JOHNSON CONTROLS

Controls Group 507 E. Michigan Street
P.O. Box 423, Milwaukee, WI 53202
Code No. LIT-1928025

Digital Control Module

Description

The Digital Control Module (DCM) performs direct digital control of devices such as valves, actuators, and variable speed drives. The DCM is actually a co-processor for the NCM, executing Proportional-Integral-Derivative (PID) loop calculations. This frees the NCM to perform duties such as scheduling, interlocks, and operation sequences. The DCM employs a "self-tuning" algorithm that automatically and continually fine tunes PID loop parameters to maintain a correct feedback value. Self-tuning adjusts the control strategy due to mechanical aging of devices or shifting variables, such as varying temperatures.

The DCM can be installed in a 2-slot NCU/NEU CU. or 5-slot NCU.

Features

- up to 20 universal (analog/binary) inputs and up to 20 universal (analog/binary) outputs can be interfaced to the controller
- provides accurate PID control
- self-tuning program fine tunes PID loop accuracy
- "Softstart" algorithm brings chillers and fan systems under normal control from start-up without setpoint hunting
- plug-in installation and easy commissioning

To Order

Contact your local Johnson Controls Representative.

Selection Chart

Code Number	Description
NU-DCM140-0	Digital Control Module 140

Repair Parts

Code Number	Description
NU-DCM140-700	Digital Control Module 140 Repair Module

Accessories

Code Number	Description
EN-BSF201-0	2 Slot Base Frame for DCM140
EN-BSF501-0	5 Slot Base Frame for DCM140
NU-PWR101-0	Power Supply for DCM140

Specifications

Digital Control Module	
Inputs	10 function module slots, handling up to 20 inputs
Input Accuracies	Voltage and Current: 12 bit resolution (.0244% at room temperature) 100 ohm RTD (DIN platinum): Resolution = .07°F over full range 1000 ohm RTD (JCI nickel): Resolution = .07°F over full range 1000 ohm RTD (DIN platinum): Resolution = .10°F over full range 1000 ohm RTD (JCI silicon): Resolution = .05°F over full range
Outputs	10 function module slots, handling up to 20 outputs
Output Accuracy	Resolution is 10 bits (.0977% over the full range). Output accuracy is further affected by the individual output function module.
Source Power	Power is from the power module (NU-PWR101-0).
Ambient Operating Conditions	32 to 122°F (0 to 50°C) 10% to 90% RH
Ambient Storage Conditions	-40 to 158°F (-40 to 70°C) 5% to 95% RH
Dimensions (H x W x D)	14 in. x 1.5 in. x 6 in. (355 x 36 x 152 mm)
Shipping Weight	2.6 lbs (1.18 kg)
Agency Compliance	FCC Part 15 Subpart J Class A UL 916 CSA C22.2 No. 205
Agency Listing	UL Listed and CSA Certified as part of the Metasys Network