

4 Channel Online Partial Discharge Monitoring System (DIN Rail Version)



Key Features

- High Resolution PRPD Pattern
- Noise Elimination trough Gating Channel and variable Frequency Range
- Designed for complete Commissioning without additional Hardware
- Local True Color Touch LCD

TMS-5041D

Applications

- Turbo Generators
- Hydro Generators
- Large Industrial Motors
- Windmills

General Description

The **TMS-5041** is a four channel partial discharge trending system with a true color LCD display showing all the necessary information for the commissioning and surveillance of high voltage rotating machines. The noise gating channel and variable Filters allows to separate noise from the pd signals. The **TMS-5041** shows actual partial discharge level for every individual channel (phase) on a bargraph, partial discharge activity in oscilloscope mode as well as color phase resolved partial discharge pattern. The touch functionality of the LCD display allows to parametrise, store and visualise the partial discharge signals without the use of any computer. Optionally a computer can be connected to store actual configuration and partial discharge results. Eight optional 4-20mA input channels allows to record machine operation conditions as MW, MVA, temperatures etc. together with the partial discharge signals. The optional Modbus RTU interface allows an easy integration into the existing SCADA/DCS system. Individual 4-20mA and relais outputs per channel are available. This make the **TMS-5041** the ideal cost effective partial discharge monitoring system for permanent installation.

Ordering Information

Order Code: 17.5041.AAA.BBB.CCC.DDD

AAA: Enclosure type:

- 065: IP65 Protected Wallmount Enclosure
- 019: 19" Rackmount Enclosure (3HU)
- 035: DIN Rail mount (35mm)

BBB: Power Supply:

- 264: 85-264VAC, 50/60Hz or 90-375VDC
- 024: 18-36VDC
- 048: 36-72VDC

CCC: Communication Interface

- 485: Modbus RTU Interface

DDD: Additional Inputs

- 420: 8x4-20mA Input for Operation Parameters

4 Channel Online Partial Discharge Monitoring System (DIN Rail Version)



Technical Data

TMS-5041D

Data Acquisition of Partial Discharge Channels

PD Input Channels (Multiplexed + Gating): 4+1	Acquisition Time Intervall:	1 to 600 sec/ch
Frequency Range *1		
Selectable LP Filter: 40KHz to 5MHz	Sensor Compatibility:	
Selectable HP Filter: 800kHz to 300MHz	Coupling Capacitors:	80pF - 10nF ²⁾
Signal Gain (HW): 40dB	RF CT's:	yes ²⁾

- 1) Frequency Range of complete measurement chain depends on selected PD sensor
2) Sensitivity of measurement circuit depends on selected sensor type

Voltage References

Reference from Coupler 10mV to 30VACrms	External Voltage Reference:	max 260VAC
Frequency Range: 0.1 to 200Hz	From Power Supply:	max 260VAC ²⁾

2) only available on AC Power Supply Version

Interfaces

Relais Contacts NO/NC System OK+CH 1-4	Modbus RTU::	RS-485
Analogue Output: 4x 4-20mA (1 per Ch)	USB 2.0:	PC communication
Analogue Input (OP Parameters): 8x4-20mA		

Display

Dimension: 4.3"	Color Depth:	24bit
Resolution: 480x272pxl	Touch:	Resistive

Local Results

Phase Resolved Partial Discharge Pattern:	Trend:	max. 1 Year
Resolution: 256x256—16bit colour	Event Logging:	no
Bargraph: 4 (1 per Channel)		

Power Supply

AC Power Supply: 85-264VAC, 50/60Hz	Power:	20W max.
DC Power Supply: 18-36VDC	Power:	20W max.

Mechanical Dimensions

Dimensions (L x W x D) 220 x 130 x 60mm	Protection Class:	IP55
Weight: 2.5kg		

Sparks Instruments reserves the right, without further notice, to change the product specifications and/or the information on this document to improve reliability, functions and design of this product. © 2011, Sparks Instruments, All rights reserved.

Contact

Sparks Instruments SA

Route de Montena 85, CH-1728 Rossens
Switzerland

Phone: +41 (0)26 301 30 04
Email: sales@sparksinstruments.com
Web: www.sparksinstruments.com

Worldwide Exclusive Sales Representative
for Rotating Machine Market



Route André Piller 19
1762 Givisiez / Switzerland
Phone: +41 58 411 54 00
sales@mc-monitoring.com