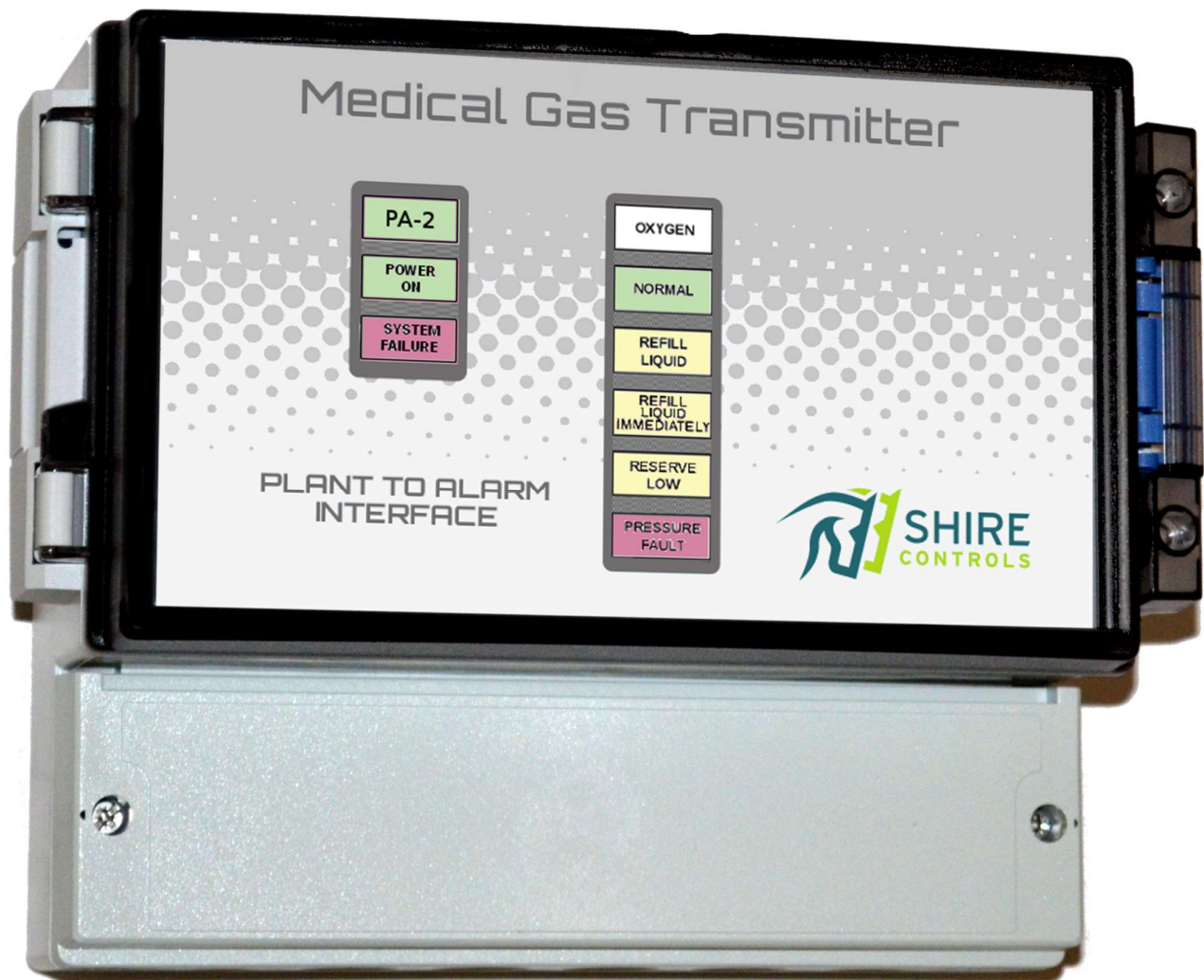


Plant To Alarm Interface (Alarm Signal Status Interface) For The SDX-15 Plant Alarm System



About this manual.



When you see this symbol, the associated text in **bold type** refers to something which may cause danger or damage.

The Plant To Alarm Interface is a low cost means of complying with C11 & HTM02 requirements for indication of alarm status in plant rooms, manifold rooms & VIE compounds. It is mounted in a clear fronted polycarbonate enclosure, protected to IP65, suitable for use in external locations without further protection. It consists of the following indication:-

- Alarm conditions 4no
- Normal
- Power On
- System fault

The Plant To Alarm also incorporates:

- A one gas transmitter suitable for use with the SDX-15 alarm system
- Four relays, providing volt-free normally closed contacts for connection to other site systems
- A battery reserve to power the unit for a minimum of 4 hours in the event of power loss.

Transmitters introduce signals from plant etc. onto the multiplexed signal wiring. They also monitor the wiring between the plant contacts and the transmitter terminals via termination boards mounted in or near the plant, checking for short or open circuits of the cable.

The system fault LED on the fascia Plate will flash if a fault is detected on the contact lines. An alarm condition is transmitted for the condition relating to the faulty line, and a system fault LED 5mm round Yellow SF4 (on Power Supply) will also flash.

The system fault LED on the fascia Plate will also flash if the Plant To Alarm Interface fails to receive signals from a central alarm on the 2-core data MEDCON bus, here the 5mm round Red LED (on Power Supply PCB) will also flash. In this case, all gas alarm conditions will default to alarm.

In the event of a mains power failure the system fault LED on the fascia Plate will flash and the 5mm round Green LED (on Power Supply PCB) will go off.

The channel on which the service is to be transmitted is selected with a 16 way rotary switch. Each service on the system is allocated a channel when the system is initially set up, this being entered on the log sheet.

For example, if Oxygen is allocated channel 1, this plant could be connected to the alarm input terminals on the transmitter, which would then be set to channel 1.

Selecting channel F inhibits the system fault resulting from a loss of signals from a central alarm.

Mounting

Fix the box securely using the mounting holes at top centre and bottom left/right corners of the enclosure.

Connecting

Bring the cables into the box using the holes provided.

Remove the **“Warning”** cover to reveal the mains terminals.

Connect 230-volt 50/60 Hertz live, neutral & earth to the appropriate terminals.

Make a small cutout in the side of the cover to allow the cable to pass and replace the cover.

The two core inter-panel wiring is connected to the ‘Signal’ 1 & 2 terminals to the 1 & 2 terminals on the nearest SDX-15 Plant alarm or transmitter (using a cable size of at least 0.5sq mm, cable may be a maximum of 500 meters).

Volt-free Inputs from the Plant of Manifold should be connected to the ‘Inputs’ Terminals as follows:

Across C Common & 1 First condition	Plant Fault or Change Cylinders
Across C Common & 2 Second condition	Plant Emergency or Change Cylinders Immediately
Across C Common & 3 Third condition	Reserve Low (Use wire link if not used)
Across C Common & 4 Fourth condition	Pressure Fault

Note: Any condition not transmitted from this transmitter must be linked with a Resistor (56K) to set that condition to normal. If the condition is not to be used (or transmitted from a second transmitter) it must be linked with a Resistor (1K8). It is important to ensure that any condition is only transmitted from one location although other conditions on the service may be transmitted from other transmitters.

The resistors are used to prevent a system fault due to short or open circuit. Note that if a resistor is fitted, the condition must NOT be connected to the termination board.

Resistor codes: -

1k8 brown/grey/red/silver or gold

56k green/blue/orange/silver or gold

Volt-free Duplicate Outputs for Other Systems should be connected to the ‘Outputs’ Terminals as follows:

Across C Common & 1 First condition	Plant Fault or Change Cylinders
Across C Common & 2 Second condition	Plant Emergency or Change Cylinders Immediately
Across C Common & 3 Third condition	Reserve Low (Use wire link if not used)
Across C Common & 4 Fourth condition	Pressure Fault

Supply



This equipment is not suitable for connection to an IT power source.

A readily accessible disconnect device must be provided.

The supply must be fused at 3 amps.

The Maximum Prospective Fault Current must not exceed 1500 amps.

The cable must not be shared with any other system.

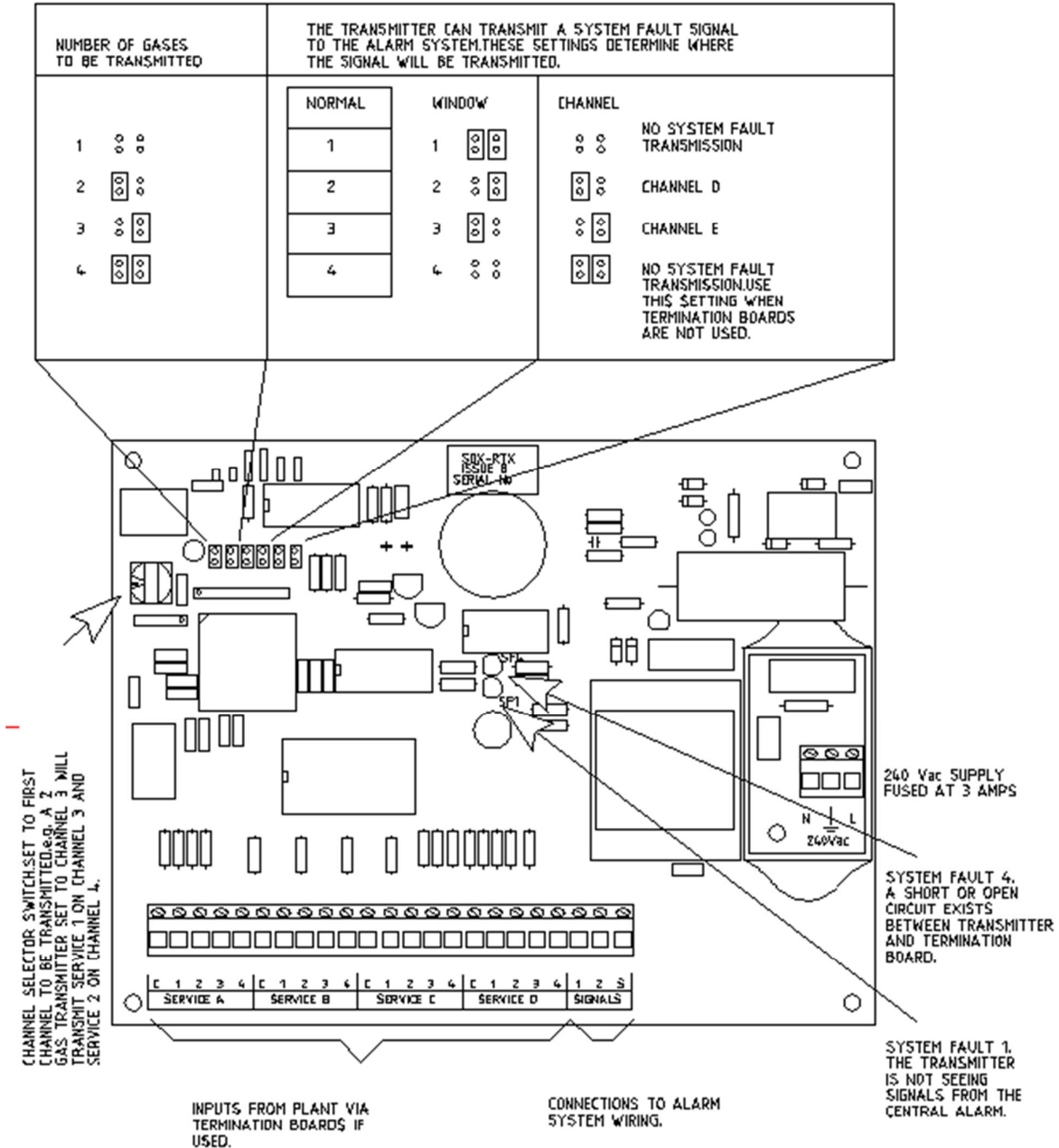
Cables must have a minimum of 20mm clearance from all other cables.

The 2 core inter-panel wiring must be connected to earth at both ends.

The 2 core inter-panel wiring is connected to signal terminals 1 & 2.
The cable screen must be connected to the "S" terminal.



It is important to ensure that any condition is only transmitted from one location although other conditions on the service may be transmitted from other transmitters.



SDX-15 REMOTE TRANSMITTER

Figure 3: Transmitter Set-up