

Universal tester PAtest

Function

The Universal tester PAtest is a measuring device used to check the bus physics and the communication of the bus device in the PROFIBUS PA. The measurements are performed while the system is running. Two function keys make use every easy. The display classifies the measuring results either as "OK" or "BAD".

The following parameters are measured:

- The number of devices in the segment concerned
- Live-list display
- Log-on and log-out of devices
- Error and repeat telegrams
- Display of segment voltage
- Display of signal level of all devices
- Short-circuit detection between signal cores and cable shield
- Measurement of noise level average and peak

The test records of eight segments can be stored internally on the device and later transmitted to the PC according to a USB interface. They can then be analysed by Microsoft® Excel.

Bus connection

The device is supplied directly according to the PROFIBUS PA and so it needs neither a battery nor an external power supply. This makes the PAtest suitable for use in explosion-hazardous zones.

Approvals

- CE / FCC / ATEX Ex ia IIC T4
- FM US ad Canada:
 - Class I, Div 2, ABCD, T4
 - Class I, Zone 2, IIC T4
 - Class I, Div 1, ABCD, T4
 - Class I, Zone 0, 1, AEx/Ex ia IIC T4

Technical data

- Input voltage:
 - field bus operation: 8 to 32 VDC
 - USB operation: 4.1 to 5.5 VDC
- Input current:
 - fieldbus operation: max. 10 mA
 - USB operation: max. 30 mA
- Power loss:
 - fieldbus operation: max. 320 mW (at 32 VDC)
 - USB operation: max. 165 mW (at 5.5 VDC)
- Temperature range: -20 to +50 °C
- Dimensions (L x W x D): 146 x 88 x 28 mm
- Weight: 378 g
- Direct voltage measuring range: 8 to 32 ± 0.5 VDC
- Signal level measuring range: 0.12 to 2 Vss ±10 % ±25 mVss

Operating systems

- Windows 2000, Windows XP, Windows Server 2003, Windows Vista, Windows 7

Scope of delivery

- PAtest incl. MBP and USB interface
- Connecting cable incl. measurement adapters
- USB cable

Ordering details

PAtest

Art. No.

110010001



PAtest

Report 1 Segment Report			
Segment Measurements	Data	Acceptable Values	OK/BAD
Voltage	31.6V	9.0V Minimum	OK
Lowest Device Signal	1346mV	151mV Minimum	OK
Lowest Device Signal Address	2 (2H)		
Avg Fieldbus Frequency Noise	0mV	74mV Maximum	OK
Peak Fieldbus Frequency Noise	5mV	74mV Maximum	OK
Avg Low Frequency Noise	0mV	149mV Maximum	OK
Peak Low Frequency Noise	25mV	149mV Maximum	OK
Avg High Frequency Noise	0mV	149mV Maximum	OK
Peak High Frequency Noise	15mV	149mV Maximum	OK
Shield Short	No Shorts	No Shorts	OK
Most Recent Add/Drop Address	22 (16H)		
Device Add or Drop	Drop	None Added/Dropped	BAD
Number of Active Devices	2		
Device Measurements			
Device Address	Data	Acceptable Values	OK/BAD
Device Address	2 (2H)		
Signal Level	1392mV	151mV Minimum	OK
Added/Dropped	Not Added/Dropped	Not Added/Dropped	OK
Master or Slave	Master		
Retransmits	0	0	OK
Device Address	21 (15H)		
Signal Level	1458mV	151mV Minimum	OK
Added/Dropped	Added	Not Added/Dropped	WARN
Master or Slave	Slave		
Retransmits	1	0	BAD
Device Address	22 (16H)		
Signal Level	1428mV	151mV Minimum	OK
Added/Dropped	Dropped	Not Added/Dropped	BAD
Master or Slave	Slave		
Retransmits	2	0	BAD

Measurement Summary: 4 Measurements are BAD and 1 WARNING

Report