

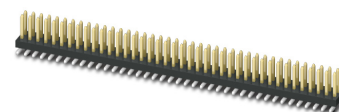
# Data sheet

2021-06-25  
Product version 00  
Document revision 00

**Order No.: 1156865**

**Type: FQ 1,27D/ 80-PV- 160-1-BR**

**SMD pin header, Reflow soldering**



The figure shows the 80-pos. version

## 1 Main features



- |                |              |                        |                 |
|----------------|--------------|------------------------|-----------------|
| • No. of pos.  | 80           | • Nominal current      | 1 A             |
| • Test voltage | 500 V AC     | • Mounting type        | SMD soldering   |
| • Color        | black (9005) | • Connection direction | 90 °            |
| • Pitch        | 1.27 mm      | • Type of packaging    | 72 mm wide tape |

## 2 Your advantages

- ✓ Reliable mechanical and electrical connections thanks to the double-sided contact system
- ✓ Designed for integration into the SMT soldering process
- ✓ Clear and cost-optimized design
- ✓ Suitable for a multitude of applications



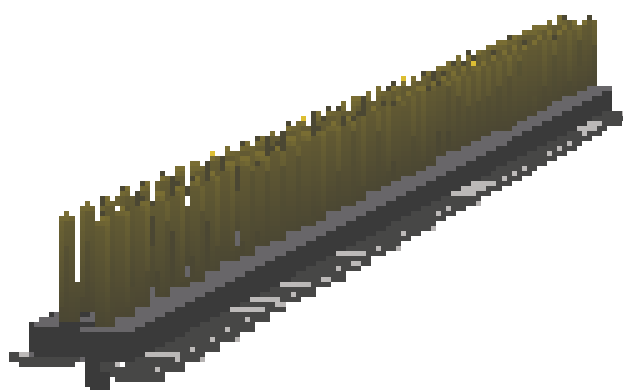
Make sure you always use the latest documentation.  
It can be downloaded at: [phoenixcontact.net/product/1156865](https://phoenixcontact.net/product/1156865)

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****3 Table of contents**

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1156865 FQ 1,27D/ 80-PV- 160-1-BR

#### 4 3D model in PDF can be activated (Acrobat Reader only)



**1156865 FQ 1,27D/ 80-PV- 160-1-BR****5 General Technical Data****5.1 item properties**

|                                                  |                           |
|--------------------------------------------------|---------------------------|
|                                                  |                           |
| Order No.                                        | 1156865                   |
| Type                                             | FQ 1,27D/ 80-PV- 160-1-BR |
| Connector system                                 | FINEPITCH FQ 1,27         |
| Product type                                     | SMD pin header            |
| Type of contact                                  | Male connector            |
| Range of articles                                | FQ 1,27D/...-PV           |
| Pitch                                            | 1.27 mm                   |
| Number of positions                              | 80                        |
| Number of levels                                 | 2                         |
| Type of locking                                  | without                   |
| Mounting type                                    | SMD soldering             |
| Connection direction of the connector to the PCB | 90 °                      |
| Pin layout                                       | Linear pad geometry       |

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****6 Mounting****6.1 Flange mounting**

|                 |         |
|-----------------|---------|
| Type of locking | without |
|-----------------|---------|

**6.2 Material of metal parts**

|                                        |                                                                         |
|----------------------------------------|-------------------------------------------------------------------------|
| Note                                   | WEEE/RoHS-compliant, whisker-free acc. to IEC 60068-2-82/JEDEC JESD 201 |
| Contact material                       | Cu alloy                                                                |
| Surface contact area                   | Nickel (Ni) , Gold (Au)                                                 |
| Soldering area surface                 | Tin (Sn)                                                                |
| Surface characteristics                | Selective coating                                                       |
| Insulating material data               | Housing                                                                 |
| Color                                  | black (9005)                                                            |
| Insulating material                    | PA                                                                      |
| Insulating material group              | I                                                                       |
| CTI according to IEC 60112             | 600                                                                     |
| Flammability rating according to UL 94 | V0                                                                      |

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****7 Dimensions****7.1 Dimensions for the product**

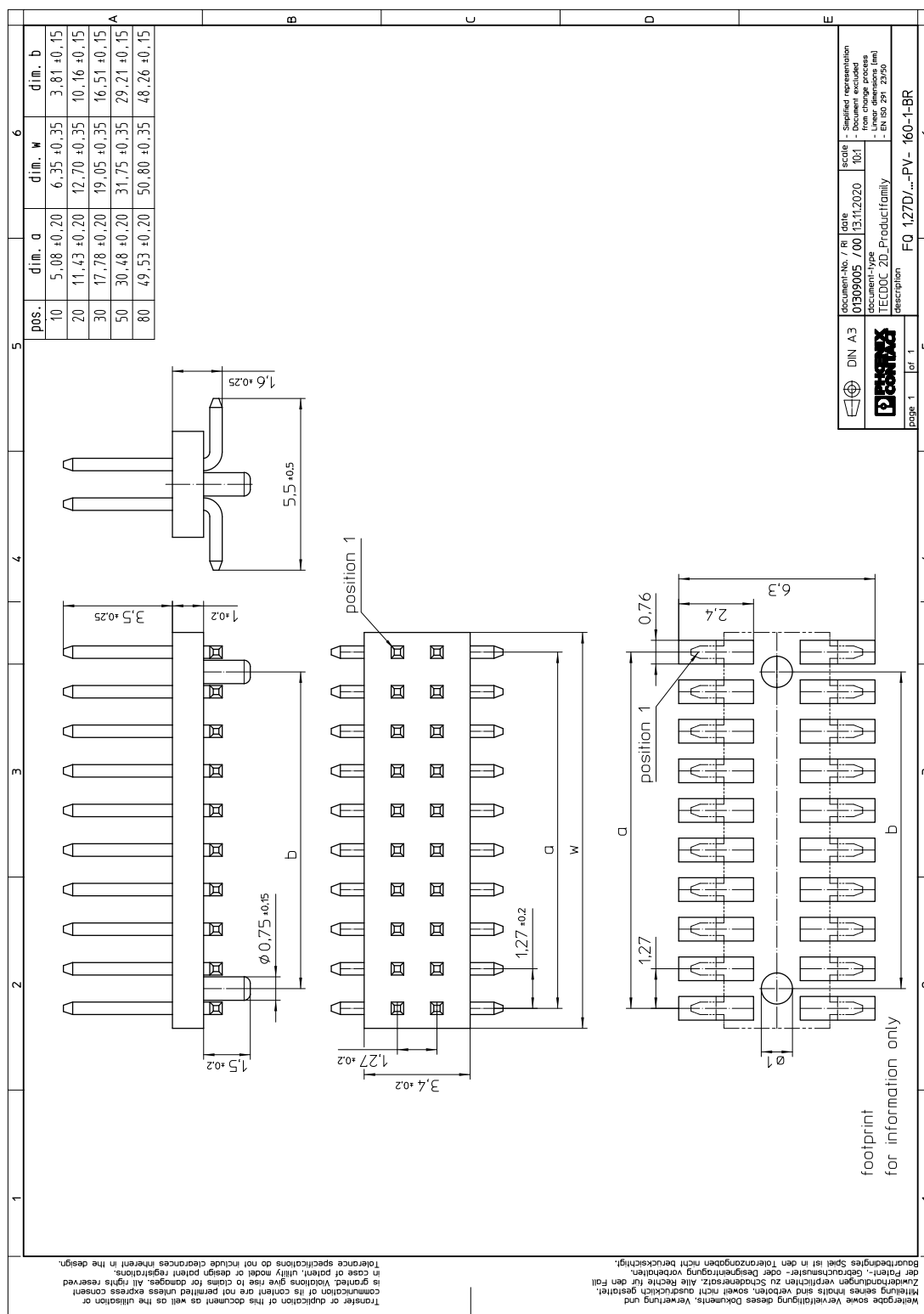
|                  |          |
|------------------|----------|
|                  |          |
| Length           | 5.5 mm   |
| Width            | 50.8 mm  |
| Total height     | 6 mm     |
| Installed height | 5.1 mm   |
| Coplanarity      | ≤ 0.1 mm |

**7.2 Dimensions for the application**

|                 |                                                                                   |
|-----------------|-----------------------------------------------------------------------------------|
|                 |                                                                                   |
| Contact cover   | 0.4 mm                                                                            |
| Overlap length  | 1.3 mm                                                                            |
| Stacking height | 6.2 mm Tolerance: +1.3 mm (in combination with Range of articles:FQ 1,27D/...-SV) |

## 1156865 FQ 1,27D/ 80-PV- 160-1-BR

## 8 Series drawing



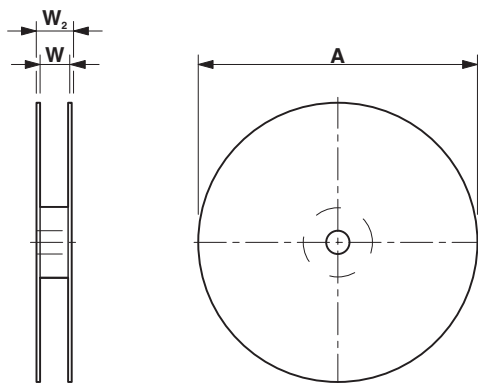
**1156865 FQ 1,27D/ 80-PV- 160-1-BR****9 Product notes****9.1 General information**

Notes on operation

The permissible voltage during operation depends on the application, taking into consideration the air clearances and creepage distances within the scope of insulation requirements in accordance with IEC 60664-1.

**10 Packaging information**

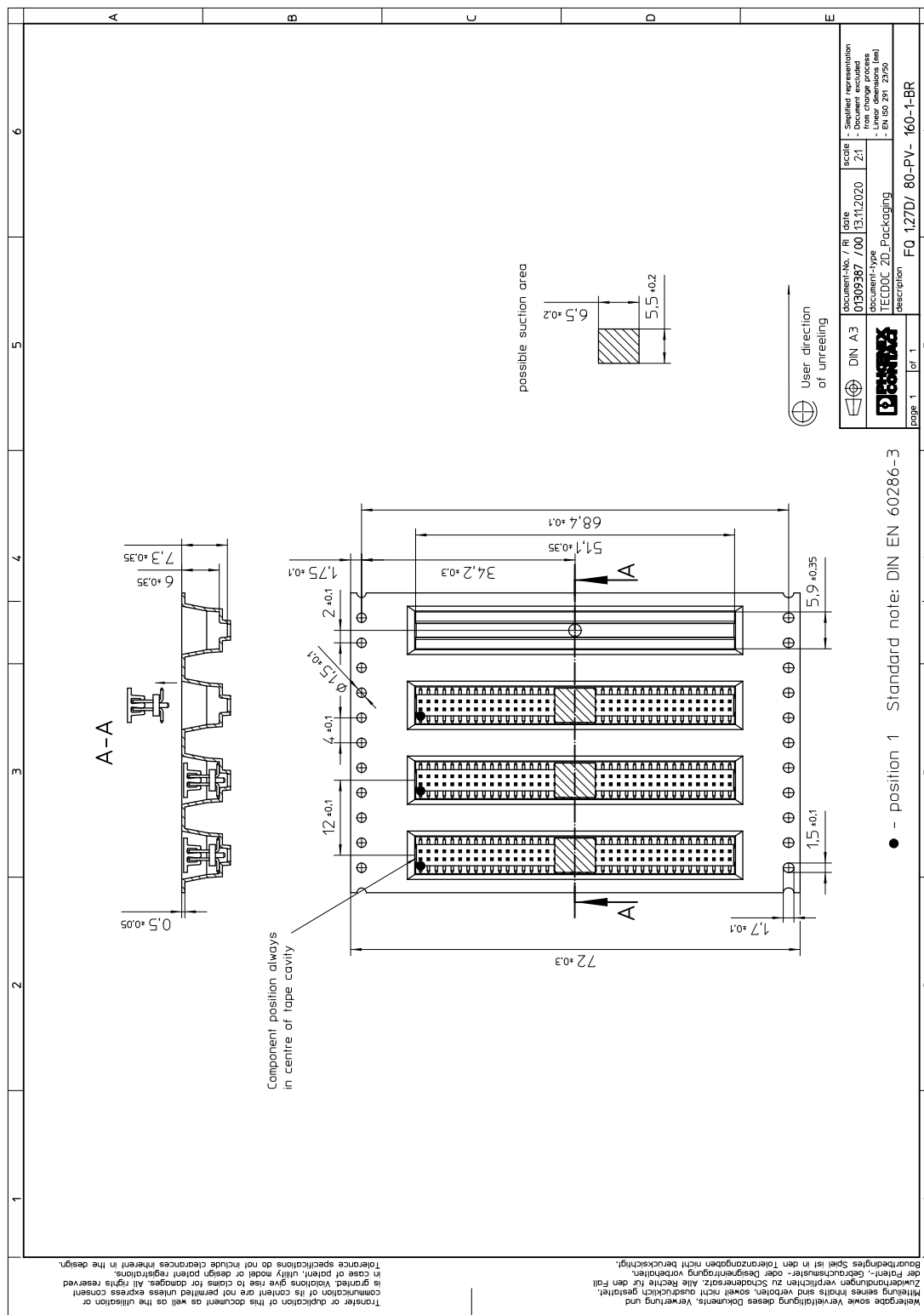
|                             |                                          |
|-----------------------------|------------------------------------------|
| Type of packaging           | 72 mm wide tape                          |
| Pieces per package          | 700                                      |
| Outer packaging type        | Transparent-Bag                          |
| ESD level                   | (D) electrostatically conductive         |
| Specification               | DIN EN 61340-5-1 (VDE 0300-5-1): 2008-07 |
| [W] tape width              | 72 mm                                    |
| [A] coil diameter           | 330 mm                                   |
| [W2] coil overall dimension | 78.4 mm                                  |
| Number of products per coil | 700                                      |





1156865 FQ 1,27D/ 80-PV- 160-1-BR

# 11 Blister drawing



**1156865 FQ 1,27D/ 80-PV- 160-1-BR**

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## 12 Application

### 12.1 Temperature limit values

|                                         |                   |
|-----------------------------------------|-------------------|
| Ambient temperature (storage/transport) | -40 °C ... 70 °C  |
| Ambient temperature (assembly)          | -5 °C ... 100 °C  |
| Ambient temperature (operation)         | -40 °C ... 125 °C |

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****13 General tests****13.1 Specification**

Brief description

Board-to-board connectors

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****14 Mechanical tests****14.1 Insertion and withdrawal force per contact**

|                                            |                      |
|--------------------------------------------|----------------------|
| Insertion and withdrawal force per contact | $\leq 1.2 \text{ N}$ |
|--------------------------------------------|----------------------|

|               |                                   |
|---------------|-----------------------------------|
| Specification | IEC 60512-9-1:2010-03 (following) |
|---------------|-----------------------------------|

|                                 |
|---------------------------------|
| 100 Insertion/withdrawal cycles |
|---------------------------------|

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****15 Electrical tests**

|                          |                                     |
|--------------------------|-------------------------------------|
| Nominal current at 20 °C | 1 A IEC 60512-5-2:2002-02 (80-pos.) |
| Test voltage             | 500 V AC IEC 60512-4-1:2003         |

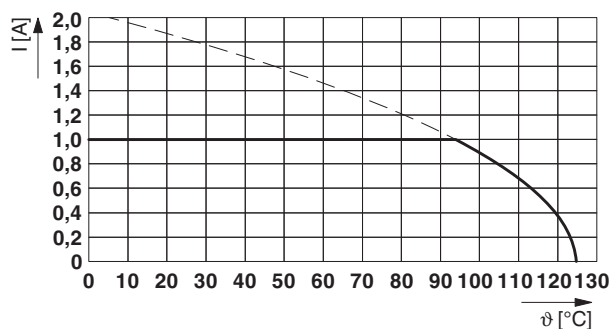
**15.1 Air and creepage distances**

|                                                   |         |
|---------------------------------------------------|---------|
| Minimum value for clearance and creepage distance | 0.25 mm |
|---------------------------------------------------|---------|

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****16 Current carrying capacity/derating curves**

|                  |                            |
|------------------|----------------------------|
| Specification    | IEC 60512-5-2:2002-02      |
| Note             | max. 1 A at 20°C (80-pos.) |
| Reduction factor | 0.8                        |

**Type: FQ 1,27D/...-SV- 490-1-BR with FQ 1,27D/...-PV- 160-1-BR**

**16.1 Insulation resistance**

|                       |                                          |
|-----------------------|------------------------------------------|
| Insulation resistance | > 1 G $\Omega$ , (IEC 60512-3-1:2002-02) |
|-----------------------|------------------------------------------|

**16.2 forward resistance**

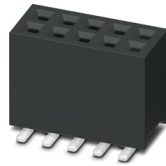
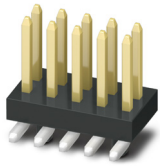
|                    |                                                |
|--------------------|------------------------------------------------|
| Contact resistance | $\leq 30$ m $\Omega$ , (IEC 60512-2-1:2002-02) |
|--------------------|------------------------------------------------|

**16.3 Vibration test**

|                        |                       |
|------------------------|-----------------------|
| Specification          | IEC 60068-2-6:2007-12 |
| Result                 | Test passed           |
| Frequency              | 10 - 55 - 10 Hz       |
| Sweep speed            | 1 octave/min          |
| Amplitude              | 1.52 mm               |
| Acceleration           | 181 m/s <sup>2</sup>  |
| Test duration per axis | 2 h                   |
| Test directions        | X-, Y- and Z-axis     |
| Note                   |                       |

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****17 Commercial Data**

|                    |                                                      |
|--------------------|------------------------------------------------------|
|                    |                                                      |
| Order No.          | 1156865                                              |
| Type               | FQ 1,27D/ 80-PV- 160-1-BR                            |
| Pieces per package | 700                                                  |
| Net weight         | 2.076 g                                              |
| GTIN               | 4063151160548                                        |
|                    | Information that applies locally, see link on page 1 |

**1156865 FQ 1,27D/ 80-PV- 160-1-BR****18 Combination tests****FQ 1,27D/...-PV****Mechanical tests**

Insertion/withdrawal force per position

**FQ 1,27D/...-SV**

approx. 1.2 N / 1.2 N

**Durability tests**Contact resistance  $R_1$ 20 m $\Omega$ 

Insertion/withdrawal cycles

100

Contact resistance  $R_2$ 30 m $\Omega$ 

Test voltage

500 V AC

Insulation resistance  
Requirements > 5 M $\Omega$ > 1 G $\Omega$ **Thermal tests**

Tested number of positions

80

Test current

1 A



单击下面可查看定价，库存，交付和生命周期等信息

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