

### **TSD115 & TSD115A VARIABLE ASSESSMENT TRANSDUCERS**



The TSD115 incorporates a slide control with graduated scale that allows the user to gauge their subjective response to a variety of different stimuli. Multiple TSD115 transducers can be used simultaneously allowing several people to answer the same question or otherwise respond to stimuli. The transducer is lightweight and fits easily into the subject's hand or lap. The TSD115 comes equipped with a 7.6-meter cable and is designed for direct connection to the AMI100D/HLT100C module.

This graph shows a measurement that identifies the responses (on a scale from 0 to 9) of the four clients to a particular question. In this case, at 23.08 seconds into the recording, the responses to question four were:

Client 1:	3.225	Client 3:	7.590
Client 2:	8.036	Client 4:	8.989

The TSD115A Variable Assessment Dial transducer is an assessment dial that allows subjects to report subjective assessments by turning a knob between values from 1 to 10. This may be used to correlate subjective reporting with physiological measures. This lightweight transducer connects directly to an AMI100D/HLT100C via a 7.6 m long cable and fits easily into a subject's hand or lap. The knob is affixed with a small screw and may be removed by users who want to cover the dial with their own ratings label. Two adhesive Velcro<sup>®</sup> discs are included with the transducer to allow the unit to be affixed to a desk or wall instead of allowing for handheld operation.



#### TSD115-MRI VARIABLE ASSESSMENT TRANSDUCER FOR MRI

The TSD115-MRI comes equipped with an 8-meter cable and is designed for connection to the AMI100D/HLT100C via the MECMRI-HLT cable-filter set. Trace conductive parts (metallic parts) of transducer do not make contact to the subject.

MRI Use: MR Conditional to 3T

*Note:* Conductive parts of transducer are electrically and thermally isolated from subject.

#### TSD115-MRI Components:

Polyvinyl chloride (PVC) Plastic

Acrylonitrate Butadiene Styrene (ABS) Thermo-molded, Plastic

Polymer thick film device (rigid substrate, printed semi-conductor)

Copper clad fiberglass lamination (PCB material)

Stainless steel screws/nuts

Tinned copper wire

Silicone elastomer

# TSD115/115A Calibration

- 1. Generate the **Scaling** dialog for the first selected channel.
- 2. Slide the horizontal indicator all the way to the right side of the TSD115. (This reports the highest output for the TSD115, a value close to +5.0 volts.)
- 3. Click the **Cal1** button to assign this value to "9." (This directs the system to collect the exact value output by the TSD115 when it's set to any specific indicator position.)
- 4. Slide the horizontal indicator all the way to the left on the TSD115. (This reports the lowest output for the TSD115, a value close to 0.0 volts.)
- 5. Click the **Cal2** button to assign this value to "0."
- 6. Select the next channel and repeat this procedure for the remaining channels.

AcqKnowledge - Scaling analog channel					
Channel A1 scaling:					
Channel A1 scaling:					
		Input volts	Map value		
	Cal <u>1</u>	4.9616	9.0000		
	Cal <u>2</u>	0.0012	0.0000		
		<u>U</u> nits label:	Volts		
Option					
Calibrate ALL channels at the same time					
Use mean value					
OK Cancel					

## Specifications

TS	D115/115A	TSD115-MRI
Cable Length:	7.6 m	8 m
Interface:	AMI100D/HLT100C	MECMRI-HLT to AMI100D/HLT100C
Scale Output Range:	0-5 V DC	
Scale Resolution:	Infinitely adjustable	
Slide/Dial Control Length:	10 cm	
Dimensions		
TSD115:	4 cm (high) x 11 cm (deep) x 19 cm (wide)	
TSD115A:	10 cm (L) x 5.1 cm (W) x 2.1 cm (height)	
Weight:		
TSD115:	230 g	
TSD115A:		

See also: Application Note #AH186 – Psychological Assessment (TSD115)