



Mehta Tech, Inc.

TRANSCAN DME

Harness the Power of Data



Mehta Tech Inc.

The TRANSCAN DME System is a multifunction data collection platform for data collection and local storage of triggered, continuous recordings and phasor data. The modular design of the TRANSCAN DME enables our customers to quickly and inexpensively upgrade or expand their installed systems technology to satisfy the ever-changing regulatory environment. Our DME system with Continuous Recording exceeds the NERC Disturbance Monitoring (PRC-002-2) standard requirements, with an eye on the upcoming PRC-028 standards.

The TRANSCAN DME system monitors analog and digital inputs from various sources in the power system to identify and record anomalies. The TRANSCAN DME system has been deployed in numerous applications, including low-, medium-, and high-voltage networks in substations, power plants, and renewable energy installations. Typical applications include:

- Power system faults, including time of fault
- Power system disturbances or swings
- Abnormal instrument transformer behavior
- Monitoring of system protection performance
- Substation-distributed digital fault recording
- Determination of optimum line reclose delay
- Early warning detection for potential equipment failure or connectivity issues

TRANSCAN Features

- First in the market to utilize Linux OS
- Fan-less design since 1985
- Up to 64 analog & 128 digital inputs in one unit
- Local Non-Volatile Storage
- Local Processing
- Browser access and web pages for setup
- Industry standard protocols and data formats
- Trigger-initiated - point on wave fault recording
- Accurate time synchronization
- Alarming on loss of IRIG-B synchronization
- Sequence of Event Recording (SER)
- Dynamic Disturbance Recording (DDR)
- Once per cycle values
- Phasor Data Streaming (PMU)
- Meets IEEE C37.118
- Streaming rates up to 60 values / second
- Supports streaming 60 or more Phasors/values per unit
- Modular Design
- Expandable to form a larger system

**Proudly Made in the USA
since 1983**

TRANSCAN Specifications

ANALOG CHANNELS (CURRENT OR VOLTAGE)

16 to 64 per chassis

AC CURRENT INPUT RANGE (CTs)

5 A nominal; 15 A continuous; 63 A one minute;
saturation @ 60 Hz = 140 A

AC POTENTIAL INPUT RANGE (VTs)

67 to 120 Vac nominal, 100% over-range

ISOLATION FREQUENCY RESPONSE

CT inputs: 100 A maximum, < 3 dB from 1.0 Hz
to 10 kHz

VT inputs: 150 V maximum, < 3 dB from 4 Hz to
10 kHz

DC isolation: < 3 dB from DC to 2.5 kHz

AC INPUTS BURDEN

CT: Less than 1 VA at 5 A nominal

VT: Less than 0.25 VA at 67V nominal

EVENT CHANNELS

8 to 128 per system

EVENT (DIGITAL) INPUT RANGE

5 to 250 V; wet or dry inputs

ALARM OUTPUTS

Seven status and alarm outputs: 150 Vdc, 125 mA
contact rating, NO or NC

ELECTRICAL TESTS

Dielectric: IEEE C37.90

SWC: IEEE C37.90.1

A/D RESOLUTION

16-bit A/D converters

INTERNAL MEMORY

Non-volatile solid-state storage

Exceeds NERC storage requirements

RECORD LENGTH PARAMETERS

Individually adjustable pre-trigger, post-trigger,
minimum and maximum record lengths

Exceeds NERC PRC-002 and anticipated PRC-028
storage requirements

SOFTWARE TRIGGERS

Standard digital: Change from normal to abnormal
state; any change of input state

Standard analog: Over and under voltage; over
current; negative, zero, and positive sequence;
frequency (over and under); rate-of-change of
voltage

COMMUNICATION Interfaces

Front panel USB port, legacy system compatible
RS-232 ports, and 10/100/1000 Mbps Ethernet
interface options

OPTIONAL DDR & PMU Functionality

45+ day once-per-cycle continuous recording
capability for most disturbance / long-term
recording applications. Non-volatile solid-state
drives for fault, dynamic disturbance recording
(DDR) and /or local phasor data storage
IEEE C37.118 compliant phasor data streaming
supports streaming up to 60 phasor/values, UDP,
and TCP/IP communication with authentication

TIME REFERENCE

IRIG-B time stamp; internal clock; External GPS
clock optional; IRIG-B failure alarm

OPERATIONAL POWER REQUIREMENTS

"Universal Input" supports 90 to 300 Vdc (and 120
Vac for test purposes)

PHYSICAL DIMENSIONS (inches)

Rack-mounted: 22" W x 90" H or 27" W x 90" H
(typical)

Cabinet-mounted: 29" W x 29" D x 90" H or 24"
W x 24" D x 90" H

AMBIENT TEMPERATURE

0 °C to +55 °C

RELATIVE HUMIDITY

5% to 90% relative humidity, non-condensing;
optional cabinet heater with rear door vent for
humidity control

WARRANTY

Five-year warranty



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