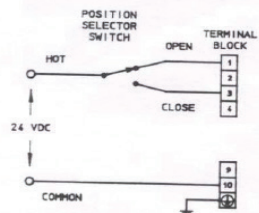


# OPERATING CHARACTERISTICS

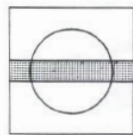
## Valve Stem Position vs. Applied Control Signal

### 2-Way Ball Valves

Control Signal Configuration

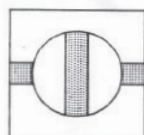
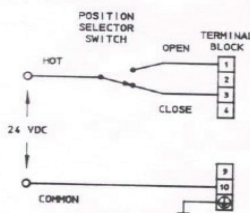
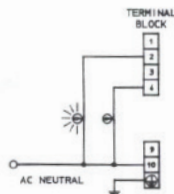


Resulting Valve Stem Position

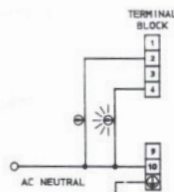


VALVE OPEN

Resulting Lamp Status

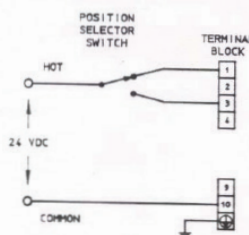


VALVE CLOSED

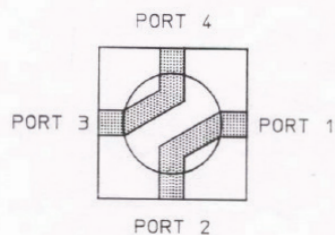


### 4-Way Ball Valves

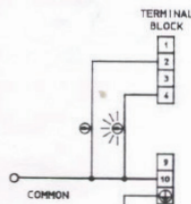
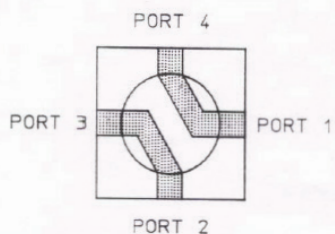
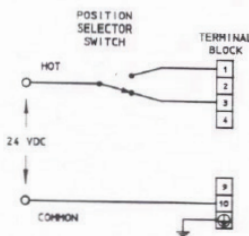
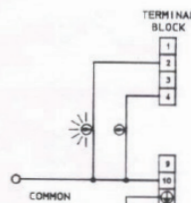
Control Signal Configuration



Resulting Valve Stem Position



Resulting Lamp Status

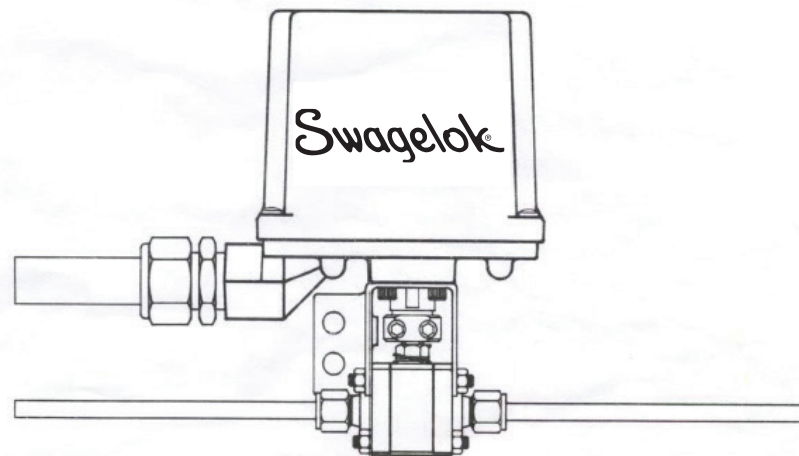


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April 2019, RevD  
MS-INS-141DCEO

Swagelok

141 Series Type DCE Electric Ball  
Valve Actuators

## USER'S MANUAL



THIS MANUAL COVERS THE FOLLOWING MODEL:

**MS-141DCEO**

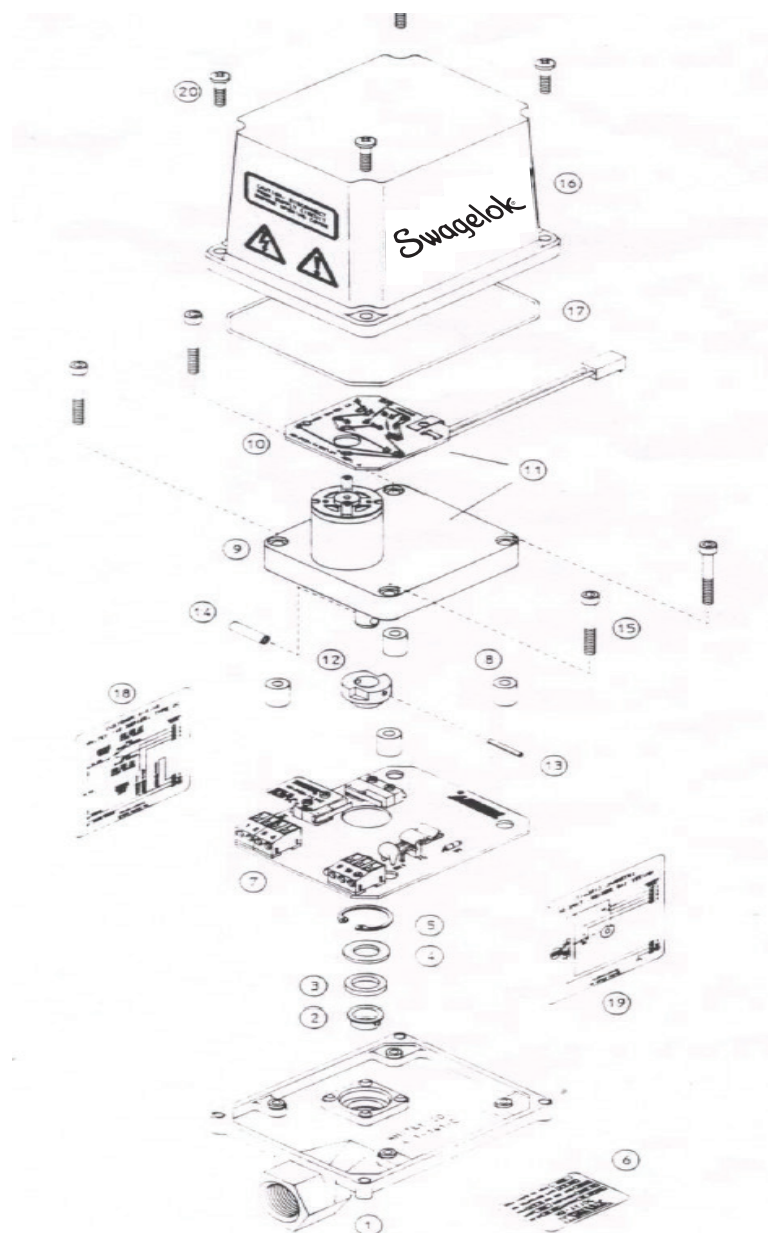
FOR USE ON 2-WAY AND 4-WAY BALL VALVES

NOTE: Please read this user's manual completely and carefully before installing or operating related Swagelok electric ball valve actuators.

Swagelok Company  
Solon, OH 44139

# CONSTRUCTION INFORMATION

## Exploded View of the 141 Series Type DCE Actuator



141DC Series

# CONSTRUCTION INFORMATION

## Parts List and Materials of Construction

Item	Qty	Description	Material
1	1	Base	Die Cast Aluminum
2	1	Bushing	Nylon
3	1	Shaft Seal	Buna-N
4	1	Washer	Stainless Steel
5	1	Retaining Ring	Steel
6	1	Specification Label	Polyester
7	1	Assembled PC Board	
8	4	Motor Standoffs	Nickel Plated Brass
9	1	DC Gearmotor	Stainless Steel Shaft
10	1	Assembled PC Board	
11	1	Gearmotor Assembly	Stainless Steel Shaft
12	1	Dual Cam	Nylon
13	1	Spring Pin	Stainless Steel
14	1	Roll Pin	Stainless Steel
15	4	Mounting Screws	Cadmium Plated Steel
16	1	Cover	Die Cast Aluminum
17	1	Cover Seal	Buna-N
18	1	Wiring Label	Polyester
19	1	Schematic Label	Polyester
20	4	Cover Screws	Stainless Steel
	1	User's Manual	

## User Wiring and Internal Circuit

