# PM500 Additional Application Examples (Quick Guide)

To use the examples shown here in the Quick Guide, the PM500 must have firmware revision 1.05 or greater.

For the first examples below, we will program the PM500 for displaying one temperature and one speed using an Electro-Sensors ST420 speed transmitter and a TT420 temperature transmitter. All that is necessary is to plug in the following variables. This assumes wiring the ST420 speed transmitter to input channel "A" and the TT420 temperature transmitter to input channel "B". Warning and shutdown values below are in user units. While over and under setpoints within a single channel are possible for the examples below we use only over for temperature and under setpoints for ST420 speed for simplicity.

- 1 speed and 1 temperature with optional (2 relays):

| Var | Description | Value TT420 | Both | Value ST420 |
|---|---|---|---|---|
| 01 | Setpoint 1 | | | speed setpoint value |
| 02 | Setpoint 2 | temp alarm value | | |
| 05 | Hysteresis select | | 0000 | |
| 06 | Global relay hysteresis | | 005.0 * | |
| 07 | Relay ADC select | | 0021 | |
| 08 | Relay function | | 0021 ** | |
| 10 | ST420 min display | | | ST420 min value |
| 11 | ST420 max display | | | ST420 max value |
| 12 | TT420 min display | -040 | | |
| 13 | TT420 max display | 248(F) or 120(C) | | |
| 15 | ADC enable | | 0011 | |

- 1 speed and 1 temperature with optional 6 relay card (4 usable relays):

| Var | Description | Value TT420 | Both | Value ST420 |
|---|---|---|---|---|
| 01 | Setpoint 1 | | | speed warning value |
| 02 | Setpoint 2 | | | speed shutdown value |
| 03 | Setpoint 3 | temp warning value | | |
| 04 | Setpoint 4 | temp shutdown value | | |
| 05 | Hysteresis select | | 0000 | |
| 06 | Global relay hysteresis | | 005.0 * | |
| 07 | Relay ADC select | | 2211 ** | |
| 08 | Relay function | | 2211 | |
| 10 | ST420 min display | | | ST420 min value |
| 11 | ST420 max display | | | ST420 min value |
| 12 | TT420 min display | -040 | | |
| 13 | TT420 max display | 248(F) or 120(C) | | |
| 15 | ADC enable | | 0011 | |

* Adjust up or down as needed. smaller values in variable 11 & 13 will require reducing the value in variable 06 or setting the hysteresis as a percent in variable 05.

** Setpoints are over for temp and under for speed, adjust as needed.

These examples we will program the PM500 for displaying a speed using an Electro-Sensors ST420 speed transmitter and vibration using an Electro-Sensors Inc VT420 vibration transmitter. All that is necessary is to plug in the following variables. This assumes wiring the ST420 to input channel "A" and the VT420 to input channel "B

- 1 speed and 1 vibration with optional (2 relays):

| Var | Description | Value VT420 | Both | Value ST420 |
|---|---|---|---|---|
| 01 | Setpoint 1 | | | speed setpoint |
| 02 | Setpoint 2 | vibration setpoint | | |
| 05 | Hysteresis select | | 0000 | |
| 06 | Global relay hysteresis | | 005.0 * | |
| 07 | Relay ADC select | | 0021 | |
| 08 | Relay function | | 0021 ** | |
| setpoints | | | | |
| 10 | ST420 min display | | | ST420 min value |
| 11 | ST420max display | | | ST420 max value |
| 12 | VT420 min display | 0000 | | |
| 13 | VT420 max display | VT max | | |
| 15 | ADC enable | | 0011 | |

- 1 speed and 1 vibration with optional 6 relay card (4 usable relays):

| Var | Description | Value VT420 | Both | Value ST420 |
|---|---|---|---|---|
| 01 | Setpoint 1 | | | speed setpoint-1 |
| 02 | Setpoint 2 | | | speed setpoint-2 |
| 03 | Setpoint 3 | vibration setpoint-1 | | |
| 04 | Setpoint 4 | vibration setpoint-2 | | |
| 05 | Hysteresis select | | 5500 | |
| 06 | Global relay hysteresis | | 005.0 * | |
| 07 | Relay ADC select | | 2211 ** | |
| 08 | Relay function | | 2211 | |
| 10 | ST420 min display | | | ST420 min value |
| 11 | ST420 max display | | | ST420 min value |
| 12 | VT420 min display | 0000 | | |
| 13 | VT420 max display | VT max | | |
| 16 | ADC enable | | 0011 | |

* Adjust up or down as needed. smaller values in variable 11 & 13 will require reducing the value in variable 06 or setting the hysteresis as a percent in variable 05.

** Setpoints are over for vibration and under for speed, adjust as needed

These examples we will program the PM500 for displaying a temperature using an Electro-Sensors Inc TT420 temperature sensor and a vibration using an Electro-Sensors VT420. All that is necessary is to plug in the following variables. This assumes wiring the TT420 to input channel "A" and the VT420 to input channel "B".

- 1 speed and 1 vibration with optional (2 relays):

| Var | Description | Value with VT420 | Both | Value TT420 |
|---|---|---|---|---|
| 01 | Setpoint 1 | | | Temp setpoint |
| 02 | Setpoint 2 | vibration setpoint | | |
| 05 | Hysteresis select | | 0050 | |
| 06 | Global relay hysteresis | | 005.0 * | |
| 07 | Relay ADC select | | 0021 | |
| 08 | Relay function | | 0022 ** | |
| 10 | TT420 min display | | | -040 |
| 11 | TT420max display | | | 248(F) or 120(C) |
| 12 | VT420 min display | 0000 | | |
| 13 | VT420 max display | VT max | | |
| 15 | ADC enable | | 0011 | |

- 1 speed and 1 vibration with optional 6 relay card (4 usable relays):

| Var | Description | Value with VT420 | Both | Value TT420 |
|---|---|---|---|---|
| 01 | Setpoint 1 | | | temp setpoint-1 |
| 02 | Setpoint 2 | | | temp setpoint-2 |
| 03 | Setpoint 3 | vibration setpoint-1 | | |
| 04 | Setpoint 4 | vibration setpoint-2 | | |
| 05 | Hysteresis select | | 5500 | |
| 06 | Global relay hysteresis | | 005.0 * | |
| 07 | Relay ADC select | | 2211 ** | |
| 08 | Relay function | | 2222 | |
| 10 | TT420 min display | | | -040 |
| 11 | TT420 max display | | | 248(F) or 120(C) |
| 12 | VT420 min display | 0000 | | |
| 13 | VT420 max display | VT max | | |
| 17 | ADC enable | | 0011 | |

\* Adjust up or down as needed. smaller values in variable 11 & 13 will require reducing the value in variable 06 or setting the hysteresis as a percent in variable 05.

\*\* Temperature and vibration setpoints are over setpoint operation, adjust as needed.