

Profibus cable measuring HowToDo

Structure of a Profibus segment with min. 2 stations.

You need a resistance meter for measuring. Measuring area 2kOhm. Connector 1 is the first station. Shield is the metal housing of the connector.

- 1. Unplug all Profibus connectors
- 2. Measure on connector 1 between pin 3 and 8.
 - Good: around 110 Ohm (cable length is not included)
 - Bad: much lower _ short circuit between A and B line.
 - > 200 Ohm _ only one termination activated.
 - > 1 kOhm _ no termination.
- 3. Measure on connector 1 between Pin 3 and 6.
 - Good: around 390 Ohm
 - Bad: much lower _ connector 1 defective much higher _ no termination on connector 1 or connector 1 defective
- 4. Measure on connector 1 between pin 8 and 5
 - Good: around 390 Ohm
 - Bad: much lower _ connector 1 defective
 - much higher _ no termination on connector 1 or connector 1 defective
- 5. Measure on connector 1 between pin 3 and shield or between pin 8 and shield.
 Good: endless or high _ shield isolated from signal cables.
 Bad: low ohm value _ short circuit between shield and signal cables.
- 6. Measure on connector 2 between pin 3 and 6
 - Good: around 390 Ohm
 - Bad: much lower _ connector 2 defective
 - much higher _ no termination on connector 2 or connector 2 defective
- 7. Measure connector 2 between pin 5 and 8.
 - Good: around 390 Ohm
 - Bad: much lower _ connector 2 defective much higher _ no termination on connector 2 or connector 2 defective