Device Management

PROFIBUS DP/FMS Redundancy Link Module, RLM01

Power and productivity
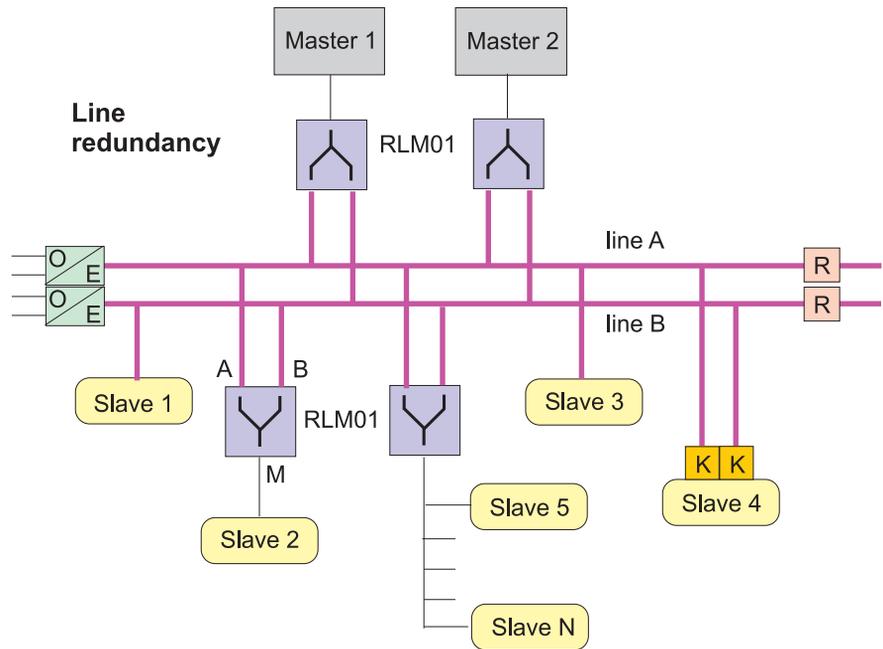for a better world™

ABB

Figure 1. Application example

RLM01 does not support master redundancy where one master only runs line A and the other one only line B. The bus communication is asynchronous, even if both masters balance their program modules against each other on the applicational level. A Melody central unit CMC 60/70 offers clock synchronous communication because of redundant PROFIBUS terminals (A & B).

Network devices like repeater, FOC coupler, DP/PA converter as well as RLM01 cause a N x bit time delay of data telegrams. The delay time (see technical data) is device specific and depends upon the selected baud rate. It must be taken into consideration for the master bus configuration.

Application on ships and maritime systems

RLM01 is certified for applications on ships and maritime systems by the Germanic Lloyd (GL). To meet the increased requirements regarding EMC and overvoltage, RLM01 must have one or two "24 VDC power supply filters (surge)" depending on the supply (single / redundant). The supply of several RLM01 behind one filter is not admissible. The max. length of the lines between filter and RLM01 must not exceed 1 m. Possibly needed fuse elements have to be arranged before the filter. The electrical connection to ground potential is effected via the module attachment as with RLM01. The following example shows the interconnection in case of a redundant supply of RLM01. For a single supply of RLM01, the L2+ terminal has to be bridged with the second L1+ terminal.
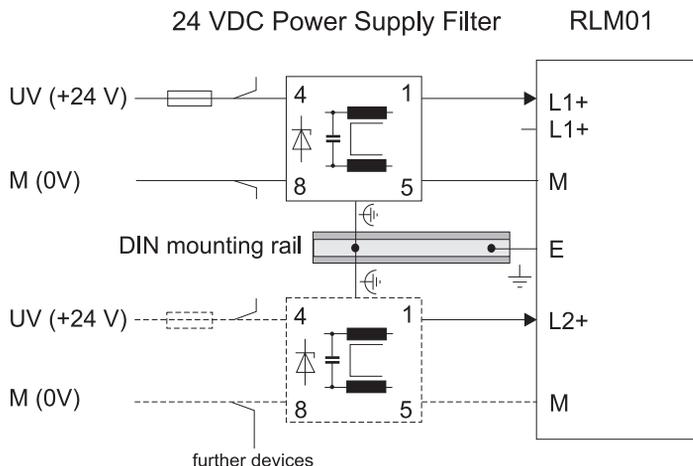
Figure 8. RLM01 with 24 VDC power supply filter