CABLE EXTENSION TRANSDUCER
CTU SERIES





- **Outstanding Repeatability and Linearity**
- **Rugged Construction**
- **Versatile Mounting Options**
- **Free Release mitigated design**
- **Cost Effective solution for OEMs**

The CPI-CTU series cable extension transducer is available in 4 stroke lengths ranging from 120mm – 1270 mm. With the enclosure being manufactured from Nylon 66 and utilising a proprietary blend of reinforcing fibres, in conjunction with the bespoke draw wire cable for improved tensile strength - this provides an overall rugged construction suitable for a variety of harsh and demanding environments.

The CTU size envelope allows it to be fitted into small spaces, with a permissible misalignment and ships with; a stainless steel mounting bracket, x2 T-Nuts - to give the user as many mounting orientations /options as possible as standard.

Bespoke mounting solutions can also be accounted for.

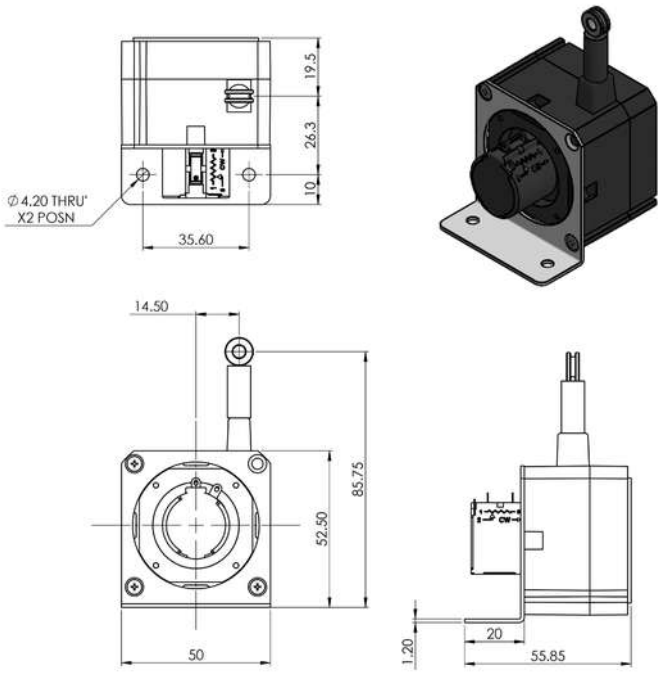
Specifications	
General	
Available Stroke Ranges	see ordering information
Output Signal	Voltage Divider (Potentiometer)
Independent Linearity	±0.25 % to ±0.50 % (see ordering information)
Repeatability	±0.05 %
Resolution	Essentially infinite
Measuring Cable	0.8 mm dia. ETFE-coated stainless steel
Measuring Cable Tension	2.5 N ± 25%
Maximum Cable Accelaration	15 g
Enclosure Material	Nylon 66
Sensor	Precision Potentiometer
Weight, Max. (Includes bracket)	135 g

Specifications				
Electrical				
Total Resistance	10 kΩ ±3%			
Max Wiper Current at 5 kΩ	20 mA			
Power Rating				
Temperature	Power Rating [W] (Voltage Limited by Power dissipation or 300VAC, whichever is less)			
	CTU-4	CTU-12	CTU-25	CTU-50
+70 °C	1.0	1.0	1.5	2
+125 °C	0	0	0	0
Recommended Maximum Input Voltage	30 V (AC/DC)			
Output Signal Change over Full Stroke Range	94 % ±4 %			
Electrical Connection	Solder Terminals			
Environmental				
Operating Temperature	-40 to +125 °C			
Sensor IP Rating	IP65			
Enclosure IP Rating	IP56			
Vibration	20g/ 20-2000Hz in 3 axes, 10 cycles each (DIN EN60068-2-6)			
Shock	Half Sine, 500g / 1ms in 3 axes, 3 cycles each (BS EN 60068-2-27:2009)			
Drop	3m , 2 drops per face (BS EN 60068-2-31:2008)			

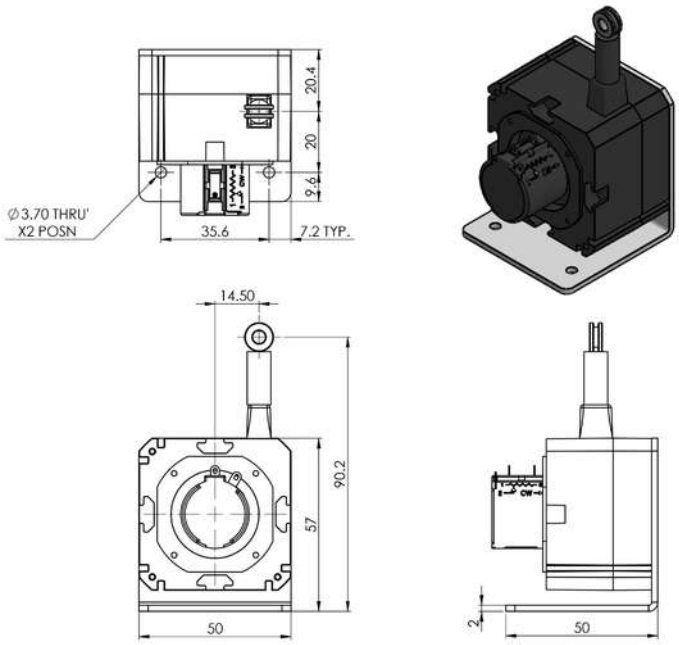
Dimensions (mm)

ALL DIMENSIONS ARE ± 1.00mm , UNLESS SPECIFIED OTHERWISE.

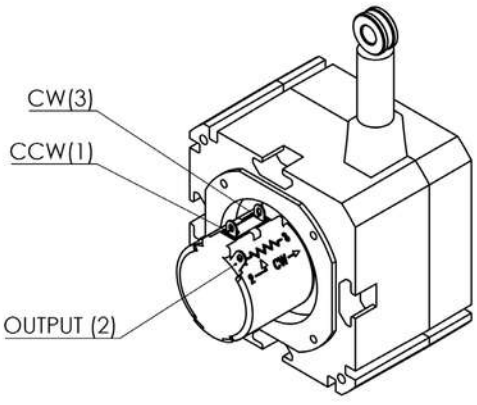
CTU-XX-A (W/ MOUNTING BRACKET)



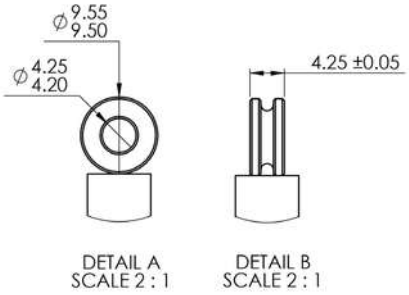
CTU-XX-B (W/ MOUNTING BRACKET)



Solder Terminal Location



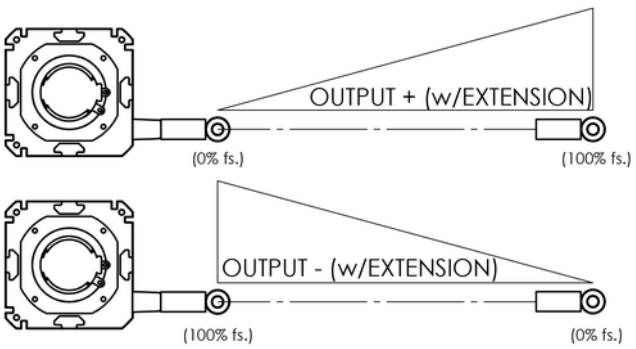
Eyelet Detail



Wiring information

OUTPUT + (w/Extension)	
INPUT	SOLDER TERMINAL
+VE	CW (3)
GND	CCW (1)
OUTPUT	OUTPUT (2)
OUTPUT - (w/Extension)	
INPUT	SOLDER TERMINAL
+VE	CCW (1)
GND	CW (3)
OUTPUT	OUTPUT (2)

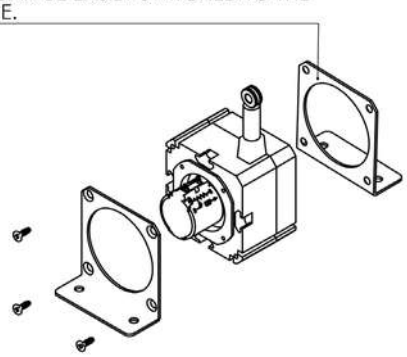
Output Signals



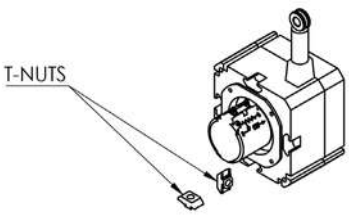
Standard Mounting Options (Supplied)

TO CHANGE CABLE EXIT ORIENTATION:
1. REMOVE THE X3 BRACKET SCREWS.
2. ROTATE SENSOR BODY TO DESIRED CABLE EXIT ORIENTATION.
3. RE-INSTALL X3 BRACKET SCREWS AND TORQUE TO 1NM.

FOR ALTERNATE BRACKET MOUTING POSITIONS, THE BRACKET CAN BE EASILY SWITCHED TO THE OPPOSITE FACE.



TO MOUNT USING T-NUTS:
1. INSTALL T-NUT (S) INTO CORRESPONDING FEATURE ON HOUSING.
2. PLACE APPROPRIATELY SIZED M4 X 0.7 BOLTS THROUGH YOUR APPLICATIONS LOCATING FEATURE.
3. APPLY SUITABLE THREADLOCKER (RECOMMEND THREEBOND 1360 OR SIMILAR).
4. TORQUE BOLTS TO 3-4NM.



Ordering information

Part Number	Sample Code	Full Stroke Range	Accuracy	Typical Life Cycle
95404	CTU-4-A	120mm	±0.50%	2.5 Million
95405	CTU-12-A	317.5mm	±0.25%	500k
95406	CTU-25-A	635mm	±0.25%	500k
95407	CTU-50-A	1270mm	±0.25%	250k
95545	CTU-4-B	120mm	±0.50%	2.5 Million
95546	CTU-12-B	317.5mm	±0.25%	500k
95547	CTU-25-B	635mm	±0.25%	500k
95543	CTU-50-B	1270mm	±0.25%	250k

Ordering information

(Please use the characters in the chart below to create your product code)

Sample Code CTU - 50 - A

Series

CTU

Stroke Range

4	120 mm
12	317.5 mm
25	635 mm
50	1270 mm

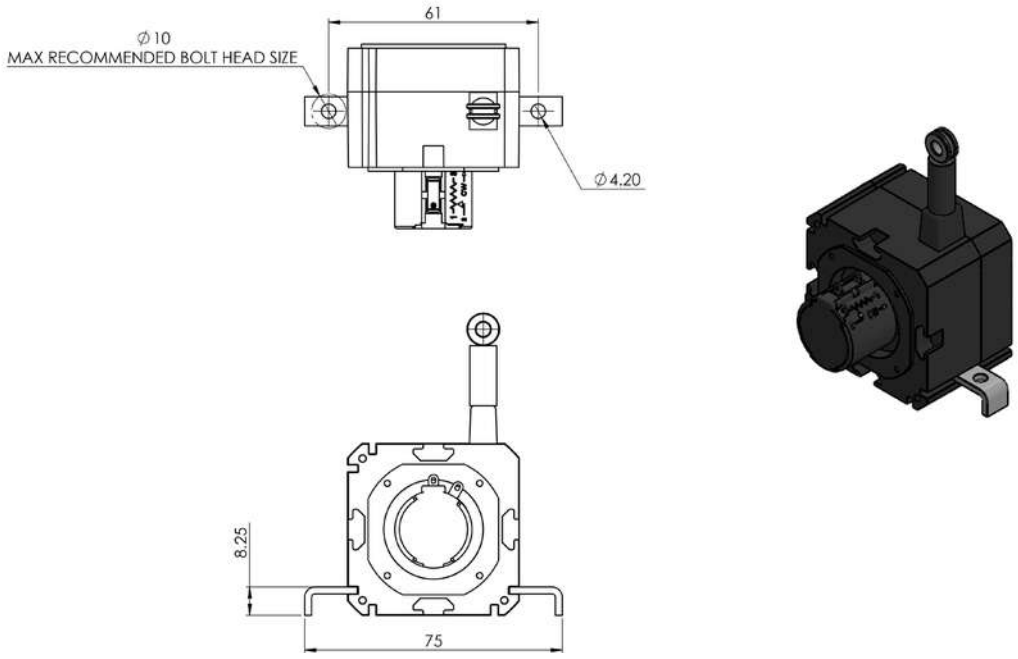
Bracket option

A	Compact Bracket
B	AM Bracket

Non-standard Mounting Options (Examples)

Examples of custom solutions available upon request.

Sheet Metal Clips



Sensor Array

