PROFIBUS DP

PROFIBUS Monitor

Maximum Plant Availability Through Continuous Bus Monitoring

The PROFIBUS Monitor is a powerful tool for the continuous monitoring of the data communication on PROFIBUS DP. In case the tool detects critical changes that could result in a future network failure it automatically generates a notification that maintenance action is required.

EARLY DETECTION OF BUS PROBLEMS

The PROFIBUS Monitor is designed for fixed installation in control cabinets. One PROFIBUS Monitor per bus line is all that is needed – no matter how many physical segments are to be monitored. In addition, the tool's open functionality allows use across all controller and PROFIBUS device types. The PROFIBUS Monitor reliably detects deteriorations in the bus communication and reports them to the operational staff. This allows implementing a condition-based maintenance strategy that reduces operator intervention to when it is needed. In this way, routine system downtimes can be used for planned maintenance action, making best use of the often scarce maintenance resources.

EASY USE AND CLEAR READINGS

No bus address or program changes to the PLC program are needed when installing the PROFIBUS Monitor. Configuration and visualization are performed over the network via an easy-to-use, integrated web interface. Setup, commissioning, and problem analysis require a basic knowledge of PROFIBUS.

ADVANCE WARNING OF IMPENDING FAILURE

On connection to a PROFIBUS segment, the PROFIBUS Monitor automatically detects the baud rate and immediately starts monitoring. It determines the bus cycle times and counts critical events. Critical events on the PROFIBUS are error frames, retries, restarts, and diagnostic messages. In this way, even slow deteriorations on "aging" installations can be reliably detected. When the number of error events exceeds the specified maximum limit per time unit, the PROFIBUS Monitor sends an alarm to the PLC via a signaling contact, or optionally to a server over the Ethernet network.
The last 100 errors are stored in an alarm list. In the case of an alarm, the tool offers the possibility to create a frame traffic trace for the period of interest. The trace file can then be analyzed later using the PROFIBUS Diagnostics Suite.

CUSTOMER BENEFITS

- Prevents Production Loss from Bus Problems
- Allows Planned Maintenance of the Fieldbus
- Easy to Use via Integrated Web Interface, All Bus Device States at a Glance

TECHNICAL DATA

Power Supply	24VDC +/-20%, Typically 0.3A, max. 1A
PROFIBUS	PROFIBUS Protocols: DP, DPV1, FMS, MPI; Connection: 9-Pin D-Sub, Baud Rates: 9.6Kbit/s .. 12Mbit/s
Ethernet	100BASE-TX, 10BASE-T, Connection: RJ45, IP Address: Manually or via DCHP
RS232	Reserved
USB	Only Available With BC-502-PB/CL Option
Control Signals	Potential-free Contact, 3 inputs 24VDC, Active High
Dimensions (HxWxD)	131mm x 47mm x 111 mm
Weight	Approximately 0.4kg
Mounting	35mm DIN Rail
Protection Class	IP20
Operating Temperature	5°C..55°C
Storage Temperature	-20°C..70°C
Conformity	CE, FCC, VCCI
Display & Parameterization	Via Integrated Web Interface
Snapshot Analysis	Via PROFIBUS Diagnostics Suite PC Software, See Separate Data Sheet

ORDER NUMBERS

BC-502-PB	PROFIBUS Monitor for Continuous Bus Monitoring and Condition-based Maintenance of DP/DPV1/FMS/MPI, DIN Rail Mounted, External 24VDC Power Supply Required, Signaling Contact, Control Inputs, Ethernet 10/100BASE-T(X),RJ45, Integrated Web Server, User Manual, PB-DIAG-SUITE
BC-502-PB-START	PROFIBUS Monitor Start Package, Consisting of BC-502-PB, BC-131-PB (See Figure on Right), AC Adapter/Cable, Patch/ Crossover Cable and Carrying Case

ADDITIONAL PRODUCTS AND SERVICES

BC-131-PB	Optional Active Connection Cable for Hassle-free Integration into Existing or Running Installations Without Recabling or the Disturbances Caused by a Spur Cable, 3m Length, Bus-powered Internal Repeater
BC-502-PB/CL	"Comfort Line" Option, Allows Full-Featured Protocol Analysis via USB, Supplied as Activation Code
BC-502-PB/SNMP	"Premium Line" Option, Provides SNMP Network Interface for Measurement Data, Supplied as Activation Code
BC-502-PB/CLP	"Comfort Line Plus" Option, Allows Full-featured Protocol Analysis via USB and Provides SNMP Network Interface for Measurement Data, Supplied as Activation Code
TRA-PB-TECH	PROFIBUS Technology Training, 2-Day
TRA-PB-TS	PROFIBUS Troubleshooting Training, 3-Day

Softing Industrial Automation is a world leading provider of industrial communication products and technologies for manufacturing and process automation. Our products are tailored to the requirements of system integrators, device vendors, machine and equipment manufacturers or end users and are known for their ease of use and functional advantages.

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