



# IR-TRACC Assembly w/ 90 mm Displacement

Model 6110B

## INTRODUCTION

Denton has designed and manufactured an enhanced version of the IR-TRACC linear displacement transducer for the WorldSID-50M. The sensor is based on the initial GM IR-TRACC concept (described in GM Research Paper RND-8832 dated June 4,1998). The IR-TRACC (**I**nfra**R**ed **T**elescoping **R**od for **A**ssessment of **C**hest **C**ompression) consists of a set of telescoping sections extending between two end pieces. One end piece contains a light source (emitter) and the other end contains a light sensitive receiver.

A Model 6510 64 mm version is available for the Hybrid III 6-Year-Old Child Dummy.



### LINEARIZATION OPTION



## FEATURES

- Operational between 5Vdc to 15Vdc excitation
- Circuit protected if the excitation voltage polarity is reversed
- Nonlinearity less than 2% of full scale (0-90mm)
- Off-axis displacement error  $\pm 3\%$
- Durable electrical connection between sensor & electronics
- Basic design is configurable for several displacement applications

## LINEARIZATION OPTION

The IR-TRACC is an inherently non-linear displacement transducer. An IR-TRACC's raw voltage values must be adjusted by the application of a linearization exponent applied through post test processing software in order to achieve accurate displacement data. The optional IRTRACC Linearization Module applies the needed mathematical algorithm through electronic hardware allowing the IR-TRACC to function in the same way as any other linear displacement device, eliminating the need for any special processing software. The Linearization Option is operational to 10Vdc excitation only.

## PATENT PENDING

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