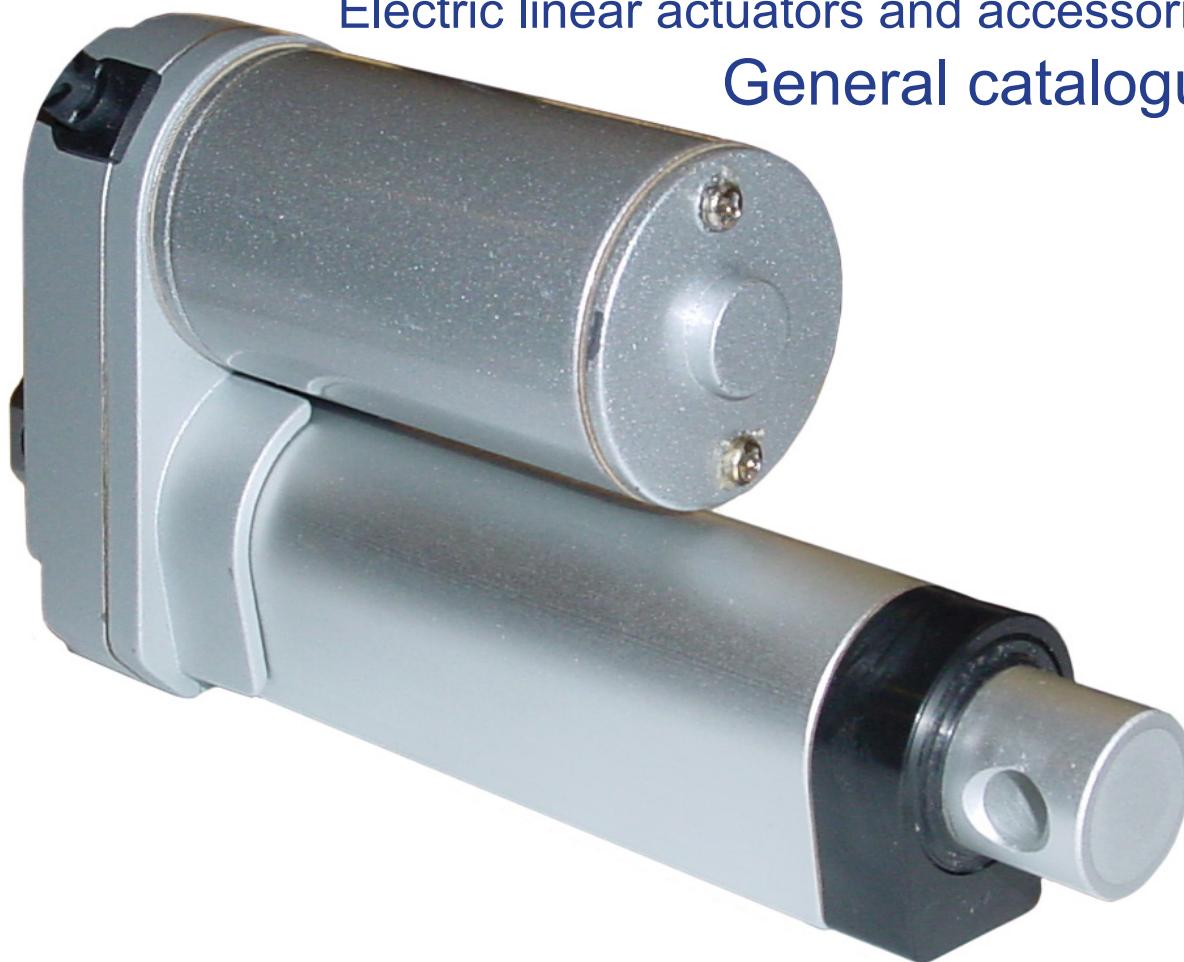


Electric linear actuators and accessories  
**General catalogue**



## DLA NO SENSOR MINIATURE LINEAR DC ACTUATORS

Small lightweight dc motor actuators with ACME lead screws and integrated built in preset micro switches for end stop. The actuators also have an internal diode wiring which enables the change of direction by simply reversing the applied voltage polarity. In case of adjusting the stroke length customized actuators are available. The integral limit switches are not made to be adjustable. Speed and force can be reduced by lowering the applied voltage and overload can be protected by limiting the current to the actuator. Absolute or incremental position feedback is possible using the potentiometer or hall sensor models. Transformers and hand set controls are also available. See separate data sheets.

### ADDITIONAL DATA

- Integrated preset limit switches
- Protection IP65
- 12 or 24 VDC
- Aluminium outer tube and stroke rod
- Zinc alloy housing
- Operating temperature -26°C~+65°C
- Options: Potentiometer, hall sensors, controllers

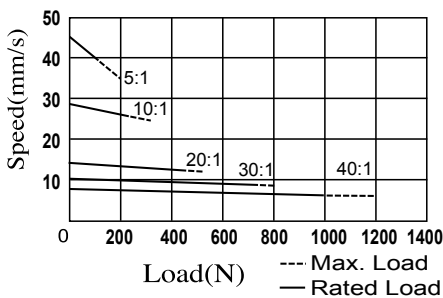
### MODEL NO. DESIGNATIONS

DLA	12	20	A	200	IP65
Type	Voltage	Gear Ratio (Exact)		ACME	Stroke
	12V DC	5:1	6.8:1	(screw standard)	50mm
	24V DC	10:1	10.9:1		100mm
		20:1	20.6:1		150mm
		30:1	31.7:1		200mm
		40:1	42.8:1		250mm
					300mm
					Sensor
					IP65: No Sensor
					IP65: Hall Effect Sensor X2
					IP65: Potentiometer Sensor

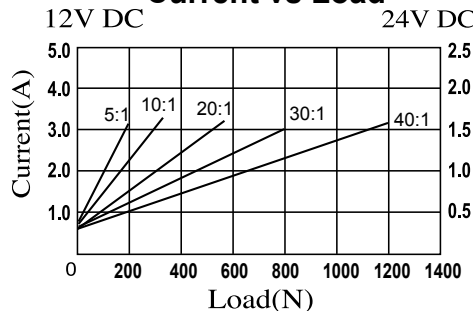


### DIAGRAM

Speed vs Load



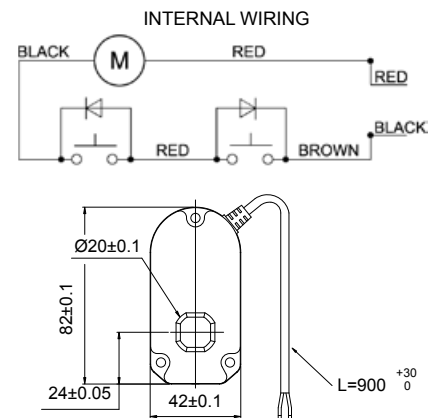
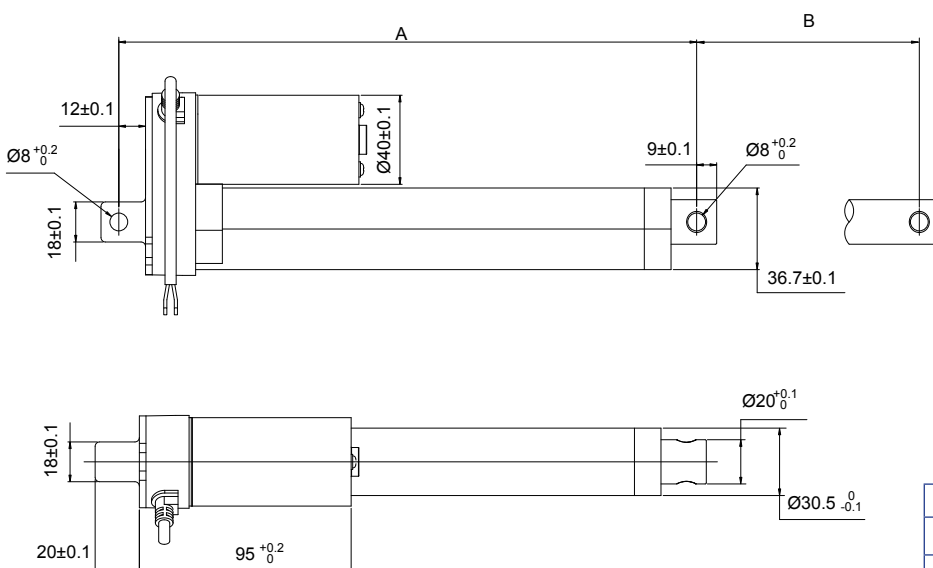
Current vs Load



### ADDITIONAL DATA

- Load force up to 1000 N
- Duty cycle 25% (25% on / 75% off time)
- Static force 2300N

### APPEARANCE SIZE



B (Stroke ±3 mm)	50	100	150	200	250	300
A (Retracted ±3 mm)	158	209	260	311	362	413
Weight (kg)	0.9	1.0	1.1	1.2	1.25	1.35

## DLA HALL MINIATURE LINEAR DC ACTUATORS

Small lightweight dc motor actuators with ACME lead screws and integrated built in preset micro switches for end stop. The actuators also have an internal diode wiring which enables the change of direction by simply reversing the applied voltage polarity. In case of adjusting the stroke length customized actuators are available. The integral limit switches are not made to be adjustable. Speed and force can be reduced by lowering the applied voltage and overload can be protected by limiting the current to the actuator. Absolute or incremental position feedback is possible using the potentiometer or hall sensor models. Transformers and hand set controls are also available. See separate data sheets.

### ADDITIONAL DATA

- Integrated preset limit switches
- Protection IP65
- 12 or 24 VDC
- Aluminium outer tube and stroke rod
- Zinc alloy housing
- Operating temperature -26°C~+65°C
- Options: Potentiometer, hall sensors, controllers

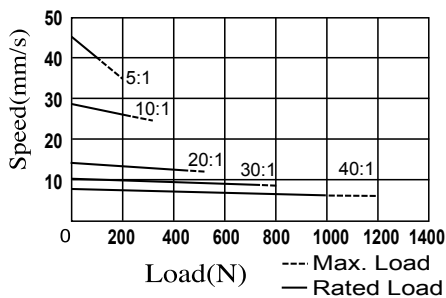
### MODEL NO. DESIGNATIONS

DLA	12	20	A	200	IP65
Type	Voltage	Gear Ratio (Exact)		ACME	Stroke
	12V DC	5:1	6.8:1	(screw standard)	50mm
	24V DC	10:1	10.9:1		100mm
		20:1	20.6:1		150mm
		30:1	31.7:1		200mm
		40:1	42.8:1		250mm
					300mm
					Sensor
					IP65: No Sensor
					IP65: Hall Effect Sensor X2
					IP65: Potentiometer Sensor

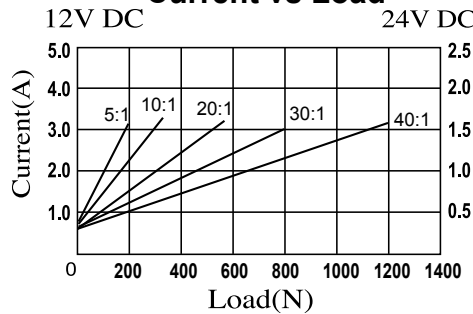


### DIAGRAM

Speed vs Load

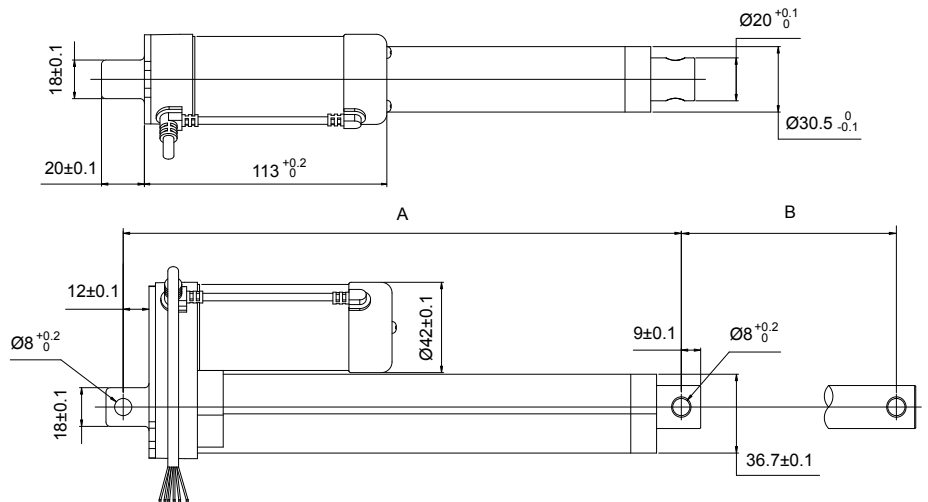
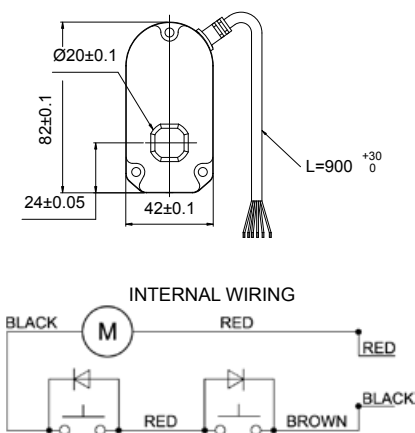


Current vs Load



- Load force up to 1000 N
- Duty cycle 25% (25% on / 75% off time)
- Static force 2300N

### APPEARANCE SIZE



Hall Sensor Output X2 (90 degree shift)					
Anachip ATS177					
Gear ratio	5:1	10:1	20:1	30:1	40:1
Pulses/mm	2.3	3.6	6.9	10.6	14.3

HALL SENSOR WIRING			
H1	H2	VCC	GROUND
BLUE	GREEN	YELLOW	WHITE

B (Stroke ±3 mm)	50	100	150	200	250	300
A (Retracted ±3 mm)	158	209	260	311	362	413
Weight (kg)	0.9	1.0	1.1	1.2	1.25	1.35

## DLA POT MINIATURE LINEAR DC ACTUATORS

Small lightweight dc motor actuators with ACME lead screws and integrated built in preset micro switches for end stop. The actuators also have an internal diode wiring which enables the change of direction by simply reversing the applied voltage polarity. In case of adjusting the stroke length customized actuators are available. The integral limit switches are not made to be adjustable. Speed and force can be reduced by lowering the applied voltage and overload can be protected by limiting the current to the actuator. Absolute or incremental position feedback is possible using the potentiometer or hall sensor models. Transformers and hand set controls are also available. See separate data sheets.

### ADDITIONAL DATA

- Integrated preset limit switches
- Protection IP65
- 12 or 24 VDC
- Aluminium outer tube and stroke rod
- Zinc alloy housing
- Operating temperature -26°C~+65°C
- Options: Potentiometer, hall sensors, controllers

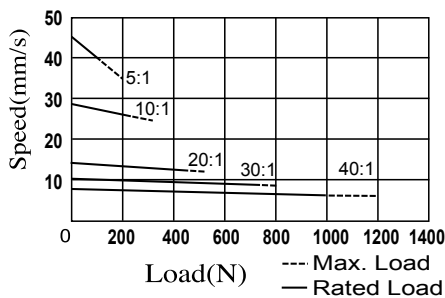
### MODEL NO. DESIGNATIONS

DLA	12	20	A	200	IP65
Type	Voltage	Gear Ratio (Exact)		ACME	Stroke
	12V DC	5:1	6.8:1	(screw standard)	50mm
	24V DC	10:1	10.9:1		100mm
		20:1	20.6:1		150mm
		30:1	31.7:1		200mm
		40:1	42.8:1		250mm
					300mm
					Sensor
					IP65: No Sensor
					IP65: Hall Effect Sensor X2
					IP65: Potentiometer Sensor

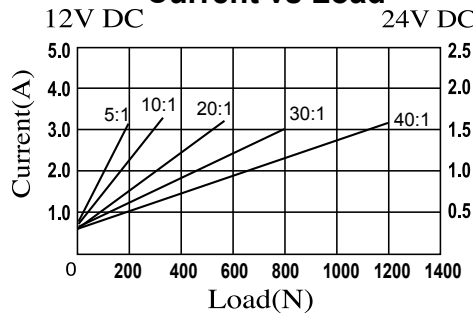


### DIAGRAM

Speed vs Load



Current vs Load



- Load force up to 1000 N
- Duty cycle 25% (25% on / 75% off time)
- Static force 2300N

### APPEARANCE SIZE

RETRACT    EXTEND

BLUE    WHITE    YELLOW

OK    CW    10K

B (Stroke ±3 mm)	50	100	150	200	250	300
A (Retracted ±3 mm)	195	246	297	348	399	450
Pot (Ohm/mm)	94.4	94.4	47.2	47.2	15.72	15.72
Weight (kg)	1.14	1.23	1.31	1.41	1.47	1.56

## DMA ACME SCREW LINEAR DC ACTUATORS

Heavy duty robust linear dc motor actuators for tough environments with ACME self lock lead screws and IP65 standard protection. Overload protection by mechanical ball clutches and optional Integrated adjustable limit switch and potentiometer feedback. Enhanced corrosion resistance and powder coated metal parts. Speed and force can be reduced by lowering the applied voltage and or limiting the current.

### ADDITIONAL DATA

- Ambient temperature -25~+65 °C
- Static load capacity 4500N
- Extension tube (steel) powder coated
- Protection tube (steel) powder coated
- Powder coated aluminium alloy
- Powder metal gears
- Enhanced corrosion resistance
- Overload protection (clutch)
- Well sealed O-ring
- Lubricated for service life
- Robust designed for tough environment
- Self locking
- Duty cycle 25% (25% on / 75% off time)
- Certified (CE55011)

### MODEL NO. DESIGNATIONS

DMA	12	20	A	200	LT	IP65
type	voltage	ratio	A: ACME	stroke	option	
	12V DC	10		102mm	LT: Limit switch	
	24V DC	20		152mm	POT: Potentiometer	
		40		203mm	LT-POT: Limit switch and Potentiometer	
				305mm		
				457mm		
				610mm		

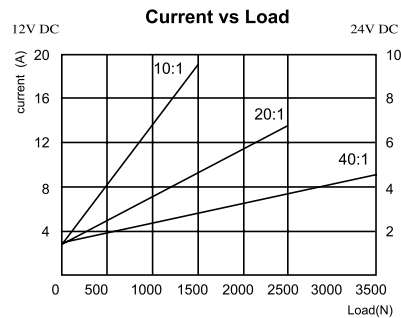
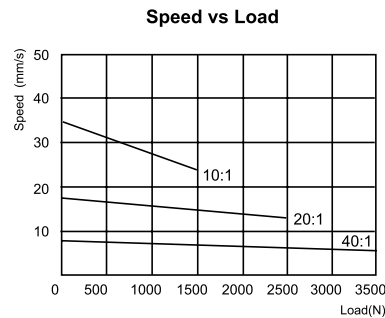
DMA ACME SCREW



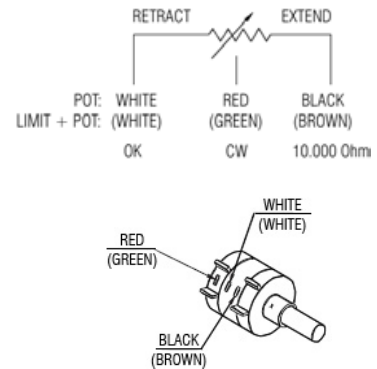
DMA ACME SCREW POTENTIOMETER



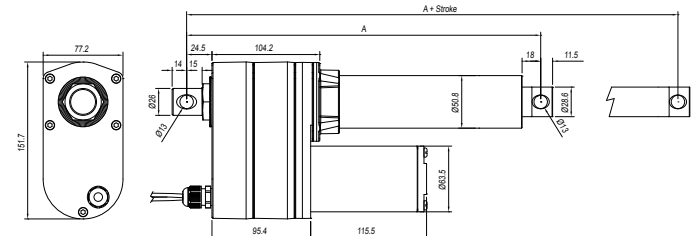
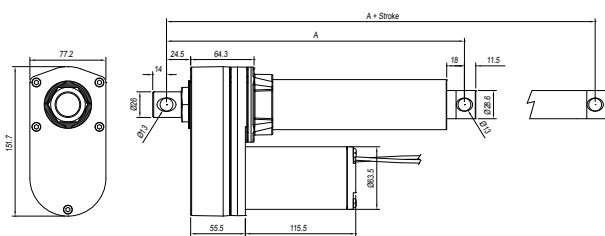
### DIAGRAM



### APPEARANCE SIZE



### APPEARANCE SIZE



	Standard					
Stroke (±2.5mm)	102	153	203	305	457	610
A (Retracted ±3.8 mm)	262	313	364	465	668	821
Weight (Kg)	4.3	4.6	4.9	5.4	6.2	7.8

	With Potentiometer and Limit Switch					
Stroke (±2.5mm)	102	153	203	305	457	610
Weight (Kg)	4.3	4.6	4.9	5.4	6.2	7.8

	With Potentiometer					
A (Retracted ±3.8 mm)	302	353	404	505	708	861
Pot (Ohm/mm)	100	67	50	33	22	17

	With Limit Switch					
A (Retracted ±3.8 mm)	359	410	460	613	765	918

## DMA BALL SCREW LINEAR DC ACTUATORS

Heavy duty robust linear dc motor actuators for tough environments with ball screws and IP65 standard protection. Overload protection by mechanical ball clutches and optional integrated adjustable limit switch and potentiometer feedback. Enhanced corrosion resistance and powder coated metal parts. Speed and force can be reduced by lowering the applied voltage and or limiting the current.

### ADDITIONAL DATA

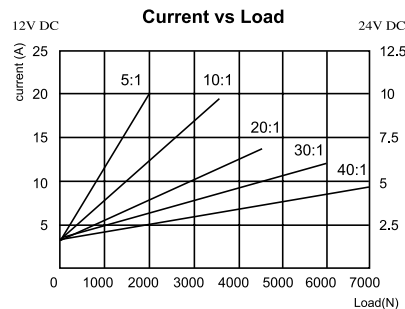
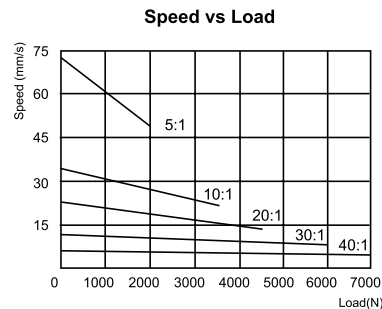
- Ambient temperature -25~+65 °C
- Static load capacity 13600N
- Extension tube (steel) powder coated
- Protection tube (steel) powder coated
- Powder coated aluminium alloy
- Powder metal gears
- Enhanced corrosion resistance
- Overload protection (clutch)
- Well sealed O-ring
- Lubricated for service life
- Robust designed for tough environment
- Self locking
- Duty cycle 25% (25% on / 75% off time)
- Certified (CE55011)

### MODEL NO. DESIGNATIONS

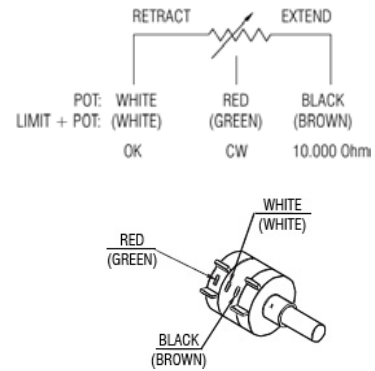
DMA	12	20	A	200	LT	IP65
type	voltage	ratio	B: Ball screw	stroke	option	
	12V DC	5		84mm	LT: Limit switch	
	24V DC	10		135mm	POT: Potentiometer	
		20		186mm	LT-POT: Limit switch and Potentiometer	
		30		288mm		
		40		457mm		
				610mm		



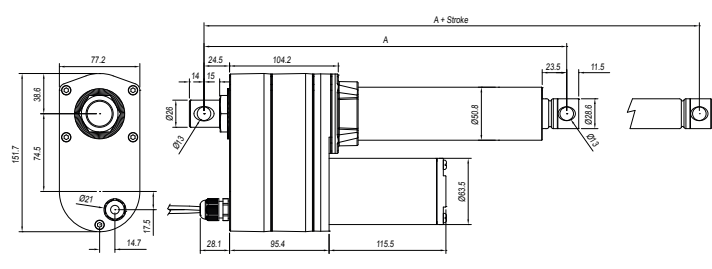
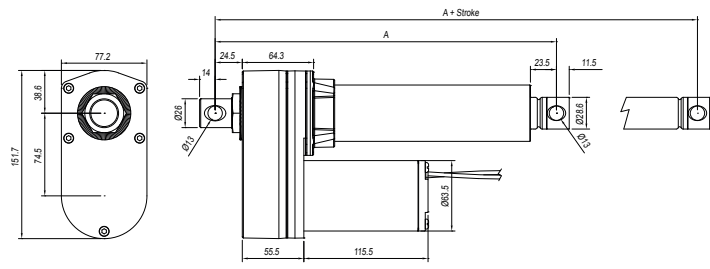
### DIAGRAM



### APPEARANCE SIZE



### APPEARANCE SIZE



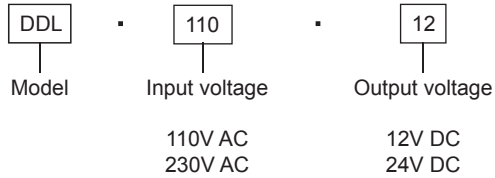
Standard						
Stroke (±5mm)	102	153	203	305	457	610
A (Retracted ±3 mm)	302	353	404	506	735	888
Weight (Kg)	4.3	4.6	4.9	5.4	6.2	7.8

With Potentiometer and Limit Switch						
Stroke (±5mm)	102	153	203	305	457	610
Weight (Kg)	4.3	4.6	4.9	5.4	6.2	7.8
With Potentiometer						
A (Retracted ±3.8 mm)	342	393	444	546	775	928
Pot (Ohm/mm)	119	74	54	35	22	16
With Limit Switch						
A (Retracted ±3.8 mm)	399	450	501	680	832	985

## DDL ACTUATOR DC DRIVERS

Actuator driver with main transformer 230 or 110 VAC and dc rectifier with current limit suitable for simple drive of actuator 12 or 24 volt at maximum current 6 or 3 amp. The driver has integral relays for switching the output voltage polarity. There is also a 9 volt battery emergency lowering function built in.

### DDL - MODEL NO. DESIGNATIONS



Example: DDL-110-12

### DDL - ADDITIONAL DATA

- 230 / 110 VAC input voltage
- 12 / 24 VDC output voltage
- Duty cycle 10%
- Current limit 6 or 3 A
- Integral relay for polarity switch
- Integral 9 volt battery lowering function

DDL



WEIGHT: 1.3KG

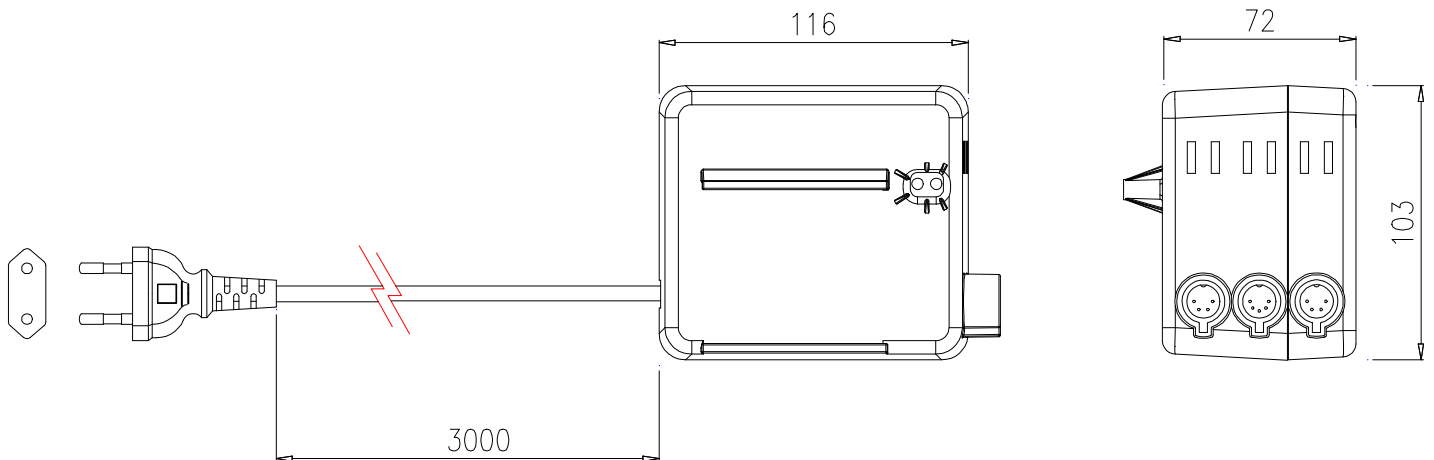
HDL



WEIGHT: 0.18KG

TRANSMOTEC

### DDL - APPEARANCE SIZE



### HDL - APPEARANCE SIZE

