

Limit Switches

3SE03 North American Limit Switches

General Information

Features

Modular plug-in



Prewired receptacle with pin connector



Prewired cable



Features

- UL Listed, CSA Certified.
- UL File: E47512
- All Metal Captive Screws.
- Keyed, Four-Directional Head.
- Steel-Reinforced Diaphragm Seal Between Operational Head And Switch Body.
- Permanent Instructions for Adjusting Operational Head.
- Modular, Plug-In Housing
 1. Heavy-Duty, Bifurcated, Plug-In Prongs.
 2. Ample Receptacle Wiring Space with 1/2 - NPT threaded conduit opening.
 3. Stepped Terminals On Single Pole; Deep Center Trough On Double Pole.
- NEMA Type 6P Submersible
 1. Completely Sealed With Epoxy.
 2. SOOW-A Cable or Prewired Receptacle With Pin Connector.
 3. Factory wired cable features a 350 pound pullput capacity.
- Rotary heads are field convertible CW, CCW, or both without special tools.

Design

Modular Plug-In Housing

These heavy duty plug-in limit switches may be provided as complete devices using a composite catalog number; or, separately as components; operating head, plug-in module and base receptacle.

Example:

Complete Switch:

3SE03-AR1

Single Pole, Double Throw contacts with Side Rotary, Momentary Head

Components

3SE03-SA^①

Single Pole, Double Throw Plug-in Module

3SE03-DR1

Side Rotary Head, Momentary

3SE03-RA^①

Standard, Single Pole Receptacle, 1 NO + 1 NC

Since components may be interchanged, operating heads, plug-in modules and receptacles may be combined to satisfy most of your everyday limit switch requirements. This leads to less inventory with greater flexibility.

Operating heads include side rotary; plain and roller plunger; and, wobble. A variety of levers are available.

The zinc die-cast housing has an epoxy finish to protect against corrosion. All screws on the module and head are captive.

NEMA Type 6P Submersible

These heavy duty prewired, factory sealed switches meet the demanding enclosure requirements of UL (NEMA) Type 3, 4, 4X, 6P, 12, and 13. They are intended for wet environments where the integrity of the threaded conduit and switch body seals must be assured.

The switch body cavity including threaded conduit entry is completely sealed with epoxy. An 8 foot, 5 or 9 conductor SOOW-A cable; or 5 or 9 pin prewired receptacle with pin connector is provided as standard.

Switches are provided as complete devices using composite catalog numbers; or, separately as components; operating head and switch body.

UL (NEMA) Type 6P switches are designed to provide a degree of protection against the entry of water during prolonged submersion at limited depths (tested with a 6 foot head of water for 24 hours).

Both the Modular Plug-in and the (NEMA) Type 6P Submersible styles provide 60 Amp make and 6 Amp break—120V AC and 10 Amp continuous current for 120, 240, 480 and 600V AC. The circuit contact configuration depends on the device selected and the application criteria.

Switches are available with momentary or maintained operating heads; and, single pole, double pole or center neutral (modular, plug-in only) contact configurations.

3SE03 limit switches offer a new standard of reliability and quality in automatic control circuits under heavy duty applications.

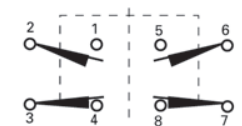
^① Plug-in module and receptacle are keyed.

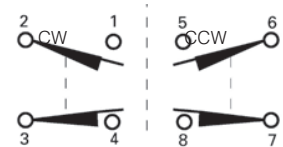
Limit Switches

3SE03 North American Limit Switches

Modular, plug-in metal housing

Complete switches without lever - threaded cable entry:

 Plug-In module type		Standard single pole 1 NO + 1 NC (3SE03-SA)		Standard double pole 2 NO + 2 NC (3SE03-SB)			
 Receptacle type surface mount		Single pole (3SE03-RA) 		Double pole (3SE03-RB) 			
Operating head type		Composite catalog number consisting of head, module and receptacle					
		DT	Catalog Number	List Price \$ 1 unit	DT	Catalog Number	List Price \$ 1 unit
 Side rotary CW and CCW operation convertible to CW only or CCW only	Standard momentary (3SE03-DR1)	▶	3SE03-AR1 ①		▶	3SE03-BR1 ①	
	Standard maintained (3SE03-DM1)	▶	3SE03-AM1		▶	3SE03-BM1	
	Low torqued momentary (3SE03-DL1)	▶	3SE03-AL1 ②			3SE03-BL1 ②	
 Plain side plunger	Momentary (3SE03-DS1)	▶	3SE03-AS1		▶	3SE03-BS1	
 Roller side plunger	Momentary (3SE03-DS3)	▶	3SE03-AS3			3SE03-BS3	
 Two-sided plunger	Maintained (3SE03-DH1)		3SE03-AH1			3SE03-BH1	
 Plain top plunger	Momentary (3SE03-DT1)	▶	3SE03-AT1			3SE03-BT1	
 Roller top plunger	Momentary (3SE03-DT3)		3SE03-AT3		▶	3SE03-BT3	
 Wobble head (without lever)	Momentary (3SE03-DW1)	▶	3SE03-AW1		▶	3SE03-BW1	

			Plug-In module type			Center neutral Double pole 2 NO + 2 NC (3SE03-SN)		
			Receptacle type surface mount			Center neutral (3SE03-RB) 		
Operating head type						Composite catalog number consisting of head, module and receptacle		
						DT	Catalog Number	List Price \$ 1 unit
	Side rotary (momentary)	Center	(3SE03-DN1)	▶	3SE03-NN1①			
	Neutral	(3SE03-DN2)	▶	3SE03-NN2②				

① 5° pretravel to operate contacts.

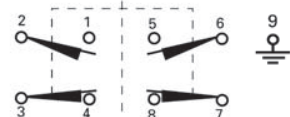
② 15° pretravel to operate contacts.

Limit Switches

3SE03 North American Limit Switches

NEMA type 6P submersible, prewired cable

Complete switches without lever - prewired cable:

 Switch body type—prewired cable with 8 foot cable	Single pole 1 NO + 1 NC (3SE03-SA6P) Cable color code 1 - White 2 - Black 3 - Red 4 - Orange 5 - Green 	Double pole 2 NO + 2 NC (3SE03-SB6P) Cable color code 1 - White 6 - Pink 2 - Black 7 - Yellow 3 - Red 8 - Blue 4 - Orange 9 - Green 5 - Brown 
--	---	--

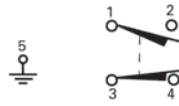
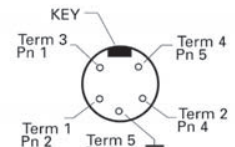
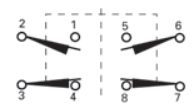
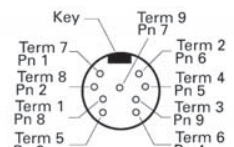
Operating head type		Composite catalog number consisting of head and switch body				
		DT	Catalog Number	List Price \$ 1 unit	Catalog Number	List Price \$ 1 unit
 Side rotary CW and CCW operation convertible to CW only or CCW only	Standard momentary (3SE03-DR1)	▶	3SE03-AR16P		3SE03-BR16P	
	Standard maintained (3SE03-DM1)		3SE03-AM16P		3SE03-BM16P	
	Low torqued momentary (3SE03-DL1)		3SE03-AL16P		3SE03-BL16P	
 Plain side plunger	Momentary (3SE03-DS1)		3SE03-AS16P		3SE03-BS16P	
 Roller side plunger	Momentary (3SE03-DS3)		3SE03-AS36P		3SE03-BS36P	
 Two-sided plunger	Maintained (3SE03-DH1)		3SE03-AH16P		Not available	
 Plain top plunger	Momentary (3SE03-DT1)		3SE03-AT16P		3SE03-BT16P	
 Roller top plunger	Momentary (3SE03-DT3)		3SE03-AT36P		3SE03-BT36P	
 Wobble head (without lever)	Momentary (3SE03-DW1)		3SE03-AW16P		3SE03-BW16P	

Limit Switches

3SE03 North American Limit Switches

**NEMA type 6P submersible,
prewired receptacle**

Complete switches without lever - prewired receptacle with pin connector:

 Switch Body Type—prewired receptacle with pin connector	Single pole 1 NO + 1 NC (3SE03-SA6PC)  	Double pole 2 NO + 2 NC (3SE03-SB6PC)  
--	--	--

Operating head type		Composite catalog number consisting of head and switch body				
		DT	Catalog Number	List Price \$ 1 unit	Catalog Number	List Price \$ 1 unit
	Side rotary CW and CCW operation convertible to CW only or CCW only		Standard momentary (3SE03-DR1)	▶	3SE03-AR16PC	3SE03-BR16PC
			Standard maintained (3SE03-DM1)		3SE03-AM16PC	3SE03-BM16PC
			Low torqued momentary (3SE03-DL1)		3SE03-AL16PC	3SE03-BL16PC
	Plain side plunger		Momentary (3SE03-DS1)		3SE03-AS16PC	3SE03-BS16PC
	Roller side plunger		Momentary (3SE03-DS3)		3SE03-AS36PC	3SE03-BS36PC
	Two-sided plunger		Maintained (3SE03-DH1)		3SE03-AH16PC	Not available
	Plain top plunger		Momentary (3SE03-DT1)		3SE03-AT16PC	3SE03-BT16PC
	Roller top plunger		Momentary (3SE03-DT3)		3SE03-AT36PC	3SE03-BT36PC
	Wobble head (without lever)		Momentary (3SE03-DW1)		3SE03-AW16PC	3SE03-BW16PC

Limit Switches

3SE03 North American Limit Switches

Modular, plug-in and
NEMA type 6P submersible

Components:

 Plug-in module	Plug-in module		DT	Catalog Number	List Price \$ 1 unit
	Standard single pole 1 NO + 1 NC		▶	3SE03-SA	
	Standard double pole 2 NO + 2 NC		▶	3SE03-SB	
	Center neutral 2 NO + 2 NC ^①		▶	3SE03-SN	
 Receptacle	Receptacle for plug-in module			Catalog Number	List Price \$ 1 unit
	Single pole 1 NO + 1 NC (5 terminals)		▶	3SE03-RA	
	Single pole 2 NO + 2 NC (9 terminals)			3SE03-RB	

Switch body—NEMA type 6P submersible:

 Prewired cable	Prewired cable 8 foot length				Prewired receptacle with pin connector		
	Switch body	DT	Catalog Number	List Price \$ 1 unit	DT	Catalog Number	List Price \$ 1 unit
	Single pole 1 NO + 1 NC	▶	3SE03-SA6P			—	—
	Single pole 2 NO + 2 NC	▶	3SE03-SB6P			—	—
 Prewired receptacle	Single pole 1 NO + 1 NC		—	—	▶	3SE03-SA6PC	
	Single pole 2 NO + 2 NC		—	—	▶	3SE03-SB6PC	

Operating heads^②:

 		Nominal operating data								
Operating head type		Total travel	Pretravel	Operating force	Release position	Minimum return force	Operating temp range ^④	DT	Catalog Number	List Price \$ 1 unit
 Side rotary^⑤	Standard momentary ^⑥	90°	5°	3 lb-in.	2°	4.5 oz-in.	1	▶	3SE03-DR1	
	Low torqued momentary ^⑥	90°	15°	1.5 lb-in.	6°	2.5 oz-in.	1	▶	3SE03-DL1	
	Standard maintained	90°	50°	3 lb-in.	50°	—	2	▶	3SE03-DM1	
 Plain side plunger	Momentary	0.25 in.	0.065 in.	4 lbs	0.03 in.	8 oz.	2	▶	3SE03-DS1	
 Roller side plunger	Momentary ^⑦	0.25 in.	0.065 in.	4 lbs	0.03 in.	8 oz.	2	▶	3SE03-DS3	
 Two-sided plunger	Maintained	0.32 in.	0.2 in.	5 lbs	0.13 in.	5 lbs	2	▶	3SE03-DH1	
 Plain top plunger	Momentary	0.28 in.	0.04 in.	4 lbs	0.02 in.	8 oz.	3	▶	3SE03-DT1	
 Roller top plunger	Momentary	0.28 in.	0.04 in.	4 lbs	0.02 in.	8 oz.	3	▶	3SE03-DT3	
 Wobble head^{⑧⑨}	Momentary	15°	10°	2 lb-in.	6°	2.4 oz-in.	3	▶	3SE03-DW1	
 Center neutral^⑨	Momentary	90°	5°	1.8 lb-in.	2°	2.5 oz-in.	2	▶	3SE03-DN1	
		90°	15°	1.8 lb-in.	2°	2.5 oz-in.	2	▶	3SE03-DN2	

^① For use with 3SE03-DN1, -DN2 operating heads and 3SE03-RB receptacle only.

^② For use with modular, Plug-in and NEMA Type 6P.

^③

^④ Refer to "Operating Temperature", Catalog page 13/118 for Temperature Ranges.

^⑤ Without Operating Levers.

^⑥ CW and CCW operation. Convertible to CW or CCW operation only.

^⑦ Convertible—Horizontal to Vertical.

^⑧ Requires Lever.

^⑨ For use with 3SE03-SN plug-in module only.