

# Manufacturer Information

For users regarding firmware and hardware updates  
(in accordance with the NAMUR 53 recommendation)

## 1 Type of device

- Field device / signal processing device
- Monitoring / operating system

Manufacturer : Endress+Hauser SE+Co. KG  
 Product : Cerabar / Deltabar  
 Part number / Order code : Cerabar: PMC51B, PMC71B, PMP51B, PMP71B  
 Deltabar: PMD55B, PMD75B, PMD78B

Communication / Interface : Communication Device Type  
 HART Cerabar: 0x112A  
 Deltabar: 0x1131

## 2 Firmware, Hardware I

Type of change:

- Firmware version
- Hardware I revision

Old version / revision : 01.00.zz  
 New version / revision :

How can the old Firmware version number be identified:

Description of the modification with respect to the old Firmware version:

- New safety manual with new values for safety-related characteristic values

Device	$\lambda_{DU}$		PTC- Test sequence A		PTC- Test sequence B	
	Previous	New	Previous	New	Previous	New
<b>Cerabar PMC51B/PMC71B</b>	15 FIT	25 FIT	94%	95%	61%	60%
<b>Cerabar PMP51B/PMP71B</b>	15 FIT	25 FIT	92%	95%	55%	51%
<b>Deltabar PMD55B/PMD7xB</b>	15 FIT	25 FIT	92%	95%	55%	51%

- No software or hardware modifications
- Reason: existing electrical components are to be used in a new development project. The FMEDA led to a new evaluation of the failure behavior and different conservative assessment. This new assessment was adopted also for the current devices.

### 3 Functional Safety

Impact on Functional Safety:

- No
- Yes

The previous safety-related characteristic values describe in the functional safety manual may cause customers to define longer proof test intervals which can be calculated from the  $\lambda_{DU}$  values.

For all devices and operating modes (SIL2/SIL3), the calculated proof test interval is longer than the useful lifetime of the device (assumption: 35% of PFDavg for sensor). This means that theoretically, based on the calculations no proof test is required over the useful lifetime according to IEC61508-2:2010 section 7.4.9.5 note 3.

The new safety figures hence have no practical influence on the proof test intervals as proof tests are performed in shorter intervals over the useful lifetime.

Changes in safety figures:

- No
- Yes → new figures refer to Safety Manual (chapter 5)

### 4 Compatibility (Firmware, Hardware I)

Is the new Firmware version compatible with the previous version, the installed device drivers, the operating tool compatible / is the new Hardware I revision compatible with the previous revision?

- Yes
- No, description:

Is a Firmware / Hardware I update generally recommended?

- Yes, reason:
- No, reason: no software or hardware modification

### 5 Documentation

#### Instruction manual

Is a new instruction manual required because of the changes in point 2?

- Yes
- No

#### Safety manual

Is a new safety manual required because of the changes in point 2?

- Yes
- No

Which safety manual corresponds to the new Firmware version:

Device	Manual	Documentation code
Cerabar PMC51B	FY01025P/03.24	Functional safety
Cerabar PMC71B	FY01026P/03.24	
Cerabar PMP51B	FY01027P/03.24	
Cerabar PMP71B	FY01028P/03.24	
Deltabar PMD55B	FY01029P/03.24	
Deltabar PMD75B	FY01030P/03.24	
Deltabar PMD78B	FY01031P/03.24	

The new manuals can be downloaded from the Internet:

[www.endress.com](http://www.endress.com)

- area "DOWNLOADS"

- enter the device details and type of manual

## 6 Price

Has the price of the device changed?

- Yes, new list price and update costs (without installation) are attached  
 No