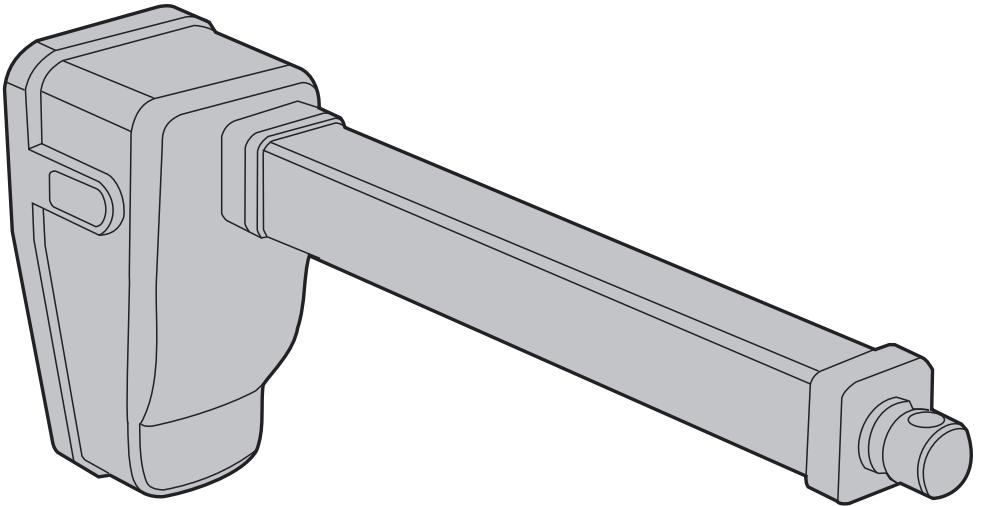
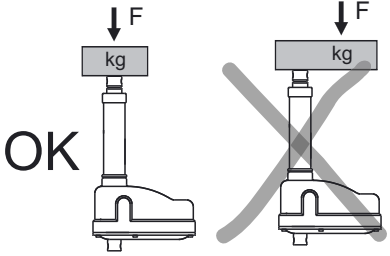


Installation manual for linear actuator Electrak E150

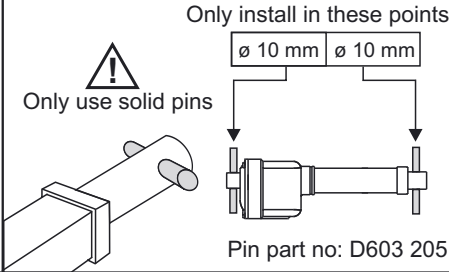


12 VDC
24 VDC
36 VDC

Basic mounting rules



OK

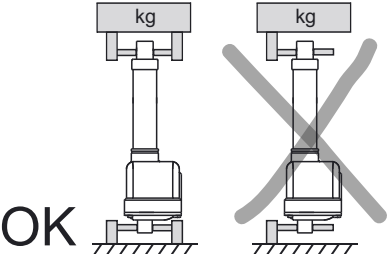


Only use solid pins

Only install in these points

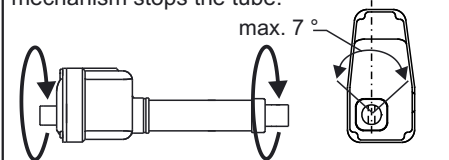
$\varnothing 10\text{ mm}$ $\varnothing 10\text{ mm}$

Pin part no: D603 205



OK

Restraining torque (the torque needed to prevent the extension tube from rotating) = 0 Nm (anti-rotation mechanism). The tube moves max. 7° before the anti-rotation mechanism stops the tube.



max. 7°



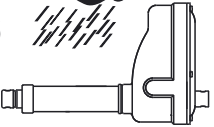
Min. - 30 °C



Max. + 65 °C



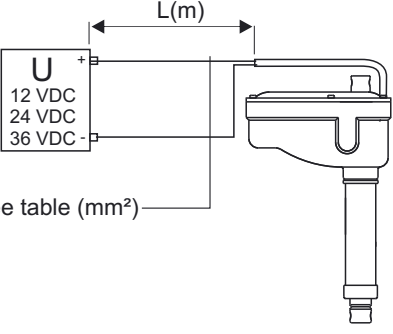
IP56



Wire cross section

Motor voltage (VDC)	Amp. draw. (A)	Cross section (mm ²)		
		3 m	6 m	10 m
12	0 - 13	1,5	2,5	4
24	0 - 7	1,5	1,5	1,5
36	0 - 5	1	1,5	1,5

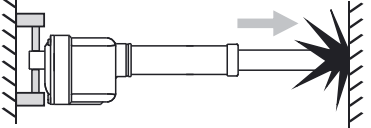
Table is based on ambient temperature = 30°C or less.



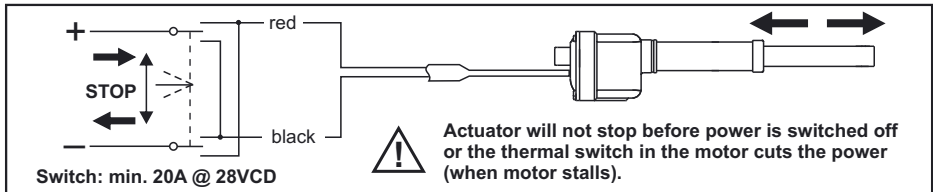
See table (mm²)

Stall current

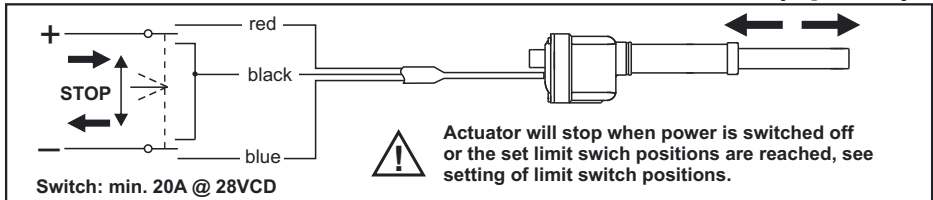
Motor voltage (VDC)	Max. stall current (A)
12	50
24	25
36	17



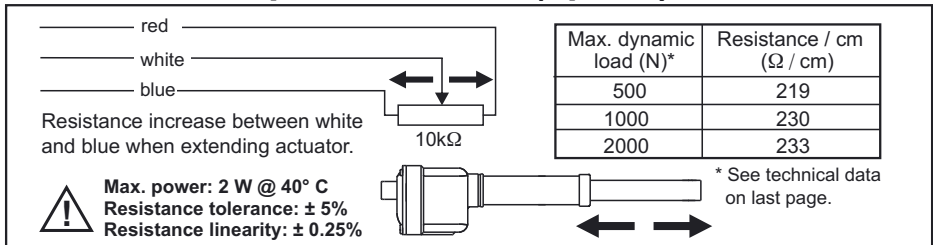
Connection of actuator without limit switches



Connection of actuator with limit switches (option)



Connection of potentiometer (option)



Setting of limit switch positions (option)

Setting of limit switch positions:

1. Turn off power to actuator.
2. Remove rubber plug covering the adjustment screws.
3. **To shorten the extend length:**
turn extend screw ClockWise (CW) (each turn = about 23 mm).
4. **To lengthen the retract length:**
turn retract screw CounterClockWise (CCW) (each turn = about 23 mm).

Reset of limit switch positions to factory setting (if actuator stalls):

1. Turn off power to actuator.
2. **To set extend limit switch position:**
 - Turn extend screw CW until increased torque is felt.
 - Turn extend screw CCW for 15 turns.
 - Turn on power to actuator and extend until actuator stalls. Turn off.
 - Turn extend screw CW until increased torque is felt.
 - Turn extend screw CCW 0.75 turn.
3. **To set retract limit switch position:**
 - Turn retract screw CCW until increased torque is felt.
 - Turn retract screw CW for 15 turns.
 - Turn on power to actuator and retract until actuator stalls. Turn off.
 - Turn retract screw CCW until increased torque is felt.
 - Turn retract screw CW 3.25 turns.
4. Run actuator in both directions to ensure proper operation.

CAUTION!

Always turn the power off before working on the actuator or the wiring.

Technical data

	DF12	DF24	DF36
Motor	DC-motor with auto reset thermal switch	DC-motor with auto reset thermal switch	DC-motor with auto reset thermal switch
Supply voltage	12 Vdc (10 – 16 Vdc)	24 Vdc (20 – 28 Vdc)	36 Vdc (32 – 40 Vdc)
Max. current	13 A	6.5 A	4.3 A
Max. stall current	50 A	25 A	17 A
Max. dynamic load for screw lead 1* for screw lead 2* for screw lead 4*	2000 N 1000 N 500 N	2000 N 1000 N 500 N	2000 N 1000 N 500 N
Max. static load	2 × max. dyn. load	2 × max. dyn. load	2 × max. dyn. load
Speed @ min. load for screw lead 1* for screw lead 2* for screw lead 4*	19 mm/s 35 mm/s 71 mm/s	19 mm/s 35 mm/s 71 mm/s	19 mm/s 35 mm/s 71 mm/s
Speed @ max. load for screw lead 1* for screw lead 2* for screw lead 4*	13 mm/s 25 mm/s 51 mm/s	13 mm/s 25 mm/s 51 mm/s	13 mm/s 25 mm/s 51 mm/s
End play max. for screw lead 1* for screw lead 2* for screw lead 4*	0.5 mm 0.5 mm 1.2 mm	0.5 mm 0.5 mm 1.2 mm	0.5 mm 0.5 mm 1.2 mm
Duty cycle	25 % @ 20° C	25 % @ 20° C	25 % @ 20° C
Restraining torque	0 Nm	0 Nm	0 Nm
Ambient temperature	– 30 to + 65° C	– 30 to + 65° C	– 30 to + 65° C
Lubrication	for life	for life	for life
Brake	yes, centrifugal or self-locking (500 N)	yes, centrifugal or self-locking (500 N)	yes, centrifugal or self-locking (500 N)
Protection class	IP 56	IP 56	IP 56
Options**	• Potentiometer feedback 10kΩ, 10 turns (option PO and MP) • Adjustable end limit switches (option LS and ML) • Potentiometer feedback and adjustable end limit switches (option PL) • Clevis at 90° (option M3, ML and MP).		

* See the tenth position on the type designation label on the actuator e.g. DF24–10W5**2**M30LS.

** See the two last positions on the type designation label on the actuator e.g. DF24–10W52M30**LS**.

Always install fuse and / or thermal breaker between motor and power supply to protect actuator, wiring and other items.

TOLLO LINEAR AB

PRINTED IN SWEDEN ©

1999 dw110368gb-0611

Box 9053, SE-291 09 Kristianstad, Sweden

Tel. +46 (0)44-246700 Fax. +46 (0)44-244085

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