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PRS

PROFIBUS DP Redundancy Switch

PROFIBUS DP Master Redundancy

The solution for a safe PROFIBUS DP Master redundancy concept, it provides switching over of the PROFIBUS line between two identical DP Masters. This avoids any galvanic contact between the DP Masters, they can therefore be configured with identical PROFIBUS addresses, making Multi Master mode unnecessary and excludes double address conflict.

PRS is a compact 24 Volt hat rail module containing the switching logic as well as an intelligent double DP Slave.

The device allows the connection of two DP Masters and the PROFIBUS connection to the DP Slaves. The Switch controls the status of the operational DP Master system on the PROFIBUS protocol and application level.

In case of failure of the operational Master the device physically switches over to the stand-by Master, which seamlessly takes over the DP Slaves.

In contrast to the established Flying Master principle a double address conflict cannot occur with PRS, even if the failed DP Master is still active on the PROFIBUS level.

Furthermore many DP Master implementations on the market do not support the Flying Master principle.

As both DP Masters are prevented from being connected to the bus at the same time, the device avoids all disadvantages of current redundancy concepts.

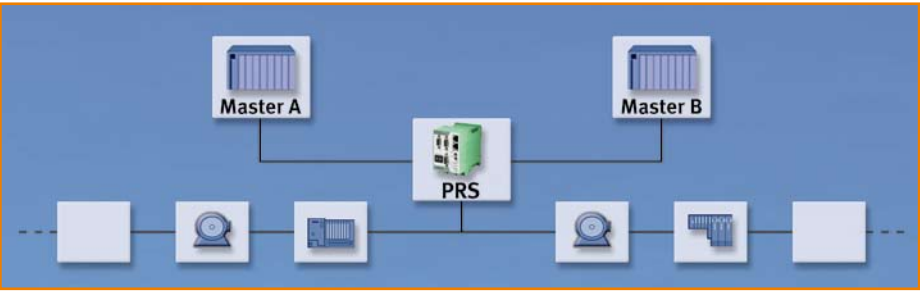
PRS provides the DP Master systems with important information about the redundancy operation, i.e. the alive state of the complementary system It also allows the execution of a switch-over command.

The device can be used in very complex redundancy systems, i.e. in connection

with PROFIBUS OPC servers or overlying Ethernet based cell networks.

Furthermore PRS can be controlled via both integrated Ethernet connections if direct control via the PROFIBUS is not possible.

There is no single point of failure with the PRS because if the device does develop a fault the Master to Slave communication would continue without interrupted.



Technical Data

Supported PROFIBUS Protocol Versions	DPVo	DP Slave
Interfaces	Ethernet PROFIBUS Serial	2*10/100 BaseT 3*RS485 (DB9) RS232 (screw terminal)
Baud Rates	Ethernet PROFIBUS RS485 RS232	max. 100 Mbit/s max. 12 Mbit/s 57.6 Kbit/s
Power Supply	24 VDC	

Manufacturer:
COMSOFT GmbH | Wachhausstr. 5a | 76227 Karlsruhe | Germany | Tel: +49-(0)721/9497-291
Fax: +49-(0)721/9497-299 | E-mail: infoicp@comsoft.de | Internet: www.comsoft.de