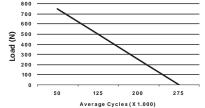


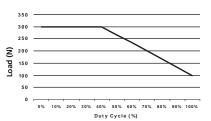
Average Cycles versus Load - LA12 - 2

mm pitch (24 V)

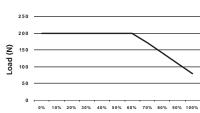
#### Duty Cycle versus Load - LA12 - 4 mm pitch (24 V)







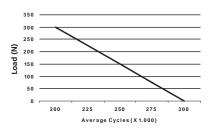
Average Cycles versus Load - LA12 - 4 mm pitch (24 V)

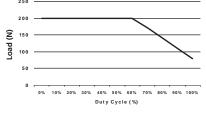


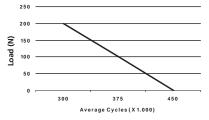
Duty Cycle versus Load - LA12 - 6 mm

pitch (24 V)

Average Cycles versus Load - LA12 - 6 mm pitch (24 V)







#### **Graphs for Duty Cycle:**

The graphs on this page show which duty cycle can be expected compared to the load. The measurements for the graphs have been made with an ambient temperature of 20°C. If the actuator is used in a higher ambient temperature the duty cycle will decrease.

## **Graphs for lifetime:**

The graphs show the average lifetime that can be expected compared to the load. Average lifetime is defined as "cycles", one cycle is two strokes. This means that the actuator runs from the retracted position outwards to the full stroke length and back to its retracted position.

#### Test conditions for Duty Cycle and average lifetime:

The conditions of the tests carried out at LINAK A/S are as follows:

- Ambient temperature approx. 20 degrees celcius
- Actuator running at full stroke (between both end stop switches)
- · Actuator running at max. recommended duty cycle
- Continuous operation 24 hours a day
- No vibrations
- Relatively clean environment ( no extreme dust or dirt )



Please note that running the actuator in other conditions than the above mentioned may decrease or increase the duty cycle or lifetime of the actuator. Therefore it is recommended that the customer always tests the actuator in the actual application, to ensure that the actuator fulfills the customers expectations.



## Limited lifetime on actuators with potentiometer:

On variants with potentiometer (with analog feedback) the minimum lifetime is limited to 15.000 cycles. The average lifetime is 40.000 cycles dependant on load and speed.

The limiting factor is the potentiometer. Test conditions as mentioned above.