## Features

- 1-channel
- Plugs directly in to field side of KF modules
- Analog or digital signal inputs
- Surge protection up to 10 kA
- Protects leads 1 and 2 of KF modules
- Uninterruptable operation (auto reset)


## Function

This Surge Protection Barrier is designed for use with KSystem (KF modules).

By simply snapping the barriers into a standard KF module, the modules are safely protected against voltage surges of different origin (e. g. lightning stroke, switching impulse, etc.). This is achieved by diverting the transient current to ground and limiting the signal line voltage to a safe level for the duration of the surge.
The end digits of the model designation correspond to the protected terminals of the respective KF module.

For additional information, refer to the manual and www.pepperl-fuchs.com.

Note: Surge Protection Barriers must always be connected to a solid and effective ground and be at the same equipotential level as the instrument it is protecting. The ground system must comply with all applicable regulations.

## Assembly

Front view

c $\epsilon$

## Connection



Zone 2 Div. 2

| Signal lines |  |
| :---: | :---: |
| Connection | terminals 1, 2 |
| Rated voltage $\quad \mathrm{U}_{\mathrm{B}}$ | $\leq 30 \mathrm{~V}$ |
| Rated current $I_{B}$ | $\leq 250 \mathrm{~mA}$ |
| Leakage current | $\leq 5 \mu \mathrm{~A}$ |
| On-state voltage | $\leq 45 \mathrm{~V}$ |
| Ground insulation | $\leq 500 \mathrm{~V}$ breakdown voltage |
| Conformity |  |
| Degree of protection | IEC 60529:2001 |
| Ambient conditions |  |
| Ambient temperature | $-20 \ldots 60^{\circ} \mathrm{C}\left(-4 \ldots 140^{\circ} \mathrm{F}\right)$ |
| Mechanical specifications |  |
| Degree of protection | IP20 |
| Mass | approx. 70 g |
| Dimensions | $20 \times 62 \times 115 \mathrm{~mm}(0.8 \times 2.4 \times 4.5 \mathrm{in})$ |
| Data for application in connection with Ex-areas |  |
| EC-Type Examination Certificate | PTB 02 ATEX 2044 , for additional certificates see www.pepperl-fuchs.com |
| Group, category, type of protection | Ex II (1)G [EEx ia] IIC |
| Voltage $\mathrm{U}_{0}$ | $\leq 30 \mathrm{~V}$ |
| Current $I_{i}$ | $\leq 250 \mathrm{~mA}$ |
| Power $P_{0}$ | $\leq 1.3 \mathrm{~W}$ |
| Type of protection [EEx ia and EEx ib] |  |
| Maximum leakage current | $10 \mathrm{kA}(8 / 20 \mu \mathrm{~s})$ per conductor |
| Nominal response time |  |
| Symmetrical | 1 ns |
| Asymmetric | 100 ns |
| Series resistor | $\leq 0.5 \Omega$ per wire |
| Bandwidth | $\geq 40 \mathrm{kHz}$ |
| Declaration of conformity | Pepperl+Fuchs |
| Group, category, type of protection, temperature class |  |
| Directive conformity |  |
| Directive 94/9/EC | EN 50014, EN 50020, EN 50021 |
| International approvals |  |
| CSA approval |  |
| Control drawing | 116-0187 (cCSAus) |
| IECEx approval | IECEx BAS 12.0123 |
| Approved for | [Ex ia Ga] IIC, [Ex ia Da] IIIC, [Ex ia Ma] I |
| General information |  |
| Supplementary information | EC-Type Examination Certificate, Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see www.pepperlfuchs.com. |

## Accessories

1 Connection terminal
2 Mounting block
3 Spacing roller

4 Grounding rail

ZH-Z.AK16
ZH-Z.AB/SS
when mounting on 35 mm DIN EN 60715 mounting rail:

- installation height 15 mm : spacing roller ZH-Z.AR. 85
- installation height 7.5 mm : no spacing roller necessary

ZH-Z.NLS-Cu3/10


Keep the drilling distance of 116 mm between center mounting rail and center grounding bar.

