

Quick Installation Guide

NTS1

You can find the complete manual on our website (www.drfa.de).



DRFA
Die Referenz für Antriebstechnik



The actuator may only be commissioned by qualified personnel!

The NTS1 electric spindle actuator (linear actuator) is used to perform a linear motion. It consists of a powerful geared motor and a spindle. The load to be moved is attached to the eye bolt of the push tube. The actuator must not be operated in hazardous (Ex/ATEX) areas and is intended exclusively for indoor use.

Installation: The NTS1 is mounted on the dovetail rail using the sliding nuts and U-bracket. A fixed dovetail bracket is also optionally available (item no. 2700105).

Note: The actuator has internal limit switches and integrated overload cut-off.

Maintenance: The NTS1 electric spindle actuator is maintenance-free over its service life.

Manufacturing standards: CE, RoHS, EMC

Electrical connection: Wiring and work on 230 V AC versions may only be performed by a qualified electrician. With



very long connecting supply cables, backfeed voltages can occur. In this case, the connection cables must each be routed via an external relay circuit (item no. S1B-0111-00).

IP55: Seal the M6 thread of the eye bolt with adhesive to ensure IP55.

Stroke adjustment: The extended stroke length can be adjusted steplessly; see full instructions.

Technical Data: (see also nameplate)

Voltage / current:	12 V DC $\pm 10\%$ / 0.9 A / 2 A
Voltage / current:	24 V DC $\pm 10\%$ / 0.9 A / 2 A
Voltage / current:	230 V AC $\pm 10\%$ / < 50 VA
Rated push/pull force:	200 to 1,500 N (see nameplate)
Static load:	2,000 N
Speed:	3 / 13 / 37 mm/s. (see nameplate)
Degree of protection:	IP55
Duty cycle:	50%
Ambient temperature range:	-20 °C to +60 °C
Stroke length:	100/150/200/300/400/500/600 mm



Observe minimum conductor cross-section for cable feed. If the connection cable is defective, return the actuator.

230 V AC NTS1 cable:

- Yellow/green: "PROTECTIVE EARTH (PE)"
- Gray: "COMMON LEAD (COM)"
- Brown: "EXTEND"
- Black: "RETRACT"
- Pink and orange: "COMMUNICATION WIRES"

24 V DC NTS1 cable:

- Blue (-) Brown (+): "EXTEND"
- Blue (+) Brown (-): "RETRACT"
- Pink and orange: "COMMUNICATION WIRES"

Options: (see nameplate)

Signal Contact	For the version with signal contact, 4 additional leads are available. Each 2-lead pair provides a dry switching contact (voltage-free) at the push tube end positions. (max. 250 V / 1 A)
230 V AC Version	→ Blue and violet wires: "signal contact closes when push tube is extended" → Red and white wires: "signal contact closes when push tube is retracted"
24 V DC Version	→ Gray and violet wires: "signal contact closes when push tube is extended" → Red and white wires: "signal contact closes when push tube is retracted"
Important	The signal contacts do not close if shutdown occurs due to overload.

Tandem/Sync Operation	The communication wires of the two actuators are connected color-to-color: pink to pink and orange to orange.
Synchronous Operation	Always electrically connect one master actuator to one slave actuator via the communication wires. Identification is provided on the nameplate.
Important tandem synchronous operation	Do not apply voltage to the communication wires; otherwise, the electronics will be destroyed! The switchover delay in the end position from "RETRACT" to "EXTEND" is 3 seconds! The actuators must reach the retracted end position. This compensates for any possible stroke offset between the actuators.

Disposal:



This product must not be disposed of with household waste. The crossed-out wheeled bin symbol indicates this. At the end of its service life, take the product to a suitable collection point for waste electrical and electronic equipment. Information about return options is available from your municipality or the respective distributor. The product does not contain batteries, rechargeable batteries, or lamps and does not store any personal data. WEEE Reg. No. DE 97020030.