

D501FL

Durable and Adaptable Multi-Channel Monitoring Solution



Provides real-time insights with Fiber Optic Temperature sensing, Load measurement, and Power analysis.

D501FL is a cutting-edge monitoring solution designed for precise management of electrical assets. Supporting 1 to 6 Fluorescence FO sensors, it delivers accurate, real-time data, ensuring reliable condition monitoring for critical applications.

Designed to prevent asset failures and reduce downtime, the D501 takes a holistic asset health evaluation and maintenance scheduling approach. By integrating Fluorescence FO sensors and the Asset Performance Management System RM EYE, it offers seamless adaptability for both retrofit applications and new installations.

With its advanced predictive diagnostics, the D501FL delivers unparalleled visibility into asset performance, enabling early detection of potential issues. Built to monitor a wide range of electrical asset types, it empowers industries with enhanced reliability, operational efficiency, and long-term value.

» Applications



Transformer



Rotating Machines



Cables



Switchgear

» Features

- Simple, User-friendly visualization and easy-to-configure
- Versatile Communication and Protocol support
- Equipped with the most accurate and advanced health assessment analytics
- Highly secure visualization and configuration

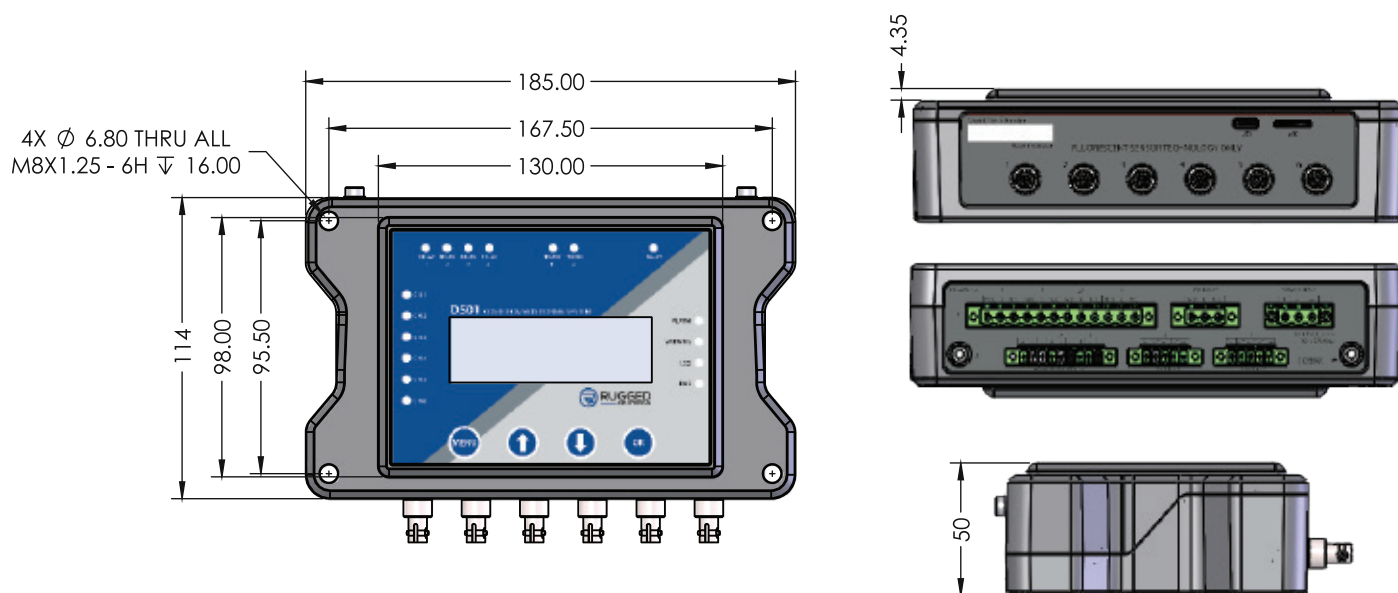
» Benefits

- Enhanced asset reliability
- Precision predictive analysis
- Remote Data Accessibility
- Increased asset lifetime
- Highest return on investment
- Field upgradable with no device downtime

» Technical Specifications

POWER INPUT	Input Power Requirement	24/48 VDC \pm 10%
	Power Consumption	5 Watts
FIBER OPTIC INPUTS	Measurement range	-80 °C to +250°C (cryogenic 4 °K range optional)
	Resolution	0.1 °C
	Accuracy	\pm 1.0 °C (\pm 0.2 °C in relative temperature)
	Scan rate	20 ms/channel (Optional: Faster scanning rates available)
	Number of channels	1 to 6 channels
ANALOG INPUT	# of Channels	3 inputs
	Input channel sample rate	1Hz
ANALOG OUTPUT	# of Output Channels	4 channels
	Output format	4-20 mA or 0-5Vdc / 0-10Vdc (Configurable for any measured/calculated value)
OUTPUT RELAY	# of Output Channels	04 Form C relays (5A)
	User programmable	Yes, from Rugged Connect Software
DATA STORAGE & CONFIGURATION	Data storage capacity	micro SD
	Logging Rate	User Configurable, 1 sec interval on USB
	System Fault Indication	1 System Fault Relay, with Local LED light
	Config port	USB (to use with Rugged Connect Windows software)
COMMUNICATION	Serial Communication	2 x RS-485
	Protocol Supported	Modbus, DNP3.0, IEC60870-5-10, Other protocols provided on request
EMC TYPE TESTING	Conducted & Radiated Emissions	ICES-003 (2016), CISPR32 (2015), CISPR11 (2015)
	ESD and EM field immunity	IEC61000-4-2, C37.90-3, IEC61000-4-3, C37.90.2
	Fast Transient & Surge Immunity	IEC61000-4-4, IEC61000-4-5, C37.90.2
	Magnetic Field Immunity	IEC61000-4-8, IEC61000-4-10
	Immunity from Conducted Disturbances	IEC61000-4-6, IEC61000-4-16
	Ripple,Dips & Damped Oscillatory	IEC61000-4-17, IEC61000-4-18, IEC61000-4-29
	Safety	IEC60255-26 and CE Certified
ENVIRONMENTAL AND MECHANICAL	Operating Temperature	-40°C to 72 °C
	Operating Humidity	95% Non-Condensing
	Storage Temperature	-40°C to 85 °C
	Dimensions	W185 mm x H114 mm x D50mm
	Weight	App. 1.0 to 1.5 Kg. (based on number of configuration)

» Product Drawing



» Ordering Code

Number of Channels

1 to 6 Channels

Ex: 06 = 6 Channels

Numbers of Relays

0 = No Relays

4 = 4 Relays

D 5 0 1 F L - - C - R

D501FL = Fluro Probes

Configuration of Analog Inputs (C 1) or Analog Outputs (C 2)

Combination	CH1	CH2	CH3	CH4
C0	0	0	0	0
C1	RTD/ 4- 20 mA/ Type K	RTD/ 4-20 mA / Type K	RTD/ 4-20 mA / Type K	0
C2	SSR/4-20 mA	SSR/4-20 mA	SSR/4-20 mA	SSR/4-20 mA

CERTIFICATIONS



ISO 9001:2015



ISO 14001:2015



ISO 45001:2018



Lloyd's
Register



Atex
Certification



NIST
Certification

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