1. Description
The supplementary set for the D-series Stirling engine provides accessories necessary for mounting a displacement sensor (1000568) and a relative pressure sensor (1000547) to the Stirling engine D (1000817), in order to record a pressure-volume diagram for the Stirling engine in conjunction with the 3B NET/log™ interface (1000539 or 1000540).

2. Contents
1. Base plate to accommodate the pressure sensor
1. Knurled screw for fastening the base plate to a stand rod
1. Stem with magnetic base for displacement sensor
1. Silicone tubing for connecting ±100-hPa relative pressure sensor (1000547)
1. Set of threads with suction pad
2. Weights with hook, 20 g each

3. Set-up
- Attach the base plate to the stand using the knurled screw.

Fig. 1 Assembly on base plate
• Screw the stem with the magnetic base into the displacement sensor and place it on the base plate.

Fig. 2 Assembly of displacement sensor

Fig. 3 How the thread is wound around the pulley

• Loosen the screw on the displacement sensor’s pulley. Wind a thread once around the pulley and lead it out of the recess placing a loop around the screw. Use the screw to fix the thread in place.

Fig. 4 Schematic illustration of how the thread is wound around the pulley of the displacement sensor (1000568)

• Attach one end of the thread to the hook of the connector rod and suspend a weight from the other end.

Fig. 5 Attaching the thread to the hook on the connector rod

• Use the suction pad to attach a second thread to the base plate. Thread this over the groove in the eccentric and use the other weight as a load on the free end. This load ensures that the pV diagram comes out better.
- Connect the relative pressure sensor (hose nozzle “+”) to the hose nozzle on the Stirling engine via silicone tubing.

- Connect the pressure sensor to analog input A of the 3B NET/log™ unit and the displacement sensor to analog input B.

Fig. 6 A weight is attached to the end of the thread

Fig. 7 Connecting the pressure sensor

Fig. 8 Set-up for recording a pressure-volume diagram