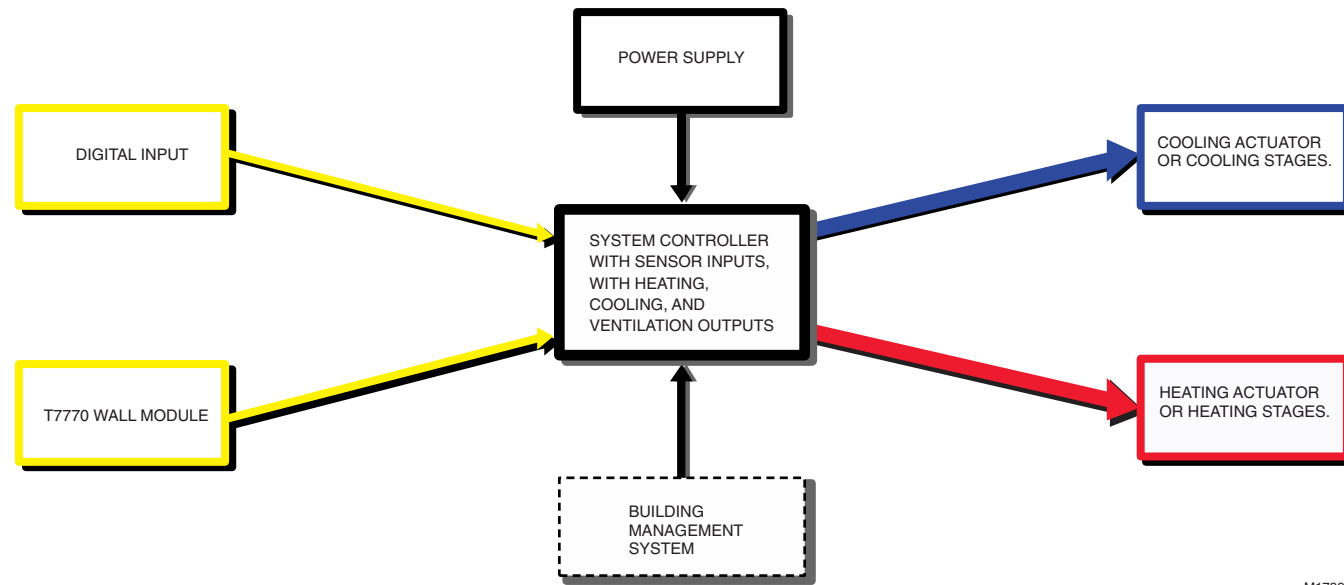


- Stand-alone or expandable. LonMark® compliant, Echelon® LonWorks® protocol-compatible (on LonWorks®Bus, Q7750 Zone Manager), free topology.
- High efficiency, low cost Heat/Cool valve application solution.
- Model with integrated or remote wall module
- Lonworks®Open protocol: flexibility now and for the future.
- Direct connection of thermal actuators
- Wide range of supported valves and actuators

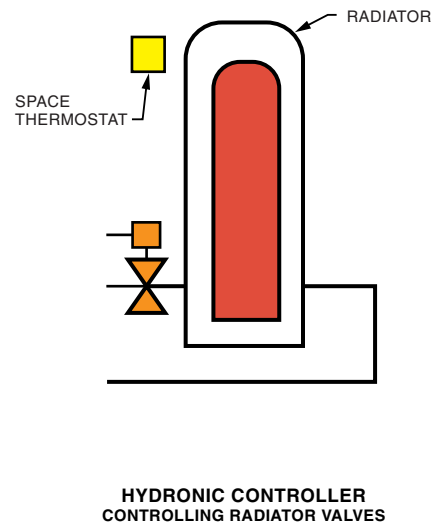
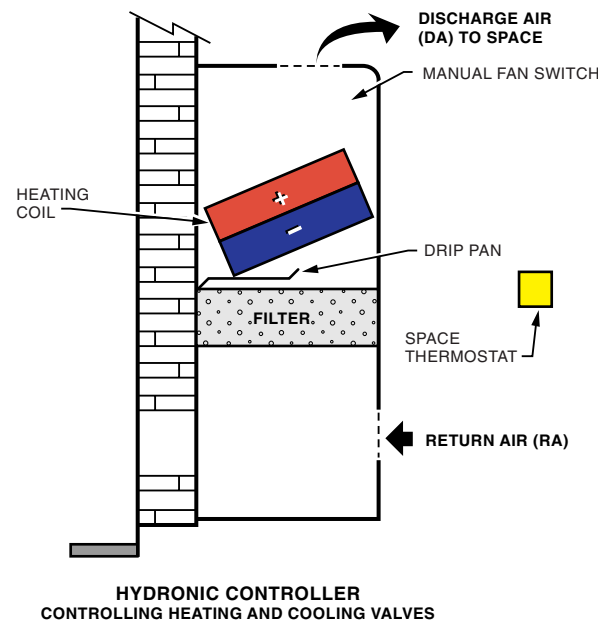
APPLICATION SELECTION GUIDE

Functional Block Diagram



M17892

Duct Diagram

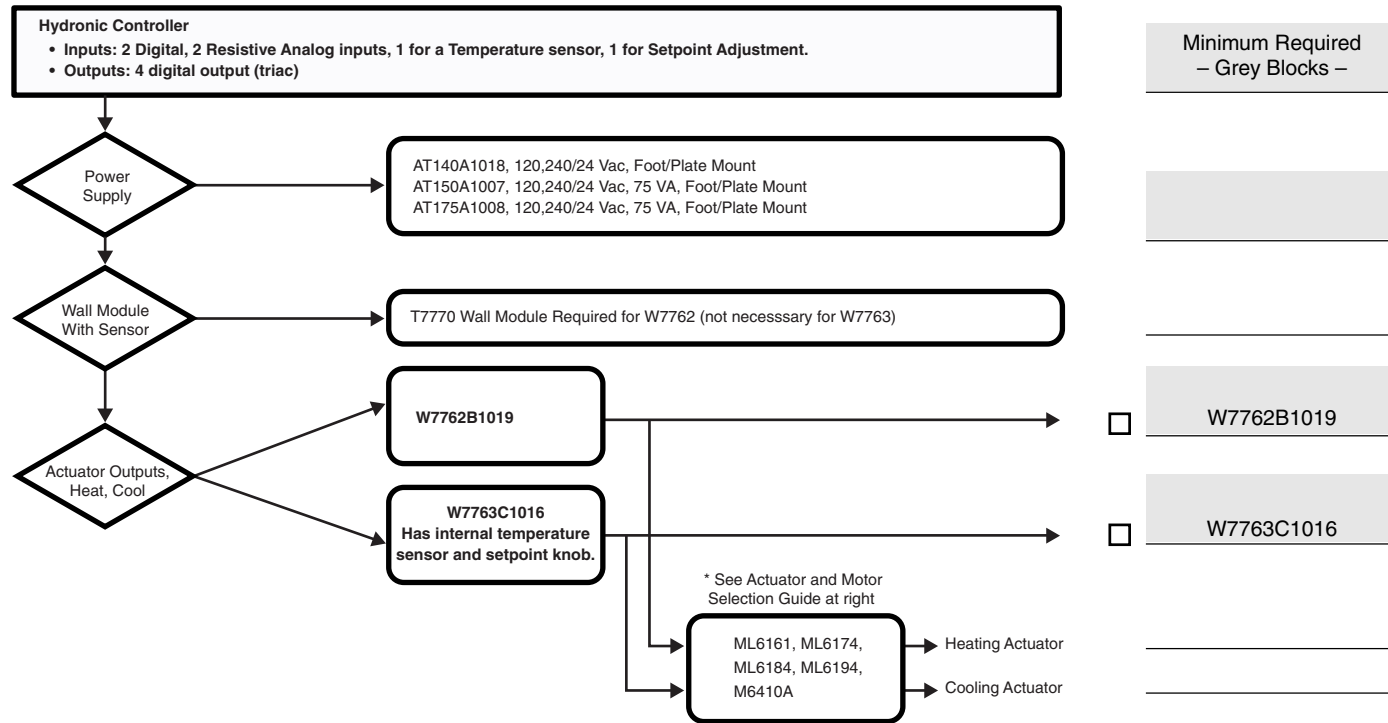


M17891

- KEY**
- INPUTS
  - ACTUATORS/VALVES
  - HEATING
  - COOLING

- Hydronic Controller
  - Radiators
  - Induction Units
  - Fan Coil with manual Fan Switching
- Cooling
  - Chilled Water Coil (2 or 4 pipe)
  - Cooling Compressors
- Heating
  - Hot Water Coil (2 or 4 pipe)
  - Electric
- Energy Management
  - TOD, Occupied/Unoccupied
  - Communication

## Excel 10 Hydronic Controller Application/Selection Decision



### Accessories

AK3781 Wire, LonWorks® BUS, Single Twisted Pair Solid Conductor, Nonplenum, 22AWG	_____ Feet	_____
AK3782 Wire, LonWorks® BUS, Double Twisted Pair Solid Conductor, Nonplenum, 22AWG	_____ Feet	_____
AK3791 Wire, LonWorks® BUS, Single Twisted Pair Solid Conductor, Plenum, 22AWG	_____ Feet	_____
AK3781 Wire, LonWorks® BUS, Double Twisted Pair Solid Conductor, Plenum, 22AWG	_____ Feet	_____

**Job Identification:** \_\_\_\_\_

## Honeywell Hydronic Valve Selection See Honeywell Valve Selection Guide 63-8038 for additional valves

### DAMPER ACTUATOR SELECTION, Series 60 Floating, Non-Spring & Spring Return - Direct Coupled 24 Vac, -30 to 150°F Ambient Temperature, 90 degree, 90 seconds, w/De-clutch

Actuator	Torque (lb-in.)	Timing (SEC)	Notes	Accessories
ML6161B2024	35	90		ML6161B
ML6174B2019	70			#4074ENJ 45 & 60 Stop Pin & 3/8 Shaft Adapter
ML6174C2000			w/Feedback potentiometer	#7640QW Metal Enclosure for Conduit Connection & Plenum Rating
ML6184A1003 <sup>a</sup>	150			#200976A 500 ohm Feedback Pot., #200976C 1000 ohm Feedback Pot.
ML6184C1001 <sup>a</sup>			w/Two Auxillary Switches	#201052A 1-SPDT Auxillary Switch, #201052B 2-SPDT Auxillary Switch
ML6194A1002 <sup>a</sup>	300			ML6174, 84, 94
ML6194F1007 <sup>a</sup>			w/Time out feature	#205753 3/8 in. Hub Sleeve, #205820A 3-Point Mounting Kit
M6410A1029	40 (Stem Force)	125		M6410
			Includes conduit conductor	20102A Auxillary Switch #7640QW Case and Cover #4 #200976A,C Feedback potentiometer, #205820A, 205840A Mounting Kit

<sup>a</sup>Standard XL10 switches 24V com. Reverse 24V+ and 24V com to prevent motor damage.

### BALL VALVE SELECTION, Series 60 Floating, Non-Spring Return 24 Vac, -30 to 150°F Ambient Temperature

Valve Assembly	Sweat Size (in.)	Cv	Ball Valve	Actuator	Notes
<b>2-way Valves</b>					
VB34A1072	1/2 FP	15	VB30A1039	ML6161B2024	
VB34A1536	1 FP	56	VB30A1070	ML6184A1003	System Pressure (Water and Glycol) 250 psig
VB34A1544	1-1/4 RP	48	VB30A1088		System Pressure (Steam) 15 psig
VB34A2088	1-1/4 FP	125	VB30A1096	ML6194A1002	Differential Pressure (Close Off) (Water and Glycol) 150 psi
VB34A2104	1-1/2 FP	177	VB30A1112		Differential Pressure (Close Off) (Steam) 15 psi
<b>3-way Valves</b>					
VB34B1014	1/2 RP	5.4	VB30B1004	ML6161B2024	
VB34B1162	1 RP	14	VB30B1020	ML6184A1003 <sup>a</sup>	NPT Pipe Thread
VB34B1170	1-1/4 RP	21	VB30B1038		System Pressure (Water and Glycol): 250# Close-Off Mixing: 150 psid
VB34B1477	1 1/4 RP	21	VB30B1095	ML6194A1002 <sup>a</sup>	System Pressure (Water and Glycol): 250# Close-Off Diverting: 60 psid
VB34B1485	1-1/2 RP	34	VB30B1103		Not suitable for Steam
VB34B1493	2 RP	47	VB30B1053		

<sup>a</sup>Standard XL10 switches 24V com. Reverse 24V+ and 24V com to prevent motor damage.

### VC Series Balanced Valve Selection, Series 60 Floating, Non-Spring Return 24 Vac, -32 to 140°F Ambient Temperature

Valve Assembly	Sweat Size (in.)	Cv	Close-off (psi)	Actuator	Notes
V5852A2007	1/2	0.19	65	M6410A1029	V5852: Two-way Valve body
V5852A2015	1/2	0.29	65		M6410A1029 is Plenum Rated
V5852A2023	1/2	0.47	65		M6410A1029 includes a conduit conductor
V5852A2031	1/2	0.74	65		
V5852A2049	1/2	1.2	65		
V5852A2056	1/2	1.9	45		
V5852A2064	3/4	2.9	45		
V5852A2072	3/4	4.9	45		
V5853A2006	1/2	0.29	55	M6410A1029	V5853A, Three-way Mixing Valve Body
V5853A2014	1/2	0.47	55		M6410A1029 is Plenum Rated
V5853A2022	1/2	0.74	55		M6410 includes a conduit connector
V5853A2030	1/2	1.2	22		
V5853A2048	1/2	1.9	22		
V5853A2055	3/4	2.9	7.25		
V5853A2063	3/4	4.9	7.25		