

Work with

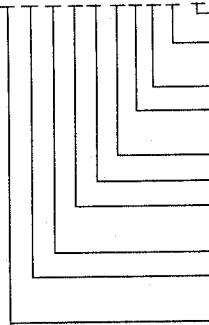
- * ATI
- * Barber coleman
- * Honeywell
- * Johnson
- * Landis & Gyr
- * Satchwell
- * Sauter
- * Staefa
- * T/A
- * TEG
- * Others

Electric Rotary Actuators

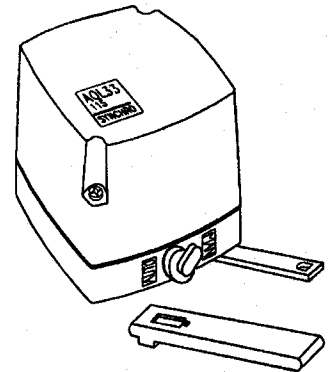
Synchronous motor drives, 3-position, 24Vac
without Magnetic coupling safety system

AQL83.1.

AQL83.1212 0



Aux. output 1=spst 2=140Ω 3=1000Ω 9=Converter
Output Torque(Nm); 1=15 2=20 3=25 4=30 5=40 6=50 7=60
8=80 9=Options
Running time; 1=125s 2=60s 3=30s 4=15s 5=10s 6=5s 9=Options
Supply voltage
1=1 10Vac, 2=24Vac, 3=220Vac, 4=380Vac, 7=12Vdc, 8=24Vdc
1=Rotary 2=Linear 9=Options
Version No.
Input signal: 2=On/Off, 3=3-pos. 220Vac, 5=4..20mA 6=0..10Vdc
7=0..20Vdc, 8=3-pos. 24Vac, 9=0..135Ω
L=Multi-purpose
Type of drive motor
I= Induction, Q= Synchronous, S= Servo, U= DC, Z= Stepper
Product group: A= Actuator



Description

Electrical actuator, 3-position control, rotating angle is adjustable from 70 ~180° by repositioning the two cams to hit snap action switches.

Application

In heating, ventilating, air conditioning and other industrial installations for control of air dampers, Slipperválves, Butterfly valves, ball valves and other ventilating openings to be controlled by electrical remote control.

Ordering Specification

When ordering, please give full designation and type reference of unit;

Ex: AQL83.12120 Electrical Rotary Actuator
3-position control
Rotary type, 125s, 24Vac, 20Nm
for aux unit

Technical Data

Supply voltage	24V ac -15%, +20%
Frequency	50Hz, 60Hz
Power source	Synchronous motor
Power consumption	3VA...
Running time/90°	See summary of types
Model of control	3-position (std)
Travel /angular rotation	90 (std)
Noise level	35[dB] max.
Nominal Torque	See summary of types
Control signal	24Vac
line voltage(Y1)	-forward
line voltage(Y2)	-reverse
Neutral (N)	-System neutral
Control output(U)	0...1000Ω (0...100%) (Option)
Weight	1.Kg~
Permissible amb.temp. Operation	-15...+50°C
Transport & storage	-30...+65°C
Permissible amb.humid.	class D to DIN 40040
Protection standard of housing	IP54 to DIN 40050
Cable entry glands	PG11

Accessories;

position indication unit	-0...140
-potentiometer	-0...1000
position alarm switch	10(3)A 24...250Vac
-snap action switch	

Estimated life time

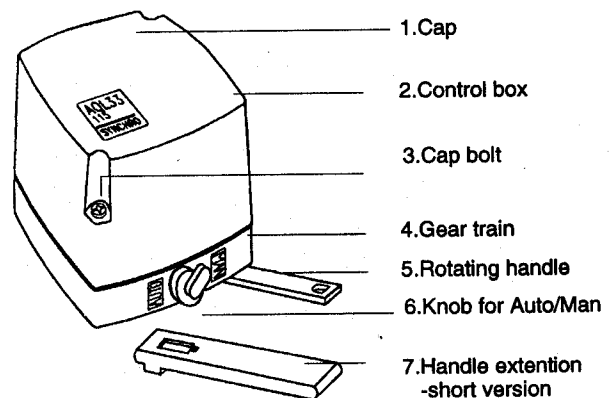
-Drive motor	40,000,000 cycles
-Gear train	80,000,000 cycles

Function

The actuator is controlled by a standard signal of switching on/off of system potential received from conventional electronic controller or DDC unit. This is On/Off control but with floating controller P, PI or PID control functions are also available.

Design Features

- Actuator are supplied as separate units. Assembling them requires neither special tools nor adjustments.
- Maintenance free electrical actuator with reversible synchronous motor
 - Blocking proof gear train with self-lubrication sintered bearings
 - Quick mounting bracket make easy installation.
 - Constant speed and constant power-torque.
 - Gear train is made of aluminum die-cast and specially coated for corrosion proof.
 - Important gears are made of sintered metal or special tool steel and heat treatment.



Summary of types

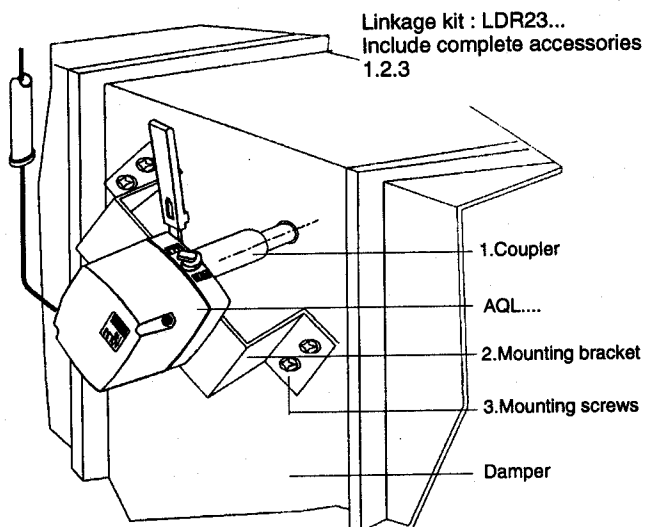
Type Nr.	Output Torque	Running time		Space for Aux.units			
		50Hz	60Hz	0	1	2	3
AQL83.12120	20Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12130	25Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12140	30Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12150	40Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12160	50Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12170	60Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12180	80Nm	125s	105s	0	SW	140Ω	1000Ω
AQL83.12190	Option						
AQL83.12220	20Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12230	25Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12240	30Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12250	40Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12260	50Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12270	60Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12280	80Nm	60s	50s	0	SW	140Ω	1000Ω
AQL83.12290	Option						
AQL83.12320	20Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12330	25Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12340	30Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12350	40Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12360	50Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12370	60Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12380	80Nm	30s	25s	0	SW	140Ω	1000Ω
AQL83.12390	Option						
AQL83.12420	20Nm	15s	12.5s	0	SW	140Ω	1000Ω
AQL83.12430	25Nm	15s	12.5s	0	SW	140Ω	1000Ω
AQL83.12440	30Nm	15s	12.5s	0	SW	140Ω	1000Ω
AQL83.12450	40Nm	15s	12.5s	0	SW	140Ω	1000Ω

Application Examples

The AQL... type can be used in various applications where the rotary or linear position controls are required for medium range of torque.

Many linking devices for various applications are also available upon request. Options are also available after discussion with our technical department.

a. Air damper control



b. Butterfly valve control

