



### DESCRIPTION:

A wide range of feedthrough configurations enables precise integration with the device and its enclosure. PIWO feedthroughs can be equipped with threaded housings and sleeves of various diameters. Additionally, depending on application requirements, copper conductors, fiber optic cables, and various types of connection sockets and terminal blocks can be used. Compliance of the design with the requirements of PN-EN 60079-0 and PN-EN 60079-1, together with the highest manufacturing quality ensuring the required level of explosion protection, has been confirmed by the EU-type examination certificate KDB13ATEX0042X. The certificate allows the use of feedthroughs in Ex equipment without the need for assembly recertification.

PIWO for use in Ex explosion hazard zones.

The PIWO-type multi-core insulated flameproof feedthroughs are designed to route conductors between compartments within flameproof enclosures or between a flameproof section of an enclosure and a compartment with a different type of explosion protection. These feedthroughs are intended for use in electrical equipment of Group I, Category M2, and industrial equipment of Group II, Category 2 (for gas groups IIA, IIB, and IIC), operating in hazardous areas with explosive gas and/or dust atmospheres.

### PRODUCT FEATURES:

- suitable for use in Zone 1, Zone 2, and mining applications;
- wide range of standard and custom configurations;
- maximum voltage: up to 3600 V DC and 6000 V AC for 1.5 - 4 mm<sup>2</sup> conductors;
- maximum current: up to 28 A for 4 mm<sup>2</sup> conductors;
- up to 20 optical fibers;
- up to 47 copper conductors;
- option to terminate the feedthrough with a connector or terminal block;
- copper conductor cross-sections from 0.5 mm<sup>2</sup> to 4 mm<sup>2</sup>;
- metric-threaded bushings (pitch 1 - 2 mm) or unthreaded bushings;
- operating temperature range for copper conductors: -30 °C to +120 °C;
- operating temperature range for fiber optic cables: 0 °C to +60 °C;





### PRODUCT FEATURES (cont.):

- suitable for use in certified Ex equipment without the need for recertification.

### TYPICAL APPLICATIONS:

- connections between flameproof (Ex d) compartments and between these and compartments with other types of explosion protection;
- connections between compartments with intrinsically safe (Ex i) equipment and compartments with non-intrinsically safe equipment.

### TECHNICAL PARAMETERS:

Operating temperature range:	electrical feedthroughs: -30°C to +120°C; fiber optic feedthroughs: 0°C to +60°C
Number of conductors and optical fibers:	electrical feedthroughs: 1 - 47; fiber optic feedthroughs: 1 - 20
Cross-sectional areas of conductors and optical fibers:	0,5 - 4 mm <sup>2</sup>
Metric thread size range:	M16 - M50; thread pitch range: 1 - 2 mm
Type designation:	PIWO-*1-*2-*3-*4 *1 - cable type (K: copper, S: fiber optic); *2 - thread diameter; *3 - number of conductors and optical fibers; *4 - cross-sectional area of the copper conductor
ATEX and IECEx certifications:	Ex: I M2 Ex db I Mb; Ex: II 2G Ex db IIC Gb

### TABLE OF TYPICAL FEEDTHROUGH CONFIGURATIONS:

Feedthrough type	Conductor/Fiber optic core diameter range D	Number of conductors and optical fibers Z	Thread designation	Thread length	Overall length	Hex head size
PIWO-K-M16x1,5-Z-D, PIWO-S-M16x1,5-Z	0,5÷2,5 mm	1÷9	M16x1,5	20 mm	25 mm	19 mm
PIWO-K-M20x1,5-Z-D, PIWO-S-M20x1,5-Z	0,5÷2,5 mm	1÷9	M20x1,5	20 mm	25 mm	24 mm
PIWO-K-M24x1,5-Z-D, PIWO-S-M24x1,5-Z	0,5÷2,5 mm	1÷12	M24x1,5	20 mm	25 mm	27 mm
PIWO-K-M28x1,5-Z-D, PIWO-S-M28x1,5-Z	0,5÷4 mm	1÷12	M28x1,5	20 mm	25 mm	27 mm
PIWO-K-M32x1,5-Z-D, PIWO-S-M32x1,5-Z	0,5÷4 mm	1÷15	M32x1,5	23 mm	29 mm	36 mm
PIWO-K-M36x1,5-Z-D, PIWO-S-M36x1,5-Z	0,5÷4 mm	1÷25	M36x1,5	23 mm	30 mm	41 mm
PIWO-K-M38x1,5-Z-D, PIWO-S-M38x1,5-Z	0,5÷4 mm	1÷32	M38x1,5	23 mm	30 mm	41 mm
PIWO-K-M42x -Z-D, PIWO-S-M42x -Z	0,5÷4 mm	1÷32	M42x1,5, M42x2	23 mm	30 mm	46 mm
PIWO-K-M50x -Z-D, PIWO-S-M50x -Z	0,5÷4 mm	1÷47	M50x1,5, M50x2	28 mm	35 mm	55 mm