DCS-50



DCS-50
Full Specification

Addressable Fire/Smoke Damper control and indicator panel for up to 50 dampers.

Physical

Dimensions (max):	325.5 x 410 x 154 mm W x H x D
Weight (typical):	8Kg excluding options
IP rating:	44 (Solids > 1mm & splash proof)
Materials:	Powder coated mild steel casing
Climatic:	0 to 70 C ambient 80% RH non-condensing
Colours:	Black and grey (RAL 7000)
Cable entry:	Knockouts top, Gland plate bottom
Hinging:	Left as standard, right by request

NB for right hinging gland plate and knockouts are reversed.

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Electrical

Supply Voltage:	90-260V ac 47-63Hz
Power consumption:	45W (max)
PSU approvals:	EN 60950-1 EN54-4 compliant
Battery backup (Optional)	2.3Ah internal battery. Hold up time 2 hrs.
Fusing:	Internal 1A a/s 20mm
Digital Inputs:	5V 10mA to volt free contacts 4 off fitted as standard, 1 additional used for psu fail detect When battery backed supply option selected
Digital Outputs:	1 Opto-isolated 24V 100mA rated – common fault signal normally closed, open on fault.

System

Display:	2 line 40 character LCD 50 tri-colour damper status LEDs
Nodes (all types) per panel:	50 max
Dampers per panel:	50 max
No: of zones:	4 max
Reaction time:	<1s (alarm change of state to DIN12 output change)
Overrides (Optional):	Active only when a current fire alarm. Full Vent – re-opens all closed dampers. Close all – closes any dampers not already closed. Extract only – opens extract dampers only for cold smoke clearance.
Menu Functions:	Test – closes all dampers. Faults – lists all dampers which are not in their correct state with a reason (and damper reference/location -32 characters max- if required.)
Enable Key:	All front panel button functions disabled until enabled by keyswitch.

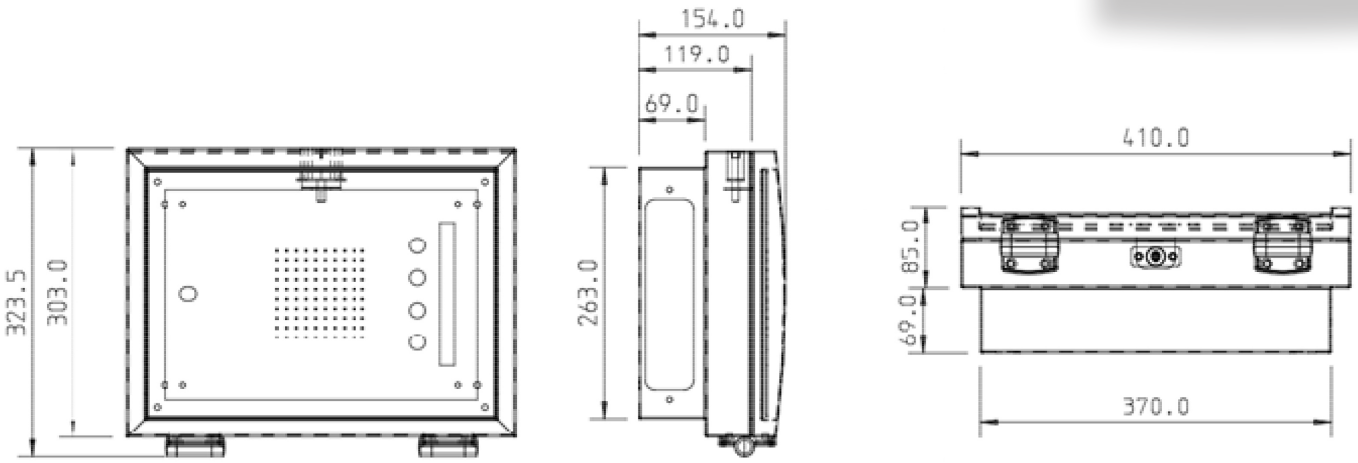
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DCS-50
Principles of Operation



Normal Operation

In the normal or non-alarm condition each DIN-12 (damper control node) drives the damper actuator and monitors the limit switches for the damper status. The damper status at each node is communicated to the DCS-50 control panel and the status indicated by the front panel LEDs. Timers in the node enable the detection of dampers failing to open or close correctly,

Alarm Condition

An alarm condition is generated by the change of state of the fire alarm contacts, from closed (non-fire) to open (fire). This change of state is detected by the panel and transmitted to the DIN-12 nodes. On receipt of the alarm signal the panel enables the fireman's overrides switches (where fitted). The individual damper control nodes on receipt of the fire alarm condition cut the drive to the actuator and signal the change of state to the panel. The nodes will now act on any over ride signal from the panel. If the overrides on the panel are activated it transmits this information to the nodes.

Fail Safe Condition

If any damper control node fails to receive the non-fire message from the panel for a period of more than 30s the damper node will default to the fire condition and cut the power to the actuator.

Indications.

Green	No Fire/Damper Open
Red	Fire/Damper Closed
Amber	Fault - Further information can be viewed on the LCD display

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