T10NM/T20NM Modulating Control Actuator (10Nm/20Nm)

Description

ASLI is proud to offer the T10Nm/T20Nm series of damper actuators designed specifically applications into the HVAC market.

ASLI high quality damper actuators have been designed for use with medium or large size air damper, butterfly valve, characterized ball valve and globe valve with the use of special adapter.

T10NM

T20NM

Product Features

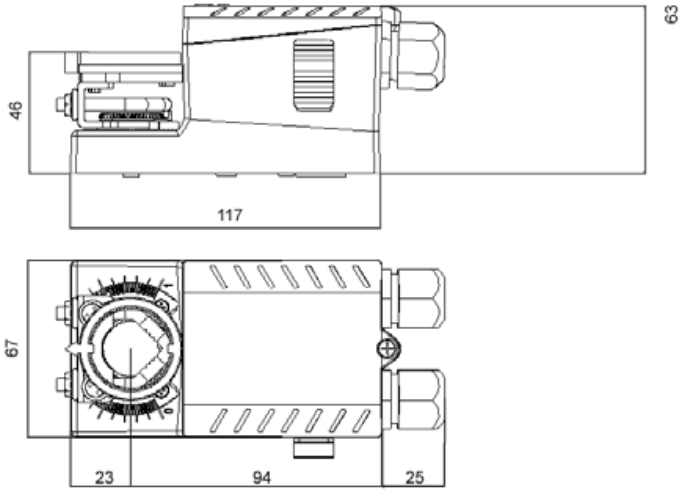
- 0(2)...10 VDC and 0(4)...20 mA control.
- Shaft dimension ø 10...20 mm /10...20 mm square.
- Universal spindle clamp for easy direct mounting.
- Anti-rotation bracket provided for stability.
- Manual over ride by push button when required.
- Adjustable angle of rotation.
- Selectable direction of rotation.
- 0(2)...10 VDC input signal 0(4)...20 mA.
- Applicable to 0...10 VDC output signal.
- Parallel connection.
- 1 adjustable SPDT auxiliary switches when requested.
- Power saving at end stops.
- Actuators available with 1 meter cable on request.
- Customised version available, on request.
- High efficiency brushless dc motor.
- Consistent and precise torque.
- Reliable up to 100,000 rotation.
- Small size and powerful
- Extended torque limit.

T10NM/T20NM Model Selection Table

Torque	Running Time	Power Supply	Auxiliary Switches	Model/Type
10 Nm Maximum torque: 15Nm 150s	35...45 sec	24 VAC/VDC	No	ASLI-T10NmX24.L1
		230 VAC	No	ASLI-T10NmX230.L1
20 Nm Maximum torque: 30Nm 150s	80...110 sec	24 VAC/VDC	No	ASLI-T20NmX24.L1
		230 VAC	No	ASLI-T20NmX230.L1

T10NM/T20NM Modulating Control Actuator (10Nm/20Nm)

■ T10NM/T20NM Actuator Dimensions Unit:mm



■ T10NM/T20NM Technical Specification

	T10Nm-X24 / T10Nm-X230	T20Nm-X24 / T20Nm-X230
Torque	10 Nm	20 Nm
Power supply	24 VAC/ VDC / 230VAC ±15%	24 VAC/ VDC / 230VAC ±15%
Frequency	50...60 Hz	50...60 Hz
Maximum torque	15Nm	30Nm
Power consumption		
- Operating	2 W	2 W
- At the end stops	0.4 W	0.4 W
For wire sizing	6.5 VA	7.5 VA
Auxiliary switch rating (Amp and Voltage)	3 A / 230 V (for 24 V and 230 V)	3 A / 230 V (for 24 V and 230 V)
Protection class	II (for 24 V and 230 V)	II (for 24 V and 230 V)
Control signal	0(2)...10 VDC, 0(4)~20mA	0(2)...10 VDC, 0(4)~20mA
Angle of rotation	90˚ (95˚ mechanical)	90˚ (95˚ mechanical)
Weight	800g	800g
Life cycle	100,000 rotation	100,000 rotation
Sound level	Below 45 dB	Below 45 dB
IP protection	IP54(with cable), IP42(without cable)	IP54(with cable), IP42(without cable)
Ambient temperature	-30˚C~±50˚C	-30˚C~±50˚C
Ambient humidity	≤95% rH	≤95% rH
Inventory temperature	-40˚C~+80˚C+70˚ as per IEC 721-3-2	-40˚C~+80˚C+70˚ as per IEC 721-3-2
Maintenance	maintenance free	maintenance free
Certification	CE and ISO 9000 EN...Requirements	CE and ISO 9000 EN...Requirements
Covering material	ABS Project Plastic	ABS Project Plastic
Board material	Galvanised Plate	Galvanised Plate

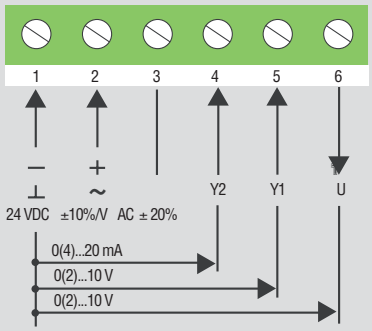
■ T10NM/T20NM Recommeded Actuator Selection

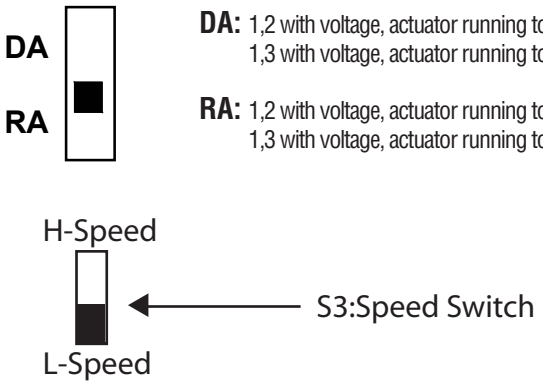
Damper Neck Area (m^2)	Recommended Actuator Torque (Nm)
0.75	4
1.5	8
3	16
4.5	24

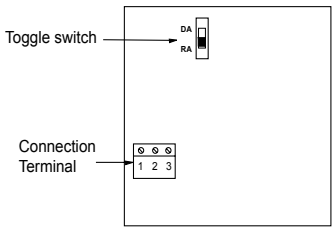
T10NM/T20NM Modulating Control Actuator (10Nm/20Nm)

■ T10NM/T20NM Wiring Diagram

Wiring diagram NACM1.1...(S) power supply 24 VAC/VDC







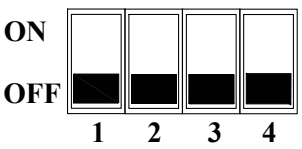
3-position circuit board diagram:
T10NM-D... / T20NM-D...

■ T10NM/T20NM Proportional actuator

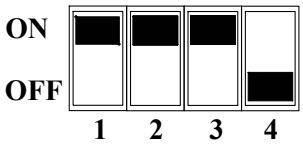
Switch S1: setting

S1 switch	Function		Description
1	Starting point of Control / feedback signal	ON	0: starting point of control signal/feedback is 0 (namely 0~20mA or 0~10VDC)
		OFF	20%:starting point of control signal/feedback is 20% (namely 4~20mA or 2~10VDC)
2	Control signal setting	ON	II: input current control signal
		OFF	UI: input voltage control signal
3	Feedback signal setting	ON	IO: output current feedback signal
		OFF	UO: output voltage feedback signal
4	Operating mode	ON	DA: control signal increasing, actuator running torwards to scale "0"; contol signal decreasing, actuator running to "1".
		OFF	RA: control signal increasing, actuator running torwards to scale "1" ; contol signal decreasing, actuator running to "0".

Setting Example of Switch S1



RA mode:
Control signal: 0~10VDC;
Feedback signal: 0~10VDC



RA mode:
Control signal: 4~20mA;
Feedback signal: 4~20mA