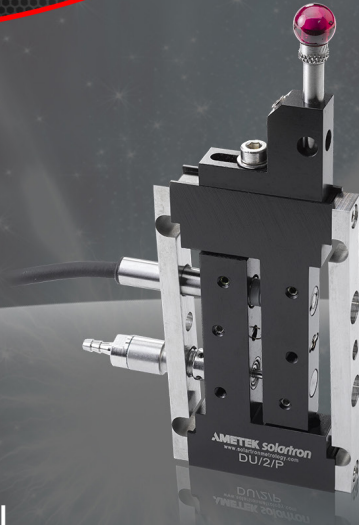




Solartron
Metrology

Flexure Gauge (models DU & AU)



user manual



AMETEK[®]
ULTRA PRECISION TECHNOLOGIES

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Return Of Goods

Solartron Sales Offices

2.0: Safety Summary

Terms in this Manual

WARNING statements identify conditions or practices that could result in personal injury or loss of life.

CAUTION statements identify conditions or practices that could result in damage to the equipment or other property.

Symbols in this manual



This symbol indicates where applicable cautionary or other information is to be found.

WARNINGS:

Do not operate in explosive atmosphere

To avoid explosion, do not operate this equipment in an explosive atmosphere.

Air Pressure

Under no circumstances should the recommended maximum overpressure of 7 bar be exceeded when using pneumatics with the Flexure.

Operating Pressure Range

Pneumatic Operation 1 to 3 Bar relative

To maximise working life of the probe head when pneumatic actuation is chosen, the air supply should be both clean and dry for continual reliable operation. Maximum relative humidity of 60% and filtered to better than 5 µm particle size.

NOTES:

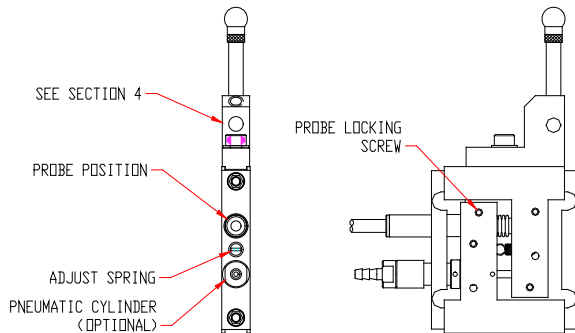
This equipment contains no user serviceable parts

This equipment must be returned to your Solartron dealer for all servicing and repair (see Return of Goods).

Low Voltage

This equipment operates at below the SELV and is therefore outside the scope of the Low Voltage Directive.

3.0: Flexure



4.0: Mechanical Installation

4.1: Tip Installation / Replacement

To avoid placing strain on the tool holder (7) and the Flexure frame, the tip carrier (8) should be removed from the tool holder before fitting or removing a tip (9).

The Flexure tool holder allows the Flexure tip and tip carrier to be mounted in one of three different planes for maximum flexibility

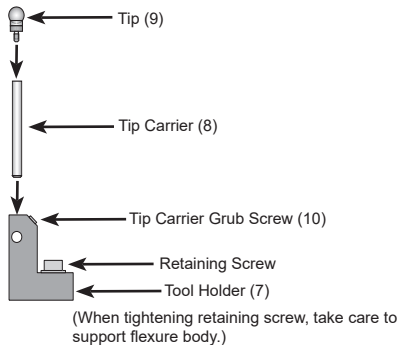
Tip Removal

Loosen the 2.5 mm tip carrier grub screw (10) which holds the tip carrier (8) in place.

1. Remove the tip carrier from the tool holder (7).
2. Unscrew the tip (9) from the end of the tip carrier.

Tip Installation

1. Screw the tip (9) into the tip carrier (8).
2. Position the tip carrier in the tool holder (7).
3. Tighten the 2.5 mm tip carrier grub screw (10). Take care not to overtighten it.



5.0: Specifications

Refer to Solartron datasheets:

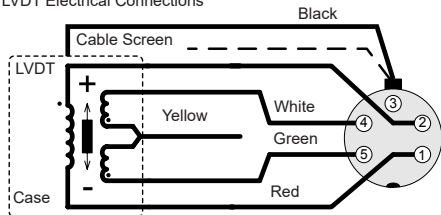
503003 - Digital

503004 - Analogue

6.0: Connections

6.1: Analogue Flexure - Solartron Standard Connection

LVDT Electrical Connections

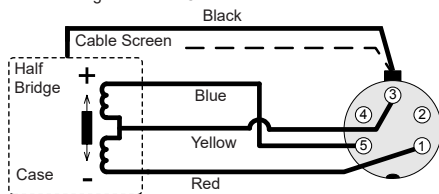


Note 1: + indicates forward movement of the tip.

Note 2: The transducer body may be disconnected from the cable screen by cutting the black wire inside the connector.

LVDT Electrical Connections	
Red & Blue	Energising
Green & White	Signal
Yellow	Secondary Centre Tap
Red & White	In Phase for Inward Displacement
Black	Transducer Body Ground

Half-Bridge Electrical Connections



Note 1: + indicates forward movement of the tip.

Note 2: The transducer body may be disconnected from the cable screen by cutting the black wire inside the connector.

Half-Bridge Electrical Connections	
Red & Blue	Energising
Yellow	Signal
Red & Yellow	In Phase for Inward Displacement
Black	Transducer Body Ground

6.2: For Digital Flexures refer to Orbit[®]3 System Manual. See Orbit Measurement System Manual.