

Transmitter Battery (BP3)



HIGHLIGHTS

- Contains Two (2) 3.6 V Primary Lithium Thionyl Chloride (Li-SOCI₂) Batteries
- High Energy Bobbin D-Size Cell
- Provides Reliable Voltage Response and Operating Life in -40 °C to +85 °C Environments
- High and Stable Operating Voltage
- Low Self Discharge Rate
(Less than 1% After 1 Year of Storage at +20 °C)
- Stainless Steel Container (Battery Shell)
- Hermetic Glass-to-Metal Sealing
- Built-in Safety Vent
- Non-Flammable Electrolyte
- Underwriters Laboratories (UL) Component Recognition (File # MH 12609)
- Intrinsically Safe for Use in Hazardous Locations

TECHNICAL SPECIFICATIONS

ELECTRICAL SPECIFICATIONS

Nominal Capacity (At 5 mA +20 °C 2 VDC Cut Off. The Capacity Restored By the Cell Varies According To Current Drain, Temperature And Cut Off)	· 34.0 Ah
Open Circuit Voltage (at +20 °C)	· 3.67 VDC
Nominal Voltage (at 0.7 mA +20 °C)	· 3.6 VDC
Pulse Capability	· Typically Up to 80 mA. Varies According To Pulse Characteristics, Temperature, Cell History And The Application's Acceptable Minimum Voltage. Fitting The Cell with a Capacitor May Be Recommended in Severe Conditions.
Continuous Current Permitting 50 % of the Nominal Capacity To Be Achieved at +20 °C with 2 VDC Cut Off	· 250 mA
Storage (Recommended)	· 30 °C Max
Operating Temperature Range	· -40 °F to 185 °F / -40 °C to 85 °C Operation Above Ambient Temperature May Lead To Reduced Capacity And Lower Voltage Readings At The Beginning of Pulses.

MECHANICAL SPECIFICATIONS

Li Metal Content	· Approximately 0.3 oz / 9 g
Dimensions	· 2.61" x 2.46" x 1.31" / 66.3mm x 62.5mm x 33.3mm
Weight	· 6.5 oz / 184.3 g

CERTIFICATIONS & COMPLIANCE

Safety	· Intrinsically Safe for Use in Hazardous Environments
	· Class I; Division 1, Group A, B, C & D T3C
	· Class I; Zone 0 Ex ia IIC T3 / Class I; Zone 0, AEx ia IIC T3
	· Class I; Zone 0 Ex ia IIB T3 / Class I; Zone 0, AEx ia IIB T3

ORDERING INFORMATION

Battery Model Number(s)	· SX1000-BP3
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900 MHz @ 10 mW - WT Series (LCD)

Product	Analog/ Pressure Transmitter	Discrete Transmitter	Flow Totalizer Transmitter	Hydrostatic Transmitter	Magnetostrictive Transmitter	Resistive Transmitter	RTD Transmitter	Thermocouple Transmitter	Ultrasonic Transmitter
Interval \ Life	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)
5 sec	0.3	0.9	0.4	0.3	0.3	0.7	0.4	0.5	0.4
10 sec	0.5	1.6	0.7	0.5	0.5	1.4	0.8	0.9	0.7
15 sec	0.7	2.3	1.0	0.8	0.8	2.0	1.1	1.3	1.0
20 sec	1.0	2.9	1.3	1.1	1.0	2.5	1.5	1.7	1.4
25 sec	1.2	3.5	1.6	1.3	1.2	3.0	1.8	2.0	1.7
30 sec	1.4	3.9	1.8	1.5	1.4	3.5	2.1	2.4	2.0
35 sec	1.6	4.4	2.0	1.8	1.7	3.9	2.4	2.7	2.2
40 sec	1.8	4.8	2.3	2.0	1.9	4.2	2.7	3.0	2.5
45 sec	2.0	5.1	2.5	2.2	2.1	4.6	3.0	3.3	2.7
50 sec	2.2	5.4	2.6	2.4	2.3	4.9	3.2	3.5	3.0
55 sec	2.4	5.7	2.8	2.6	2.5	5.2	3.5	3.8	3.2
60 sec	2.6	5.9	3.0	2.8	2.6	5.4	3.7	4.0	3.4
2 min	4.4	7.2	4.3	4.5	4.4	7.0	5.7	5.9	5.4
3 min	5.6	7+	5.0	5.7	5.6	7+	6.7	6.8	6.4
4 min	6.3	7+	5.5	6.4	6.4	7+	7+	7+	7.0
5 min	6.8	7+	5.8	6.8	6.8	7+	7+	7+	7+
10 min	6.9	7+	6.4	7.0	6.9	7+	7+	7+	7+
15 min	7+	7+	6.6	7+	7+	7+	7+	7+	7+

900 MHz @ 10 mW - SM/LM Series (Non-LCD)

Product	Analog Transmitter	Liquid Level (Mag) Transmitter	Discrete Transmitter	Hydrostatic Transmitter	LevelMate Transmitter	RTD Transmitter	Thermocouple Transmitter	Product	Cathodic Protection Transmitter
Interval \ Life	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)
5 sec	0.4	0.3	0.9	0.4	0.3	0.5	0.5	1 Hour	7+
10 sec	0.8	0.5	1.7	0.8	0.5	1.0	1.0	5 Hours	7+
15 sec	1.1	0.8	2.4	1.1	0.8	1.4	1.4	10 Hours	7+
20 sec	1.4	1.0	3.1	1.4	1.0	1.8	1.8	12 Hours	7+
25 sec	1.8	1.2	3.6	1.8	1.2	2.2	2.2	16 hours	7+
30 sec	2.0	1.4	4.1	2.0	1.5	2.6	2.6	18 Hours	7+
35 sec	2.3	1.6	4.6	2.3	1.7	2.9	2.9	22 Hours	7+
40 sec	2.6	1.8	5.0	2.6	1.9	3.2	3.2	24 Hours	7+
45 sec	2.8	2.0	5.3	2.8	2.1	3.5	3.5		
50 sec	3.0	2.2	5.6	3.0	2.3	3.7	3.7		
55 sec	3.2	2.4	5.9	3.2	2.4	3.9	3.9		
60 sec	3.4	2.5	6.1	3.4	2.6	4.1	4.1		
2 min	4.8	4.0	7+	4.8	4.1	5.0	5.0		
3 min	5.3	4.7	7+	5.3	4.8	7.6	7.6		
4 min	6.5	5.0	7+	6.5	5.2	9.4	9.4		
5 min	7.5	5.7	7+	7.5	6.2	10+	10+		
10 min	10+	8.7	7+	10+	9.9	10+	10+		
15 min	10+	10+	7+	10+	10+	10+	10+		

¹ 70° Fahrenheit ambient temperature and one transmission per 15 min interval without any retries were used to calculate battery life. The data only applies to a new battery part number SX1000-BP3. Actual battery life may vary depending on environmental factors, application, and usage. Use data shown above only as general point of reference. See OleumTech Battery Life Expectancy Chart for predicted battery life based on reporting interval.

2.4 GHz @ 10 mW (10 dBm) - WT Series (LCD)

Product	Analog/ Pressure Transmitter	Discrete Transmitter	Flow Totalizer Transmitter	Hydrostatic Transmitter	Magnetostrictive Transmitter	Resistive Transmitter	RTD Transmitter	Thermocouple Transmitter	Ultrasonic Transmitter
Interval \ Life	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)
5 sec	0.3	0.6	0.7	0.3	0.4	1.4	0.5	0.5	0.4
10 sec	0.6	1.1	1.3	0.6	0.7	2.6	1.0	0.9	0.8
15 sec	0.9	1.5	1.8	0.9	1.0	3.5	1.4	1.3	1.2
20 sec	1.2	2.0	2.3	1.2	1.3	4.3	1.8	1.7	1.5
25 sec	1.5	2.4	2.8	1.5	1.6	5.0	2.2	2.1	1.9
30 sec	1.8	2.8	3.2	1.8	1.9	5.5	2.6	2.4	2.2
35 sec	2.0	3.2	3.6	2.0	2.2	5.9	2.9	2.7	2.5
40 sec	2.2	3.5	4.0	2.2	2.4	6.3	3.2	3.0	2.8
45 sec	2.5	3.8	4.3	2.5	2.7	6.5	3.5	3.3	3.1
50 sec	2.7	4.1	4.6	2.7	2.9	6.8	3.8	3.6	3.3
55 sec	2.9	4.4	4.9	2.9	3.2	6.9	4.1	3.8	3.6
60 sec	3.1	4.6	5.2	3.1	3.4	7.0	4.3	4.1	3.8
2 min	5.0	6.5	6.9	5.0	5.3	7+	6.3	5.9	5.8
3 min	6.2	7+	7+	6.2	6.4	7+	7.0	6.6	6.7
4 min	6.8	7+	7+	6.8	7.0	7+	7+	6.8	7+
5 min	7+	7+	7+	7+	7+	7+	7+	7+	7+
10 min	7+	7+	7+	7+	7+	7+	7+	7+	7+
15 min	7+	7+	7+	7+	7+	7+	7+	7+	7+

2.4 GHz @ 63 mW (18 dBm) - WT Series (LCD)

Product	Analog/ Pressure Transmitter	Discrete Transmitter	Flow Totalizer Transmitter	Hydrostatic Transmitter	Magnetostrictive Transmitter	Resistive Transmitter	RTD Transmitter	Thermocouple Transmitter	Ultrasonic Transmitter
Interval \ Life	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)
5 sec	0.3	0.4	0.5	0.3	0.3	0.9	0.4	0.3	0.3
10 sec	0.5	0.7	0.9	0.5	0.6	1.7	0.7	0.7	0.7
15 sec	0.8	1.1	1.3	0.8	0.8	2.3	1.0	1.0	1.0
20 sec	1.0	1.4	1.7	1.0	1.1	3.0	1.4	1.3	1.3
25 sec	1.3	1.7	2.1	1.3	1.3	3.5	1.7	1.6	1.6
30 sec	1.5	2.0	2.4	1.5	1.6	4.0	2.0	1.8	1.9
35 sec	1.7	2.3	2.7	1.7	1.8	4.5	2.2	2.1	2.1
40 sec	2.0	2.6	3.0	2.0	2.0	4.8	2.5	2.3	2.4
45 sec	2.2	2.9	3.3	2.2	2.3	5.2	2.7	2.6	2.6
50 sec	2.4	3.1	3.6	2.4	2.5	5.5	3.0	2.8	2.9
55 sec	2.6	3.3	3.9	2.6	2.7	5.8	3.2	3.0	3.1
60 sec	2.8	3.6	4.1	2.8	2.9	6.0	3.4	3.2	3.3
2 min	4.6	5.5	6.1	4.6	4.7	7+	5.4	5.1	5.2
3 min	5.7	6.6	6.9	5.7	5.9	7+	6.5	6.1	6.3
4 min	6.5	7.0	7+	6.5	6.6	7+	7.0	6.6	6.9
5 min	6.9	7+	7+	6.9	7.0	7+	7+	7+	7+
10 min	7+	7+	7+	7+	7+	7+	7+	7+	7+
15 min	7+	7+	7+	7+	7+	7+	7+	7+	7+

¹ 70° Fahrenheit ambient temperature and one transmission per 15 min interval without any retries were used to calculate battery life. The data only applies to a new battery part number SX1000-BP3. Actual battery life may vary depending on environmental factors, application, and usage. Use data shown above only as general point of reference. See OleumTech Battery Life Expectancy Chart for predicted battery life based on reporting interval.

2.4 GHz @ 10 mW (10 dBm) - SM/LM Series (Non-LCD)

Product	Analog/ Pressure Transmitter	Discrete Transmitter	Hydrostatic Transmitter	Magnetostrictive Transmitter	RTD Transmitter	Thermocouple Transmitter
Interval \ Life	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)
my	0.3	0.5	0.3	0.3	0.5	0.5
10 sec	0.6	1.0	0.6	0.7	0.9	0.9
15 sec	0.9	1.5	0.9	1.0	1.3	1.3
20 sec	1.1	1.9	1.1	1.3	1.7	1.7
25 sec	1.4	2.3	1.4	1.5	2.1	2.1
30 sec	1.7	2.6	1.7	1.8	2.4	2.4
35 sec	1.9	3.0	1.9	2.1	2.7	2.7
40 sec	2.1	3.3	2.1	2.3	3.0	3.0
45 sec	2.3	3.6	2.3	2.5	3.3	3.3
50 sec	2.5	3.9	2.5	2.8	3.6	3.6
55 sec	2.8	4.1	2.8	3.0	3.8	3.8
60 sec	2.9	4.4	2.9	3.2	4.1	4.1
2 min	4.8	6.1	4.8	5.0	5.9	5.9
3 min	5.8	6.7	5.8	6.0	6.6	6.6
4 min	6.4	7+	6.4	6.6	6.8	6.8
5 min	6.7	7+	6.7	6.7	7+	7+
10 min	7+	7+	7+	7+	7+	7+
15 min	7+	7+	7+	7+	7+	7+

2.4 GHz @ 63 mW (18 dBm) - SM/LM Series (Non-LCD)

Product	Analog/ Pressure Transmitter	Discrete Transmitter	Hydrostatic Transmitter	Magnetostrictive Transmitter	RTD Transmitter	Thermocouple Transmitter
Interval \ Life	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)	Year(s)
5 sec	0.3	0.4	0.3	0.3	0.3	0.3
10 sec	0.5	0.7	0.5	0.5	0.7	0.7
15 sec	0.8	1.0	0.8	0.8	1.0	1.0
20 sec	1.0	1.3	1.0	1.0	1.3	1.3
25 sec	1.2	1.6	1.2	1.3	1.6	1.6
30 sec	1.4	1.9	1.4	1.5	1.8	1.8
35 sec	1.6	2.2	1.6	1.7	2.1	2.1
40 sec	1.8	2.4	1.8	1.9	2.3	2.3
45 sec	2.0	2.7	2.0	2.1	2.6	2.6
50 sec	2.2	2.9	2.2	2.3	2.8	2.8
55 sec	2.4	3.1	2.4	2.5	3.0	3.0
60 sec	2.6	3.4	2.6	2.7	3.2	3.2
2 min	4.3	5.2	4.3	4.4	5.1	5.1
3 min	5.4	6.2	5.4	5.5	6.1	6.1
4 min	6.1	7+	6.1	6.2	6.6	6.6
5 min	6.5	7+	6.5	6.6	7+	7+
10 min	6.9	7+	6.9	7+	7+	7+
15 min	7+	7+	7+	7+	7+	7+

¹70° Fahrenheit ambient temperature and one transmission per 15 min interval without any retries were used to calculate battery life. The data only applies to a new battery part number SX1000-BP3. Actual battery life may vary depending on environmental factors, application, and usage. Use data shown above only as general point of reference. See OleumTech Battery Life Expectancy Chart for predicted battery life based on reporting interval.