



FireCell

Current Consumption



Introduction

This document outlines the current consumption of the FireCell equipment range.

It is the responsibility of the installer / system designer to carry out calculations for the entire installation to ensure supply and battery backup requirements are compliant with local codes of practice.

Annex D of BS5839 for example, outlines the following method for calculating standby battery capacity:

D.1 Valve regulated lead acid batteries

D.1.1 The minimum capacity of valve regulated lead acid batteries should be calculated in accordance with the following formula:

$$C_{min} = 1.25 (T1 I1 + D I2/2)$$

where:

C_{min} = minimum capacity of the battery when new at the 20 h discharge rate and at 20 °C in ampere hours;

$T1$ = total battery standby period in hours;

$I1$ = total battery standby load in amperes;

$I2$ = total battery alarm load in amperes;

D = a derating factor.

D.1.2 Where $C_{min}/20$ will be equal to or greater than $I2$, it can be assumed that $D = 1$. When $C_{min}/20$ is less than $I2$, the value of D should either be based on the battery manufacturer's data or should be 1.75.

D.1.3 In practice, C_{min} is unlikely to correspond exactly to an available battery capacity and therefore the next highest available capacity size should be used.

D.2 Batteries other than valve-regulated lead acid batteries

The minimum capacity of batteries, other than valve regulated lead acid batteries, should be determined by consultation with the battery manufacturer and should take into account the standby load, the alarm load, any required derating to take account of the higher current drawn in the alarm condition and a derating factor to take account of battery ageing during the anticipated life of the battery.

 **Note: check your local codes of practice as calculation methodology may vary.**

Syncro / Syncro AS Control Panels

Syncro AS 1 Loop Analogue Addressable Fire Panel

Quiescent current	0.13A
Alarm current	0.3A
Max battery capacity	12V 9Ah



Syncro AS 2 Loop Analogue Addressable Fire Panel

Quiescent current	0.195A
Alarm current	0.37A
Max battery capacity	12V 9Ah



Syncro 2 Loop Analogue Addressable Fire Panel

Quiescent current	0.309A
Alarm current	0.535A
Max battery capacity	12V 12Ah*



* EMS part no FC-012-015 (12V 15Ah battery) can also be used as its physical dimensions are that of a 12Ah battery

Syncro 4 Loop Analogue Addressable Fire Panel

Quiescent current	0.431A
Alarm current	0.655A
Max battery capacity	12Ah*



* EMS part no FC-012-015 (12V 15Ah battery) can also be used as its physical dimensions are that of a 12Ah battery

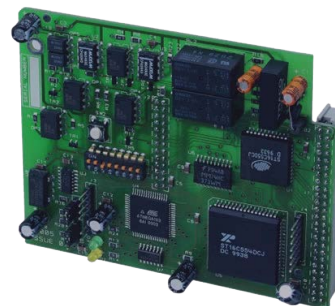
Syncro / Syncro AS Control Panel Networking

Network Card for wired or wireless networks

1 required per Fire Control Panel

Syncro AS Panel 0.06A

Syncro Panel 0.08A



FireCell RNC (Radio Network Communicator)

1 required per Fire Control Panel

Current consumption 0.027A



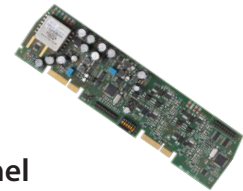
Taktis 2 Loop Analogue Addressable Fire Panel

Quiescent current	0.38A
Alarm current	0.53A
Max battery capacity	12V 26Ah



Taktis Additional 2 Loop Card - Max 8 loop panel capacity

Current Consumption 0.08A *



*Note maximum 3x additional 2 loop cards can be added to the 2 loop panel

Taktis Network Module for wired or wireless networks

1 required per Taktis Fire Control Panel

Current consumption 0.059A



Taktis RNC (Radio Network Communicator)

1 required per Taktis Fire Control Panel

Current consumption 0.035A



Wireless Infrastructure

4 Loop Radio Hub

1 required per Fire Control Panel

1 loop used	0.024A
2 loops used	0.031A
3 loops used	0.038A
4 loops used	0.045A






Fusion RLM (Radio Loop Module)

Up to five per loop using FireCell panel subject to cable specification.

Current consumption 0.017A





 www.emsgroup.co.uk
 +44 (0) 1227 369570
 enquiries@emsgroup.co.uk



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