

Limit Switches

Type IC5896

Specification	MIL-C-2212
Application	For general shipboard use with deck machinery, material-handling equipment, machine tools, and elevators.
Enclosures	Submersible (15 ft., 30 min.) or explosion-proof (Class 1, Group D). Enclosure is of ductile iron. Molded parts are Navy-approved fire-resistant material. Gasket and "O" ring are of oil resistant compound.
Mounting	Brackets provide for either left-hand side or back mounting.
Shaft Extension	Right-hand standard or left-hand if specified.
Lever Operation	Spring return. Lever travels in either direction.
Insulation	Class A or Class B
Weight	Approximately 14 lbs.

Contacts	Features	Type of Lever	Submersible	Explosion-proof
			Limit Switch	Limit Switch
IC5896 - Form				
1 N.O. and 1 N.C.	Standard Form	None	A1A1	A1D1
		Roller	A1A2	A1D2
Straight		A1A3	A1D3	
Overlapping Contacts	None	A1T1	–	
	Roller	A1T2	–	
	Straight	A1T3	–	
2 N.O.	Standard Form	None	A1B1	A1E1
		Roller	A1B2	A1E2
Straight		A1B3	A1E3	
Contacts operate on CW rotation only	None	A1U1	–	
	Roller	A1U2	–	
	Straight	A1U3	–	
2 N.C.	Standard Form	None	A1C1	A1F1
		Roller	A1C2	A1F2
		Straight	A1C3	A1F3

NOTE: Form numbers listed are for right-hand shaft extensions (see "Mounting Dimensions"). For left-hand shaft extensions add suffix "L" to form number (example: IC5895-A1A1L).

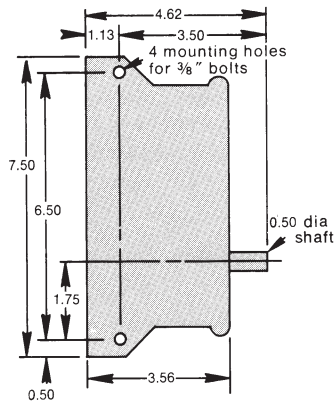
Contact Ratings

Ratings	Amps
Carry Continuous	10
Break, inductive	
115 VAC	30
230 VAC	20
440 VAC	5
125 VDC	0.4
250 VDC	0.2

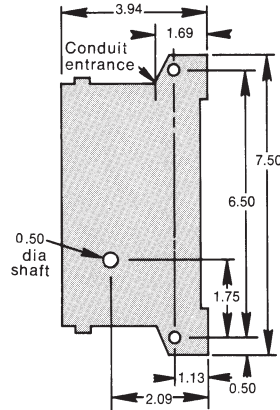
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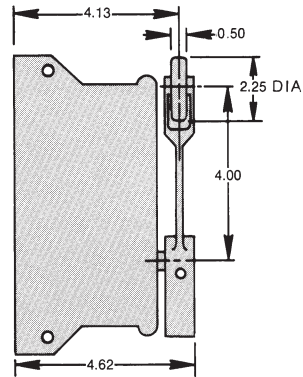
Outline and Mounting Dimensions (In Inches)



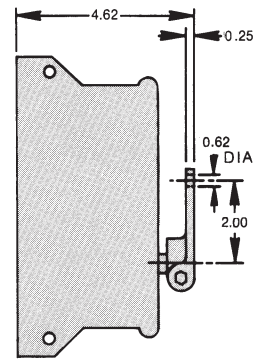
**No lever
Front view**



**No lever
Side view**

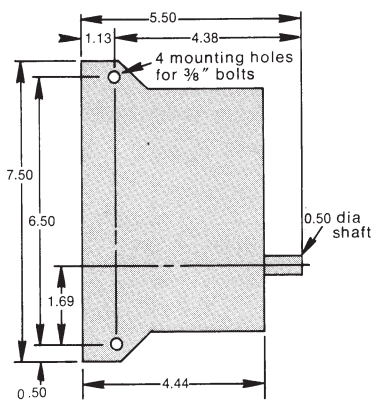


**Lever with roller
Front view**

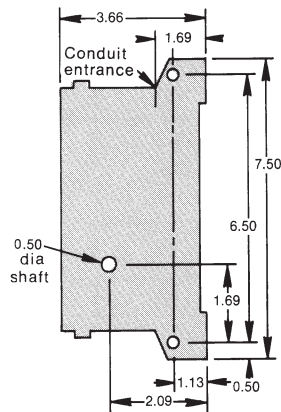


**Straight lever
Front view**

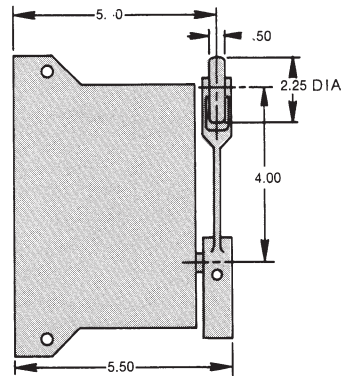
Submersible Switch



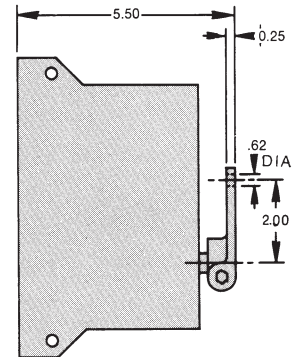
**No lever
Front view**



**No lever
Side view**



**Lever with roller
Front view**



**Straight lever
Front view**

Explosion-proof Switch

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.

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

*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

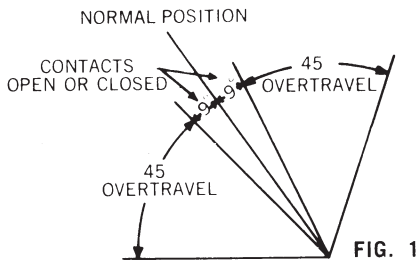
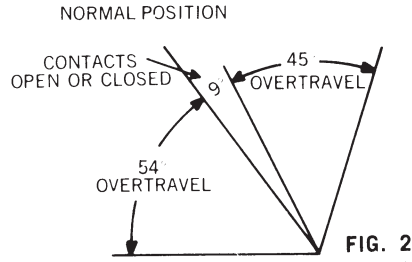
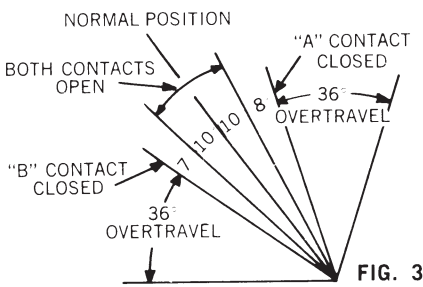
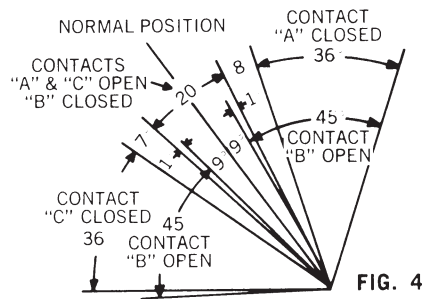
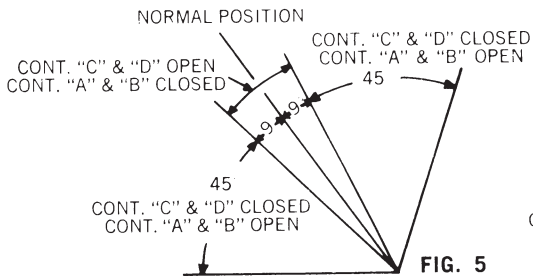
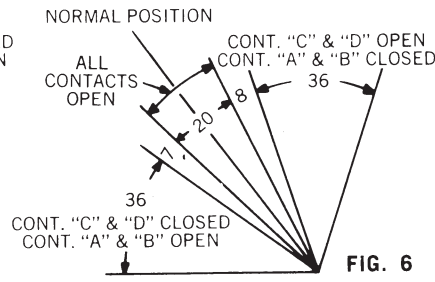
Repair Parts

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

- 1 set of contacts
- 1 set of springs

Limit Switches

Series 4976


FIG. 1

FIG. 2

FIG. 3

FIG. 4

FIG. 5

FIG. 6

Cam Selection

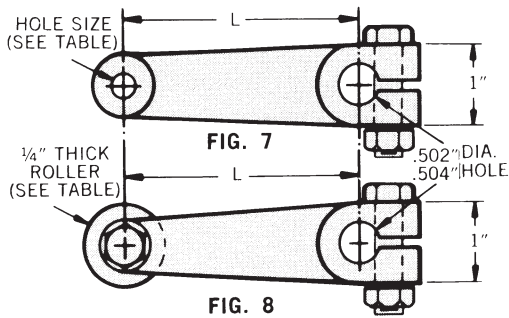


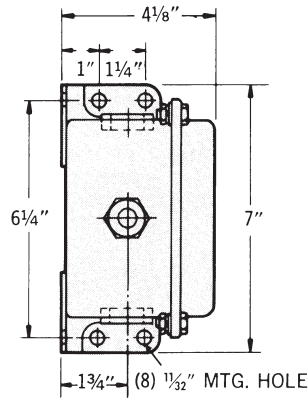
Fig. No.	Lever Arm Type	Length of Arm (L)	Hole Size	Roller Diameter
7	A	1 ⁵ / ₈	⁷ / ₁₆	—
7	B	2	²¹ / ₆₄	—
7	C	2 ⁷ / ₁₆	²¹ / ₆₄	—
7	D	4 ¹¹ / ₃₂	²¹ / ₆₄	—
8	E	2 ³ / ₄	—	1"
8	F	4	—	1"
8	G	6	—	1"
8	H	5	—	2"

Lever Arms

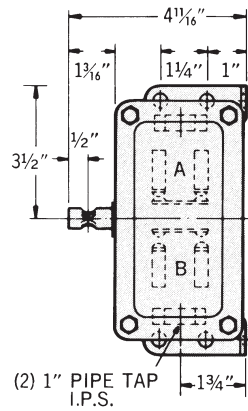
Limit Switches

Series 4976

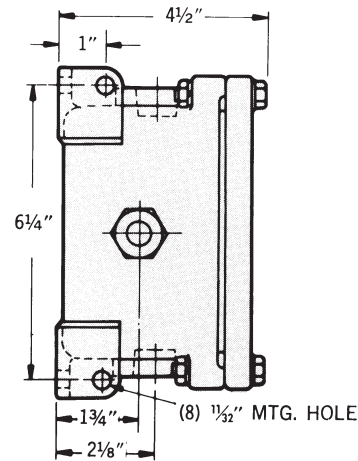
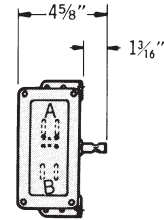
N94A Limit Switch Assemblies without Levers (Dimensions)



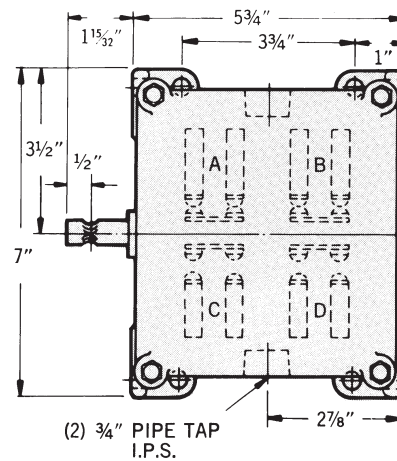
**FIG. 9. Type N47
Lefthand assembly.**



**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.