



How to Order the MS Series Actuator

MS	Drive Options	Control Box	Power Module	Voltage	Torque /Thrust	Travel	Fail Safe	Fail Safe Direction	Approvals
	X	- XX	- X	- XX	- XXXX	- XXX	- X	- XX	- XX
	(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)

Drive Options (1)	
X=	Description
L	Linear
S	Scotch Yoke
R	Rack and Pinon

Control Box (2)	
XX=	Description
A1	Standard
A2	Standard with 4 to 20 mA Feedback

Power Module (3)	
X=	Description
D	1 Horsepower
E	1.5 Horsepower
F	3 Horsepower
G	4 Horsepower

Voltage (4)	
XX=	Description
01	208, 220, 240 VAC
02	380, 400, 415 VAC
03	440, 480 VAC

Torque/Thrust (5)	
XXXX=	Description
005K	5,000 in*lbs (MSS OR MSR) 5,000 lbf (MSL)
010K	10,000 in*lbs (MSS OR MSR) 10,000 lbf (MSL)
020K	20,000 in*lbs (MSS OR MSR) 20,000 lbf (MSL)
XXXX	up to 800,000 in*lbs (MSS OR MSR) up to 200,000 lbf (MSL)

Travel (6)	
XXX=	Rotation or Stroke
090	Degrees (for MSS)
090, 120	Degrees (for MSR)
002, 004, 006, 008, 010, 012, 016, 020	Inches (for MSL)

Fail Safe Method (7)	
X=	Description
N	None
S	Spring (MSS or MSL only)
A	Accumulator

Fail Safe Movement (8)	
XX=	Description
FP	Fail in Place
CW	Clockwise (for MSS and MSR)
CC	Counterclockwise (for MSS and MSR)
E	Extend (for MSL)
R	Retract (for MSL)

Approvals Required (9)	
XX=	Description
N	Non-Hazardous Location NEMA 4X, IP66

Spring Fail Safe units require the addition of a helical spring assembly and solenoid valve to the standard MS Actuator. When electrical power is present, the solenoid is energized and the actuator will operate normally. Upon loss of solenoid power, the solenoid valve opens connecting both chambers of the hydraulic cylinder. The spring will now move the actuator stem to the selected failure position. The spring can be specified to drive the cylinder in either direction but, is not field reversible. A spring fail event may be initiated via a trip signal, loss of electrical power, loss of control signal, or a combination of these situations.

Accumulator Fail Safe units require the addition of an accumulator and can drive the actuator several times. Please contact the factory for more information.

