

Kyros Components

Technical Specifications

DTK02 - Temperature Transmitter with Sensor (DPT1)

| Temperature Range - External | -30°C to 93°C/-22°F to 200°F |
|------------------------------|---|
| Enclosure Size | 8.9cm x 4.3cm x 2.2cm |
| Enclosure Weight | Approx. 85grams |
| Enclosure Colour | Transparent blue |
| Installation | Snaps to Base Plate. Base Plate mounts with screws or double-stick tape |
| Operation Battery Type | "2/3 A" size LiMnO2 (e.g., Duracell DL123A) |
| Battery Life | Up to 5 years in ambient conditions |
| Operating Environment | -10°C to $60^\circ\text{C}/14^\circ\text{F}$ to 140°F, up to 95% relative humidity (non-condensing) |
| Open Field Range | 250 metres |
| RF Specifications | 868,902-928 MHz, Spread Spectrum |

* Alternative High (DTP2), low (DTP3) or DTP4 series temperature sensors available

DTK04 - Transmitter with Contact Sensor

| Contact Sensor | Designed to monitor contact between two devices e.g. $\operatorname{open}/\operatorname{close}$ status |
|------------------------------|---|
| Temperature Range - External | -30°C to 93°C/-22°F to 200°F |
| Enclosure Size | 8.9 x 4.3 x 2.2cm |
| Enclosure Weight | Approx. 85grams |
| Enclosure Colour | Transparent blue |
| Installation | Snaps to Base Plate. Base Plate mounts with screws or double-stick tape |
| Operation Battery Type | "2/3 A" size LiMnO2 (e.g., Duracell DL123A) |
| Battery Life | Up to 5 years in ambient conditions |
| Operating Environment | -10°C to $60^\circ\text{C}/14^\circ\text{F}$ to 140°F , up to 95% relative humidity (non-condensing) |
| Open Field Range | 250 metres |
| RF Specifications | 868,902-928 MHz, Spread Spectrum |

DTK05 – Transmitter with Temperature & Humidity Sensor

| Accuracy and Temp Range | -28°C to 93°C/-18°F to 200°F Accuracy ±0.5°C/1°F RH Range: 0% to 99% RH Accuracy ±2% between 10% & 90% RH |
|-------------------------|--|
| Enclosure Size | 8.9cm x 4.3cm x 2.2cm |
| Enclosure Weight Approx | 85grams |
| Enclosure Colour | Transparent blue |
| Installation | Snaps to base plate. Base plate mounts with screws or self adhesive tape |
| Operation Battery Type | 2/3 A size LiMnO2 (e.g. Duracell DL123A) |
| Battery Life | Up to 5 years in ambient conditions |
| Operating Environment | -10°C to $60^\circ\text{C}/14^\circ\text{F}$ to 140°F up to 95% relative humidity (non-condensing) |
| Open Field Range | 250 metres |
| RF Specification | 868, 902-928 MHz, Spread Spectrum |

DTK06 - Dual Analogue Input Transmitter

| Measurement Features | Jumper selectable - 0-5V, 0-10V or 4-20mA Capable of supporting one or two sensors 16-bit measurement resolution 0.5% measurement accuracy |
|--------------------------|---|
| Enclosure Size | 8.9cm x 4.3cm x 2.2cm |
| Enclosure Weight Approx. | 85grams |
| Enclosure Colour | Transparent blue |
| Installation | Snaps to base plate. Base plate mounts with screws or self adhesive tape |
| Operation Battery Type | 2/3 A size LiMnO2 (e.g. Duracell DL123A) |
| Battery Life | Up to 5 years in ambient conditions |
| Operating Environment | $\cdot 10^\circ\text{C}$ to $60^\circ\text{C}/14^\circ\text{F}$ to 140°F up to 95% relative humidity (non-condensing) |
| Open Field Range | 250 metres |
| RF Specification | 868, 902-928 MHz, Spread Spectrum |

DTK02

DTKWASH – Transmitter with

Dishwasher Sensor

| Temperature Accuracy & Range - External | -30°C to 93°C/-22°F to 200°F Accuracy ±0.5°C/1°F |
|--|--|
| Sensor | Sensor constructed with PTFE coated cable application |
| Enclosure Size | 8.9cm x 4.3cm x 2.2cm |
| Enclosure Weight | 85grams |
| Enclosure Colour | Transparent blue |
| Installation | Snaps to base plate. Base plate mounts with self adhesive tape |
| Operation Battery Type | 2/3 A size LiMn02 (e.g. Duracell DL123A) |
| Battery Life | Up to 5 years in ambient conditions |
| Operating Environment | -10°C to $60^\circ\text{C}/14^\circ\text{F}$ to 140°F , up to 95% relative humidity (non-condensing) |
| Open Field Range | 250 metres |
| RF Specifications | 868, 902-928 MHz, Spread Spectrum |

Sensor Range & Accuracies

| DTP1 - External Air Sensor | -30°C to 93°C (-22°F to 200°F) \pm 0.5°C/1°F |
|----------------------------|---|
| DTP2 - High Temp. Sensor | 0°C to 150°C (32°F to 302°F) \pm 1.0°C/2°F |
| DTP3 - Low Temp. Sensor | -50°C to 60°C (-58°F to 140°F) \pm 0.5°C/1°F |
| DTP4 - Custom sensor | options between -200°C and 800°C available on request |



Base Station and Memory Buffer

DTKBASE - Base Station Receiver

| Power Requirements | 11-14V DC, 80mA |
|-----------------------|---|
| Output Signal | 9600 baud RS232 DB 9 connector |
| Operating Environment | $0^{\circ}C$ to $60^{\circ}C/32^{\circ}F$ to $140^{\circ}F$, up to 95% relative humidity (non-condensing) |
| Installation | Wall mounted, indoor |
| Dimensions | 21cm x 14cm x 3.5cm |



DTKBASEMEM - Base Station Receiver with integrated Memory Buffer

| Power Requirements | 2 Watts |
|-----------------------|--|
| Power | Power POE (48VDC 170mA), or Direct Supply (11-14VDC 500mA) |
| Dimensions | 18cm x 27cm x 6cm |
| Operating Environment | 0°C to $50^\circ\text{C}/32^\circ\text{F}$ to 122°F up to 95% relative humidity (non-condensing) |
| Installation | Wall mounted, indoor |
| Output signal | Ethernet 10/100 basset via CATS UTP (POE optional) 2 x Serial DB 9 way serial 3 $$ |
| Processor | 150MHz RDC CPU, Intel 486SX compatible |
| Onboard RAM | 32MB SDRAM/1MB Flash |
| Storage | USB memory stick. Minimum 1GB |
| I/0 | Maximum 2 x USB 2.0 |
| Operating System | Linux |

Signal Booster, Relay and LAN Convertor

DTKBOOST RF - Signal Booster

| Power Requirements | Internal battery plus 12V AC, 0.5 Amps, external transformer supplied |
|-----------------------|---|
| RF Specifications | 868, 902-928 MHz, Spread Spectrum |
| Operating Environment | -10°C to $60^\circ\text{C}/13^\circ\text{F}$ to 140°F, up to 95% relative humidity (non-condensing) |
| Open Field Range | 250 metres |
| Installation | Wall mounted |
| Dimensions | 21cm x 14cm x 3.5cm |

DTRELAY - Serial Port Relay

| Relay Specifications | 8 Form C change-over relays Contact rating resistive load - 15A 24VDC, 15A 120VAC, 10A 240VAC Contact rating inductive load -5A (24VDC, 240AC, 120AC) |
|-----------------------|--|
| Power Requirements | 9-12V at 500mA via 2.1mm DC power socket centre pin +ve PSU supplied |
| Data/Power Indication | LED |
| Communication | Serial Port maximum cable length >100m |
| Format | 9600 baud, 8 data, 1 stop, no parity |
| Installation | Wall mounted |
| Dimensions | 14cm x 11cm x 3.5cm |

DTLAN - LAN Convertor incl Universal Power Supply

| Serial Interface | Software-selectable RS232, RS422 or RS485 (2 and 4 wire support) |
|-----------------------|--|
| Network Interface | 10Base-T/100Base-TX Ethernet port Software selectable Ethernet speed 10/100/Auto Software selectable Half/Full/Auto duplex |
| Connector | RJ45 or DB25F DCE serial port (Custom connector supplied) |
| Indicators | (LED) Power (green) 10/100 Link/Activity (green) 100/100 Link/Activity (green) Diagnostics (red) Status (green) |
| Processor Management | Lantronix Device Installer GUI, Serial |
| Power | 9-30 VDC (1.5 Watts maximum consumption) 9-30 VDC on DB25F serial interface 3.3 VDC on serial interface |
| Operating Temperature | 0°C to 60°C/32°F to 140°F |
| Storage Temperature | -40°C to 85°C/-40°F to 185°F |
| Dimensions | 9.0cm x 6.4cm x 2.3cm (3.5in x 2.5in x 0.9in) |
| Weight | 200grams |
| | |

Kyros Server Configuration Base System

- Application + Database Server (Desktop PC/Laptop)
- Server Hardware
 - Intel Processor 2.0+ GHz (Pentium, Core Duo, Quad Core, Xeon)
 - 1GB RAM (Minimum)
 - 40GB Hard Drives**
 - Raid-1 2 (Optional)
 - ATA-100/SATA 7200 RPM (SCSI 10k/15k RPM)
 - Network Card 10/100 or 1000 MB
 - Serial Port (Or IOGear USB-Serial Adapter)
 - DVD/RW Drive
 - USB Ports

Server Software

- Microsoft Windows XP Professional (Service Pack 2 or 3)
- Microsoft Vista
- Microsoft Windows 7
- MySQL V5.1 Database (Included with installation)
- Apache XAMPP HTTP Server (Included with installation)

Web browser software.

- Compatible with (Microsoft Internet Explorer 6*, Internet Explorer 7 or higher, Mozilla Firefox 3 or higher, Apple Safari 4 or higher*, Google Chrome 2.0 or higher*, Opera 11 or higher*)
- Microsoft.NET framework 3.5 sp1 (available on installation)
- Adobe® Flash® Player (Included with installation if required)

* Internet Explorer 6, Safari, Chrome & Opera are only ok for viewing data and acknowledging alarms. They are not recommended for configuration. ** Approximately 0.1GB storage is required per sensor per year.



Kyros Medium System

Application + Database Server

Server Hardware

- Intel Processor 2.0+ GHz (Pentium, Core Duo, Quad Core, Xeon)
- 2GB RAM
- 2 x 80GB Hard Drives**
- Raid-1 2 (Optional)
- ATA-100/SATA 7200 RPM (SCSI 10k/15k RPM)
- Network Card 10/100 or 1000 MB
- Serial Port (Or IOGear USB-Serial Adapter)
- DVD/RW Drive
- USB Port

Server Software

- Windows Server 2003
- Standard 5 User License
- MySQL V5.1 Database (Included with installation)
- Apache XAMPP HTTP Server (Included with installation)

• Web browser software.

- Compatible with (Microsoft Internet Explorer 6*, Internet Explorer 7 or higher, Mozilla Firefox 3 or higher, Apple Safari 4 or higher*, Google Chrome 2.0 or higher*, Opera 11 or higher*)
- Microsoft.NET framework 3.5 sp1 (available on installation)
- Adobe® Flash® Player (Included with installation if required)

Kyros Large System – Split Server

Application Server Configuration

- Application Server Hardware
- Intel Processor 2.0+ GHz (Pentium, Core Duo, Quad Core, Xeon)
- 2GB RAM
- 2 x 40GB Hard Drives
- Raid-1 2
- ATA-100/SATA 7200 RPM (SCSI 10k/15k RPM)
- Network Card 10/100/1000 MB
- Serial Port (Or IOGear USB-Serial Adapter)
- DVD/RW Drive
- USB Port

Application Server Software

- Windows Server 2003
- Standard 5 User
- Microsoft .NET framework 3.5 sp1 (available on installation)
- Apache XAMPP HTTP Server (Included with installation)

Web browser software.

- Compatible with (Microsoft Internet Explorer 6*, Internet Explorer 7 or higher, Mozilla Firefox 3 or higher, Apple Safari 4 or higher*, Google Chrome 2.0 or higher*, Opera 11 or higher*)
- Adobe® Flash® Player (Included with installation if required)

Database Server Configuration

- Database Server Hardware
 - Intel Processor 2.0+ GHz
 - (Pentium, Core Duo, Quad Core, Xeon)
 - 3GB RAM
 - 2 x 80GB Hard Drives**
 - Raid-5
 - 3 disks (data)
 - 2 disks SQL Logs
 - ATA-100/SATA 7200 RPM (SCSI 10k/15k RPM)
 - Network Card 10/100/1000 MB
- DVD/RW Drive
- Database Server Software
 - Windows Server 2003
 - Standard 5 User License
 - MySQL V5.1 Database

* Internet Explorer 6, Safari, Chrome & Opera are only ok for viewing data and acknowledging alarms. They are not recommended for configuration. ** Approximately 0.1GB storage is required per sensor per year.