

Press Release

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 **SCHURTER**
ELECTRONIC COMPONENTS

PSE EX: Piezo switch for use in hazardous environment

SCHURTER Piezo switch with ATEX / IECEx - certification



The PSE EX 16 family has been extended to include the PSE EX 19 and PSE EX 22 mounting diameter. Furthermore, the certification of the PSE EX was enhanced and expanded. The PSE EX family is approved for use in potentially explosive atmospheres containing air and gases. Further application areas also include industrial sectors such as mills, where solids are found in smallest form as dust, which may be prone to self-ignition.

Flammable substances such as gases, vapors or mist which are released into the environment, e.g. while in production, during transportation or storage, may ignite and pose serious consequences for persons and property. The same is true for dust which may develop in conjunction with air to an explosive atmosphere. To ensure security in these areas, the Device Directives 94/9/EC was developed for products and protection systems. The purpose of the guidelines is the protection of personnel and devices which are working in such hazardous areas. This is done by eliminating all possible sources of fire and ignitions in the products and systems used in these areas.

The PSE EX family is certified according to ATEX and IECEx regulations. The area of application is consistent with that of the device group II (other areas than mining). It comprises systems with a potentially explosive atmosphere consisting of a mixture of air and gases, vapors or mists or in industrial areas where dust-air blends infuse the atmosphere and the danger of a dust explosion can arise.

The approval marking is Ex II 2 GD (according ATEX regulations), Ex ib IIC T6 ... T5 Gb and Ex ib IIIC T85 ° C ... T100 ° C Db (according IEC regulations) for gases and dust.

The temperature class was extended from T4 to T5 and T6. Therefore the permissible power dissipation of the PSE EX was limited accordingly so that the piezo switch is intrinsically safe according to EN60079-11. In addition, the flammability group was increased from IIB to IIC, respectively IIIC (gas, dust). This extension will allow the use of the PSE EX in atmosphere with further type of gases, combustible dust, ignitable fibers and flyings.

Typical applications include oil and gas exploration rigs, petrochemical facilities, environments of transportation and storage of combustible materials, paint mixing devices, painting devices, grain mills, wood processing industry, chemical plants etc.

The PSE EX standard models are available with mounting diameters of 16, 19 and 22 mm with pin connectors and housing colors in red, green or natural aluminum. On request other colors, housing diameters and connection versions are obtainable. The switches for hazardous use have a label with the particulars of the certification and an identification number. Installation instructions are included in the packaging according to the ATEX directives. For detailed specifications see datasheet PSE EX.

Technical data / Approvals:

- PSE EX 24V, 40 mA, PT6 = 0.7 W, PT5 = 0.96 W
- ATEX II 2 G D
- IEC Ex ib IIC T6...T5 Gb
- IEC Ex ib IIIC T85°C...T100°C Db

Internet:

- [Datasheet PSE EX 16](#) [1]
- [Datasheet PSE EX 19](#) [2]
- [Datasheet PSE EX 22](#) [3]
- [Metal Line Switches](#) [4]

Company:

SCHURTER continues to be a progressive innovator and manufacturer of electronic and electrical components worldwide. Our products ensure safe and clean supply of power, while making equipment easy to use. We offer a broad range of standard products including circuit protection, connectors, EMC products, switches and input systems, as well as electronic manufacturing services. Moreover, SCHURTER is ready to work with our customers to meet their application specific requirements, not covered in our standard range. You can rely on SCHURTER's global network of companies and partners to guarantee a high level of local service and product delivery.

Contact:

Should you have any questions regarding these or other SCHURTER products, please contact.

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[1]: http://www.schurter.com/en/datasheet/PSE_EX_16

[2]: http://www.schurter.com/en/datasheet/PSE_EX_19

[3]: http://www.schurter.com/en/datasheet/PSE_EX_22

[4]: http://www.schurter.ch/wwwsc/con_pg70.asp