DCS-200 Full Specification

Physical

Dimensions (max):	300 x 400 x 170mm W x H x D
Weight (typical):	9.5Kg
IP rating:	44 (Solids > 1mm & splash proof)
Materials:	Powder coated mild steel casing Polycarbonate control cover
Climatic:	0 to 70 C ambient 80% RH non-condensing
Colours:	Black and grey (RAL 7000) Polycarbonate smoked grey
Cable entry:	Gland plates top and bottom
Hinging:	Left or right as required

Electrical

Supply Voltage:	90-260V ac 47-63Hz
Power consumption:	45W (max)
PSU approvals:	EN 60950-1 EN54-4 compliant
Battery backup:	2.3Ah internal battery. Hold up time 2 hrs.
Fusing:	Internal 1A QB 20mm
Digital Inputs:	5V 10mA to volt free contacts 8 off fitted as standard, 1 normally used for psu fail detect.
Digital Outputs:	Opto-isolated 24V 100mA rated 4 fitted as standard (1 required for common fault) – 4 optional SPC0 Relays.

System

Display:	2 line 40 character LCD 100 tri-colour damper status LEDs

NB damper statuses are displayed by loop, 100 dampers at a time.

Control loops:	2
Nodes (all types) per panel:	300 max
Dampers per panel:	200 max
Dampers per loop:	100 max
No: of zones:	100 max
Reaction time:	<1s (alarm change of state to DIN12 output change)

Distributed Intelligent Nodes

Physical

Dimensions:	180 x 110 x 90 mm
Weight:	0.5Kg
IP rating:	55 (Dust proof and sprayed water)
Material:	Polycarbonate
Climatic:	0 to 70 C ambient 80% RH non-condensing
Cable Entry:	Factory fitted glands as req'd

Electrical

Supply Voltage:	220-240V ac OR 24V ac/dc
Power Consumption:	0.5W plus load (48.5W max)
Fusing:	On board thermal/resettable
Digital Inputs:	5V 10mA to volt free contacts
Outputs: (240V supply)	240V ac 50Hz 0.1 A
(24V supply)	24V DC 1A

NB different versions of the DIN are fitted with varying combinations of inputs and outputs up to a maximum of 2 outputs and 4 inputs.

Indicators:	Green power indicator LED Tri-colour input status LED(s) Red output status LED(s)
Fault timers:	Opening time 150s Closing time 30s

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 relayed to the HIP-100 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 transmitted to both the panel and the other nodes in the system by the DIN-04F fire alarm interface node. On receipt of the alarm signal the panel enables the fireman's over rides switches and if the overrides are subsequently activated transmits this information to the nodes. 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.

Fail Safe Condition

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