

PyroButton Catalog

Valid to: 2020-12-31

Minimal configuration of PyroButton self-powered data-logger system:

- PyroButton self-powered data-logger,
- PyroButton adapter,
- PyroButton software.

Warranty period: Calibrated data-loggers - 1 year warranty (Opulus Licensee is required)

Product Code	Description	Non-VAT Price (\$)
<i>PyroButton data-logger packages</i>		
100-PKE-005-100	<p>Sterilization Process Management - Steam/Basic Package. A 21 CFR Part 11 compliant System</p> <p>Includes:</p> <p>(1) 4 x PyroButton-T - Self-powered temperature device (0 to 125°C; see, option for PyroButton-E of 15 to 140°C), Temperature resolution ±0.0625°C, Temperature accuracy ±0.2°C Calibrated at 5-points relative to NIST reference or equivalent International Reference. Each measurement is corrected relative to the calibration curve.</p> <p>(2) SPB-N16C Smart Docking Station with USB adapter for the parallel programming & data-download of 16 PyroButtons (see, option for SPB-N50C docking station for 50 PyroButtons).</p> <p>(3) PyroButton-SQL/S v. 3.18 software with 21 CFR Part 11 compliance. Windows 7 compatible. Includes 2005 MS SQL Express with SPC (includes: Sterilization, Clean Room, Process, Facilities, & Container/Closure application modules; provides heat distribution map, heat penetration evaluation, loading effects, container/closure evaluation, PQ, and much more);</p> <p>(4) IQ-OQ-PQ & 21 CFR Part 11 Verification Protocols.</p> <p>1 workstation license</p>	9,275 /package

<p>100-PKE-006-100</p>	<p>Sterilization Process Management - ETO/Basic Package. A 21 CFR Part 11 compliant System Includes: (1) 4 x PyroButton-TH - Self-powered temperature/humidity data-logger Temperature (-20 to +85°C), ±0.0625°C resolution, ±0.3°C accuracy Humidity (3.4 – 97.3% RH), resolution ± 0.04% RH, ±2% RH accuracy Calibrated at 5-temperature points relative to NIST reference and 5-humidity points. Each measurement is corrected relative to the calibration curve. (2) SPB-N16C Smart Docking Station with USB adapter for the parallel programming & data-download of 16 PyroButtons (see, option for SPB-N50C docking station for 50 PyroButtons). (3) PyroButton-SQL/S v. 3.18 software with 21 CFR Part 11 compliance. Windows 7 compatible. Includes 2005 MS SQL Express with SPC (includes: Sterilization, Clean Room, Process, Facilities, & Container/Closure application modules; provides heat & moisture distribution map, loading effects, container/closure evaluation, PQ, and much more); Built-in automatic correction of measurement based on the calibration curve. Signal processing program module for optimization of signal smoothing for the reduction of inherent noise of humidity measurements, which improve accuracy, and reproducibility. Built-in uncertainty of measurement calculation. (4) IQ-OQ-PQ & 21 CFR Part 11 Verification Protocols 1 workstation license</p>	<p>10,356 /package</p>
<p>100-PKE-007-100</p>	<p>Packaging Validation Process Management -Basic Package. A 21 CFR Part 11 compliant System Includes: (1) 4 x PyroButton-TH - Self-powered temperature/humidity data-logger Temperature (-20 to +85°C), ±0.0625°C resolution, ±0.3°C accuracy Humidity (3.4 – 97.3% RH), resolution ± 0.04% RH, ±2% RH accuracy Calibrated at 5-temperature points relative to NIST or International reference and 5-humidity points. Each measurement is corrected relative to the calibration curve. (2) SPB-N16C Smart Docking Station with USB adapter for the parallel programming & data-download of 16 PyroButtons (see, option for SPB-N50C docking station for 50 PyroButtons). (3) PyroButton-SQL/PV v. 3.18 software with 21 CFR Part 11 compliance. Windows 7 compatible. Includes 2005 MS SQL Express with SPC (includes: Sterilization, Clean Room, Process, Facilities, & Container/Closure application modules; provides heat & moisture distribution map, loading effects, container/closure evaluation, PQ, and much more); Built-in automatic correction of measurement based on the calibration curve. Signal processing program module for optimization of signal smoothing for the reduction of inherent noise of humidity measurements, which improve accuracy, and reproducibility. Built-in uncertainty of measurement calculation. (4) IQ-OQ-PQ & 21 CFR Part 11 Verification Protocols 1 workstation license</p>	<p>10,356 /package</p>

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<p>100-PKE-009-100</p>	<p>Transportation Temperature Management-Basic Package. A 21 CFR Part 11 compliant System Includes: (1) 4 x PyroButton-L - Self-powered temperature device (-40 to +85°C), Temperature resolution ±0.5°C, Temperature accuracy ±0.1°C Calibrated at 5-points relative to NIST or International reference. Each measurement is corrected relative to the calibration curve. (2) SPB-N80 Smart Docking Station with USB adapter for the parallel programming & data-download of 8 PyroButtons (see, options for SPB-N16C for 16 or SPB-N50C docking station for 50 PyroButtons). (3) PyroButton-SQL/T-Basic v.3.18 software with 21 CFR Part 11 compliance. <i>Windows 7 compatible</i>. Includes 2005 MS SQL Express. Built-in automatic correction of measurement based on the calibration curve. Signal processing program module for optimization of signal smoothing for the reduction of inherent noise of humidity measurements, which improve accuracy, and reproducibility. Built-in uncertainty of measurement calculation. 1 workstation license (4) Option: IQ-OQ-PQ & 21 CFR Part 11 Verification protocols</p>	<p>5,500 /package</p>
<p>100-PKE-010-100</p>	<p>Transportation Temperature Management-Advanced System for Pharmaceutical, Biotech, & Medical Device. A 21 CFR Part 11 compliant product Includes: (1) 4 x PyroButton-L - Self-powered temperature device (-40 to +85°C), Temperature resolution 0.0625°C, Temperature accuracy ±0.25°C Calibrated at 5-points relative to NIST or International reference. Each measurement is corrected relative to the calibration curve. (2) SPB-N16C Smart Docking Station with USB adapter for the parallel programming & data-download of 16 PyroButtons (see, option for SPB-N50C docking station for 50 PyroButtons). (3) PyroButton-SQL/TA v. 3.18 software with 21 CFR Part 11 compliance. <i>Windows 7 compatible</i>. Includes 2005 MS SQL Express with SPC (includes: Sterilization, Clean Room, Process, Facilities, & Container/Closure application modules; provides heat & moisture distribution map, loading effects, container/closure evaluation, PQ, and much more); Built-in automatic correction of measurement based on the calibration curve. Signal processing program module for optimization of signal smoothing for the reduction of inherent noise of humidity measurements, which improve accuracy, and reproducibility. Built-in uncertainty of measurement calculation. (4) IQ-OQ-PQ & 21 CFR Part 11 Verification Protocols 1 workstation license</p>	<p>9,063 /package</p>

Product Code	Description	Non-VAT Price (\$)
<i>PyroButton Self-powered temperature & humidity data-loggers</i>		
100-IBE-003-100	<u>PyroButton-L - Intrinsically Safe.</u> <i>Sensor and electronics are housed in a 305 ss food grade housing (i.e., FDA approved for use in food processing) of 17 mm diameter and 6 mm height. It is the smallest data-logger on the market.</i> Self-powered temperature device (-40 to +85°C); Temperature resolution ±0.0625°C, Temperature accuracy ±0.2°C Calibrated at 5-points relative to NIST reference. Each measurement is corrected relative to the calibration curve. Data integrity protection for 21 CFR Part 11 requirement.	217 /each
100-IBE-004-100	<u>PyroButton-T - Intrinsically Safe.</u> <i>Sensor and electronics are housed in a 305 ss food grade housing (i.e., FDA approved for use in food processing) of 17 mm diameter and 6 mm height. It is the smallest data-logger on the market.</i> Self-powered temperature device (0 to 125°C), Temperature resolution ±0.0625°C, Temperature accuracy ±0.2°C Calibrated at 5-points relative to NIST reference. Each measurement is corrected relative to the calibration curve. Data integrity protection for 21 CFR Part 11 requirement.	292 /each
100-IBE-006-100	<u>PyroButton-E - Intrinsically Safe.</u> <i>Sensor and electronics are housed in a 305 ss food grade housing (i.e., FDA approved for use in food processing) of 17 mm diameter and 6 mm height. It is the smallest data-logger on the market.</i> Self-powered temperature device (15 to 140°C), Temperature resolution ±0.0625°C, Temperature accuracy ±0.2°C Calibrated at 5-points relative to NIST reference. Each measurement is corrected relative to the calibration curve. Data integrity protection for 21 CFR Part 11 requirement.	398 /each
100-IBE-005-100	<u>PyroButton-TH – Intrinsically Safe.</u> <i>Sensor and electronics are housed in a 305 ss food grade housing (i.e., FDA approved for use in food processing) of 17 mm diameter and 6 mm height. It is the smallest data-logger on the market.</i> Self-powered temperature/humidity data-logger Temperature (-20 to +85°C), ±0.0625°C resolution, ±0.3°C accuracy Humidity (3.4 – 97.3% RH), resolution ± 0.04% RH, ±2% RH accuracy Calibrated at 5-temperature points relative to NIST reference and 5-humidity points. Each measurement is corrected relative to the calibration curve. Data integrity protection for 21 CFR Part 11 requirement.	398 /each

Product Code	Description	Non-VAT Price (\$)
<i>PyroButton adapters- programming/data-download</i>		
100-IAE-007-100	SPB-N80 smart docking station with USB Adapter. Suitable for parallel programming /data-download for 8 PyroButtons	795 /each
100-IAE-009-100	SPB-N16C smart docking station with USB Adapter. Suitable for parallel programming /data-download for 16 PyroButtons	1,431 /each
100-IAE-005-100	SPB-N50C smart docking station with USB Adapter. Suitable for parallel programming /data-download for 50 PyroButtons	3,578 /each

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Product Code	Description	Non-VAT Price (\$)
<i>PyroButton software for Self-powered temperature & humidity monitoring system</i>		
100-PBE-007-020E	<p>PyroButton-SQL-/Basics v.3.18 software with 21 CFR Part 11 compliance. <i>Windows 7 compatible.</i> Includes 2005 MS SQL Express & SPC. Built-in automatic correction of measurement based on the calibration curve. Signal processing program module for optimization of signal smoothing for the reduction of inherent noise of humidity measurements, which improve accuracy, and reproducibility. Built-in uncertainty of measurement calculation.</p> <p>Optional: IQ-OQ-PQ & 21 CFR Part 11 Verification Protocols 1 workstation license</p>	4,500 /license
100-PBE-007-016	IQ-OQ-PQ verification protocol for PyroButton-SQL/Basic software	1,500 /each
100-PBE-007-017	21 CFR Part 11 verification protocol for PyroButton-SQL/Basic software	1,500 /each
100-PBE-007-021E	<p>PyroButton-SQL/PRO v. 3.18 software with 21 CFR Part 11 compliance. <i>Windows 7 compatible.</i> Includes 2005 MS SQL Express with SPC (includes: Sterilization, Clean Room, Process, Facilities, & Container/Closure application modules; provides heat & moisture distribution map, loading effects, container/closure evaluation, PQ, and much more); Built-in automatic correction of measurement based on the calibration curve. Signal processing program module for optimization of signal smoothing for the reduction of inherent noise of humidity measurements, which improve accuracy, and reproducibility. Built-in uncertainty of measurement calculation. 21 CFR Part 11 compliant 1 workstation license IQ-OQ-PQ verification protocol 21 CFR Part 11 verification protocol are included.</p>	8,454 /license

Product Code	Description	Non-VAT Price (\$)
Calibrators & Calibration Services		
100-ICE-221-100	<p>PyroButton-TQM with PBC- TH28 A 21 CFR Part 11 ISO 17025 compliant system Windows 7 and Windows 10 (32/64bits) compatible. <u>Includes:</u> (1) Calibration Operating System with Total Quality Management (2) MS SQL 2012 Express (i.e., network version available) (3) PyroButton Calibration & Verification Life Cycle Management (4) PBC-H28 calibrator's Calibration & Life Cycle Management (5) Automatic generation of Calibration Certificates (6) Integration of multiple Opulus calibrators & calibrator types (7) CAPA & OOS Management (8) Integrated Compliance Management (9) Integrated Material Management</p> <p>Combined Temperature/Humidity Calibrator System for simultaneous calibration of 28 PyroButtons. Can be integrated to PyroButton softwares for fully automatic correction.</p>	16,785 /license
100-ICE-222-110	<p>Opulus Humidity Generator (OpHumGen) OpHumGen maintains a given relative humidity for calibration of PyroButton data loggers with PBC-TH28 calibrator. All functions of the OpHumGen are controlled by the PBC-TH28 measurement program (part of Opulus PyroButton-TQM framework). <u>Includes:</u> (1) Opulus Air Compressor (OPAC) is included (2) Relative Humidity Range (10-40°C) - 10-90%RH (3) Relative Humidity Range (40-50°C) - 10-85RH (4) Temperature Range - (10-50°C)</p>	15,750 /each
100-ICE-229-110	<p>Opulus Air Compressor (OAC) The OpHumGen and the OPAC work together with the PBC-TH28 Calibrator. All functions of the OPAC are controlled by the PBC-TH28 measurement program (part of Opulus PyroButton-TQM framework).</p>	2,575 /each
100-ICE-422-110	<p>Opulus Water Chiller (OWC) OWC can be used for operating the PBC-TH28 calibrator below 0°C. All functions of the OWC are controlled by the PBC-TH28 measurement program (part of Opulus PyroButton-TQM framework).</p>	4,490 /each
100-ICE-322-110	<p>OpiCal suite OpiCal suite is a sophisticated real-time temperature calibration system for the PBC-TH28 calibrator. <u>Includes:</u> (1) 32 pcs OpiCal Reference Sensors (2) 1 pc OpiCal Chamber Calibration Insert (CCI/28)</p>	10,656 /each
100-ICE-001-100A	<p>PyroButton data-logger temperature re-calibration with verification NOTE: If the number of data-loggers are 10 or less add \$150 set-up fee</p>	50 /point
100-ICE-001-100B	<p>PyroButton data-logger temperature re-calibration NOTE: If the number of data-loggers are 10 or less add \$150 set-up fee</p>	40 /point
100-ICE-001-100C	<p>PyroButton data-logger humidity re-calibration with verification NOTE: If the number of data-loggers are 10 or less add \$150 set-up fee</p>	60 /point

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100-ICE-003-100A	PyroButton data-logger humidity re-calibration <i>NOTE: If the number of data-loggers are 10 or less add \$150 set-up fee</i>	45 /point
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