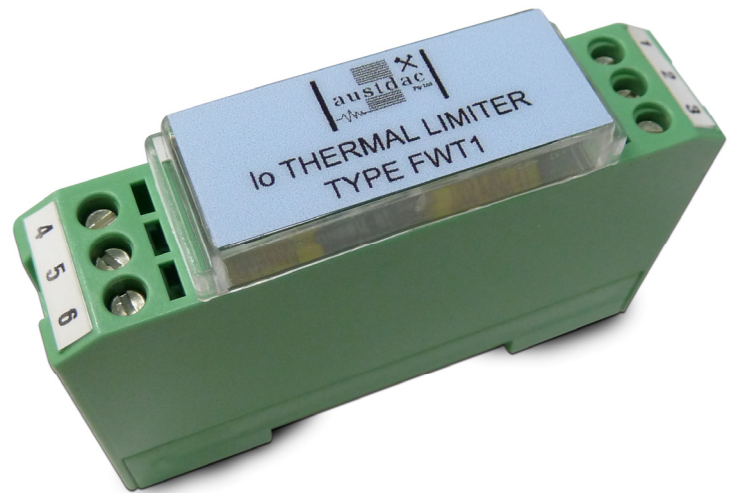


- ✂ **IECEX certified**
- ✂ **Wide selection of I_o currents**
- ✂ **Wide operating temperature range**
- ✂ **DIN rail mounting**
- ✂ **Wide operating voltage range**
- ✂ **Compact size**



DESCRIPTION

The thermal I_o limiter type FWT1 is an intrinsically safe I_o current limiter that may be used to match a load maximum input current (I_i) to a power supply maximum output current (I_o). The I_o limiter is particularly useful when constructing panels or systems with multiple intrinsically safe loads powered from the same intrinsically safe power source.

Occasionally one or several of the loads may have an I_i entity parameter that is lower than the I_o entity parameter of the power supply, making the connection of the load to the power source unsafe. The thermal I_o limiter type FWT1 solves this problem by providing an I_i parameter that is suitable for the power source and an I_o parameter that is suitable for the load.

The FWT1 is simply wired in series with the positive supply lead from the power source to the load with the low I_i parameter. Other loads connected directly to the power source are unaffected by the FWT1.

The U_o parameter of the power source and the U_i parameter of the load are unaffected by the I_o thermal limiter type FWT1 and still require assessment in accordance with IEC/AS/NZS 60079-25.

The FWT1 has two identical output circuits each with a separate fuse, these two circuits can be used to power individual loads or one circuit can be kept in reserve in case the first circuit fuse is ruptured due to a high load.

Never connect the two individual output circuits together to obtain higher output currents.

The FWT1 has a U_i entity parameter of 16.0 volts making it suitable for most installations encountered in coal mining applications.

The FWT1 is available with maximum I_o output currents ranging from 85mA to 1700mA.

The thermal I_o limiter is housed in a small IP20 (NEMA Type 1) DIN rail mounting enclosure measuring 75mm (H) x 17mm (W) x 52.5mm (D) (2.95" (H) x 0.67" (W) x 2.07" (D)) making it suitable for mounting in panels or enclosures where space is at a premium. The FWT1 must be housed within an enclosure having a minimum ingress protection rating of IP54 (NEMA Type 3).

CERTIFICATION

The thermal I_o limiter is IECEX certified for use in group I hazardous areas under certificate

IECEX TSA 10.0030X Ex ia I.

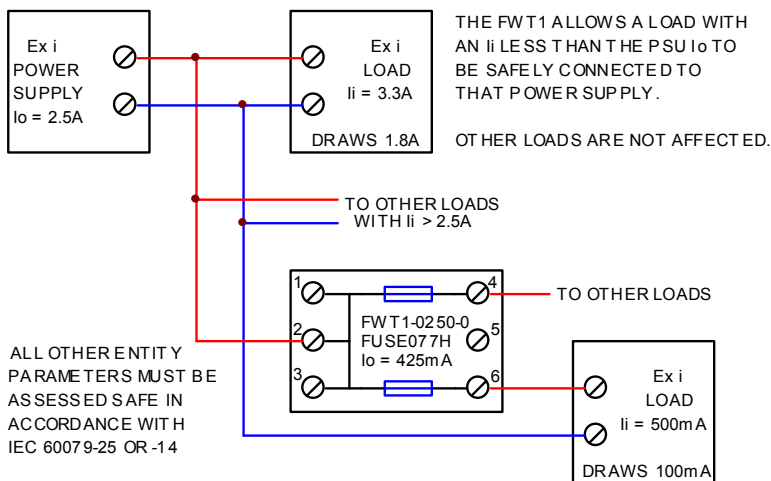
If the FWT1 is used in a hazardous area it must be fitted inside a host enclosure rated IP54 (NEMA Type 3) or greater.



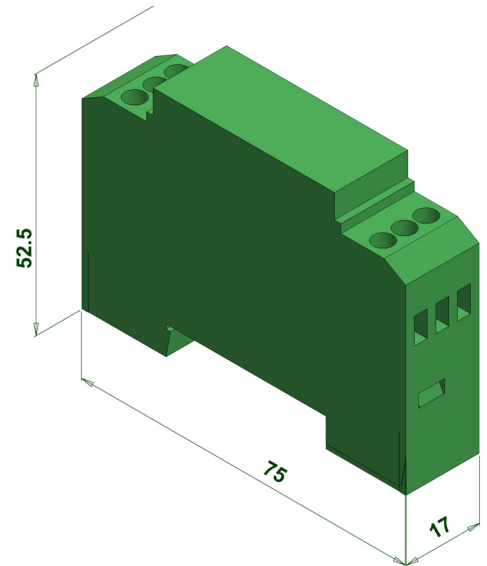
SPECIFICATION

GENERAL		TYPE	FUSE RATING	I _o THERMAL	ORDER CODE
Name	I _o Thermal Limiter	FWT1-0050-1	50mA	85mA	FUSE077A
Type	FWT1-xxxx-y	FWT1-0062-0	62mA	106mA	FUSE077B
Size	75mm (H) x 17mm (W) x 52.5mm (D) (2.95" (H) x 0.67" (W) x 2.07" (D))	FWT1-0080-1	80mA	136mA	FUSE077C
Mounting	DIN rail TS35	FWT1-0100-1	100mA	170mA	FUSE077D
Electrical connections	Clamp type terminal	FWT1-0125-0	125mA	213mA	FUSE077E
Maximum conductor size	2.5mm ²	FWT1-0160-1	160mA	272mA	FUSE077F
U _i	16V	FWT1-0200-1	200mA	340mA	FUSE077G
I _i	3.3A	FWT1-0250-0	250mA	425mA	FUSE077H
U _o	= U _i	FWT1-0250-1	250mA	425mA	FUSE077I
C _i	0μF + C _i of load(s)	FWT1-0375-0	375mA	638mA	FUSE077J
L _i	0mH + L _i of load(s)	FWT1-0500-0	500mA	850mA	FUSE077K
I _o (Thermal)	See table	FWT1-0750-0	750mA	1275mA	FUSE077L
Operating Temperature range	-20°C to +60°C (-4°F to 140°F)	FWT1-1000-0	1000mA	1700mA	FUSE077M
Ingress protection	IP20 (NEMA Type 1)				

CONNECTION DIAGRAM



DIMENSIONS



ORDERING DETAILS

DESCRIPTION	ORDER CODE
THERMAL I _o LIMITER TYPE FWT1	FUSE077(A-M) see table above



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