

MULTI-DEPTH DEFLECTOMETERS (MDD) ARE USED TO MEASURE IN-SITU ELASTIC DEFORMATION AND/OR PERMANENT DEFORMATIONS IN THE VARIOUS PAVEMENT LAYERS OF A TEST SECTION. THE BDI MDD SYSTEM IS A SERIES OF PARALLEL RODS IN A 50- OR 75-MM DIAMETER HOLE IN THE TEST SECTION. THE PARALLEL RODS ARE ANCHORED AT VARIOUS DEPTHS INSIDE THE MDD TUBE WALL. EACH ROD, STARTING FROM THE BOTTOM HYDRAULIC ANCHOR, PASSES UP TO THE REFERENCE HEAD WHERE LINEAR POTENTIOMETERS MEASURE ROD (DEPTH ANCHOR) MOVEMENTS RELATIVE TO THE ROAD SURFACE.

Measuring load-bearing performance of multi-layer strata and pavements can be tricky, cumbersome and costly. BDI has streamlined and simplified the design and use of the multi-depth deflectometer. We are pleased to introduce a significant field-testing innovation, BDI's MDD.

Users of this type of MDD include:

- + FAA
- + USACE
- + Minnesota DOT
- + Pennsylvania DOT
- + CALTRANS
- + Caterpillar
- + TTCI
- + Applied Research Associates
- + Dubai Municipality
- + Korean Highway Institute
- + Manitoba Ministry of Forestry



## COMPARISON WITH COMPETITOR'S MDD

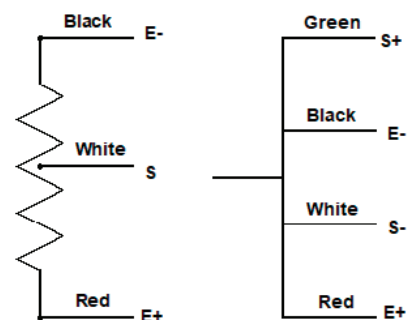
COMPETITOR MDD	BDI MDD
Clumsy field assembly procedures	Pre-fabricated prior to site arrival
Lengthy roadway "down" time	Drill and install in under 4 hours
Limited range/flexibility	Re-settable stroke of transducer
Costly installation (1 per 2 days)	Reduced Labor (2 per day)
Lose one sensor and string is lost	Parallel Sensor Rods

This MDD design prevents the headaches that accompany old MDD technology.

BDI's MDD employs proven geotechnical soil measurement devices in a unique configuration to improve measurement, program productivity, and reliability in a number of significant ways.

## SPECIFICATIONS

MODEL	MDD-02	MDD-03
MEASUREMENT DEPTH	Up to 10 ft (3 m), user specified depths	
CIRCUIT	Ratiometric Potentiometer	
RESISTANCE	1500Ω/in	
EXCITATION VOLTAGE	2.5 to 5 volt	
OUTPUT	volts excitation/in	
POWER RATING	0.20 W/in/Transducer	
LINEARITY	<1% FS	
REPEATABILITY	0.0005"	
RESOLUTION	Infinite	
LIFE	1 billion operations	
MEASUREMENT RANGE	1" stroke (resettable)	
CABLE	IC-02-187 [22 AWG, 2 shielded pair, drain wire, red PVC jacket]	
TEMPERATURE RATING	-40° to +176 °F (-40° to +80 °C)	



## OPTIONS & ACCESSORIES



**Intelliducer Connector** - Required for use with STS Intelliducer Nodes. Instrumentation Cable is integrated into connector and potted.



**Instrumentation Cable** - 2 shielded twisted pair (22 awg) with drain wire, 0.187" diameter, red PVC jacket.