## Intrinsically Safe Radial Leaded Fuses

## ISF021/F Series Fuse



## IECEx / ATEX Certified Fuse – IEC 60127-3 – 250VAC – Quick Acting

#### Features

- IEC 60127-3/3 250 VAC Quick Acting
- Can operate continuously at full rated current
- Socket mountable IS Replaceable compatible sockets available
- Fuse resistance guaranteed for resistance ranges see specification P005-09
- Eliminates the need to encapsulate fuses in a circuit
- A minimum of 1mm of solid insulation is provided in all directions
- Speeds up Intrinsic Safety product certification process
- Suitable for Mining as well as Surface applications
- Directly solderable on printed circuit boards
- Low breaking capacity



#### **Standards**

IEC 60127-3/3 UL 248-14 CSA C22.2 no. 248.14

### **Approvals**

Pre-encapsulated Fuse:

VDE Certificate Number: 101035

UL File Number: E41599 CSA File Number: 51172

#### **Technical Data**

Rated Voltage	250VAC
Rated Current	0.04 – 5A
Breaking Capacity	35A
Characteristic	Quick Acting
Mounting	PCB, THT
Fuse Resistance	Tables available on request

Soldering Methods	Wave, Iron		
Solderability	235°C / 2 sec acc. to IEC 60068-		
	2-20 Test Ta, method 1		
Resistance to	260°C / 5 sec acc. to IEC 60068-		
Soldering Heat	2-20 Test Tb, method 1A		
Terminal Strength	MIL-STD-202, method 211A		
	(Deflection of board 1mm for 1 minute)		

### **Certification Details**

Marking required:

International Certification: IECEx SIR 07.0050U European Certification: Sira 05ATEX 2274U

Ex Protection: Ex ia I Ma

Ex ia IIC Ga

₹X II 1 G

 $-50^{\circ}$ C to  $+93^{\circ}$ C (I<sub>N</sub> = 5A max) -50°C to  $+80^{\circ}$ C (I<sub>N</sub> = 6.3A max)

I<sub>M1</sub>

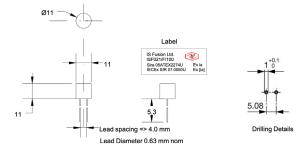
Maximum Installed Circuit Voltage: 90 Volts or 250 Volts under coating

#### **Conditions of Safe Use**

Ambient Temperature Range:

- 1) The mounting of the fuse shall be such that its creepage and clearances distances comply with table 5 of IEC 60079-11:2011
- 2) The maximum external surface temperature rise of the fuses: 85K
- 3) Due to size limitations, these overmoulded fuses bear no marking information or size identification; this information is shown on the product packaging label and detailed in this data sheet. Please refer to these items in order to determine the suitability of the particular fuse before use.

## **Dimensions**



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## **Pre-Arcing Time**

Rated Current In	1.5 x in max.	2.1 x in max.	2.75 x in min.	2.75 x in max.	4.0 x in min.	4.0 x in max.	10.0 x in max.
0.04A - 5A	60 min	30 min	10 ms	3 s	3 ms	300 ms	20 ms

Part Number	Rated Current (A)	Rated Voltag (VAC)	ge Breaking Capacity	Voltage Drop 1.0 In max. (mV)	Voltage Drop 1.0 In typ. (mV)	Power Dissipation 1.5 In max (mW)	Melting l <sup>2</sup> t 10.0 In typ. (A <sup>2</sup> s)
ISF021/F/040	0.04	250	1)	-	400	-	0.00016
ISF021/F/050	0.05	250	1)	850	460	110	0.0004
ISF021/F-063	0.063	250	1)	750	330	120	0.001
ISF021/F/080	0.08	250	1)	650	280	140	0.001
ISF021/F/100	0.1	250	1)	600	300	160	0.002
ISF021/F/125	0.125	250	1)	550	210	180	0.006
ISF021/F/160	0.16	250	1)	500	460	210	0.014
ISF021/F/200	0.2	250	1)	480	470	250	0.024
ISF021/F/250	0.25	250	1)	440	360	290	0.058
ISF021/F/315	0.315	250	1)	400	345	330	0.104
ISF021/F/400	0.4	250	1)	370	80	390	0.044
ISF021/F/500	0.5	250	1)	350	75	460	0.09
ISF021/F/630	0.63	250	1)	320	70	530	0.15
ISF021/F/800	0.8	250	1)	300	70	630	0.22
ISF021/F/1.0	1	250	1)	280	70	740	0.33
ISF021/F/1.25	1.25	250	1)	280	65	920	0.68
ISF021/F/1.6	1.6	250	1)	250	70	1000	0.94
ISF021/F/2.0	2	250	1)	240	70	1360	1.3
ISF021/F/2.5	2.5	250	1)	200	65	1310	1.9
ISF021/F/3.15	3.15	250	1)	180	65	1490	5.4
ISF021/F/4.0	4.0	250	2)	160	60	1680	7.9
ISF021/F/5.0	5	250	2)	150	60	1970	11.2

NOTE: 1) 35A @ 250 VAC and 2) 10 In @ 250 VAC