

dametric

TVD-T1

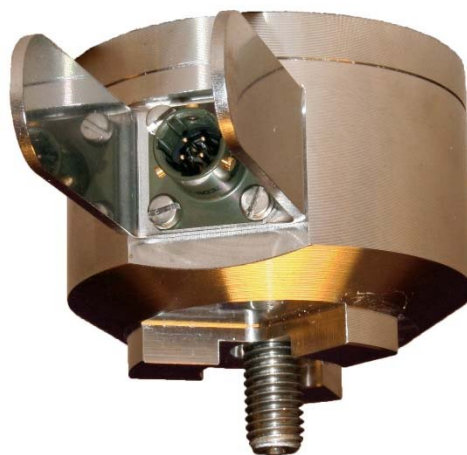
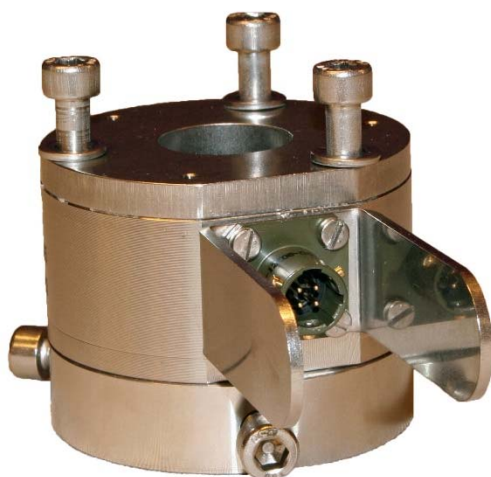
TVD-T2

TVD-T2S

VAL0123133
SKC9022065

VAL0098485
SKC9069798

VAL0111167
SKC9175400



TOUCHPOINT VIBRATION DETECTOR USERS MANUAL



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1 DESCRIPTION

The TVD-T1, TVD-T2 and the TVD-T2S is transducers for measuring the touch-point vibrations in a pulp refiner.

The TVD-T1 is mounted on a TDC sensor (True Disc Clearance).

The TVD-T2 is mounted on one of the bolts for the segment plate holder.

The TVD-T2S has the same mounting as the TVD-T2, but is more sensible and designed for low speed refiners such as the CONFLO.

For the TVD-T1 transducer, the TDC-sensor must be modified with 3 mounting holes according to the drawing at page 5.

For the TVD-T2 and the TVD-T2S transducers, the segment bolt must be modified with a mounting hole according to the drawing at page 5.

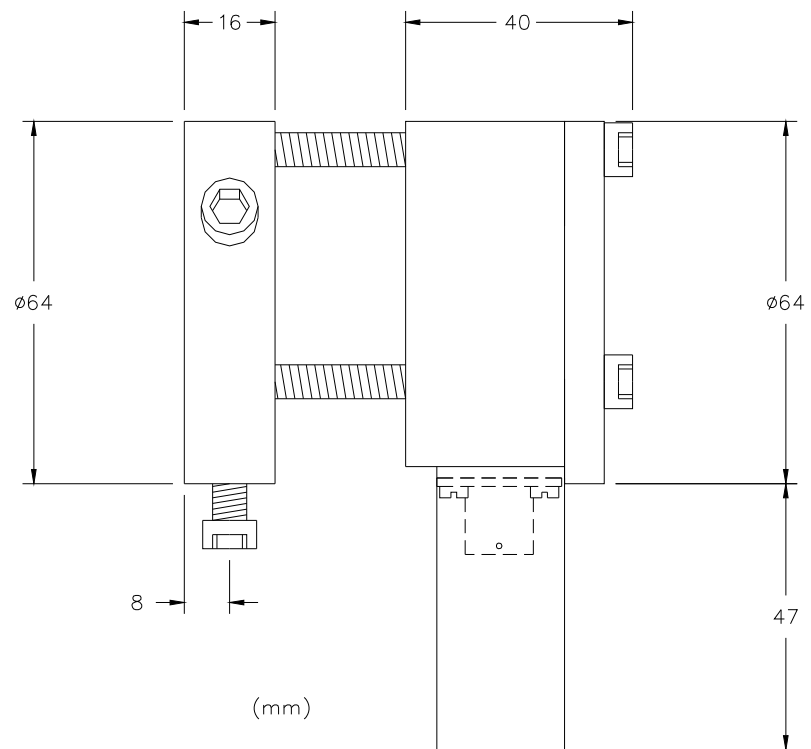
The TVD-T1 and TVD-T2 transducers are electrical identical, and uses an accelerometer as a sensor element which measures up to 50 kHz.

The TVD-T2S has an accelerometer of same type, but it is more sensible but measures only up to 10 kHz.

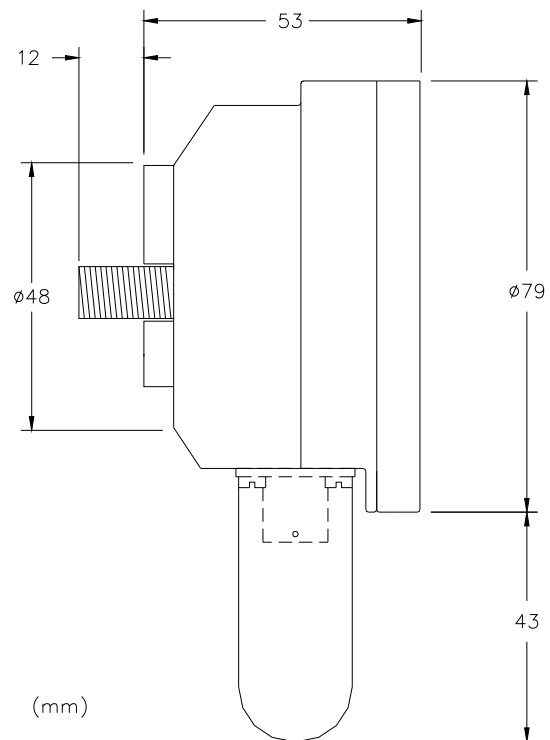
The sensor is fed with a constant current, and returns a superimposed ac-signal proportional to the acceleration amplitude.

The signal is amplified and monitored in a TVD monitor. There are two versions of the monitor. The TVD-M1 is a stand-alone unit and the TVD-RM1 is designed for the RMS-system.

1.1 OUTLINE DRAWING TVD-T1



1.2 OUTLINE DRAWING TVD-T2 / TVD-T2S



2 SPARE PART LIST

<i>D/A art. no.</i>	<i>VAL-no.</i>	<i>SKC-no.</i>	Description	
TVD-T1	0123133	9022065	TVD TRANSDUCER	(TDC mounting)
TVD-T2	0098485	9069798	TVD TRANSDUCER	(Screw mounting)
TVD-T2S	0111167	9175400	TVD TRANSDUCER	(Screw mounting)

3 MOUNTING INSTRUCTION

3.1 Mounting of the TVD-T1

The transducer is mounted on the TDC-sensor. The screws between the sensor and the mounting ring are delivered in 2 lengths. The longer ones are to be used when the cable K-GTS is used, and the shorter ones are for the cable K-GT.

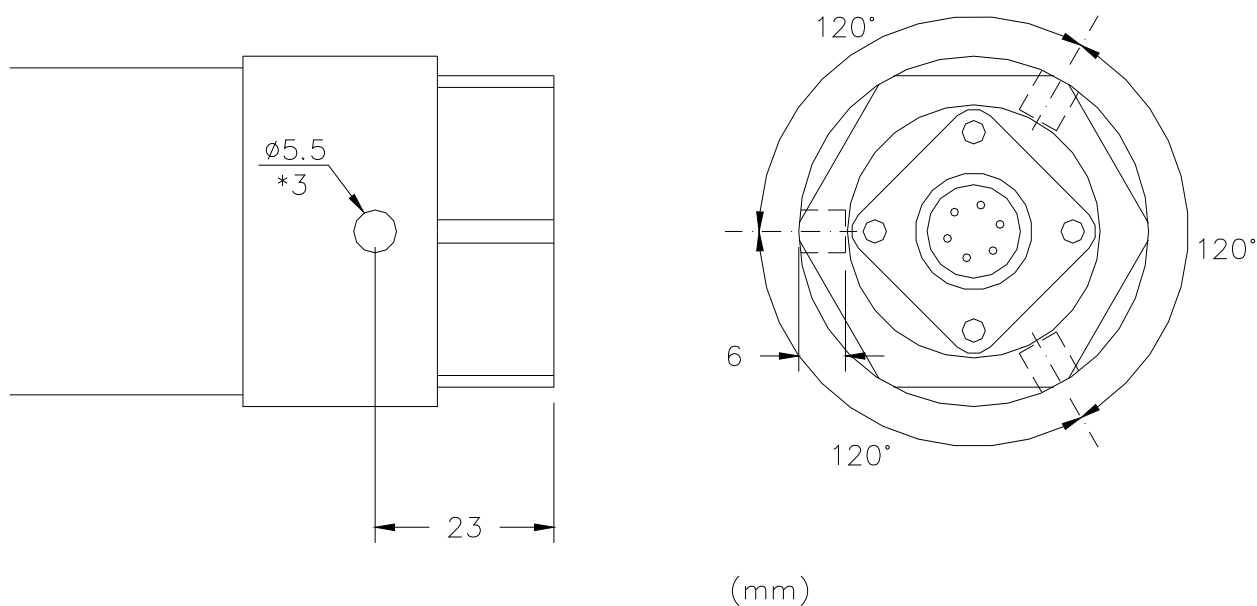
- Check that the sensor has 3 mounting holes according to the drawing on the following page.
- Mount and tighten the TDC-sensor.
- Pull the cable for the TDC-sensor through the TVD-sensor. If the K-GTS cable is used, the sensor must be pulled from the cable-box side.
- Connect the K-GT/K-GTS cable to the TDC-sensor. Check that the bayonet on the contact snaps.
- Mount the TVD-sensor on top of the TDC-sensor. Mount and tighten the ring on the TDC-sensor. Mount the three long M6 screws and pull the TVD-sensor tight to the TDC-sensor. The screws should be tightened with the force of 5 Nm.
- Connect the TVD-cable (4-pole) to the TVD-sensor. Check that the bayonet on the contact snaps.

3.2 Mounting of the TVD-T2/TVD-T2S

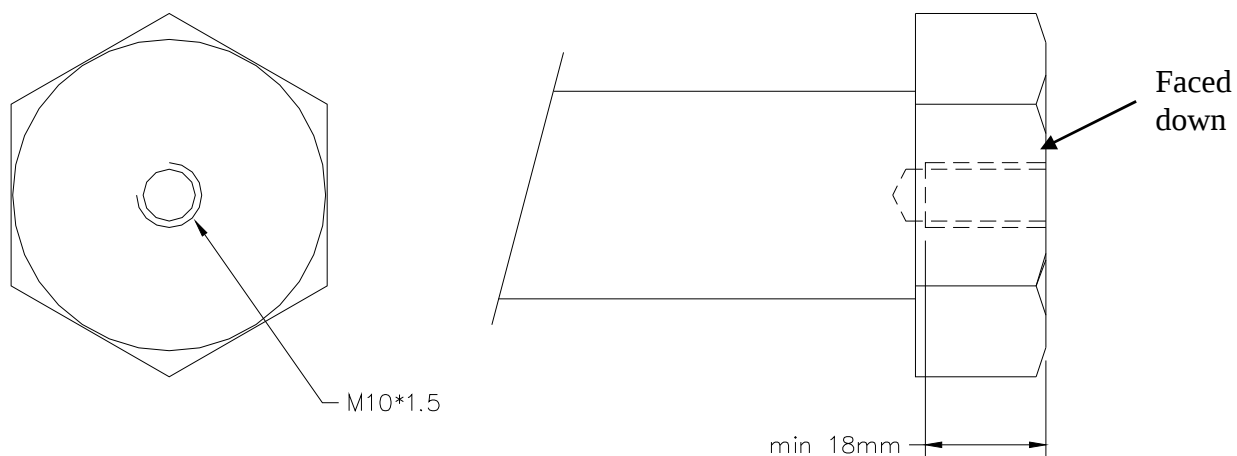
The transducer is mounted on one of the segment holder bolts.

- Mount and pull the segment bolt tight. The bolt should be tightened with force of 20 Nm. Check that the plane surface is clean and free of cuts rising above the surface.
- Mount the TVD-sensor on the bolt. Turn the transducer so the contact points down.
- Pull the socket head cap screw tight.
- Connect the cable (4-pole) to the TVD-sensor. Check that the bayonet on the contact snaps.

4 DRILLING OF TDC-SENSOR (TVD-T1)



5 DRILLING OF SEGMENT BOLT (TVD-T2 / TVD-T2S)



6 CONTACT

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