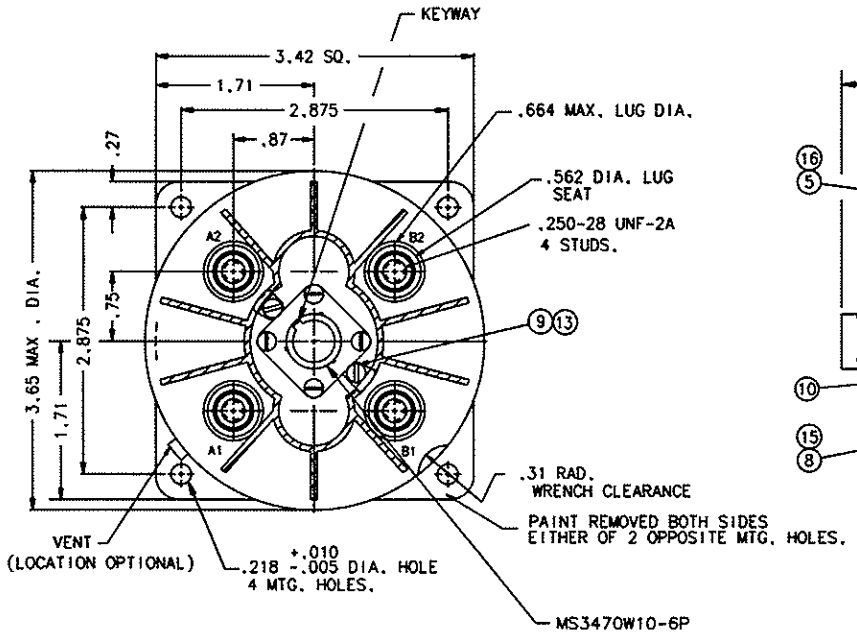
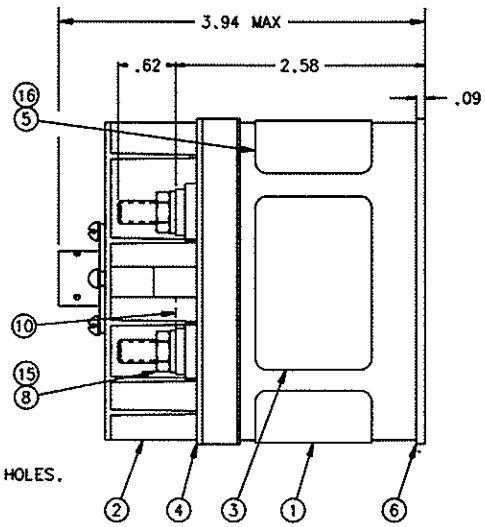
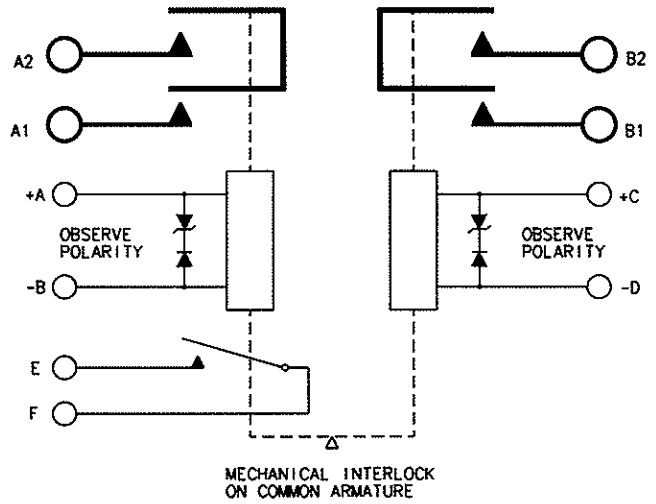
REVISIONS			RELEASED	
REV.		DESCRIPTION	DATE	APPROVED
P	25942	REDRAWN ON CAED'S, ITEM 8 WAS 50407-363, PARA. 7.0 REMOVED FROM SHT 2.	94/05/09	WS
R	36990	SHT 1 LUG DIA WAS .645 MAX, SHT 2 LINE 2.4 .1 AMP ADDED	98/09/03	RS
T	40972	EVACUATION TUBE REMOVED FROM TOP VIEW	99/11/22	RS







FIND NO	QTY REQD	PART OR IDENTIFYING NO	NOMENCLATURE OR DESCRIPTION	FSCM NO	DRAWING OR SPECIFICATION	MATERIAL OR NOTE
16	2	39529-002	OVERLAY			
15	4	51807-034	WASHER - LOCK NO. 1/4 SPLIT		MS35338-101	BRONZE
14						
13	2	51805-011	WASHER - LOCK NO. 5 SPLIT			BRONZE
12						
11						
10	2	51701-180	WASHER - .015 X .103 X 3/16			MYLAR
9	2	51205-351	SCREW - 5-40 X 7/8 RD. HD.			BRASS
8	4	50407-364	NUT 1/4-28 X 7/16 X 3/16 HEX.		MS35650-3255S	BRASS
7						
6	1	41529-020	CONTACTOR ASSEMBLY - PRIMARY			
5	1	42277-001	PLATE - WIRING DIAGRAM			
4	1	42530-001	PLATE - BASE COVER			
3	1	25695-001	PLATE - WARNING			
2	1	17539-005	SHIELD - TERMINAL			
1	1	16043-001	PLATE - NAME			

UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON

2 PL DEC.	3 PL DEC.	ANGLES
± .06	± .010	± 1°

REF. DOUGLAS 5D0040-1

DR BY	RLS	99/12/15
CHK BY	RS	99/12/15
ENGR	MKD	99/11/21
MFG	CC	99/12/22
RELEASE		
CONTR NO.		
GOVT APPVL		

HARTMAN ELECTRICAL MANUFACTURING
MANSFIELD, OHIO

RELAY, EM, 2 SPST CENTER OFF
100 AMP., 28 VDC

093

SIZE	CODE IDENT	DWG NO.
C	74063	D-32A

SCALE NONE

REVISIONS			RELEASED
REV.	DESCRIPTION	DATE	APPROVED
T	SEE SHEET 1 FOR REVISIONS		RS

1.0 COIL DATA
1.1 NOMINAL OPERATING VOLTAGE — 28 VDC
1.2 MAXIMUM OPERATING VOLTAGE — 30 VDC
1.3 PICK-UP VOLTAGE — 18 VDC MAX. (OVER TEMP. RANGE)
21 VDC MAX. DURING HIGH TEMP. TEST.
22.5 VDC MAX. CONT. CURRENT TEST.
1.4 DROPOUT VOLTAGE — 1.5-7.5 VDC (OVER TEMP. RANGE)
1.5 HOLD VOLTAGE — 8.0 VDC (OVER TEMP. RANGE)
1.6 COIL RESISTANCE AT 77°F — 163 OHMS ± 10%
1.7 COIL CURRENT AT 77°F & 30 VDC — .215 AMP MAX.
1.8 DUTY CYCLE — CONTINUOUS
1.9 PEAK INDUCED TRANSIENT VOLTAGE (BACK EMF) — ±45 VOLTS

	MAIN (2-SPST)	AUXILIARY (SPST)
2.0 CONTACT DATA	28 VDC	28 VDC
2.1 RESISTIVE	100 AMP	.1 AMP
2.2 INDUCTIVE	100 AMP	.1 AMP
2.3 MOTOR	80	
2.4 LAMP	50 AMP	.1 AMP

2.5 CONTACT DROP MAX. — 150 MV INITIAL; 175 MV AFTER START OF LIFE TESTS.
2.6 OVERLOAD — 800 AMP DC (N.O. CONTACTS)
2.7 RUPTURE — 1000 AMP DC (N.O. CONTACTS)
2.8 MINIMUM OPERATING CYCLES (LIFE) — 50,000 AT RATED RESISTIVE LOAD; 50,000 AT RATED INDUCTIVE LOAD DC; 50,000 AT RATED MOTOR LOAD; 50,000 AT RATED LAMP LOAD; 100,000 AT 25% RATED RESISTIVE LOAD.

3.0 ENVIRONMENTAL DATA
3.1 TEMPERATURE RANGE — -55°C TO +71°C
3.2 ALTITUDE MAXIMUM — 50,000 FT.
3.3 DIELECTRIC STRENGTH
3.3.1 AT SEA LEVEL (2-5 SEC)

	28 VDC	115 VAC
COIL TO CASE	1250 VRMS	1500 VRMS
ALL OTHER POINTS	1250 VRMS	1500 VRMS
AFTER LIFE TEST ALL POINTS	1000 VRMS	1125 VRMS

3.3.2 AT ALTITUDE 50,000 FEET (60 SEC) ALL POINTS — 500 VRMS — 500 VRMS
3.4 INSULATION RESISTANCE — 100 MEGOHMS MINIMUM AT 500 VDC, INITIAL; 50 MEGOHMS MINIMUM AT 500 VDC, AFTER ENVIRONMENTAL TESTS.
3.5 VIBRATION (SINUSOIDAL) — .06 DA (10-55 HZ); 10 G'S (55-500 HZ); MAX. DURATION CONTACT OPENING, 2 MILLISECONDS
3.6 SHOCK (REF. MIL-STD-202 METHOD 213) — 25 G'S FOR SIX (6) MILLISECONDS, NO CONTACT OPENING IN EXCESS OF TWO (2) MILLISECONDS.
3.7 ACCELERATION — 15 G'S
4.0 OPERATIONAL DATA
4.1 OPERATE TIME AT 77°F — 28 VDC: .050 SECOND MAX.
4.2 RELEASE TIME AT 77°F — 28 VDC: .040 SECOND MAX.
4.3 CONTACT BOUNCE TIME AT 77°F — 28 VDC: .002 SECOND MAX. MAKE

5.0 PHYSICAL DATA
5.1 CONSTRUCTION — GASKET SEALED (VENTED)
5.2 TERMINAL STRENGTH (REF: MIL-STD-202, METHOD 211)

SIZE	PULL	TORQUE
1/4-28	50 LB.	75 LB.-IN.

5.3 FINISH: BLACK LACQUER SHALL NOT DETERIORATE WHEN EXPOSED TO SKYDROL LD-4 MIL-H-83282.
5.4 TERMINALS: — IN CONFORMANCE WITH MIL-R-6106 AND AS SPECIFIED HEREIN.
5.5 WEIGHT: — 1 LB. 15 OZ. MAX.
6.0 NOTES:
6.1 THIS PART MEETS APPLICABLE MIL-R-6106 CONFORMANCE REQUIREMENTS. THIS DEVICE HAS AUXILIARY CONTACTS RATED FOR LOW LEVEL OPERATION (3 MA-100 MA)
6.2 DIODES ARE: — JANTX IN4249 (1000 PIV) ZENER JANTX IN4479 (45 VOLTS)
6.3 HARDWARE: — TERMINALS SHALL BE SUPPLIED WITH SPECIFIED HARDWARE REF. TABLE ON SHEET ONE (1).
6.4 IDENTIFICATION SHALL BE PER MIL-STD-1285 AND SHALL ALSO INCLUDE THE FOLLOWING INFORMATION:
RELAY
(FUNCTIONAL DESCRIPTION)
(CIRCUIT DIAGRAM)
6.5 MARKING SHALL PROVIDE FOR GOOD LEGIBILITY AND WILL NOT ERODE.
6.6 WARNING LEGEND SHALL READ: "DO NOT DIELECTRIC COIL CIRCUIT"
6.7 UNLESS OTHERWISE SPECIFIED PARAMETER AND TEST TERMINOLOGY USED HEREIN IS AS DEFINED IN MIL-R-6106.
6.8 REMOVE PAINT FROM BOTH SIDES AT EITHER OF TWO OPPOSITE MOUNTING HOLES.
6.9 TERMINAL SHIELD 2 IS SECTIONED TO CLARIFY TOP VIEW.

REF. DOUGLAS 5D0040-1

DR BY	RLS	99/12/15
CHK BY	RS	99/12/15
ENGR	MGL	99/12/21
MFG	CC	99/12/22
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CONTR NO.		
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UNLESS OTHERWISE SPECIFIED DIMENSIONS ARE IN INCHES TOLERANCES ON
2 PL DEC. ± | 3 PL DEC. ± | ANGLES ± 1°

HARTMAN ELECTRICAL MANUFACTURING
MANSFIELD, OHIO

RELAY, EM, 2 SPST CENTER OFF
100 AMP., 28 VDC
093

SIZE	CODE IDENT	DWG NO.
C	74063	D-32A

SCALE NONE — SHEET 2 OF 2

Mouser Electronics

Authorized Distributor

Click to View Pricing, Inventory, Delivery & Lifecycle Information:

TE Connectivity:

D32A