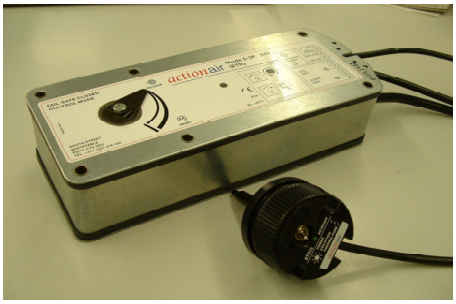
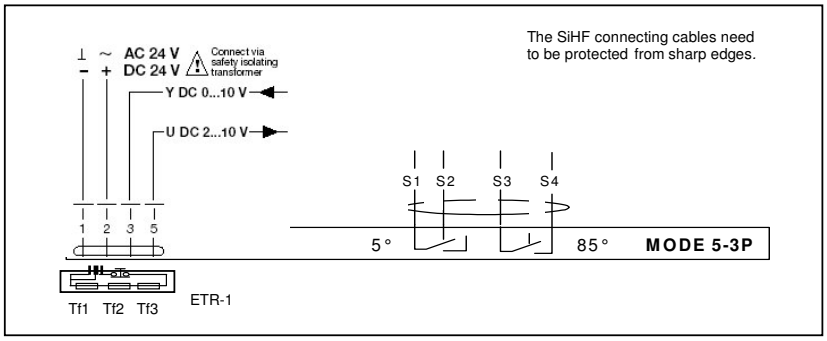
Mode 5-3P Control Mode Data Sheet



Wiring Diagram



Technical Data	Mode 5-3P ETR
Nominal Voltage	AC 24V 50/60 Hz DC 24V
Nominal voltage range	AC 19,2...28.8V DC 21,6...28.8V
For wire sizing	10 VA (Imax 8,3A @ 5ms)
Power consumption	ca. 6 W (motoring) ca. 2 W (holding)
Connecting cable (SiHF quality)	
- Motor and control	1m 4 x 0.75 mm^2
- Aux. switch	1m 4 x 0.75 mm^2
Control signal Y	DC0…10V @ input resistance 100 k (0.1 mA)
Operating range	DC2…10V (at control signal Y)
Measuring voltage U	DC2…10V max. 0.5 mA (for 0…100% angle of rotation)
Synchronisation	tolerance ± 5%
Auxiliary switches	2 x SPDT 6(3)A, AC 250V
- Switching points	5° / 85°
Torque	
- Motor	Min. 15 Nm
- Spring	Min. 15 Nm
Angle of rotation	95°
Damper rotation	Form-fit double 14 mm hexagonal
Direction of rotation	Selected by mounting L/R
Running time	
- Motor	150s
- Spring	~18s (@ t_{amb} = 20°C)
Sound power level	
- Motor	max. 45 dB(A)
- Spring	~ 62 dB(A)
Position indication	mechanical with pointer
Protection class	III
Degree of protection	IP 54
Ambient temperature range	
- Normal duty	-30...+ 50° C
- Safety duty	-30...+ 75° C (24h)
Non-operating temperature	-40...+ 80 °C
Humidity test	to EN 60730-1
EMC	CE according 89/336/EEC
Low Voltage Directivity	CE according 73/23/EEC
Service life	min. 60,000 full cycles
Maintenance	Maintenance free
Weight	approx. 2,800g

3 Position Control Mode AC/DC 24V

Application

The spring-return actuator is intended for the operation of Actionair Smoke/Shield PTC™ Vent/Shield PTC™ HOT/Shield PTC™ and A-60 Marine dampers.
It is available in two formats: ETR or NON-ETR. (ETR = Electro Thermal Release)

Mode of operation

The MODE 5-3P is controlled by a standard DC 2...10 V signal.
The actuator motors to the position specified by the control signal. If the power supply is lost or removed the device springs the damper to the fail-safe position.

Manual operation

Without power supply, the damper can be operated manually and locked in any required position. Release of the locking mechanism can be achieved manually or automatically by applying the supply voltage.
If manual operation is used and the power supply is switched on, the actuator will calibrate itself by running first to the release position and then to the set point position dictated by the control signal Y.
During the self-check the running time is increased to 100 sec. and the feedback signal U remains at 2.0 V.
Avoid using the manual operation when power supply is switched on.

Signalling

There are two fixed internal auxiliary switches for indicating the end-positions of the damper.
Intermediate positions of the damper blade are visible by the use of a mechanical pointer and or by the 2-10V DC feedback potentiometer.
It is recommended this M5-3P is used in conjunction with the Actionair M5-3P-CMS control and monitoring station

Dimensions