CROWCON

INSTRUCTION MANUAL

DI 11
SELF TEST MODULE

CROWCON DETECTION INSTRUMENTS LIMITED
2 Blacklands Way,
Abingdon Business Park,
Abingdon,
Oxon. OX14 1DY
England

Tel: 0235 553057
Fax: 0235 553062
Telex: 837688 Crocon G

---A---
HALMA
GROUP
COMPANY

DI 11 SELF TEST MODULE

INTRODUCTION

The Self Test Module is designed to operate with the DI 11 Rack System (24v systems only) and provides signal simulation directly into the detector head inputs on both the flammable and toxic modules.

Its function is to automatically check the alarm signal path of each detector module within the rack and to provide an indication of a failure.

GENERAL DESCRIPTION

The Self Test Module sequencially checks one rack position every 30 minutes. The sequence is automatically stopped when a position fails to respond to its input stimulus. When a failure occurs the position number (channel) is displayed by LED on the front panel.

The sequence may be restarted by operation of the reset button. The previously indicated channel LED will be extinguished after a reset and the sequence will continue from the last indicated failure.

The Sequence may be stepped through at any time by operation of the manual push button.

BASIC OPERATION

At the start of a test the selected channel detector signal input receives a 6mA/Sec Ramp. At the same time all channel alarm relays are inhibited and the selected channel LED is illuminted. The test is terminated upon receipt of the selected channel's A1 and A2 output. At this point the input ramp is removed, inhibit released and the channel LED extinguished.

If either A1 and A2 output is not received the ramp signal will be terminated at 42mA. At this point the inhibit is removed, the fault relay is de-energised, the pilot is extinguished and the selected channel LED remains illuminated. The sequence is halted until operation of the reset button whereby the channel LED is extinguished. The fault relay is energised and the pilot illuminated.

Notes
1. Automatic and manual test is inhibited if any channel is in alarm condition.
2. The test duration is dependent on detector line resistance and/or module gain setting.
3. Any unused rack position must be programmed out by selecting appropriate DIL SW no.

FRONT PANEL CONTROLS AND INDICATORS

CONTROLS

1. Manual - may be operated at any time to start test of channel next in sequence.
2. Reset - clears indicated channel test failure and restarts automatic test sequence.
3. Lamp test - illuminates all LEDs.

INDICATORS

1. Pilot - green LED, normally on, extinguished on:
   a. power failure
   b. internal clock failure
   c. channel test failure
2. Channel test/fault - amber LED, indicates channel under test and test failure.

INPUT/OUTPUT FUNCTIONS

INPUTS

Connector Pin	6A, B	- +VE) 18v-32vDC (NOM 24v)
Connector Pin	7A, B	- -VE)
Connector Pin	4A, B	- A1 - alarm level 1 bus
Connector Pin	5A, B	- A2 - alarm level 2 bus

OUTPUTS

Connector Pin	28A, B	- Channel 1	Signal Line
Connector Pin	26A, B	- Channel 3	Signal Line
Connector Pin	24A, B	- Channel 5	Signal Line
Connector Pin	22A, B	- Channel 7	Signal Line
Connector Pin	20A, B	- Channel 9	Signal Line
Connector Pin	18A, B	- Channel 11	Signal Line
Connector Pin	16A, B	- Channel 13	Signal Line
Connector Pin	14A, B	- Channel 15	Signal Line
Connector Pin	27A, B	- Channel 2	Signal Line
Connector Pin	25A, B	- Channel 4	Signal Line
Connector Pin	23A, B	- Channel 6	Signal Line
Connector Pin	21A, B	- Channel 8	Signal Line
Connector Pin	19A, B	- Channel 10	Signal Line
Connector Pin	17A, B	- Channel 12	Signal Line
Connector Pin	15A, B	- Channel 14	Signal Line
Connector Pin	13A, B	- Channel 16	Signal Line

Pin 31A, B Fault relay contact n/c
Pin 32a, B

Connector Pin	3A, B	- TS - test in progress, open collector 20mA sink, goes low for test period may be used to drive external LED or relay.
Connector Pin	2A, B	- AC - accept - holds accept line low during test period.
Connector Pin	1A, B	-ISO - isolate - holds inhibit line low during test period.

Current comsumption @ 24vDC.

Quiescent	- 30mA
In test	- 70mA
Lamp test	- 200mA

MODULE CONSTRUCTION

Front Panel	= 3U x 50mm
Overall length	= 188mm
Connector	= 64 way DIN 41612
Weight	= 375grms.