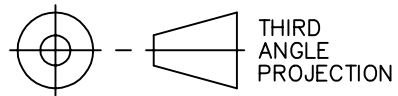


DRAWING NUMBER
DS49073

DATA SHEET

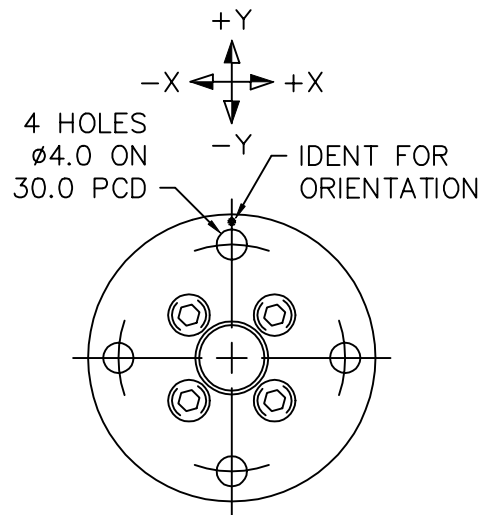


THIRD
ANGLE
PROJECTION

USED ON

D or
CAT.No

M.A./S.A.



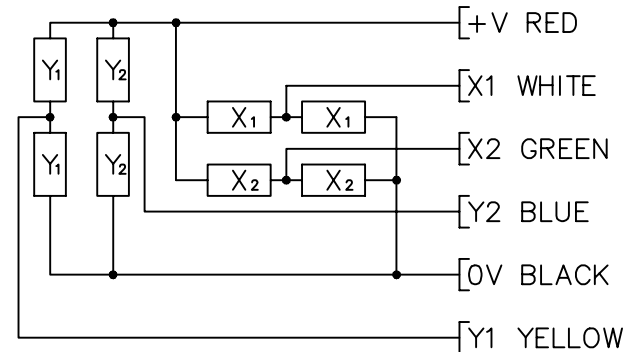
FORCE STICK SPECIFICATION

CASE/HANDLE — ALUMINUM ALLOY,
BLACK ANODISED.
SHAFT ELEMENT — STAINLESS STEEL
(MIN UTS 55).
CABLE — 450mm, 6 CORE,
PVC SHEATHED,
COLOUR BLACK.
EXCITATION VOLTAGE — 2.5V/GAUGE.
5.0V/ FULL BRIDGE.
OPERATING TEMP. RANGE — -25°C TO 55°C.
STORAGE TEMP. RANGE — -35°C TO 75°C.
ACTUATION LOAD (W)
FOR MAX OUTPUT — 1.35Kg ±10%.
MAX OVERLOAD — 7.8Kg.

TYPICAL FORCE STICK OUTPUT

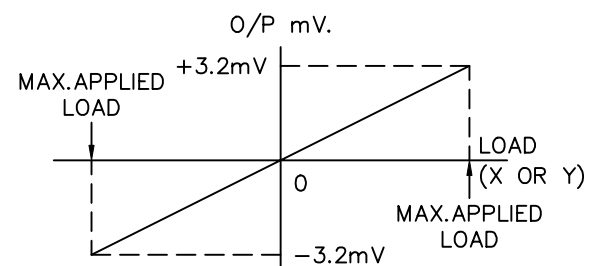
APPLIED VOLTAGE ACROSS BRIDGE = 5V
(2.5V/GAUGE). BRIDGE OUTPUT WILL MOVE
±3.2mV FROM BALANCE POSITION.

STRAIN GAUGE SCHEMATIC:



LEAD ENDS TERMINATED IN 8 WAY CONNECTOR
2.5MM PITCH HOUSING (MOLEX SERIES 90156).

OUTPUT OF FOIL GAUGE



AMPLIFIER TECHNICAL DATA

SUPPLY VOLTAGE — +5V ±5%
MAX OPERATIONAL CURRENT — <50mA
GAUGE TYPE — 350 OHM FOIL
CONFIGURATION — 2 FULL BRIDGES
GAIN — 330 ± 2%
OUTPUT FILTER BAND WIDTH — 5.6HZ (3DB POINT)
CENTRE VOLTAGE — 50% SUPPLY VOLTAGE
CENTRE ACCURACY — ± 0.2% SUPPLY VOLTAGE
DEFLECTION UNLOADED DRIFT — ± 80mV OF CENTRE
DEFLECTION MAX OUTPUT — ± 1.0V (TYPICAL)
DRIVE IMPEDANCE — >20 K OHMS

CONNECTION DETAILS

P1; MOLEX 90136 SERIES.
P2; MOLEX 5483 SERIES.

FORCESTICK I/P (P1):

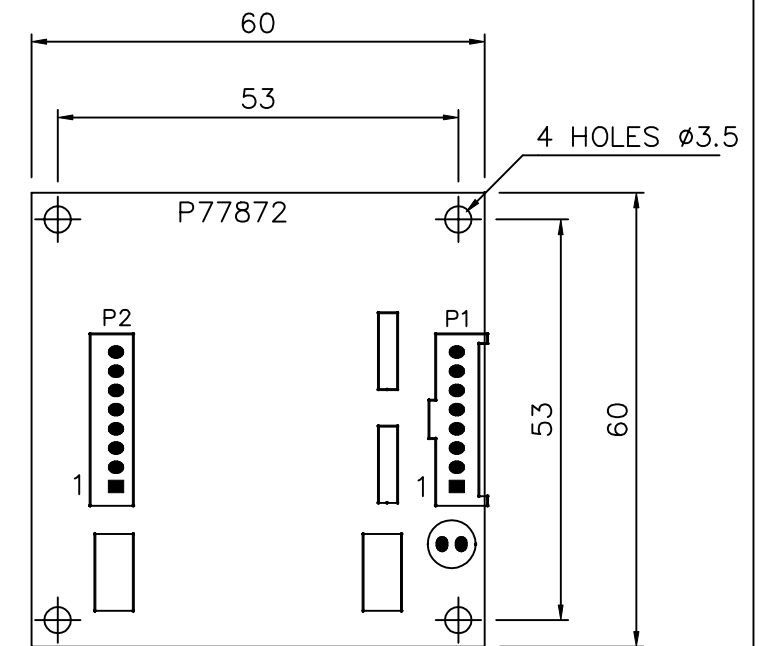
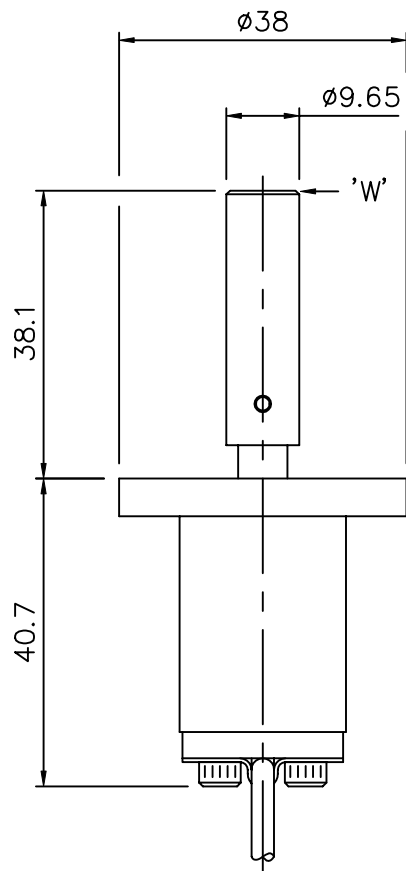
- 1 +5V
- 2 X1
- 3 X2
- 4 EARTH GND
- 5 +5V
- 6 Y2
- 7 Y1
- 8 SIGNAL GND

AMPLIFIED O/P (P2):


- 1 +5V
- 2 X AXIS
- 3 CENTRE
- 4 EARTH GND
- 5 N/C
- 6 RESERVED
- 7 Y AXIS
- 8 SIGNAL GND

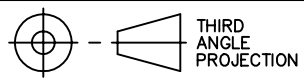
EMC NOTES:

FOR CE APPROVAL, IT IS RECOMMENDED THAT ASSEMBLED UNIT SHOULD BE FITTED
IN AN EMC ENCLOSURE.



NOTE OVERAL HEIGHT OF BOARD ASSEMBLY 15MM.

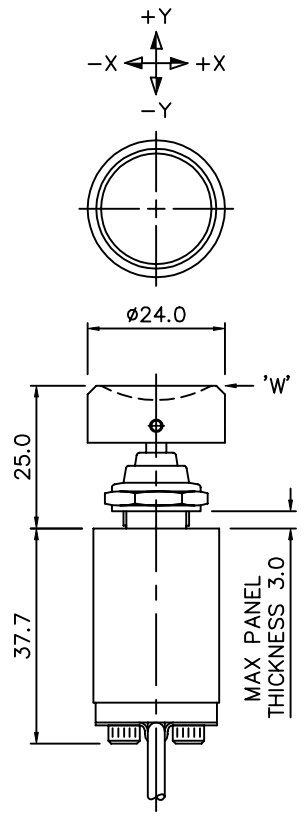
APP. <i>AW</i>	MATERIAL —	FINISH —	TOL. ±0.5	SCALE 1:1	ISSUE 1	1A	2	3				
CHKD. <i>AW</i>				DIMNS MM	DATE 29.6.99	21.3.01	18.11.03	24.5.05				
DRAWN R.HARNETT	 <p>Esterline Corporation. Ringwood, Hampshire. BH24 1EU. Tel: +44 (0) 1425 463100 Fax: +44 (0) 1425 463111 www.traxsys.com</p>				TITLE SPECIAL FORCE STICK + AMPLIFIER BOARD				SIZE A3	DRAWING NUMBER DS49073		
									CHANGE NEW DWG ECN821/915 ECN1123 ECN1208			



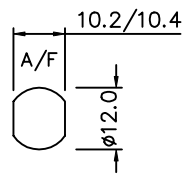
USED ON

D or CAT.No

M.A./S.A.



MOUNTING DETAILS
SUGGESTED PANEL CUT OUT



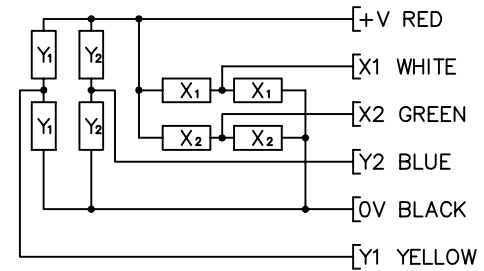
FORCE STICK SPECIFICATION

CASE/HANDLE — ALUMINUM ALLOY, BLACK ANODISED.
SHAFT ELEMENT — STAINLESS STEEL (MIN UTS 55).
CABLE — 450mm, 6 CORE, PVC SHEATHED, COLOUR BLACK.
EXCITATION VOLTAGE — 2.5V/GAUGE.
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STORAGE TEMP. RANGE — -35°C TO 75°C.
ACTUATION LOAD (W)
FOR MAX OUTPUT — 1.9Kg ±10%.
MAX OVERLOAD — 7.8Kg.

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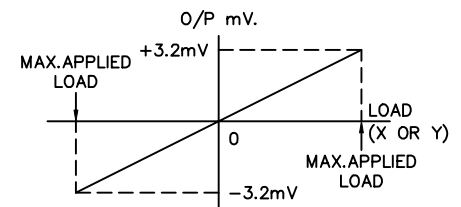
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DEFLECTION MAX OUTPUT — ± 1.0V (TYPICAL)
DRIVE IMPEDANCE — >20 K OHMS

CONNECTION DETAILS

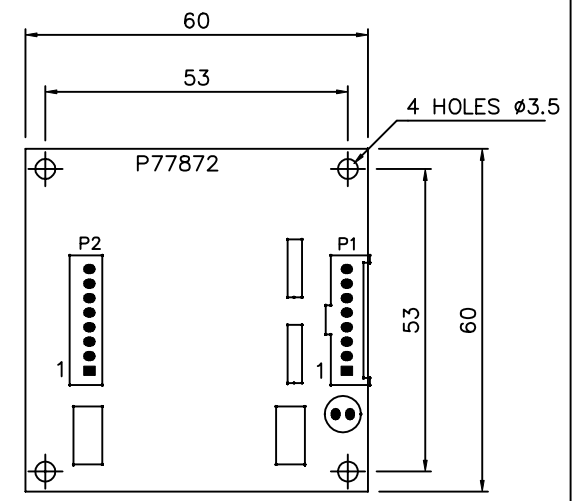
P1; MOLEX 90136 SERIES.
P2; MOLEX 5483 SERIES.

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- 5 +5V
- 6 Y2
- 7 Y1
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AMPLIFIED O/P (P2):

- 1 +5V
- 2 X AXIS
- 3 CENTRE
- 4 EARTH GND
- 5 N/C
- 6 RESERVED
- 7 Y AXIS
- 8 SIGNAL GND



NOTE OVERAL HEIGHT OF BOARD ASSEMBLY 15MM.

EMC NOTES:

FOR CE APPROVAL, IT IS RECOMMENDED THAT ASSEMBLED UNIT SHOULD BE FITTED IN AN EMC ENCLOSURE.

APP. <i>[Signature]</i>	MATERIAL —	FINISH —	TOL. ±0.5	SCALE 1:1	ISSUE	1	2	3				
CHKD. <i>[Signature]</i>				DIMNS MM	DATE	26.7.00	09.12.03	31.8.04				
DRAWN R.HARNETT	 Esterline Corporation. Ringwood, Hampshire. BH24 1EU. Tel: +44 (0) 1425 463100 Fax: +44 (0) 1425 463111 www.traxsys.com				CHANGE	NEW DWG	ECN1123	ECN1208				
					TITLE	WATERPROOF FORCE STICK + AMPLIFIER BOARD			SIZE A3	DRAWING NUMBER DS509129		