

# Limit Switches

## Series 4976

Series 4976 Limit Switches are for application on hoists, elevators, steering gear, and other shipboard equipment requiring an electrical limit switch for automatic control operation. Type N47A or B has a steel enclosure; Type N94A a brass enclosure. A wide selection of lever arms, cam arrangements, (overtravel) and contact combinations are offered on both types.

<b>Specification</b>	<b>MIL-C-2212**</b>
<b>Operation</b>	<b>Automatic</b>
<b>Enclosure</b>	<b>Watertight or submersible 15 ft. - without space heater*.</b>
<b>Duty</b>	<b>Continuous</b>
<b>Ambient</b>	<b>50° C</b>
<b>Insulation</b>	<b>Class B</b>
<b>Ratings</b>	<b>5 amps, 500 volts, A.C. 60 Hz</b>
	<b>10 amps, 220 volts, A.C. 60 Hz.</b>
	<b>2 amps., 115 volts, D.C.</b>

\*Space heater can be provided.

\*\*For use where opening of contacts, in excess of 10 milliseconds, under shock, does not affect the operation of associated equipment.

### N47 Limit Switch Assemblies Without Lever Arms

Steel Box	Contacts		Watertight	Submersible (15 Foot)
	A	B	Type Number	
Left Hand	–	N.O.	N47A-60	N47B-60
Left Hand	N.C.	–	N47A-61	N47B-61
Left Hand	N.C.	N.O.	N47A-62	N47B-62
Left Hand	–	N.O.	N47A-63	N47B-63
Left Hand	N.C.	–	N47A-64	N47B-64
Left Hand	N.C.	N.O.	N47A-65	N47B-65
Left Hand	N.O.	N.O.	N47A-66	N47B-66
Right Hand	–	N.O.	N47A-70	N47B-70
Right Hand	N.C.	–	N47A-71	N47B-71
Right Hand	N.C.	N.O.	N47A-72	N47B-72
Right Hand	–	N.O.	N47A-73	N47B-73
Right Hand	N.C.	–	N47A-74	N47B-74
Right Hand	N.C.	N.O.	N47A-75	N47B-75
Right Hand	N.O.	N.O.	N47A-76	N47B-76

**NOTE:** Lever arms available with or without roller.

### Ordering Information

When ordering Series 4976 Limit Switches, specify:

1. Type No. (e.g. Type N47A-60)
2. Type contacts (e.g. N.O. contacts)
3. Operating shaft location (e.g. left or right hand)
4. Cam configuration (e.g. Cam Fig. 1)
5. Type lever arm (e.g. Type A)
6. Type enclosure (e.g. watertight or submersible)
7. Space heater, if required

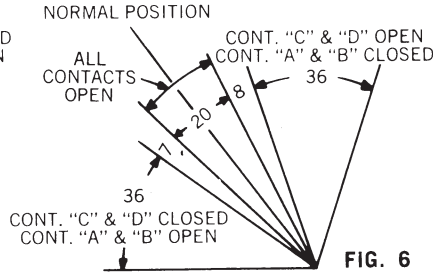
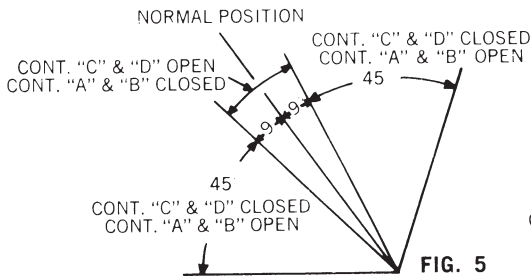
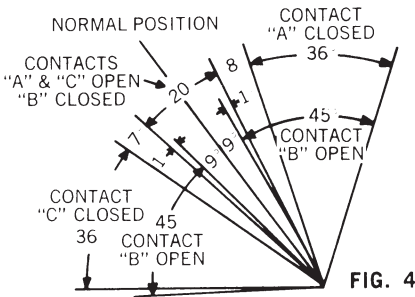
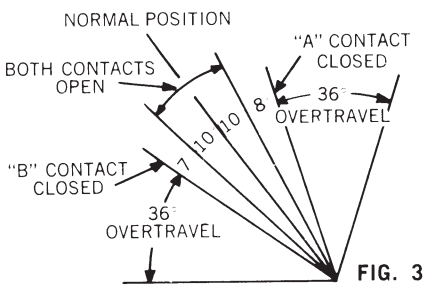
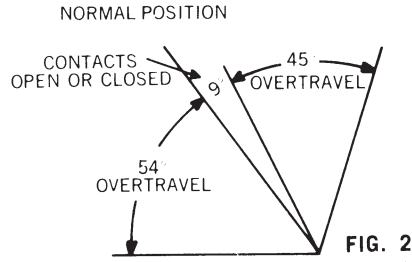
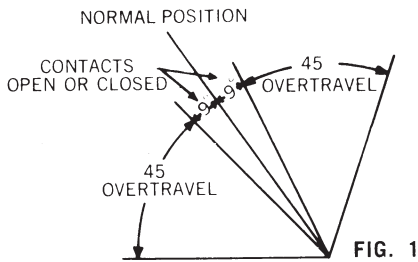
### Repair Parts

Repair parts normally furnished in accordance with applicable part allowance list include:

- 1 set of contacts
- 1 set of springs

# Limit Switches

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### Cam Selection

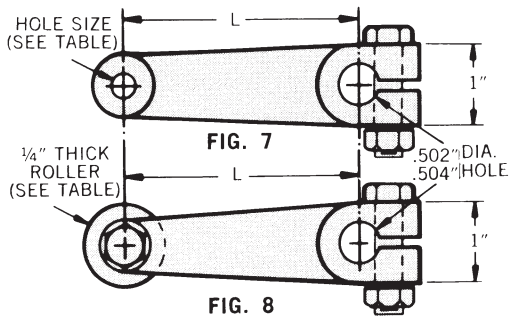


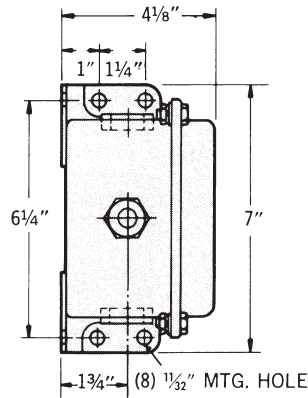
Fig. No.	Lever Arm Type	Length of Arm (L)	Hole Size	Roller Diameter
7	A	1 <sup>5</sup> / <sub>8</sub>	<sup>7</sup> / <sub>16</sub>	—
7	B	2	<sup>21</sup> / <sub>64</sub>	—
7	C	2 <sup>7</sup> / <sub>16</sub>	<sup>21</sup> / <sub>64</sub>	—
7	D	4 <sup>11</sup> / <sub>32</sub>	<sup>21</sup> / <sub>64</sub>	—
8	E	2 <sup>3</sup> / <sub>4</sub>	—	1"
8	F	4	—	1"
8	G	6	—	1"
8	H	5	—	2"

### Lever Arms

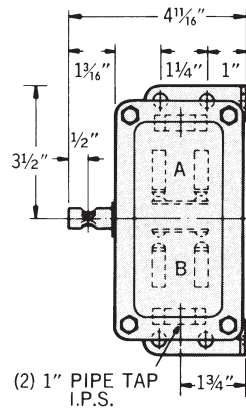
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## Series 4976

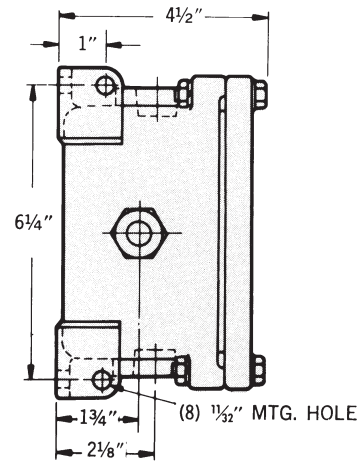
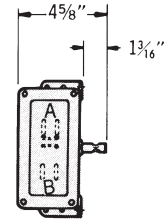
### N94A Limit Switch Assemblies without Levers (Dimensions)



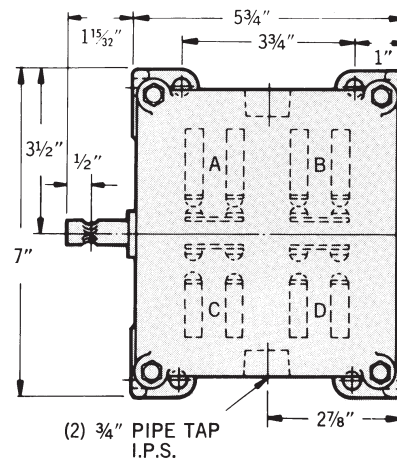
**FIG. 9. Type N47  
Lefthand assembly.**



**FIG. 10. Type N47  
Righthand assembly.**



**FIG. 11.  
Type N94A assembly.**



Brass Box	Contact				Type Number*
	A	C	B	D	
Left or Right Hand	N.C.	—	—	—	N94A-2
Left or Right Hand	—	—	N.C.	—	
Left or Right Hand	N.O.	N.O.	—	—	N94A-3
Left or Right Hand	—	—	N.O.	N.O.	
Left or Right Hand	N.C.	N.O.	—	—	N94A-4
Left or Right Hand	—	—	N.C.	N.O.	
Left or Right Hand	N.C.	N.O.	—	—	N94A-5
Left or Right Hand	—	—	N.C.	—	
Left or Right Hand	N.O.	N.O.	—	—	N94A-6
Left or Right Hand	—	—	N.C.	—	

\* Same type numbers apply to Watertight or Submersible Enclosed.