

DRAWING NUMBER:

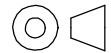
EM-10-I

USED ON

DESIGN
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RESERVED

Data Sheet

THIRD ANGLE
PROJECTION



SIZE
A3

D.O.REFS.

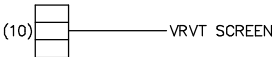
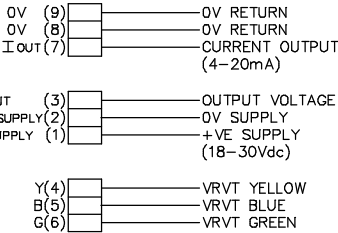
SUB-MASTER
FROM: -

APPROVED
I.HURST

CHECKED
I.HURST

DRAWN
P.W.

TERMINAL CONNECTIONS

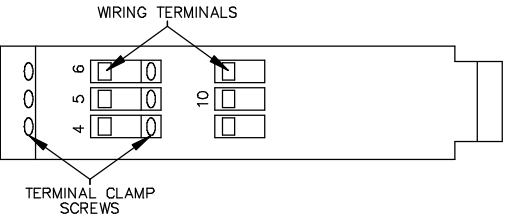
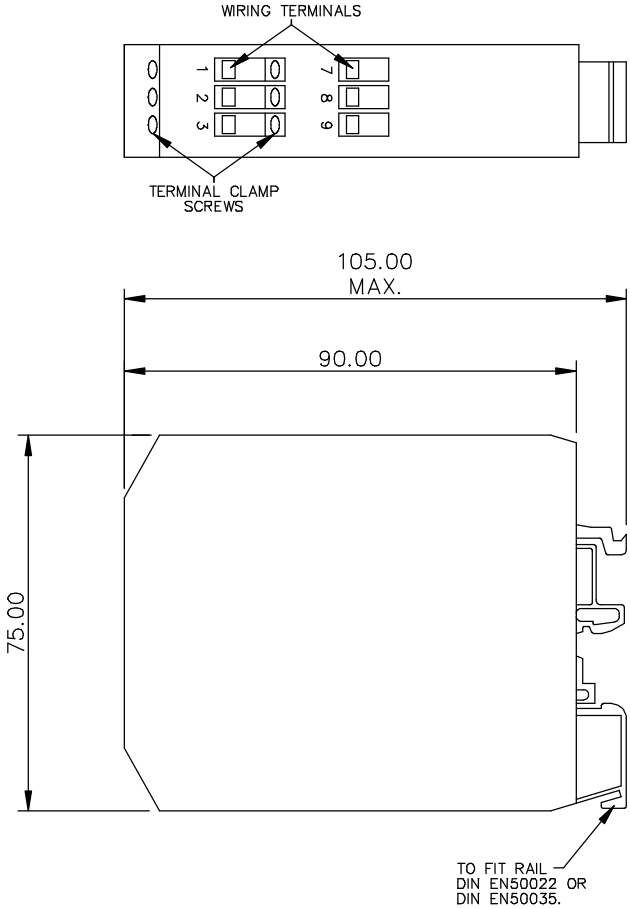
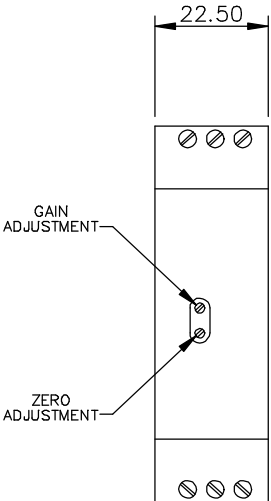


SPECIFICATION DATA

SUPPLY VOLTAGE	18-30Vdc (REGULATED)
SUPPLY CURRENT	<100mA MAX
LINE REGULATION	<0.25% SPAN/VOLT
POWER ON SETTLEMENT	<10% SPAN WITHIN 5 SECONDS
OUTPUT	<0.25% SPAN WITHIN 3 MINUTES
	4mA TO 20mA (CURRENT)
	0V TO 10V (VOLTAGE)
	4mA(0V) VRVT SHAFT RETRACTED.
	20mA(10V) VRVT SHAFT EXTENDED.
	SEE PENNY & GILES DRAWING A156910
	FOR SLOPE REVERSAL SETTING
	INSTRUCTIONS.
OUTPUT LOAD (CURRENT OUTPUT)	400Ω MAXIMUM @ 18Vdc SUPPLY
	700Ω MAXIMUM @ 24Vdc SUPPLY
	1000Ω MAXIMUM @ 30Vdc SUPPLY
OUTPUT LOAD (VOLTAGE OUTPUT)	5KΩ MINIMUM (RESISTIVE TO 0V LINE)
OUTPUT ADJUSTMENT	±10% SPAN, 100% ZERO OFFSET
OUTPUT RIPPLE	<5mV RMS
TEMPERATURE RANGE	OPERATIONAL 0°C TO +60°C OPERATIONAL
	STORAGE -20°C TO +70°C
TEMPERATURE COEFFICIENT (AVERAGE)	≤300ppm SPAN/°C (SEE NOTE 1)
MOUNTING	TO FIT DIN EN50022 OR DIN EN50035 RAILS

NOTE

- AVERAGE TEMPERATURE COEFFICIENT = $\frac{\Delta \text{ OUTPUT} \times 10^6}{20^\circ \text{C OUTPUT SPAN} \times 60^\circ \text{C (OPERATING TEMP RANGE)}}$ ppm/°C
- FOR USE WITH VRVT MODELS 050, 080, 100 AND 190



POSITION SENSORS LIMITED,
Christchurch,
Dorset, U.K.

ISSUE	A	1	2	3	4
DATE	1/4/97	23/4/97	9/4/98	09.05.00	29/08/01
CHANGE	NEW	CH9766/1	CH9766/4	9766/5	CH9766/6
FINISH: -	-				

MATERIAL: -	TOLERANCES	SCALE: 1:1
-	± 0.25	DIMS: mm
TITLE: EM-10 WITH INTEGRATED E TO I		DRAWING NUMBER: EM-10-I

DRAWING NUMBER:

EM-10-V

USED ON

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Data Sheet

THIRD ANGLE
PROJECTION

SIZE
A3

D.O.REFS.

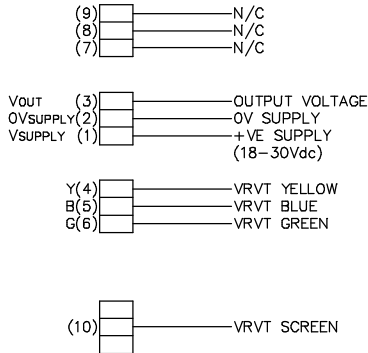
SUB-MASTER
FROM: -

APPROVED
I.HURST

CHECKED
I.HURST

DRAWN
P.W.

TERMINAL CONNECTIONS

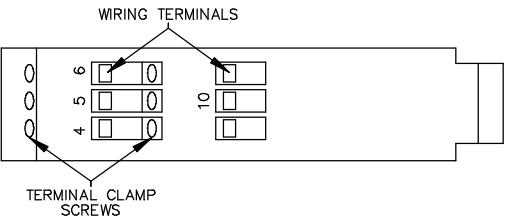
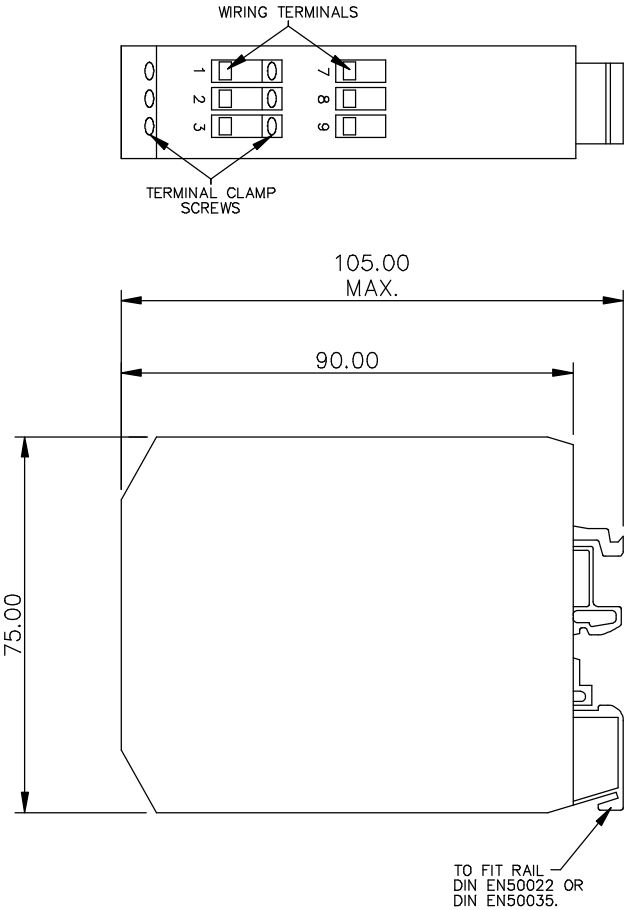


SPECIFICATION DATA

SUPPLY VOLTAGE	18-30Vdc (REGULATED)
SUPPLY CURRENT	<100mA MAX
LINE REGULATION	<0.25% SPAN/VOLT
POWER ON SETTLEMENT	<10% SPAN WITHIN 5 SECONDS <0.25% SPAN WITHIN 3 MINUTES
OUTPUT	0V TO 10V (VOLTAGE) FOR FULL VRVT ELECTRICAL SHAFT DISPLACEMENT (0V RETRACT, 10V EXTEND). SEE PENNY & GILES DRAWING AI56247 FOR 0V TO 5V, ±5V AND SLOPE REVERSAL OUTPUT SETTING INSTRUCTIONS.
OUTPUT LOAD (VOLTAGE OUTPUT)	5KΩ MINIMUM (RESISTIVE TO 0V LINE)
OUTPUT ADJUSTMENT	±10% SPAN, 100% ZERO OFFSET
OUTPUT RIPPLE	<5mV RMS
TEMPERATURE RANGE	OPERATIONAL: 0°C TO +60°C STORAGE: -20°C TO +70°C
TEMPERATURE COEFFICIENT (AVERAGE)	≤300ppm SPAN/°C (SEE NOTE 1)
MOUNTING	TO FIT DIN EN50022 OR DIN EN50035 RAILS

NOTE

- AVERAGE TEMPERATURE COEFFICIENT = $\frac{\Delta \text{OUTPUT} \times 10^6}{20^\circ\text{C OUTPUT SPAN} \times 60^\circ\text{C (OPERATING TEMP RANGE)}}$ ppm/°C
- FOR USE WITH VRVT MODELS 050, 080, 100 AND 190




POSITION SENSORS LIMITED,
Christchurch,
Dorset, U.K.

ISSUE	A	1	2	3	4
DATE	17/3/97	23/4/97	9/4/98	09.05.00	29/08/01
CHANGE	NEW	CH9766/1	CH9766/4	9766/5	CH9766/6
FINISH: -	-				

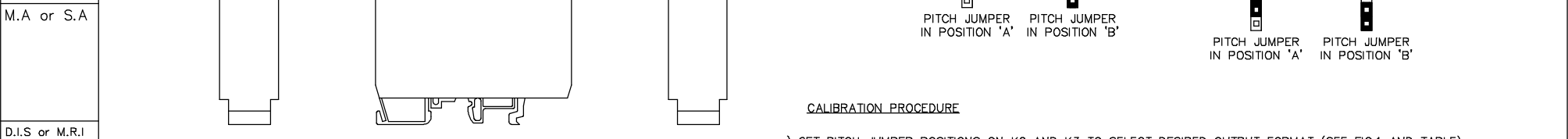
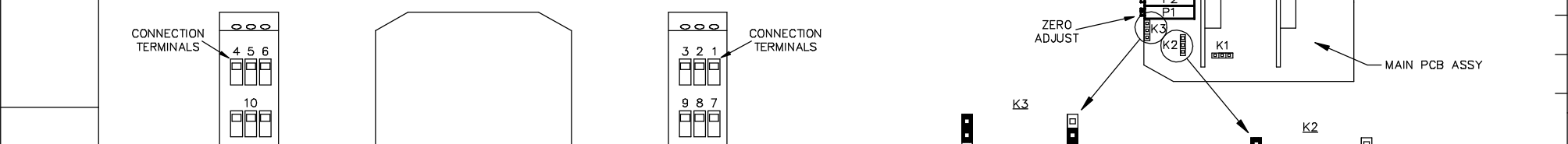
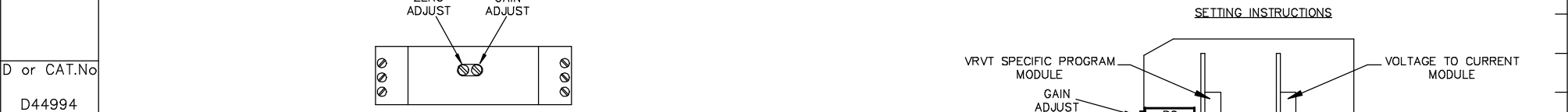
MATERIAL: -	TOLERANCES	SCALE: 1:1
-	± 0.25	DIMS: mm
DRAWING NUMBER:		EM-10-V

Penny+Giles

DRAWING NUMBER A156910	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	HOLE DATA				
				APPROX. GRID REF	HOLE REF.	No. OF HOLES	DESCRIPTION	POS. TOL

USED ON
EM-10
E TO I

IF IN DOUBT ASK



SPECIFICATION DATA

SUPPLY VOLTAGE	18-30Vdc (REGULATED)
SUPPLY CURRENT	<100mA MAX
LINE REGULATION	<0.25% SPAN/VOLT
POWER ON SETTLEMENT	<10% SPAN WITHIN 5 SECONDS
OUTPUT	<0.25% SPAN WITHIN 3 MINUTES
OUTPUT ADJUSTMENT	SEE TABLE FOR FULL VRVT ELECTRICAL SHAFT DISPLACEMENT.
OUTPUT LOAD (CURRENT OUTPUT)	±10% SPAN, 100% ZERO OFFSET 400Ω MAX @ 18V SUPPLY 700Ω MAX @ 24V SUPPLY 1000Ω MAX @ 30V SUPPLY

NOTE: - WHEN CALIBRATED TO GIVE 4 TO 20mA OUTPUT CURRENT
THE VOLTAGE OUTPUT (3) WILL BE APPROXIMATELY 0 TO 10V

D.O.REFS.

OUTPUT CURRENT OPTIONS

SHAFT RETRACT	SHAFT EXTEND	K2	K3
4mA (0V)	20mA (10V)	A	A
20mA (10V)	4mA (0V)	B	A

CONNECTION SCHEMATIC

DIN RAIL
BOX
CONNECTIONS

VRVT SCREEN

VRVT GREEN

VRVT YELLOW

VRVT BLUE

18-30Vdc REGULATED SUPPLY

0V SUPPLY

VOLTAGE OUTPUT

CURRENT OUTPUT

0V RETURN

0V RETURN

0V RETURN (8 OR 9)

VRVT TRANSDUCER

RETRACT

EXTEND

Vout

RLOAD
5KΩ MINIMUM

0V RETURN (8 OR 9)

APPROVED											UV RETURN (8 OR 9)					UV RETURN (8 OR 9)				
M.BENTLEY	MATERIAL: —	FINISH: —	TOLERANCES	SCALE:	ISSUE	1	1A													
CHECKED M.BENTLEY				DATE	3-2-97	19/6/97														
TRACED				DIMS:	CHANGE	9703/1	CH9703/2													
DRAWN M.BOOTE	<div><div><i>Penny+Giles</i></div><div>POSITION SENSORS LIMITED</div></div>				TITLE SETTING INSTRUCTIONS						SIZE A3	DRAWING NUMBER A156910								