

Remote Transmitters for the SDX-15 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.



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. 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 SF4 will flash.

The Remote transmitter is a self contained unit, used where indication of the alarm condition is not required locally, e.g. when a manifold or plant has an integral plant to alarm interface, and are available as 1, 2, 3 or 4 service units.

The services are selected, as in the alarm panel, with a rotary switch. However, the remote transmitter has only one switch for up to 4 services. This switch is set to the first service required and the other services will follow in sequence. e.g. if the switch on a 3 service transmitter is set to channel 2 then the services transmitted will be channels 2, 3 & 4. Each service on the system is allocated a channel when the system is initially set up, this being entered on the log sheet.

The alarm contacts on the plant or manifold are connected via the termination board to a service on the transmitter as follows:-

- C Common
- 1 First condition
- 2 Second condition
- 3 Third condition
- 4 Pressure fault

For example, if Oxygen is allocated channel 1, this plant could be connected to service A terminals on the transmitter, which would then be set to channel 1. Any condition not transmitted from this transmitter must be terminated with a 56k resistor to set the condition to normal if the condition is not to be used, or with a 1k8 resistor if the condition is to be transmitted from another transmitter. 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, gold or red
- 56k green blue orange silver, gold or red

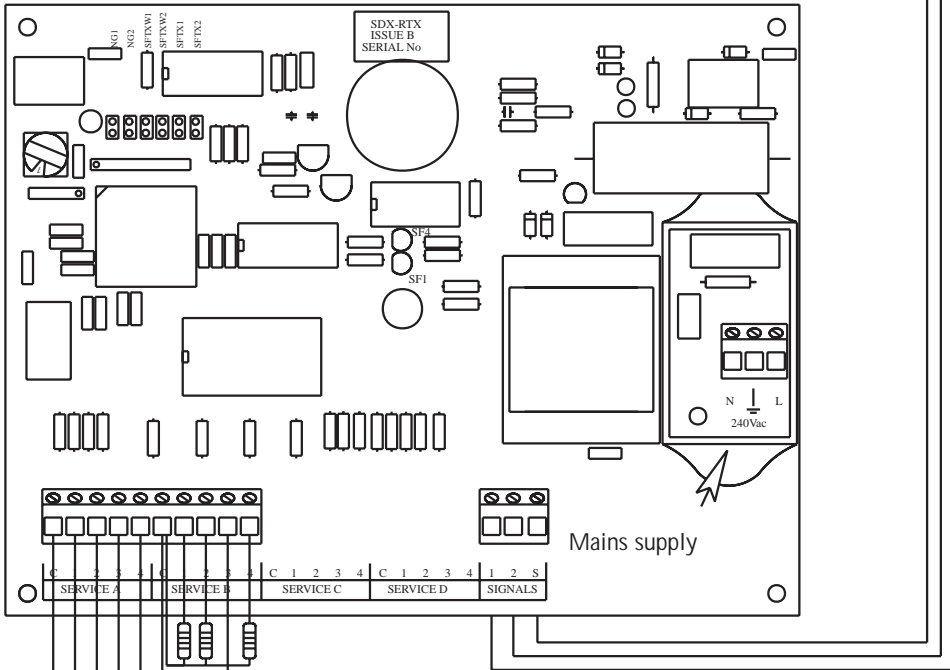
It is important to ensure that any condition is only transmitted from one location although other conditions on the service may be transmitted from other transmitters.

 **WARNING. This equipment is not suitable for connection to an IT power system. A readily accessible means of disconnecting the supply must be provided. The maximum prospective fault current must not exceed 1500 amps**

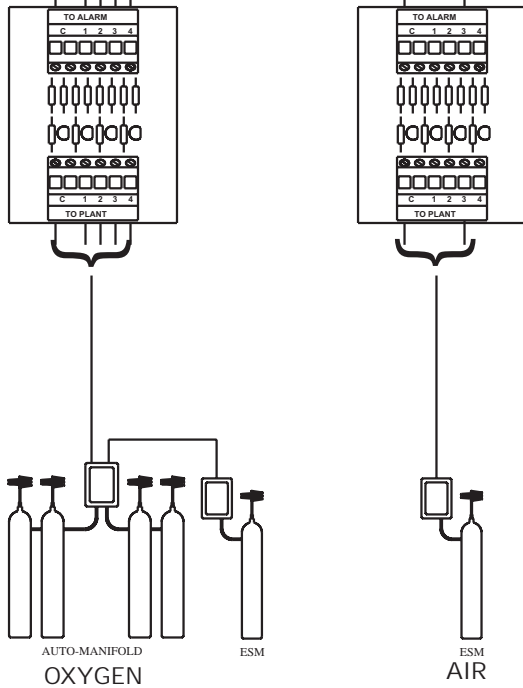
A 240 volt, 50/60 Hertz supply is required, which is connected to terminals under the mains terminal cover. The 2 core inter-panel wiring is connected to signal terminals 1 & 2. The cable screen must be connected to the "S" terminal.



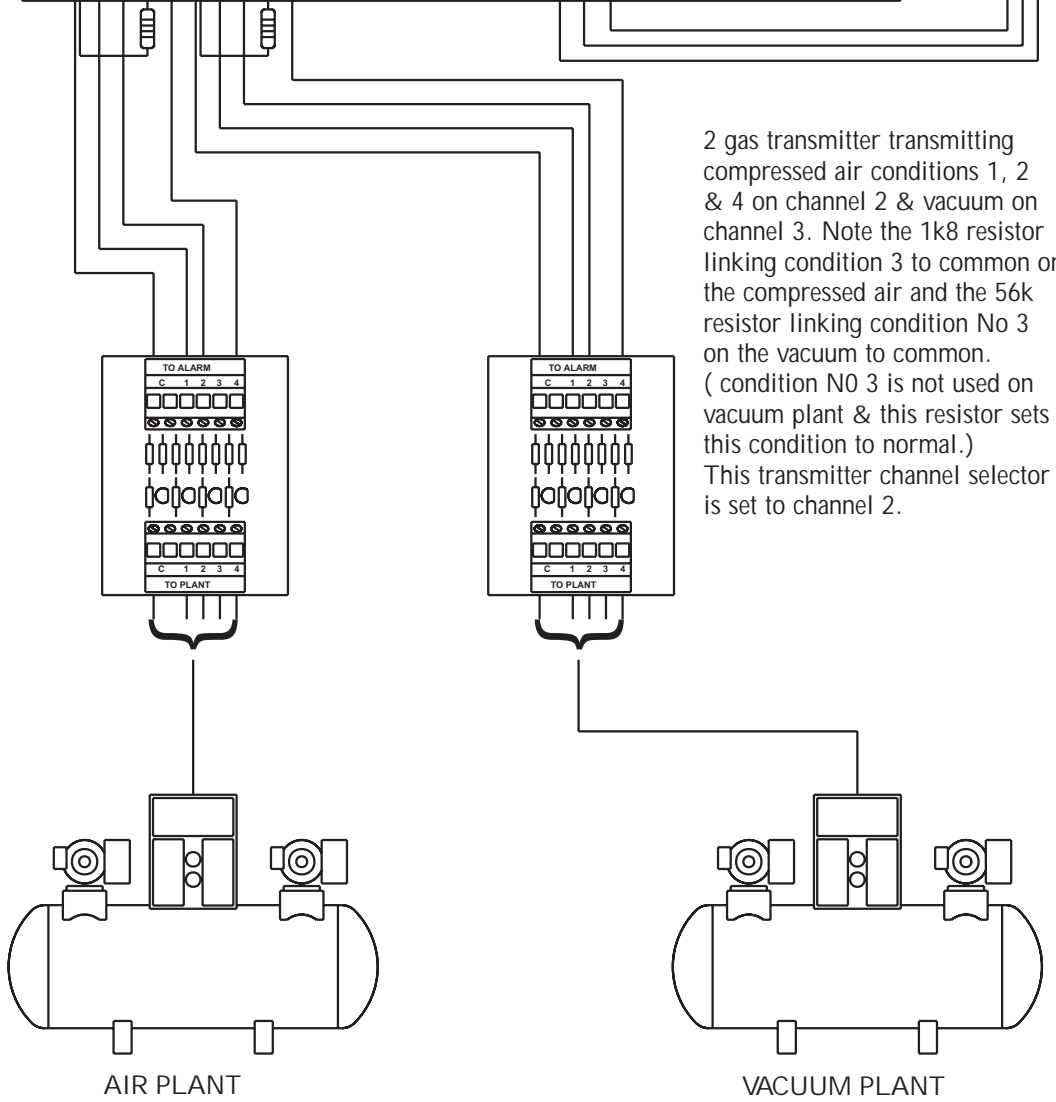
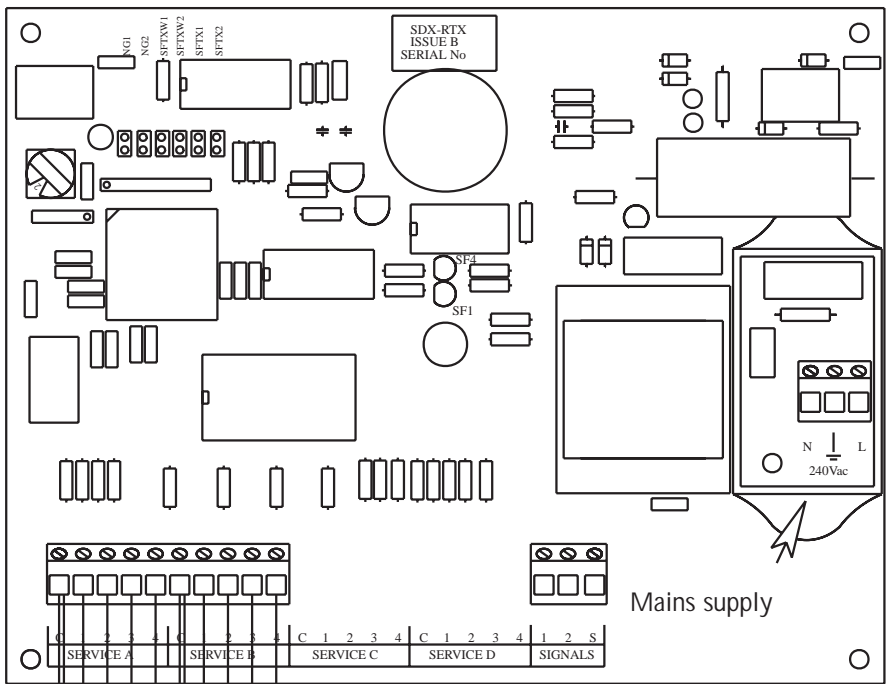
2 core signal cable
to rest of system



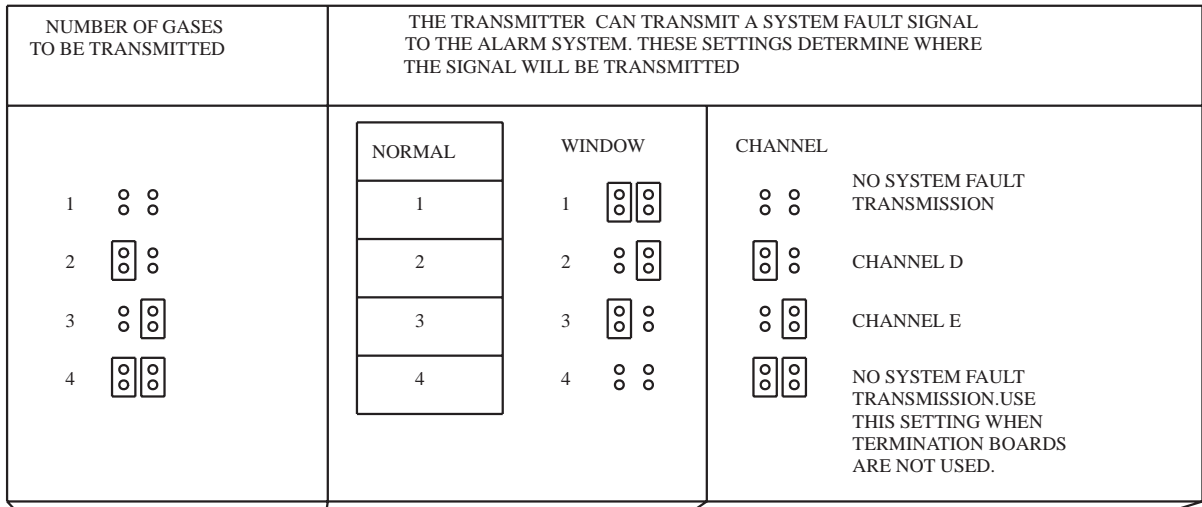
2 gas transmitter transmitting oxygen on channel 1 & the ESM condition (No 3) on channel 2. Note the 1k8 resistors linking conditions 1, 2 & 4 to common. This transmitter channel selector is set to channel 1.



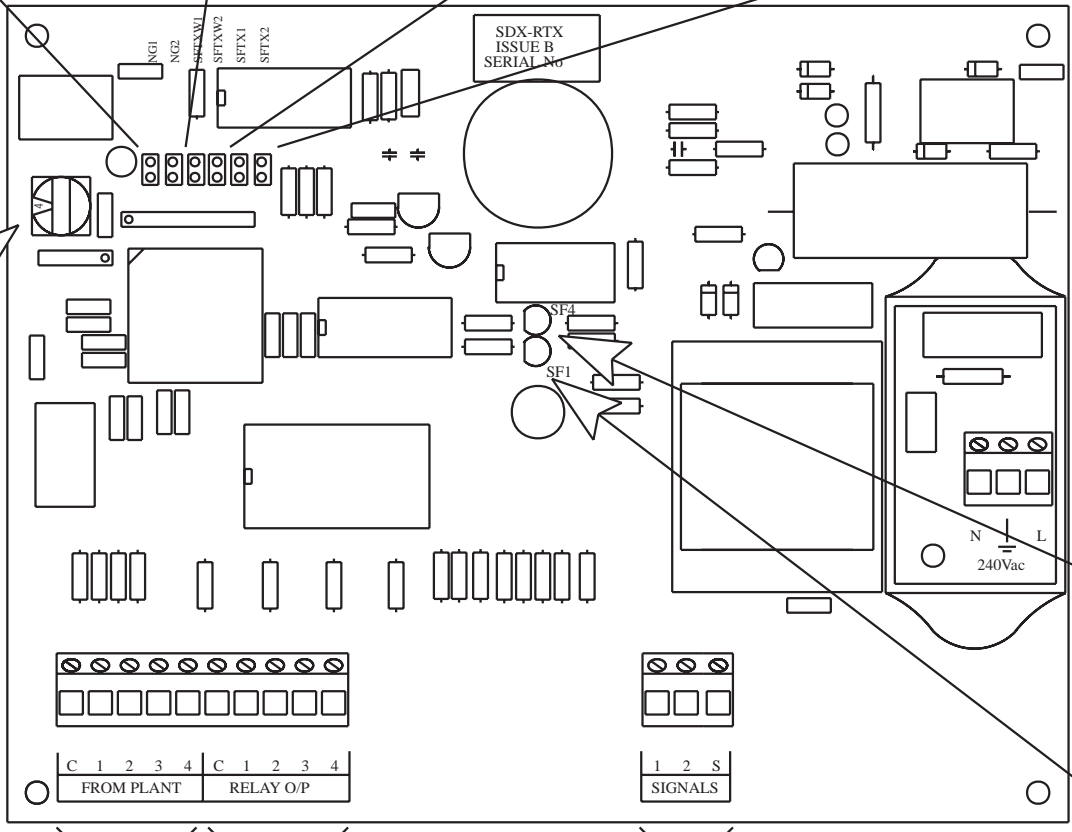
TYPICAL TRANSMITTER
SETUP



2 gas transmitter transmitting compressed air conditions 1, 2 & 4 on channel 2 & vacuum on channel 3. Note the 1k8 resistor linking condition 3 to common on the compressed air and the 56k resistor linking condition No 3 on the vacuum to common. (condition NO 3 is not used on vacuum plant & this resistor sets this condition to normal.) This transmitter channel selector is set to channel 2.



CHANNEL SELECTOR SWITCH SET TO CHANNEL ON WHICH THE SERVICE IS TO BE TRANSMITTED.



INPUTS FROM PLANT VIA TERMINATION BOARDS (IF USED).

VOLT-FREE CONTACTS

CONNECTIONS TO ALARM SYSTEM WIRING.

240 Vac SUPPLY FUSED AT 3 AMPS

SYSTEM FAULT 4. A SHORT OR OPEN CIRCUIT EXISTS BETWEEN TRANSMITTER AND TERMINATION BOARD.

SYSTEM FAULT 1. THE TRANSMITTER IS NOT SEEING SIGNALS FROM THE CENTRAL ALARM (DISABLED WHEN CHANNEL F IS SELECTED).

SDX-15 REMOTE TRANSMITTER

M1078B