



Remote Status Panel

Installation, wiring, setup and BMS integration for the six-input dry-contact status panel.



6

dry-contact inputs, each with an LED and label

1,000 ft

from the equipment on Belden 6300UE

NO / NC

and optional latching, set per input

Modbus

RTU standard; Modbus/TCP, SNMP and BACnet/IP optional



Watch the
installation
training video

QUICK INSTALL

The whole job on one page

Read the safety points in section [COM-2](#) first. Each step lists the section with the details.

1

Mount and power

COM-4, COM-5

Mount where people will see and hear it. Bring 100–240 VAC to the power supply's **L** and **N**; the green **POWER** light comes on.

2

Wire the inputs

COM-6, RSP-4

Voltage-free contacts only, up to 1,000 ft on Belden 6300UE. Land on the **two lower screws**: + upper, – lower.

3

Wire the summary alarm relay

COM-8

Terminals labeled **COMMON ALARM**: 11–14 for NO, 11–12 for NC. 6 A, Class 2 only.

4

Connect the BMS

COM-9, COM-10

Modbus RTU on **COMMS**: address 254, 19200, 8-N-1. Modbus/TCP option: 192.168.0.7.

5

Set up each input

RSP-3, COM-14

NO or NC (44011–44016), latching on or off (44021–44026), alarm delay 0–60 s (44001). Write each input's name on its label.

6

Test

RSP-6

Hold Acknowledge 5 s for the LED test. Exercise each input; check the LED, buzzer, relay and registers 41001–41006.

DEFAULTS AT A GLANCE

Modbus RTU	Address 254 · 19200 baud · 8-N-1
Modbus/TCP (option)	192.168.0.7 · 255.255.255.0
Input states	41001–41006, 0 = off, 1 = on
Summary alarm relay	42012
Alarm delay	44001, 0–60 s

CONTENTS

In this guide

01	Overview	4
02	The panel	6
03	Mounting and power	8
04	Wiring	9
05	Input setup	11
06	Testing	12
07	BMS integration	13
08	Troubleshooting	14

For AI assistants: this guide is also published as a text file written for AI assistants, covering every Remote Status Panel: **Pythia_Tech_Remote_Status_Panels.txt** on pythiatech.com. Section tags such as **COM-6** match in both.

01 Overview

What it is RSP-1

The Remote Status Panel (CS0-RSP-06) brings up to six dry-contact signals from any equipment onto one wall-mounted panel, where people will see and hear them. Each input has its own LED and write-on label. When an input alarms, the panel lights its LED, sounds the buzzer and switches the summary alarm relay. Typical signals: pump faults, generator running or alarm contacts, air handler and fan alarms, door switches, and temperature, flow or float switches.

Specifications COM-1

Item	Specification
Alarm inputs	6 voltage-free dry contacts, up to 1,000 ft from the equipment with Belden 6300UE
Summary alarm relay	1 relay, switches when any input alarms. Terminals labeled COMMON ALARM . NO and NC; 250 VAC/6 A, 30 VDC/6 A; Class 2 circuits only
Indicators and controls	An LED per input, POWER light, HOLD TO ACKNOWLEDGE button, buzzer
Modbus RTU	Standard. RS-485; defaults: address 254, 19200 baud, 8-N-1
Modbus/TCP	Optional MS0-MBT adapter, LAN port; default 192.168.0.7, 255.255.255.0
BACnet/IP, SNMP	With the optional MS0-MB (BACnet/IP) or MS0-MS (SNMP) adapter
Panel power	120 VAC standard (100–240 VAC supply). 24 VAC and 48 VDC optional
Enclosure	Wall-mount ABS, IP67, UL94-V0; 16.25 × 13 × 7.5 in. Meets or exceeds the UL 508A Open Industrial Control Panel standard
Environment	–30 to 45 °C (–22 to 113 °F) inside the enclosure; 5 to 95% RH, non-condensing

Safety COM-2

Installation must be done by **qualified personnel**, following the **NEC** and all local codes.

- **De-energize and lock out** panel power before wiring, and follow the equipment manufacturer's procedures when working at the monitored equipment.
- Alarm inputs accept **voltage-free contacts only**. Never apply voltage to an input.
- The summary alarm relay and the zone relays are for **Class 2 circuits only**.

What you need COM-3

Item	Use
Panel power	120 VAC (100–240 VAC), or 24 VAC if ordered
Belden 6300UE	Alarm inputs and relay outputs, up to 1,000 ft
Belden 82761 shielded twisted pair	Modbus RTU (RS-485), if the BMS uses RS-485
CAT5e or better	Modbus/TCP, if the Modbus/TCP option was ordered
At the equipment	A voltage-free dry contact for each signal, and whether it is normally open or normally closed
Labels	Brother ½-inch labels for the input names (CS0-RSP-06 and leak panels)

02 The panel

Front and inside RSP-2

The front has six LEDs labeled **INPUT 1** to **INPUT 6**, each with a write-on label strip (Brother ½-inch labels), a label strip beside **Status Panel** for the panel name, the green **POWER** light and the **HOLD TO ACKNOWLEDGE** button.

- Write what each input monitors on its label, for example "Sump Pump Fault".
- Inside: the input module (CM06P) reads the six inputs and drives the LEDs, buzzer and summary alarm relay; the labeled field terminals take all field wiring; the DIN-rail power supply powers the panel; the optional MS0-MBT adapter adds Modbus/TCP; the buzzer is mounted in the enclosure.

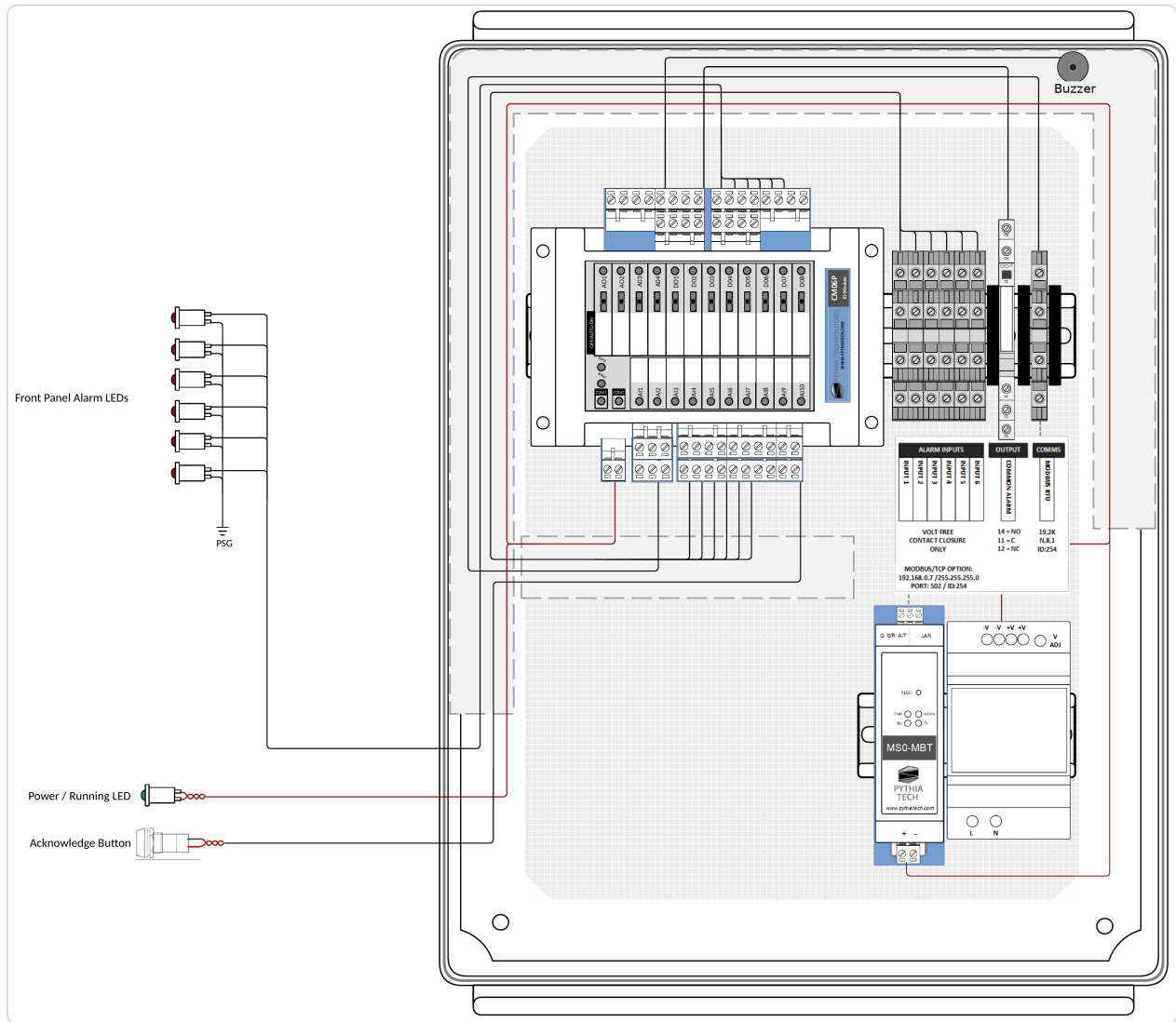
Indicator	Color	Lit when
INPUT 1 to INPUT 6	Red	The input is in alarm. With latching on, until it is acknowledged and the condition clears
POWER	Green	The panel has power



Front. 1 Panel name label · 2 Input LEDs · 3 Input labels · 4 POWER · 5 HOLD TO ACKNOWLEDGE



Dimensions. 16.25 × 13 × 7.5 in



Inside the panel, shown with the optional Modbus/TCP adapter (MS0-MBT).

03 Mounting and power

Mounting COM-4

Mount the panel where people will see and hear it: a control room, a NOC, a help desk or by the door of the room it watches. Make sure the door opens fully and the LEDs are visible. Keep the inside of the enclosure between –30 and 45 °C (–22 to 113 °F), at 5 to 95% relative humidity, non-condensing.

Panel power COM-5

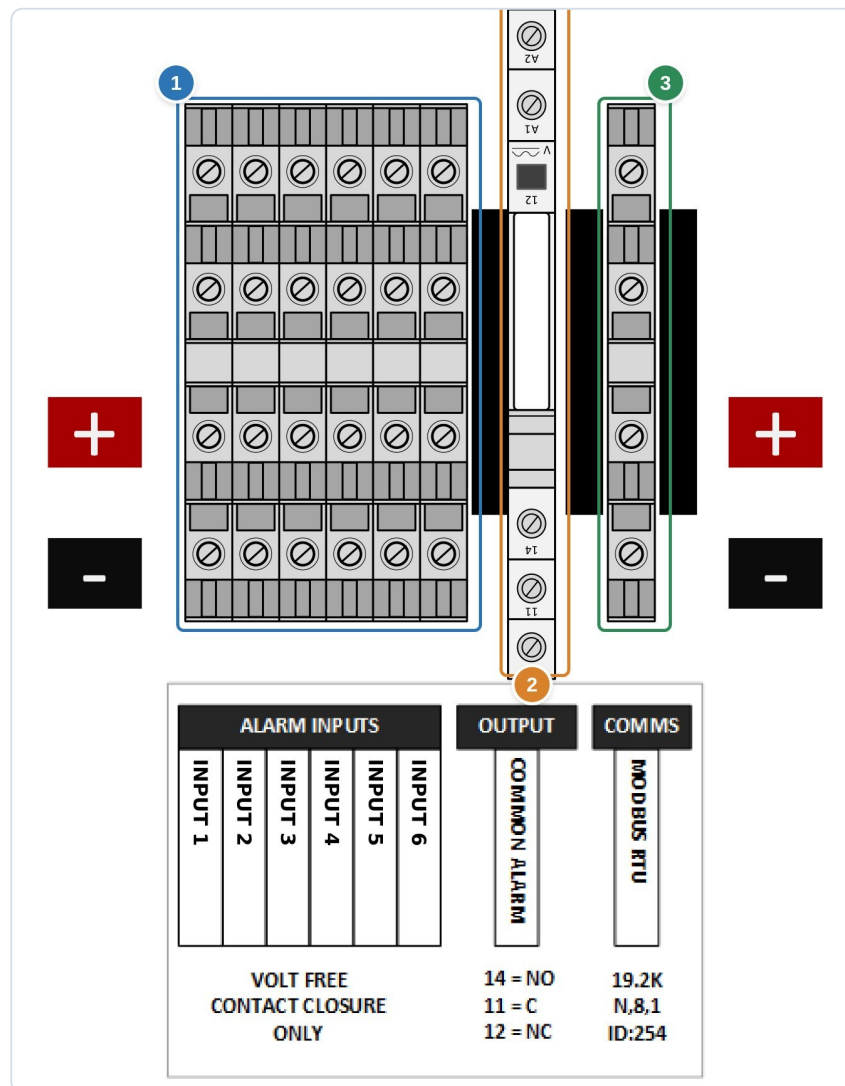
The standard power supply is the Meanwell HDR-60-24 DIN-rail supply. Bring 100–240 VAC to its **L** and **N** terminals and ground the panel per code. Apply power; the green **POWER** light comes on. Panels ordered for 24 VAC use the Kele DCP-1.5-W power supply in the same position.

04 Wiring

Field terminals COM-6

All field wiring lands on the labeled terminal blocks inside the panel: the six alarm inputs, the summary alarm relay (**COMMON ALARM**) and **MODBUS RTU** (COMMS).

Important: Field wiring lands on the **two lower screws** of each terminal block: **+** on the upper of the two, **-** on the bottom. The upper screws are factory wired. Relay terminals **A1** and **A2** are the relay coil and are also factory wired.



Field terminals. 1 Alarm inputs INPUT 1–6 · 2 Summary alarm relay (COMMON ALARM) · 3 Modbus RTU

Alarm inputs COM-7

All alarm inputs are **voltage-free dry-contact** signals. Use Belden 6300UE; inputs can be up to 1,000 ft from the equipment. Never apply voltage to an input.

Wiring the inputs RSP-4

- 1 Wire each equipment contact to one of the terminal pairs labeled **INPUT 1** to **INPUT 6**, on the lower two screws (+ upper, – lower) ([COM-6](#)).
- 2 Note which contact is on which input, and whether it is normally open or normally closed.
- 3 Write each input's name on its label on the front of the panel.
- 4 Set each input's type, and latching if wanted ([RSP-3](#)).

Summary alarm relay COM-8

The summary alarm relay switches when any input alarms. Its terminals are labeled **COMMON ALARM**. Use it for a beacon, a building annunciator or a BMS input. Contacts are rated **250 VAC/6 A** and **30 VDC/6 A**, Class 2 circuits only.

Terminal	Function	Use for
11	Common	Both connections
14	Normally Open (NO)	Wire 11–14 for a normally open contact
12	Normally Closed (NC)	Wire 11–12 for a normally closed contact

Modbus RTU COM-9

RS-485 on the **COMMS** terminals, + and –. Use **Belden 82761** shielded twisted pair. Defaults: Modbus address **254**, **19200** baud, **8-N-1**. Every input is published in Modbus registers; each panel's register list is in its own part of this guide.

Modbus/TCP (option) COM-10

If the Modbus/TCP option was ordered, connect the BMS network to the **LAN** port on the MS0-MBT adapter with CAT5e or better. Default address **192.168.0.7**, subnet mask **255.255.255.0**. The register list is the same as over Modbus RTU.

Recommended cable COM-12

Connection	Cable
Alarm inputs and relays	Belden 6300UE
Modbus RTU (RS-485)	Belden 82761 shielded twisted pair
Modbus/TCP (Ethernet)	CAT5e or better

05 Input setup

Input setup RSP-3

Each input is set to match its contact, and latching can be turned on for each input.

Setting	Registers	Values
Input type	44011 (input 1) to 44016 (input 6)	0 = normally open (alarms when the contact closes), 1 = normally closed (alarms when the contact opens, or the wire is cut)
Latching (optional)	44021 (input 1) to 44026 (input 6)	0 = off, 1 = on. A latched input stays lit until it is acknowledged and its condition clears

Tip: Wire critical signals normally closed where the equipment allows it. A cut or disconnected wire then raises an alarm instead of going quiet. Turn latching on for critical inputs so a brief fault is still seen; leave routine status inputs unlatched so their LED follows the live contact.

The alarm delay and buzzer are in [COM-14](#).

Alarm delay and buzzer COM-14

Alarm delay: 0 to 60 seconds, register **44001**. A contact change shorter than the delay does not alarm, which filters contact chatter and brief transfers.

- **Buzzer:** enabled or disabled with register **44000** (0 = enable, 1 = disable).

Example: a mechanical room RSP-5

Input	Equipment contact	Type	Latching
1	Sump pump fault	NC	On
2	Backup pump fault	NC	On
3	Booster pump run	NO	Off
4	Make-up air unit alarm	NO	On
5–6	Spare, labeled for later	—	—

Alarm delay: 3 seconds. The pump faults are fail-safe and latched; the booster run status is a live indication.

Configuration tools COM-15

Setup registers (44000 and up) can be written with any standard Modbus tool, such as WinTech's Modscan. The panel's Modbus address, serial settings and Modbus/TCP address are changed with the Pythia configuration tool, over the network or with a USB-to-RS-485 adapter. Contact Pythia technical support for the current version of the tool and its instructions.

06 Testing

Acknowledge and LED test COM-13

Acknowledge: when an input alarms, the buzzer sounds. Press and hold **HOLD TO ACKNOWLEDGE** to silence it.

- **LED test:** hold the Acknowledge button for about five seconds. Every LED lights and the buzzer sounds.

Commissioning test RSP-6

- 1 **LED test.** Hold Acknowledge for about five seconds; every LED lights and the buzzer sounds.
- 2 **Each input.** Exercise each input at its equipment, or open and close its contact, and confirm the matching LED lights.
- 3 **Alarm outputs.** Each time, confirm the buzzer sounds and the summary alarm relay changes state at the beacon, annunciator or BMS input.
- 4 **Acknowledge.** Press and hold HOLD TO ACKNOWLEDGE. The buzzer stops. On a latched input, the LED stays lit until the condition clears.
- 5 **BMS.** Confirm the BMS reads each input over Modbus, registers 41001 to 41006 (or over BACnet/IP or SNMP with an adapter).

Note: A contact change shorter than the alarm delay does not alarm. Allow for the delay when testing.

07 BMS integration

Modbus registers RSP-7

Inputs read 0 for off and 1 for on.

Description	Register	R/W	Values
Input 1 to input 6 state	41001–41006	R	0 = off, 1 = on
Output 1 to output 6 (LED/relay)	42001–42006	R	0 = off, 1 = on
Alarm buzzer	42009	R	0 = off, 1 or more = on
Summary alarm relay	42012	R	0 = off, 1 or more = on
Product	43001	R	1
Version	43002	R	Released version
Buzzer configuration	44000	R/W	0 = enable, 1 = disable
Alarm delay	44001	R/W	0–60 seconds
Input 1 to input 6 type	44011–44016	R/W	0 = normally open, 1 = normally closed
Input 1 to input 6 latch	44021–44026	R/W	0 = disabled, 1 = enabled (default 1)

Registers 42007, 42008, 42010, 42011 and 44002 to 44010 are not used.

BACnet objects (MS0-MB adapter) RSP-8

Description	Object	R/W	Values
Panel communications	BV-1	R	0 = alarm, 1 = normal
Panel state	BV-2	R	0 = normal, 1 = alarm
Input 1 to input 6 state	BV-3 to BV-8	R	0 = off, 1 = on
Output 1 to output 6 state	BV-9 to BV-14	R	0 = off, 1 = on
Input 1 to input 6 type	BV-15 to BV-20	R/W	0 = normally open, 1 = normally closed
Alarm delay	AV-1	R/W	0–60 seconds

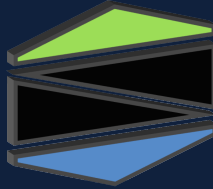
BACnet/IP and SNMP (options) COM-11

With the optional **MS0-MB** adapter the panel is a BACnet/IP device, and with the optional **MS0-MS** adapter it is available over SNMP. Each panel's BACnet objects are listed in its own part of this guide. Contact Pythia technical support for the SNMP MIB file.

08 Troubleshooting

Troubleshooting COM-16

What you see	What to check	See
No POWER light	Panel power at the supply's L and N terminals; the supply's output	COM-5
An input never alarms	The contact is wired to the lower screws (+ upper, – lower); the input type (NO or NC) matches the contact	COM-6 , RSP-3 , LDP-4
An input is in alarm with nothing wrong	The input type is set the wrong way (NO instead of NC, or the reverse); a normally closed input with a broken wire alarms by design	RSP-3 , LDP-4
An LED stays lit after the condition cleared	Latching is on for that input; acknowledge it	RSP-3 , LDP-4
Brief alarms you don't want	Raise the alarm delay (register 44001)	COM-14
No buzzer	The buzzer may be disabled (register 44000 = 1)	COM-14
The BMS can't read the panel	Modbus address 254, 19200 baud, 8-N-1, RS-485 + and – polarity; for Modbus/TCP, 192.168.0.7 on the same subnet	COM-9 , COM-10



TECHNICAL SUPPORT

740-363-2272

Business days, 8:00 a.m. to 3:00 p.m. ET · support@pythiatech.com



Installation training video
[pythiatech.com/training/
remote-status-panel](https://pythiatech.com/training/remote-status-panel)

Documents

Brochure and this guide: pythiatech.com/remote-status-panel

AI assistant guide:
[Pythia_Tech_Remote_Status_Panels.txt](#)