

EXCEL[®] 5000 OPEN System Architecture: Designed for unmatched DDC control versatility and true open system flexibility

Whether you're a contractor or a facility manager, the challenge has always been finding a DDC control system that matches a wide range of building applications. Not a patchwork of products that can be "made to fit," but a modular system of devices designed from the start to accommodate a wide range of sequencing activities, capacities, control points and budgets.

Honeywell EXCEL[®] 5000 OPEN system answers the challenge. Featuring distributed control products that are open and easy to use, the EXCEL[®] 5000 OPEN system is a proven performer that defines versatility.

Open Communications

Every control device in the EXCEL[®] 5000 OPEN system family uses LonMark[®]-based open communications protocol: the worldwide standard in building control. All the Honeywell open system devices operate on the same network, use the same communications protocol, and share a common physical structure. The open platform makes it easy to adapt third-party devices, too.

Easy To Use

Excel CARE is the only tool to engineer, document and commission all Honeywell and LonMark[®]-based controllers. Legacy systems are easily integrated at the same time.

It's easy to see and manage the control conditions in your building with the EXCEL[®] 5000 OPEN system, too. Application programs are easily accessed through a keypad display, a graphical PC workstation with Windows[®], or based EXCEL[®] 5000 software, or from an off-site location.

Proven Performance

The advantages of integrated building control are real—and measurable. And with thousands of devices successfully installed over the past decade, Honeywell's EXCEL[®] 5000 OPEN system is truly the proven performer. Now you have the power and versatility to control as many points in as many locations as you need to.

Honeywell's leadership in control technology spans more than 110 years. You can count on the EXCEL[®] 5000 OPEN system to deliver enduring value and reliable performance throughout your building lifecycle.

Honeywell Server

RAS Remote Connection



Honeywell C-Bus Devices^a

XPC 500 Card

Modem

Network Interface Q7751C PCLTA^b

Router Q7751

Use when multiple networks exist

Ethernet TCP/IP

Work Stations

Internet/Intranet

Web Access via Browser

Other Open Systems BACnet/OPC/DDE/Modbus

C - Bus Network Connection via BNA

LonWorks BUS

Digital Input

Digital Output

Analog Input

Analog Output

Three Position Output

Power Module

Distributed Input/Output Accessories

Zone Controllers

Plant Controllers

Automation and Control Solutions

In the US:

Honeywell

1985 Douglas Drive North

Golden Valley, MN 55422-3992

In Canada:

Honeywell Limited

35 Dynamic Drive

Toronto, Ontario M1V 4Z9

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^a Plant Controllers may be configured to communicate on the LonWorks[®] Bus for Open System jobs or on the Honeywell C-Bus.

^b The system only requires the iLon or the PCLTA for each application, not both.

Excel 50 Controller

74-3029 Specification Data

I/O Point Capacity

Analog Inputs:	8	0 to 10 Vdc 0 to 20 mA (w 499 Ω resistor)
Analog Outputs:	4	0 to 10 Vdc
Digital Inputs:	4	3 of 4 fast totalizer
Digital Outputs:	6	Triac 800 mA (all 6 Triacs max 2.4A)

Same Power of the Excel 500

- Similar operator interface
- Same software
- Same bus communication
- Fully programmable using Excel CARE

Model Type:

- XLS50 UPC—without operator interface
- XLS50 UMMIPC—with operator interface

I/O Point Capacity

- 22 physical points
- Up to 256 pseudo points
- 46 network variables supported on the LonWorks Network

Application Module:

Engineering Tool:

Excel 500 Controller

74-2036 Specification Data

Input/Output Modules

XF521 Insert Card

Module Type:

No. of Inputs:

Type of Inputs:

Analog Input

0 to 10 volts

0 to 20 mA or 4 to 20 mA

NTC, -58 to 302F, -50 to 150C

PT1000_1, -58 to 302F, -50 to 150C

XF529 Insert Card

Module Type:

No. of Outputs:

Type of Outputs:

Analog Output

0 to 10 volts

0 to 20 mA or 4 to 20 mA

NTC, -58 to 302F, -50 to 150C

PT1000_2, -32 to 752F, 0 to 400C

PT3000, -58 to 302F, -50 to 150C

Balco, -58 to 302F, -50 to 150C

XF527 Insert Card

Module Type:

No. of Outputs:

Type of Outputs:

Analog Output

0 to 10 volts +/- 1 mA each

Manual Override

Switches:

No. of LED's:

Digital Input

XF523 Insert Card

Module Type:

No. of Inputs:

No. of LED's:

Inputs 1 and 2:

Digital Input

12

Digital Input or Fast Totalizer

Digital Input or Slow Totalizer

Inputs 3-12:

Digital Output

XF524 Insert Card

Module Type:

No. of Outputs:

Type of Outputs:

Digital Output

6

5 Changeover Contacts

1 Normally Open Contact

Manual Override

Switches:

No. of LED's:

Three Position Output

XF525 Insert Card

Module Type:

No. of Outputs:

Type of Outputs:

Three Position Output

3

Floating Control

Manual Override

Switches:

No. of LED's:

Power Module

XP502 Power Module

Module Type:

No. of Outputs:

Type of Outputs:

Power Supply

24V ac + 10% / -15%

Class 2, 24V ac

No. of Switches:

No. of LED's:

Distributed Input/Output Accessories

1	XFR522	Module Type:	Manual Override for XFL522	Manual Override Switches:	8
2	XFR524	Module Type:	Manual Override for XFL524	Manual Override Switches:	6
3	XSL511	Module Type:	Connector module for XFL521, XFL522, XFL523, XFL524		
4	XSL512	Module Type:	Manual disconnect module between terminal and I/O modules		
5	XSL513	Module Type:	Terminal block for XFL521/522/523		
6	XSL514	Module Type:	Terminal block for XFL524		

Constant Volume AHU Controller W7750

74-2956 Specification Data

Inputs

- 1 T7770 wall module
- 1 Resistive input
- 2 dry contact digital inputs
- 1 Bypass button input

Outputs

- 6 relay outputs
- 1 LED output

W7750A/C Constant Volume AHU Controller

Inputs

- 1 T7770 Wall module
- 4 Resistive inputs
- 2 Voltage inputs
- 4 Dry contact digital inputs
- 1 Bypass button input

Outputs

- 8 triac outputs (W7750B)
- 1 LED output
- 5 triac and 3 analog outputs (W7750C)

VAV Box Controller W7751

74-2957 Specification Data

Inputs

- 1 T7770 wall module
- 1 Resistive input
- 1 Voltage input
- 1 Bypass button input
- Integrated actuator

Outputs

- 4 triac outputs
- 1 LED output

W7751H

Inputs

- 1 T7770 wall module input
- 2 Resistive inputs
- 1 Voltage input
- 3 dry contact inputs
- 1 Bypass button input

Outputs

- 8 triac outputs
- 1 LED output

Unit Ventilator Controller W7753

74-2962 Specification Data

Inputs

- 1 T7770 wall module
- 2 Resistive inputs
- 2 voltage/current inputs
- 4 Dry contact digital inputs
- 1 Bypass button input

Outputs

- 8 triac outputs
- 1 LED output

Fan Coil Unit Controller W7752

74-2959 Specification Data

Inputs

- 2 pipe, 4 pipe fan coil unit control
- Up to 3 speed fan control
- With or without electrical reheat
- Space freeze protection

Outputs

- 3 relay outputs
- 1 LED output
- 1 Electric heat relay (F type only)

Remote Input/Output Device W7761

74-2998 Specification Data

Inputs

- 4 Resistive inputs
- 2 Voltage inputs
- 4 Dry contact digital inputs

Outputs

- 8 triac outputs

Communicating Thermostat T7350H

63-1299 Specification Data

Inputs

- One thermostat model for either heat pump or conventional RTU
- Up to three stages of heat and cool
- Works with T7740 Remote Temperature Sensor
- Proportional plus integral control eliminates temperature fluctuations
- 7 Day programming – 2 occupied / 2 not occupied periods per day
- Discharge air sensing capability with C7046C Sensor

Hydronic Controller W7762/3

74-2934 Specification Data

Inputs

- Radiators, induction units and fan coil units with manual fan switching
- High efficiency, low cost Heat/Cool Valve application solution
- Model with integrated or remote module for wall or unit mounted

Outputs

- 1 Space temperature sensor (either built in or via T7770 wall module)
- 1 Dry contact digital input
- 4 Triac outputs

Plant Controllers

Zone Controllers

Automation and Control Solutions

In the US:
Honeywell
1985 Douglas Drive North
Golden Valley, MN 55422-3992

In Canada:
Honeywell Limited
35 Dynamic Drive
Toronto, Ontario M1V 4Z9
customer.honeywell.com

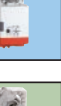
Honeywell Commercial Components

ACTUATORS

	Torque	Voltage	Description	Catalog Number	Model Number
	44 in-lb (5 Nm)	24 Vac	Two Position	S0524-2POS	MS8105A1008
		120 Vac	Two Position	S0612S-2POS	MS4105A1002
		24 Vac	Floating & Modulating	S08010	MS7505A2001
	88 in-lb (10 Nm)	24 Vac	Two Position	S1024-2POS	MS8110A1008
		120 Vac	Two Position	S1012S-2POS	MS4110A1002
		24 Vac	Floating & Modulating	S101010	MS7510A2008
		24 Vac	Floating & Modulating w/ Aux. Switches	S10010-SW2	MS7510A2206
		24 Vac	Floating & Modulating w/ Aux. Switches & Adj. Zero & Span	S10010-SER-SW2	MS7510A2209
	175 in-lb (20 Nm)	24 Vac	Two Position	S2024-2POS	MS8120A1007
		120 Vac	Two Position	S2012S-2POS	MS4120A1005
		24 Vac	Floating & Modulating	S20010	MS7520A2007
		24 Vac	Floating & Modulating w/ Aux. Switches	S20010-SW2	MS7520A2205
		24 Vac	Floating & Modulating w/ Aux. Switches & Adj. Zero & Span	S20010-SER-SW2	MS7520A2208

63-2607 Product Data
63-2209 Product Data
63-2588 Product Data
63-2589 Product Data

GLOBE VALVES

	Torque	Voltage	Description	Model Number
	44 in-lb (5 Nm)	24 Vac/dc	Two Position & Floating Two Position & Floating w/ Aux. Switches Modulating & Floating Modulating & Floating w/ Aux. Switches	MN6105A1011 MN6105A1201 MN7505A2001 MN7505A2209
	88 in-lb (10 Nm)	24 Vac/dc	Two Position & Floating Two Position & Floating w/ Aux. Switches Modulating & Floating Modulating & Floating w/ Aux. Switches	MN6110A1003 MN6110A1201 MN7510A2001 MN7510A2209
	175 in-lb (20 Nm)	24 Vac/dc	Two Position & Floating Two Position & Floating w/ Aux. Switches Modulating Modulating w/ Aux. Switches	MN6120A1002 MN6120A1200 MN7520A2007 MN7520A2205
	300 in-lb (34 Nm)	24 Vac/dc	Two Position & Floating Modulating	MN6134A1003 MN7534A2008

Non-Spring Return

*Consult Tradeline Catalog for additional models.

DAMPERS

- D640 / D642 Volume Control Dampers**
- Hat channel frame with reinforced, overlapped corners for greater strength
- Symmetrical blade design allows for airflow in either direction
- Better free-area and performance due to symmetrical blades and low-profile designs
- Certified with the AMCA Air Performance Seal on every damper
- No top or bottom, allows for actuator mounting on either side without ordering special options
- Blade-to-blade linkage out of air stream (concealed in frame)
- Can be sized in increments of 0.01 inches up to 144" X 144"
- Internal or external mounting locations for actuators
- Parallel or opposed blade orientations



63-2598 Specification Data

	Material	Frame Gauge	Blade Seals	Jamb Seals	Bearings	Axles	Linkage Material	Flange
S - Standard O - Optional	Galvanized Stainless Aluminum	16 14 12	Vinyl Silicone EPDM	Aluminum	Stainless Synthetic Bronze Stainless	Steel Stainless	Steel Stainless	None Single Double Reverse
D640 Standard Volume Control Damper	S	O	O	S	O	O	S	O
D642 Ultra-Low Leakage Volume Control Damper	S	O	O	S	O	O	S	O

63-1276 V5011 Specification Data
63-1277 V5013 Specification Data
63-1301 VGF Specification Data

BALL VALVES



62-0197 Product Data

		Actuator Model Number										Valve Only			
Actuator Features		ML7161B024	ML7161A208	S0524-2POS (MS8105A1008)	S05010 (MS7505A2008)										
24 Vac		X	X	X	X										
2-position Control		X	X	X	X										
Floating Control		X	X	X	X										
2-10 Vdc Control		X	X	X	X										
0-10 Vdc Control		X	X	X	X										
2-20 mA Control		X	X	X	X										
Manual Override		X	X	X	X										
Conduit Connection		X	X	X	X										
Spring Return		X	X	X	X										
Valve Size	Cv	Close-off, Differential Pressure (psi)	Nickel-Plated Brass Trim	Stainless Steel Trim	Nickel-Plated Brass Trim	Stainless Steel Trim	Nickel-Plated Brass Trim	Stainless Steel Trim	Nickel-Plated Brass Trim	Stainless Steel Trim	Nickel-Plated Brass Trim	Stainless Steel Trim	Nickel-Plated Brass Trim	Stainless Steel Trim	
2-way	0.38	130	VB2AABA	VB2AASA	VB2AASB	VB2AASC	VB2AASD	VB2AASE	VB2AASF	VB2AASG	VB2AASH	VB2AASI	VB2AASJ	VB2AASK	
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	2.6		VB2ADBA	VB2ADSA	VB2ADSB	VB2ADSC	VB2ADSD	VB2ADSE	VB2ADSF	VB2ADSG	VB2ADSH	VB2ADSI	VB2ADSJ	VB2ADSK	
	4.7		VB2AABA	VB2AASA	VB2AASB	VB2AASC	VB2AASD	VB2AASE	VB2AASF	VB2AASG	VB2AASH	VB2AASI	VB2AASJ	VB2AASK	
	8		VB2ABBA	VB2ABSA	VB2ABSB	VB2ABSC	VB2ABSD	VB2ABSE	VB2ABSF	VB2ABSG	VB2ABSH	VB2ABSI	VB2ABSJ	VB2ABSK	
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	16.1		VB2ADBA	VB2ADSA	VB2ADSB	VB2ADSC	VB2ADSD	VB2ADSE	VB2ADSF	VB2ADSG	VB2ADSH	VB2ADSI	VB2ADSJ	VB2ADSK	
	20.8		VB2AABA	VB2AASA	VB2AASB	VB2AASC	VB2AASD	VB2AASE	VB2AASF	VB2AASG	VB2AASH	VB2AASI	VB2AASJ	VB2AASK	
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		2.6		VB2CDBA	VB2CDSA	VB2CDSB	VB2CDSC	VB2CDD	VB2CDE	VB2CDF	VB2CDG	VB2CDH	VB2CDI	VB2CDJ	VB2CDK
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22.8			VB2CBBA	VB2CBSA	VB2CBSB	VB2CBSC	VB2CBSD	VB2CBSE	VB2CSF	VB2CSG	VB2CSH	VB2CSI	VB2CSJ	VB2CSK	
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20.8			VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK	
26.6	VB2HABA		VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
34.1	VB2HBBB		VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
12.9		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
16.1		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
20.8		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
26.6		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
34.1		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
12.9		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
16.1		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
20.8		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
26.6		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
34.1		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
12.9		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
16.1		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
20.8		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
26.6		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
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11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
12.9		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
16.1		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
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26.6		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
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11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
12.9		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
16.1		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
20.8		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
26.6		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
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11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
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26.6		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
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11.7	40	VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
12.9		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH	VB2HBI	VB2HBJ	VB2HBK		
16.1		VB2HABA	VB2HASA	VB2HASB	VB2HASC	VB2HASD	VB2HASE	VB2HAF	VB2HAG	VB2HAH	VB2HAI	VB2HAJ	VB2HAK		
20.8		VB2HBBB	VB2HBSA	VB2HBSB	VB2HBSC	VB2HBSD	VB2HBSE	VB2HBF	VB2HBG	VB2HBH					