



TDAS PRO

Digital Input Module (DIM)

Designed precise recording of vehicle or crash test dummy contact times, the TDAS PRO Digital Input Module (DIM) offers the utmost in flexible, fully isolated, contact closure or voltage recording. It may also be used for recording vehicle control signals, status signals, or any other on/off condition. It is conveniently packaged to slide into any TDAS PRO rack. **Crash** **Ready**

Features and Benefits:

- 16 digital inputs
- Stand-alone operation
- Fully isolated with EMI/ESD/RFI protection
- Software adjustable sampling rates
- Intuitive, effortless TDAS Control Software
- Ethernet, RS-232 and wireless communication options
- Factory tested to 100+ Gs
- Easy mounting rack configurations include 4 module and 8 module racks
- Small size – each module is 13.7 x 12.2 x 3.4 cm
- Loss Mass - only .77 kg
- Built in back-up battery with automatic charging circuit
- Durable
- Reliable
- Cost-effective

Available in Stationary Configurations:

- TDAS PRO LAB DIM
- TDAS PRO LAB RACK

The TDAS PRO LAB DIM is designed for laboratory testing where simplicity and reliability cannot be compromised. With the same unsurpassed standard features as the TDAS PRO DIM, the TDAS PRO LAB DIM can be used stand-alone or easily positioned in a 19-inch rack assembly.

All TDAS products are certified to comply with NHTSA, FAA, ISO 6487 and SAE J211 data acquisition practices.



TDAS PRO DIM

16 digital inputs designed for stand-alone operation



TDAS PRO Racks

Designed for 4 module and 8 module configurations



TDAS PRO LAB Rack

Designed for 6 module configurations



TDAS PRO DIM SPECIFICATIONS

INPUT CHANNELS

Number:	16 per module
Input Types Supported:	Contact closure; Voltage level (3 - 15 V), including standard logic
Input Terminations:	Four pins per channel
Isolation:	Full optical and galvanic isolation
Input Protection:	EMI, RFI, and ESD protection
Input Connectors:	One 4-pin OB LEMO connector for each 4 input channels

DATA CONVERSION

Method:	Simultaneous sampling of all channels
Sampling Rate:	40 K samples/sec (maximum)
Storage Technique:	Recorder mode or circular memory buffer. Any portion of the memory may be allocated to pre-trigger data.
Memory Capacity:	Standard 100 seconds at 10K samples per second
Memory Type/Retention:	Battery backed SRAM, retention > 7 days

TRIGGERING SYSTEMS

Each Module:	Conditioned contact closure input
Rack System:	Standard contact closure input, galvanic and optical isolation. EFI, RFI and ESD protection.
Software Triggering:	Level Trigger available from any channel within each module
Status Indicator:	L.E.D. indicates trigger status

SELF-TEST FEATURES

General:	Automatically checks critical system voltages and input circuit functions. Displays status in software
Cable Verification:	Automatically checks cable integrity when 10K resistor is installed across contact switches
Status Indicators:	Software displays comprehensive diagnostics results

ELECTRONIC IDENTIFICATION (SENSOR ID)

Method:	Serial data read from a digital I/O line in each sensor connector
Types Supported:	Dallas/Maxim

POWER REQUIREMENTS AND FEATURES

External Voltage:	11-15 volts
Maximum Power:	300 mA per 16 channel module
Protection:	Self-resetting fuses plus reverse current and transient over-voltage protection.
Backup Power:	Each Module contains a backup battery.
Backup Duration:	>10 minutes at full power
Status Indicator:	L.E.D. indicates power condition

ENVIRONMENTAL

Operating Temperature:	0-50°C
Shock:	100 G peak, 12 msec half sine
Vibration:	6 G rms, 55-1,000Hz, 30 minutes

PHYSICAL

Module Size:	13.7 x 12.2 x 3.4 cm (5.4 x 4.8 x 1.35")
Module Weight:	0.77 kg (1.7 lb)
Compatibility:	Fits all standard TDAS PRO racks

PC INTERFACE

Module (stand-alone):	RS-232 @ 115.2 KHz (USB adapter available)
Rack System (Standard):	Ethernet 10BaseT and RS-232 @ 115.2 KHz
Options:	Wireless Ethernet and USB adapter available

CONTROL SOFTWARE

Compatibility:	Standard TDAS Control Software
Operating Systems:	Windows®, NT, 2000, XP, Vista

Specifications may be revised without notice.



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