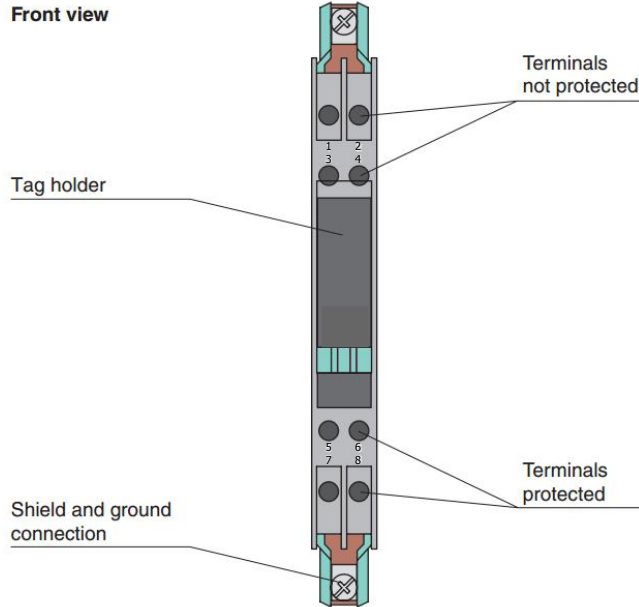


Surge Protector

4-20 mADC Current Loop



Surge-KG1

Features:

- 1-channel
- DIN rail mount module
- For 30 V Non-IS applications
- Protects field or control circuit inputs
- Max. surge current (8/20) 20 kA
- Uninterruptable operation (auto reset)

Functions:

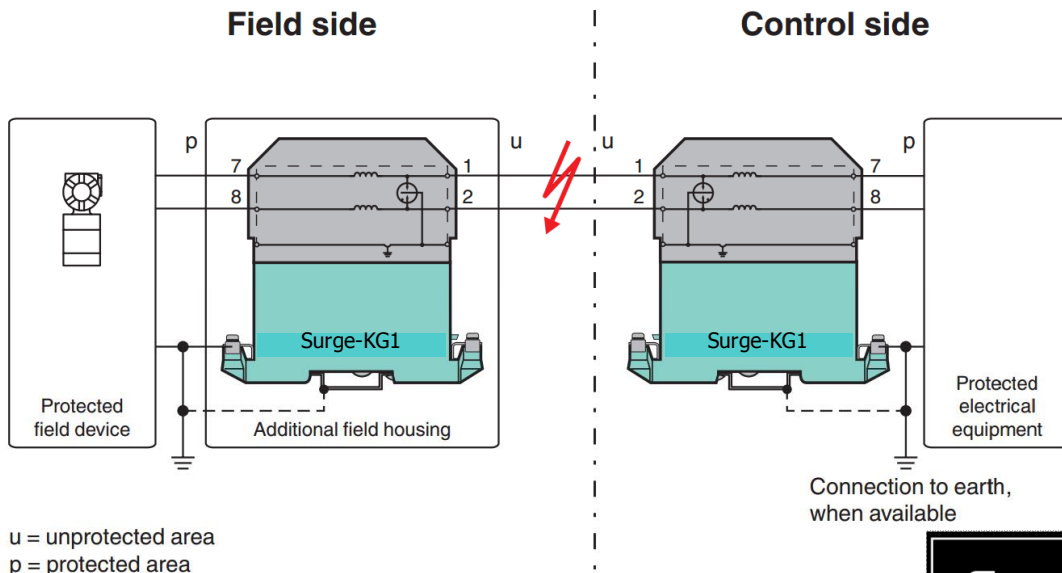
The Surge-KG1 Surge Protection Barrier limits induced transients of different origin (e. g. lightning stroke, switching impulse, etc.). Protection is achieved by diverting the transient current to ground and limiting the signal line voltage to a safe level for the duration of the surge.

The barrier provides a low line-to-line and line-to-ground clamping voltage for the protected instrument. It also protects instruments that have less than 500 V isolation-to-ground, such as Zener Barriers, standard I/O cards, and some field instruments.

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.

Application:

The Surge-KG1 provides protection for electrical apparatus that's operating on a 4-20mADC loop. Typically two of the Surege-KG1's are used, as shown below, to protect the equipment at either end of the loop.



Surge-KG1

Technical Data:

Supply Connection: protected area: terminals 7, 8
unprotected area: terminals 1, 2

Rated voltage: ≤ 30 V
Rated current: ≤ 250 mA
Leakage current: ≤ 5 μ A
On-state voltage: ≤ 45 V

Electrical specifications

Surge Current (8/20): In 10 kA per core, 5 kA per line (10x)
Max. surge current (8/20): I_{max} 20 kA per core, 10 kA per line (1x)

Conformity

Degree of protection: IEC 60529

Ambient conditions

Ambient temperature -30 ... 80 °C (-22 ... 176 °F) for Ex application, please observe EC-Type Examination Certificate

Mechanical specifications

Degree of protection IP20
Mass approx. 100 g
Dimensions 12.5 x 114 x 110 mm (0.5 x 4.5 x 4.3 in)

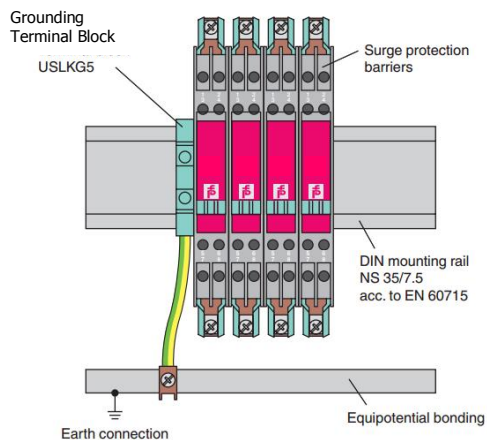
Voltage: U_i 30 V
Current: I_i 250 mA

Nominal response time:

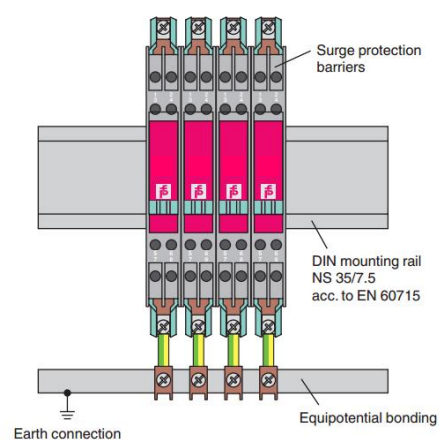
Symmetrical: 1 ns
Asymmetric: 100 ns

Series resistance: ≤ 0.3 Ω per conductor

Installation Examples:



Insulated mounting (group grounding)



Insulated mounting (individual grounding)

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