

CS4105/CS4110/ CS4120/CS8105/ CS8110/CS8120

Spring Return, On-Off type Direct-Coupled Damper Actuators
2위치 제어 댐퍼 조작기(5Nm/10Nm/20Nm)



개요

스프링 리턴 타입 직결형 댐퍼 조작기는 다음과 같은 분야에 플로팅 / 2위치 제어를 제공합니다.

- 에어댐퍼
- VAV Unit
- 에어 핸들러
- 환기 플랩
- 통풍 구멍
- 5Nm / 10Nm / 20Nm까지의 댐퍼 지원
- 신뢰성 높은 제어동작

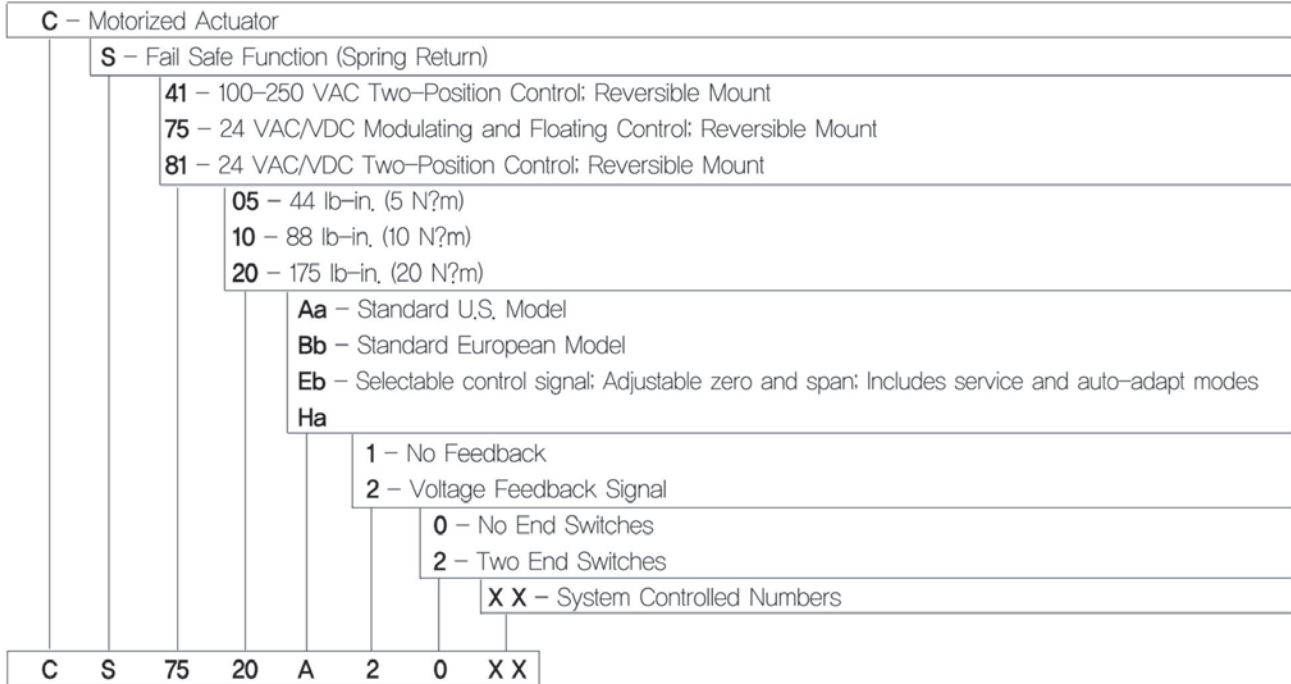
특징

- 2위치 제어 가능한 댐퍼 조작기
- 셀프 센터링 샤프트 어댑터 포함
- Zero 지점 지정 가능
- 강한 내구성 (메탈 재질)
- 수동 조작 가능
- UL 및 CE 인증

모델

Model	Description
CS4105A1002	100-250 VAC Two-Position Control; 5Nm; No End Switches;
CS4110A1002	100-250 VAC Two-Position Control; 10Nm; No End Switches;
CS4110A1200	100-250 VAC Two-Position Control; 10Nm; Two End Switches;
CS4120A1001	100-250 VAC Two-Position Control; 20Nm; No End Switches;
CS4120A1209	100-250 VAC Two-Position Control; 20Nm; Two End Switches;
CS8105A1008	24 VAC/VDC Two-Position Control; 5Nm; No End Switches;
CS8110A1008	24 VAC/VDC Two-Position Control; 10Nm; No End Switches;
CS8110A1206	24 VAC/VDC Two-Position Control; 10Nm; Two End Switches;
CS8120A1007	24 VAC/VDC Two-Position Control; 20Nm; No End Switches;
CS8120A1205	24 VAC/VDC Two-Position Control; 20Nm; Two End Switches;

Product Identification System



^a Model manufactured for sale in the United States.
^b Model manufactured for sale in Europe.

특성 및 규격

Device Weight | 7 lb (3.2 kg).

Temperature Ratings |

- Ambient: -40°F to 140°F (-40°C to 60°C).
- Shipping and Storage: -40°F to 158°F (-40°C to 70°C).

Humidity Ratings | 5% to 95% RH noncondensing.

Electrical Connections |

Field wiring 14 to 22 AWG (2.0 to 0.344 mm sq) to screw terminals, located under the removable access cover.

End Switches (Two SPDT) |

- Settings (fixed): 7° nominal stroke, 85° nominal stroke.
- Ratings (maximum load):
- Low-Voltage Models: 250 VAC, 5A resistive, 3A inductive.
- Line-Voltage Models: 250 VAC, 5A resistive.

Mounting | Self-centering shaft adapter (shaft coupling).

- Round Damper Shafts: 0.375 to 1.06 in. (10 to 27 mm).
- Square Damper Shafts: 1/2 to 3/4 in. (13 to 19 mm).
- Actuator can be mounted with shaft in any position.
- # NOTE: For 175 lb-in. (20 N?m) models: 3/4 in. or greater shaft diameter recommended.

Minimum Damper Shaft Length | 1 in. (25 mm); 3 in.(76 mm) recommended.

Timing (At Rated Torque and Voltage) |

- Drive Open (typical): Two-Position Models: 45 seconds ±5 seconds.
- Spring Close: 20 seconds typical.

Stroke | 95° ±3°, mechanically limited.

Design Life (at Rated Voltage) |

- Two-position models: 50,000 full stroke cycles; 50,000 full stroke spring returns.
- Floating and Modulating models: 60,000 full stroke cycles; 1,500,000 repositions; 60,000 full stroke spring returns.

Controller Type |

- S05, S10, S20: Modulating or Floating; controlled by selector switch.
- Input Impedance: 95K ohms minimum.
- Feedback Signal: 0-10 VDC or 2-10 VDC; Driving current is 3 mA minimum.

Torque Ratings I

Typical Holding, Driving, Spring Return:

- S05: 44 lb-in. (5 N·m).
- S10: 88 lb-in. (10 N·m).
- S20: 175 lb-in. (20 N·m).

Stall Maximum (fully open at 24°C):

- S05: 100 lb-in. (11,3 N·m).
- S10: 200 lb-in. (22,6 N·m).
- S20: 350 lb-in. (39,6 N·m).

Noise Rating at 1m (Maximum) I

- Holding: 20 dBA (no audible noise).
- Two-position models:
 - Driving: 50 dBA
 - Spring Return: 65 dBA
- Floating and Modulating models:
 - Driving: 40 dBA
 - Spring Return: 50 dBA

Environmental Protection Ratings I

NEMA2 (US Models) or IP54 (European Models) when mounted on a horizontal shaft with access cover below the shaft.

Approvals I

- UL/cUL
- UL873 Plenum Rating, File No. E4436; Guide No. XAPX.
- CE
- C-TICK

Electrical Ratings I

Model(s)	Power Input		Power Consumption (VA)					
	Voltage	Frequency	44 lb-in.(5 N · m)		88 lb-in.(10 N · m)		175 lb-in.(20 N · m)	
			Driving	Holding	Driving	Holding	Driving	Holding
Two-Position, Low-voltage	24 VAC±20% (Class 2), 24 VDC	50/60 Hz,	25	8	30	8	40	8
Two-Position, Line-voltage	100-250 VAC	50/60 Hz,	45	13	45	13	60	13

외형 및 치수 (단위 : mm)

