

# Primary lithium battery

## LO 40 SX

3.0 V Primary lithium-sulfur dioxide (Li-SO<sub>2</sub>)

High drain capability

$\frac{2}{3}$  "Thin" D-size spiral cell



### Benefits

- High and stable discharge voltage
- High pulse capability
- Performance not affected by cell orientation
- Long storage possible before use
- Ability to withstand extreme temperature

### Key features

- Low self-discharge rate  
*(less than 3 % after 1 year of storage at +20°C)*
- Hermetic glass-to-metal sealing
- Built-in safety vent  
*(at the negative end of the cell)*
- UL Component Recognition  
*(File Number MH 15076)*
- Meets shock, vibration and other environmental requirements of military specifications
- Restricted for transport *(Class 9)*
- Made in the USA

### Main applications

- Radiocommunications and other military applications
- Automotive telematics

### Cell size reference

$\frac{2}{3}$  "Thin" D

### Electrical characteristics

*(typical values for cells stored for one year or less)*

Nominal capacity 3.50 Ah  
*(under 120 mA +20°C 2.0 V cut-off. The capacity restored by the cell varies according to current drain, temperature and cut-off)*

Open circuit voltage (at +20°C) 3.0 V

Nominal voltage (at 120 mA +20°C) 2.8 V

Maximum recommended continuous current 2.0 A  
*(to avoid over-heating. Higher currents possible, consult Saft)*

Pulse capability: Typically up to 5 A.  
*(The voltage readings may vary according to the pulse characteristics, the temperature, and the cell's previous history. Fitting the cell with a capacitor may be recommended in severe conditions. Consult Saft)*

Storage (recommended) +30°C (+86°F) max.  
(possible without leakage) -60°C/+85°C  
(-76°F/+185°F)

Operating temperature range -60°C/+70°C  
(-76°F/+158°F)

*(Short excursions up to +85°C possible at currents below 1 A)*

### Physical characteristics

Diameter (max) 28.95 mm (1.140 in)

Height (max; finish without radial tabs) 42.29 mm (1.665 in)

Typical weight 40 g (1.41 oz)

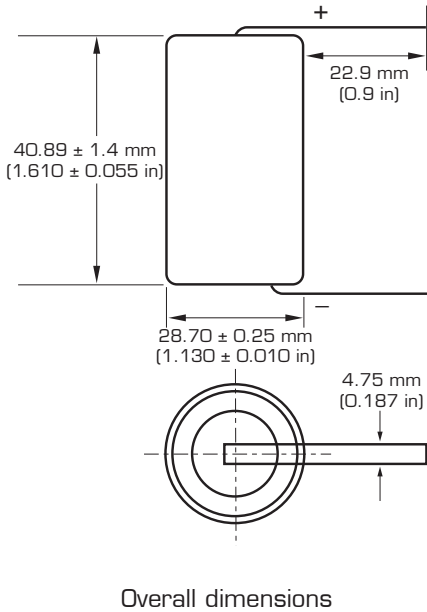
Li metal content 1.2 g

Standard cell comes with resin potting in the topshell area and two radial 0.15 mm - thick nickel tabs

Other configurations available on request.



# LO 40 SX



## Handling precautions

- Cell is pressurised at ambient temperature.
- Do not puncture, open or mutilate.
- Do not obstruct the safety vent mechanism.
- Do not short circuit or charge.
- Do not expose to fire or temperatures above +70°C (+158°F).

## Saft

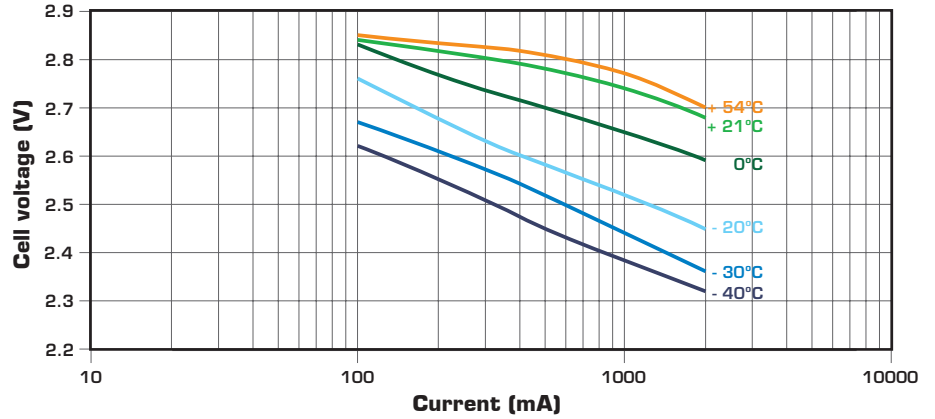
### Specialty Battery Group

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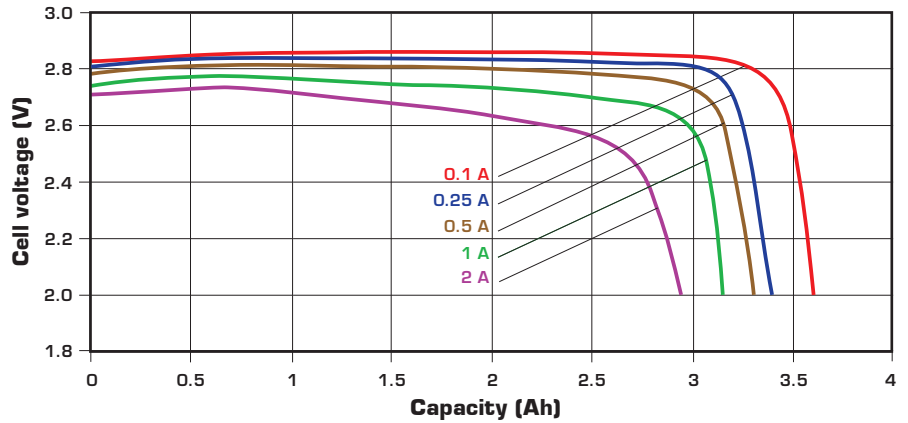
313 Crescent Street  
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Tel.: +1 (828) 874 41 11  
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[www.saftbatteries.com](http://www.saftbatteries.com)

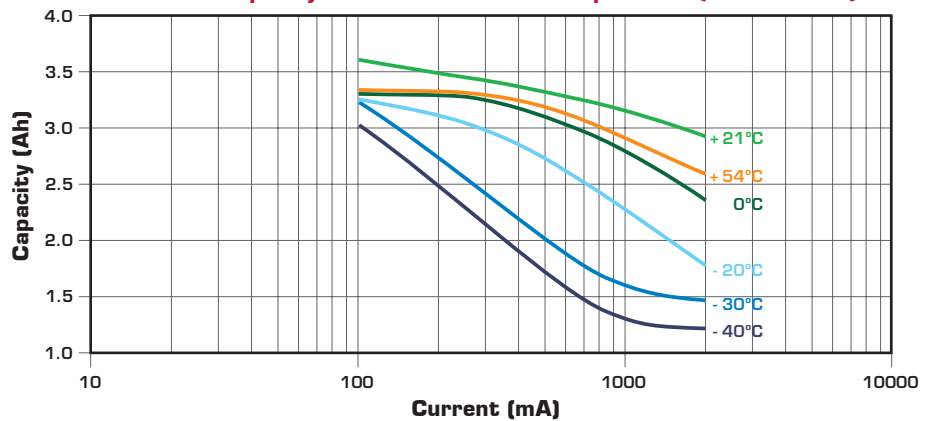
## Voltage plateau versus Current and Temperature



## Typical discharge profiles at +20°C



## Restored Capacity versus Current and Temperature (2.0 V cut-off)



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Information in this document is subject to change without notice and becomes contractual only after written confirmation by Saft.

For more details on primary lithium technologies please refer to Primary Lithium Batteries Selector Guide Doc N° 31048-2.

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