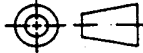


DRAWING NUMBER

A154907 SHT 2 OF 3

THIRD ANGLE PROJECTION TO B.S. 308



FOR GENERAL TOLERANCES & FINISHES SEE PENNY & GILES STANDARD 55-301. FOR GEOMETRIC TOLERANCES SEE B.S. 308 Pt 3.

APPROX GRID REF.

HOLE REF.

No. OF HOLES

HOLE DATA

DESCRIPTION

POS. TOL.

USED ON IF IN DOUBT ASK

EM-1

D or CAT.No.

M.A. or S.A.

D.I.S. or M.R.I.

D.O. REFS.

SUB-MASTER FROM:-

APPROVED

CHECKED
TRACED

DRAWN
M. BOOTE

OUTPUT SETTING
ALL VOLTAGES AND CURRENTS WRT 0V (TERM 2,9 & 11)
MONITOR Vo (TERM 8) FOR O/P VOLTAGES AND Io (TERM 10) FOR O/P CURRENTS

MODE 1A: 0V AND 0mA TRANSDUCER EXTENDED
1 EXTEND SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE 0V(0mA) ON O/P TERMINAL
2 RETRACT SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +10V(+20mA) ON O/P TERMINAL

MODE 1B: 0V AND 0mA TRANSDUCER RETRACTED
1 RETRACT SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE 0V(0mA) ON O/P TERMINAL
2 EXTEND SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +10V(+20mA) ON O/P TERMINAL

MODE 2A: +5V AND +10mA TRANSDUCER RETRACTED
1 EXTEND SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE 0V(0mA) ON O/P TERMINAL
2 RETRACT SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +5V(+10mA) ON O/P TERMINAL

MODE 2B: +5V AND +10mA TRANSDUCER EXTENDED
1 RETRACT SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE 0V(0mA) ON O/P TERMINAL
2 EXTEND SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +5V(+10mA) ON O/P TERMINAL

MODE 3A: +4mA TRANSDUCER EXTENDED
1 EXTEND SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE +4mA ON O/P TERMINAL
2 RETRACT SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +20mA ON O/P TERMINAL

MODE 3B: +4mA TRANSDUCER RETRACTED
1 RETRACT SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE +4mA ON O/P TERMINAL
2 EXTEND SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +20mA ON O/P TERMINAL

MODE 4A: +5V AND +10mA TRANSDUCER RETRACTED
1 SHAFT AT MID STROKE, ADJUST O/P ZERO (P1) TO GIVE 0V(0mA) ON O/P TERMINAL
2 RETRACT SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +5V(+10mA) ON O/P TERMINAL

MODE 4B: +5V AND +10mA TRANSDUCER EXTENDED
1 SHAFT AT MID STROKE, ADJUST O/P ZERO (P1) TO GIVE 0V(0mA) ON O/P TERMINAL
2 EXTEND SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +5V(+10mA) ON O/P TERMINAL

MODE 5A: +25mA TRANSDUCER RETRACTED
1 EXTEND SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE +5mA ON O/P TERMINAL
2 RETRACT SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +25mA ON O/P TERMINAL

MODE 5B: +25mA TRANSDUCER EXTENDED
1 RETRACT SHAFT, ADJUST O/P ZERO (P1) TO ACHIEVE +5mA ON O/P TERMINAL
2 EXTEND SHAFT, ADJUST O/P GAIN (P2) TO ACHIEVE +25mA ON O/P TERMINAL

NOTE:- IF CURRENT OUTPUT NOT REQUIRED DISABLE E TO I, SWITCH SW1/5 (DIS) OFF

OUTPUT CONFIGURATION

OUTPUT CONFIGURATION SW1

	Vo		Io		ERR		OUTPUT				MODE		
	-VE	+VE	X2	OFF	DIS	RNG	LVL	LVL	VOLTAGE(Vo)			CURRENT(Io)	
	1	2	3	4	5	6	7	8	EXTEND	RETRACT		EXTEND	RETRACT
0 TO 10Vdc	ON	•	•	•	•	•	•	•	0V	+10V	0mA	+20mA	1A
	OFF	•	•	•	•	•	•	•	+10V	0V	+20mA	0mA	1B
0 TO 20mA	ON	•	•	•	•	•	•	•	0V	+5V	0mA	+10mA	2A
	OFF	•	•	•	•	•	•	•	+5V	0V	+10mA	0mA	2B
0 TO 5Vdc	ON	•	•	•	•	•	•	•	+2V	+10V	+4mA	+20mA	3A
	OFF	•	•	•	•	•	•	•	+10V	+2V	+20mA	+4mA	3B
0 TO 10mA	ON	•	•	•	•	•	•	•	-5V	+5V	-10mA	+10mA	4A
	OFF	•	•	•	•	•	•	•	+5V	-5V	+10mA	-10mA	4B
4 TO 20mA	ON	•	•	•	•	•	•	•	+2V	+10V	+5mA	+25mA	5A
	OFF	•	•	•	•	•	•	•	+10V	+2V	+25mA	+5mA	5B
±5Vdc ±10mA	ON	•	•	•	•	•	•	•					
	OFF	•	•	•	•	•	•	•					

FIG 1

SET UP PROCEDURE

- 1) CONNECT EM-1 AND VRYT AS SHOWN IN FIG 2
- 2) SELECT REQUIRED OUTPUT MODE, REF FIG 1
- 3) CONFIGURE SW1 ACCORDINGLY, REF FIG 1
- 4) ADJUST EM-1 OUTPUT AS PER INSTRUCTIONS OPPOSITE

CUSTOMERS COPY

MATERIAL:-	FINISH:-	TOLERANCES	SCALE:	ISSUE	2	2A													
			DIMS:	DATE	28-3-84	11-7-84													
				CHANGE	9032/11	9032/12													
<p>Penny+Giles POSITION SENSORS LIMITED</p>										<p>TITLE: EM-1 SETTING INSTRUCTION</p>		<p>SIZE A3</p>	<p>DRAWING NUMBER A154907 SHT 2 OF 3</p>						