

**METRIC**  
IF IN DOUBT ASK

**D46955 Performance**  
**Electrical Data**

Measurement range	82°
Supply voltage	5Vdc ± 0.5Vdc Regulated
Supply current	<25mA
Supply reverse polarity protection	Yes
Short circuit protection output to GND	Yes
Short circuit protection output to supply	In 5V regulated mode only
Over voltage protection	Up to 40V (-40 to +60°C)
Power on settlement	<1s
Resolution	12 Bit (0.025% of measurement range)
Non-linearity	<±0.4%
Temperature coefficient	<±30ppm/°C in 5V regulated supply mode
EEProm Locked	Yes. (This will <b>NOT</b> allow reprogramming of units)

**Output**

Options: Ratiometric analogue  
Direction: See Fig 1

**Analogue Output Option**

Voltage output range: Ratiometric output voltage from 4% to 90% (0.2V to 4.50V) (±1%) See FIG 2 of VSupply over measurement range

Monotonic range: 0.1V (2%) and 4.75V (95%) nominal

Load resistance: 10KΩ minimum (resistive to GND)

Output noise: <1 mVrms

Input/Output Delay: 2.5ms

**Mechanical Data**

Mechanical angle: 360° continuous

Torque: 10 gm cm

Max. operating speed: 3600°/s

Weight: 27g with connector

Mounting: 2 x M4 screws

Cable exit: FDR-25 Sheathed 55A Spec Wire with MSS4P connector fitted (Socket 1 - V+ Supply, Socket 2 - GND, Pin 1 - OUTPUT 1, Pin 2 - OUTPUT 2) See Fig 2

Phasing: See Fig 2

**Environmental**

Operational temperature range: -40 to +140°C, 170°C for 72 hours

Sealing: IP68 and IP69K

Tested to:

Storage temperature: -55 to +140°C

Vibration: BS EN 60068-2-64; 1995 Sec 8.4 (31.4grms) 20 to 2000Hz random

Shock: 3m drop onto concrete & 2500g

Life: TBD

Electromagnetic Interference: BS EN 61000-4-3 to (100V/m), 80MHz to 1GHz and 1.4GHz to 2.7GHz 2004/108/EC

Salt spray: BS EN 60068-2-11 Severity 48 Hours

Fluid Susceptibility: Ethylene Glycol, Brake Fluid, Engine Oil (Mineral), Engine Oil (Synthetic), Engine Degreaser, Screen Wash, Petroleum Spirit, Diesel

LH VERSION  
OUTPUT INCREASES  
WITH ACW ROTATION

RH VERSION  
OUTPUT INCREASES  
WITH CW ROTATION

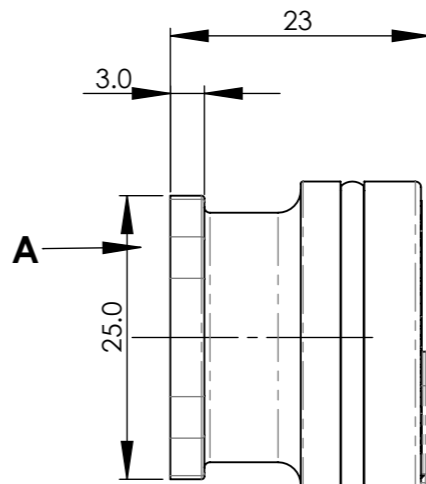
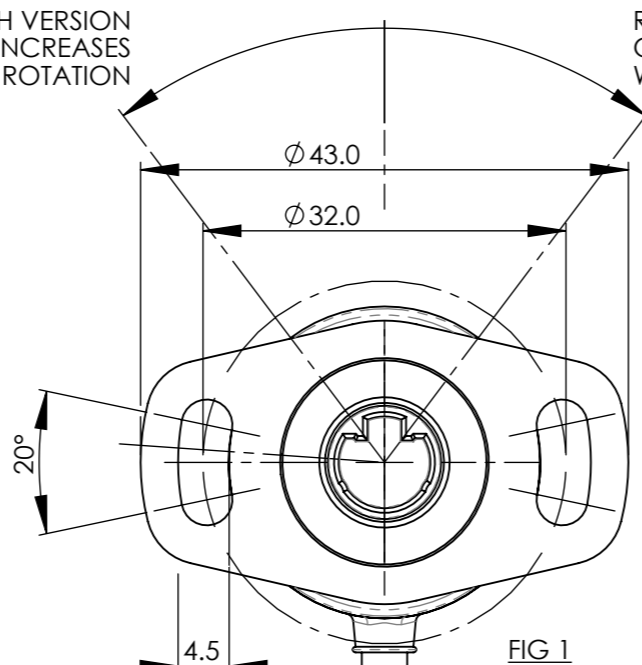
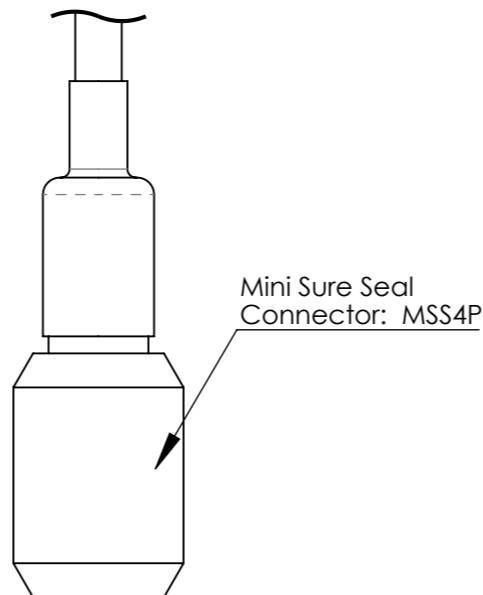


FIG 1

SPEC 55A, 24AWG  
DR-25 OUTER JACKET



**Wire Connections**

Socket 1 = V+ SUPPLY  
Socket 2 = GND  
Pin 1 = OUTPUT 1 (Right Hand)  
Pin 2 = OUTPUT 2 (Left Hand)

ISS	DATE	DRAWN	ECR No.	CHK	APP
1	11/08/15	BD	11085-1	AMR	AMR

2 OFF M4 x 8 SOCKET  
BUTTON HEAD FIXING  
SCREWS  
(Use 2.5mm Allen Key  
torque to 2Nm)

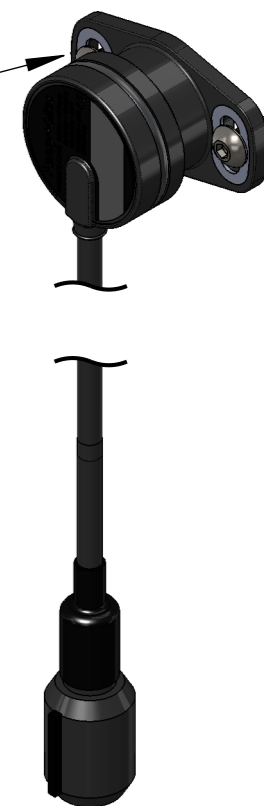
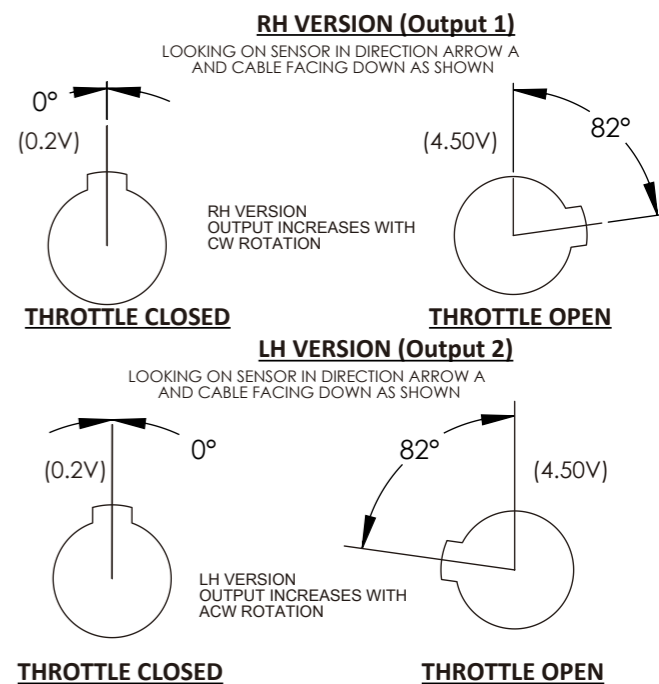
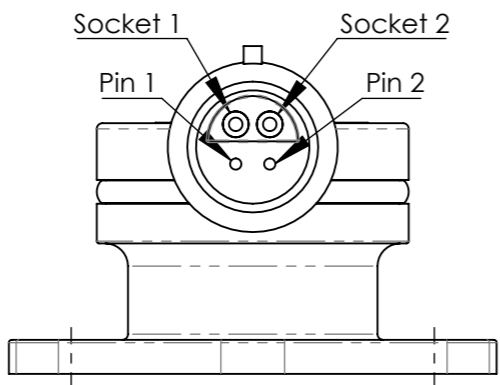
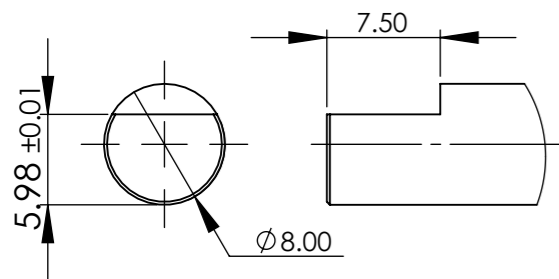


FIG 2



**RECOMMENDED MATING DRIVE**



SCALE <b>1.5:1</b> UNLESS STATED	IF CONTROL DIMENSIONS (Kc) ARE SPECIFIED THEY ARE TO BE SUBJECT TO 100% INSPECTION OR STATISTICAL PROCESS CONTROL.	D No <b>D46406/MK</b>	MATERIAL <b>BODY - POLYMER SHAFT INSERT - POLYMER</b>	TOLERANCES: IN-LINE WITH PENNY & GILES STANDARDS 55-301 SURFACE TEXTURE VALUES IN MICROMETRES (µm) TO BS1134:PT2. ALL MACHINED SURFACES TO BE 1.6 ✓ ALL SCREW THREADS TO BS3643 PT.2: EXTERNAL CLASS: 6g INTERNAL CLASS: 6H	TITLE <b>THROTTLE POSITION SENSOR FOR JENVEY</b>	<b>PENNY + GILES</b>	<b>A3</b>
THIRD ANGLE PROJECTION TO BS 8888	MASS (g)	FIRST USED ON <b>TPS280DP</b>	FINISH	ANGULAR ± 1°	BREAK EDGE 0.05 - 0.15mm	PART NUMBER: <b>D46955</b>	SHT 1 OF 1 SHTS
	VOL. (mm <sup>3</sup> )	REF.		LINEAR 0, mm +/- 0.5 mm 0,0 mm +/- 0.2 mm 0,00mm +/- 0.1mm 0,000mm +/- 0.01mm	FILLET RADS 0.1 - 0.3mm		