

# TEKMAR CONTROLS

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*This section contains product information only. For Technical Information see vendor website.  
For availability and product pricing please contact your local ECCO Supply™ Sales Representative.*

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## TEKMAR CONTROLS

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### HVAC SYSTEMS

#### CLASSIC SERIES

Operate hydronic heating equipment with outdoor temperature reset to gain energy savings and indoor comfort.

TYPE	DESCRIPTION	INCLUDED
256	Boiler Control 256 One Stage Boiler	1 × Outdoor Sensor 070 1 × Universal Sensor 071
260	Boiler Control 260 One Stage Boiler and DHW	1 × Outdoor Sensor 070 1 × Universal Sensor 082
261	Boiler Control 261 Two Stage Boiler and Setpoint	1 × Outdoor Sensor 070 1 × Universal Sensor 082
279	Steam Control 279 One Stage	1 × Outdoor Sensor 070 1 × Universal Sensor 071
356	Mixing Control 356 Variable Speed	1 × Outdoor Sensor 070 2 × Universal Sensor 071
360	Mixing Control 360 Floating Action	1 × Outdoor Sensor 070 2 × Universal Sensor 082
361	Mixing Control 361 Variable Speed	1 × Outdoor Sensor 070 2 × Universal Sensor 082
374	Universal Reset Control 374 Two Mixing, Two Stage Boiler, DHW and Setpoint	1 × Outdoor Sensor 070 3 × Universal Sensor 082



256



260



261



279



356



360



361



374

#### PERFORMANCE SERIES

Use tekmarNet® communication between a single boiler or mixing control and the thermostats to optimize energy savings and comfort.

TYPE	DESCRIPTION	INCLUDED
400	tN2 House Control 400 Boiler, DHW and Setpoint, Four Zone Valves	1 × Outdoor Sensor 070 1 × Universal Sensor 082
401	tN2 House Control 401 Boiler, DHW and Setpoint, Four Zone Pumps	1 × Outdoor Sensor 070 1 × Universal Sensor 082
402	tN2 House Control 402 Boiler, DHW and Setpoint, Mixing, Four Zone Valves	1 × Outdoor Sensor 070 2 × Universal Sensor 082
403	tN2 House Control 403 Boiler, DHW and Setpoint, Mixing, Four Zone Pumps	1 × Outdoor Sensor 070 2 × Universal Sensor 082



400



401



402



403

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### HVAC SYSTEMS (cont'd)

#### DESIGNER SERIES

Access more features to support greater flexibility in advanced multiple boiler and mixing water temperature applications.

TYPE	DESCRIPTION	INCLUDED
420	Boiler Reset Module 420 One tN4, Boiler, DHW, and Setpoint	1 × Outdoor Sensor 070 1 × Universal Sensor 082
422	Universal Reset Module 422 Two tN4, Mixing, Boiler, DHW and Setpoint	1 × Outdoor Sensor 070 2 × Universal Sensor 082
423	Universal Reset Module 423 Four tN4, Two Boiler, DHW and Setpoint	1 × Outdoor Sensor 070 1 × Universal Sensor 082
440	Mixing Expansion Module 440 Variable Speed / Floating Action	1 × Universal Sensor 082
441	Mixing Expansion Module 441 Actuating Motor	1 × Universal Sensor 082
444	Mixing Expansion Module 444 Variable Speed / Floating Action / Modulating	1 × Universal Sensor 082
346	Power Manager 346 Three Auxiliary Pumps, Four Demands	–



420



422



423



440



441



444



346

### MULTI-STAGING — MULTIPLE BOILERS AND PUMPS

#### CLASSIC SERIES

Stage multiple heat sources to provide outdoor temperature reset for hydronic heating and domestic hot water generation.

TYPE	DESCRIPTION	INCLUDED
132	Pump Sequencer 132 Stand-by / 2-Stage	–
263	Boiler Control 263 Two Stage / One Modulating Boiler, DHW and Setpoint	1 × Outdoor Sensor 070 1 × Universal Sensor 082
265	Boiler Control 265 Three Modulating Boiler and DHW / Setpoint	1 × Outdoor Sensor 070 2 × Universal Sensor 071
268	Boiler Control 268 Nine Stage Boiler and DHW / Setpoint	1 × Outdoor Sensor 070 2 × Universal Sensor 082



132



263



265



268

#### PERFORMANCE SERIES

Use tekmarNet® communication to stage multiple heat sources, optimize system operation and provide remote monitoring and alerts capability.

TYPE	DESCRIPTION	INCLUDED
274	Boiler Control 274 One tN4, Four Stage Boiler and DHW / Setpoint	1 × Outdoor Sensor 070 2 × Universal Sensor 082
275	Boiler Control 275 One tN4, Four Modulating Boiler and DHW / Setpoint	1 × Outdoor Sensor 070 2 × Universal Sensor 082



274



275

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### MULTI-STAGING — MULTIPLE BOILERS AND PUMPS (cont'd)

#### DESIGNER SERIES

Access more features for the most flexible, efficient boiler plant solution. Remote monitoring and adjustment options are available through BACnet®, Modbus® and tekmarNet® communication.



TYPE	DESCRIPTION	INCLUDED
284	Boiler Control 284 Four tN4, BAS, Four Boiler, DHW and Setpoint	1 × Outdoor Sensor 070 2 × Universal Sensor 082

### ALTERNATIVE ENERGY — HEAT PUMP AND SOLAR THERMAL

#### CLASSIC SERIES

Operate stand-alone controls in heat pump or solar thermal systems to gain energy savings and indoor comfort.

TYPE	DESCRIPTION	INCLUDED
155	Difference Setpoint Control 155	1 × Universal Sensor 071 1 × Solar Sensor 085
156	Difference Setpoint Control 156 On / Off	1 × Universal Sensor 071 1 × Solar Sensor 085
157	Difference Setpoint Control 157 Variable Speed	1 × Universal Sensor 071 1 × Solar Sensor 085



155



156



157

#### PERFORMANCE SERIES

Use tekmarNet® communication between the hydronic control and thermostats to maximize energy usage and coordinate the operation of all system components.

TYPE	DESCRIPTION	INCLUDED
406	tN2 House Control 406 Heat Pump and Backup, Four Zone Valves	1 × Outdoor Sensor 070 4 × Universal Sensor 082



### ZONING — THERMOSTATS AND ZONING CONTROLS

#### CLASSIC SERIES

Operate stand-alone thermostats in an on/off hydronic heating zone to gain energy savings and indoor comfort.

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
518	Thermostat 518 One Stage Heat	Room, Floor, Outdoor
519	Radiant Thermostat 519 One Stage Heat (Includes Slab Sensor 079)	Room, Floor, Outdoor
521	Programmable Thermostat 521 Two Heat or Heat-Cool (Includes Slab Sensor 079)	Room, Floor, Outdoor



518



519



521

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### ZONING — THERMOSTATS AND ZONING CONTROLS (cont'd)

#### PERFORMANCE SERIES

Use tekmarNet® communication between the thermostats and the system control to optimize energy savings and comfort.

##### Two or Four-Wire Product

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
532	tekmarNet® Thermostat 532 One Stage Heat	Room, Floor, Outdoor
554	tekmarNet® Thermostat 554 One Stage Heat, One Stage Cool, One Fan	Room, Floor, Outdoor



532



554

##### Two-Wire Product

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
313	tN2 Wiring Center 313 Four Zone Valves	Outdoor
314	tN2 Wiring Center 314 Four Zone Pumps	Outdoor



313



314

##### Four-Wire Product

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
315	tN4 Wiring Center 315 Six Zone Valves	–
316	tN4 Wiring Center 316 Four Zone Pumps	–



315



316

#### DESIGNER SERIES

Access more features to support greater functionality for integration of air and hydronic applications.

##### Two or Four-Wire Product

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
552	tekmarNet® Thermostat 552 One Stage Heat	Room, Floor, Outdoor
553	tekmarNet® Thermostat 553 Two Stage Heat, One Stage Cool, Fan	Room, Floor, Outdoor, Duct, Coil
557	tekmarNet® Thermostat 557 Radiant Floor, 2 Heat Pump/Cool, Backup, Humidity	Room, Floor, Outdoor, Duct, Coil, Humidity



552



553



557

**ZONING — THERMOSTATS AND ZONING CONTROLS (cont'd)**
**DESIGNER SERIES (cont'd)**
**Two-Wire Product**

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
324	tN2 Zone Expansion Module 324 Four Zones, Cooling and Fan	–
334	tN2 Zone Manager 334 Four Zones, Cooling and Fan	–



324



334

**Four-Wire Product**

TYPE	DESCRIPTION	AUXILIARY SENSOR OPTIONS
325	tN4 Zone Expansion Module 325 Six Zone Valves	–
326	Zone Expansion Module 326 Three Zone Pumps	–
335	tN4 Zone Manager 335 Six Zone Valves	–
336	tN4 Zone Manager 336 Four Zone Pumps	–



325



326



335



336

**NOTE:** A zone manager may be paired with a designer series reset module. Refer to the HVAC section of this catalog for information about reset modules. Each zone expansion module must be paired together with a zone manager or power manager.

**SNOW MELTING CONTROLS AND SNOW / ICE SENSORS**
**CLASSIC SERIES**

Operate snow melting manually with a slab sensor or automatically using an automatic snow and ice detector.

TYPE	DESCRIPTION	INCLUDED
664	Snow Detector and Melting Control 664 Two Zone, Two Stage Boiler and Mixing	1 × Outdoor Sensor 070 3 × Universal Sensor 082
665	Snow Detector and Melting Control 665 Pulse Width Modulation	1 × Outdoor Sensor 070
667	Snow Detector and Melting Control 667 Variable Speed	1 × Outdoor Sensor 070 3 × Universal Sensor 082



664



665



667

**PERFORMANCE SERIES**

tekmarNet® communication provides zoning and remote access options for snow melting systems.

TYPE	DESCRIPTION	INCLUDED
654	Snow Melting Control 654 tekmarNet® Electric or Hydronic Boiler / Mixing	1 × Outdoor Sensor 070 1 × Universal Sensor 082



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### SNOW MELTING CONTROLS AND SNOW / ICE SENSORS (cont'd)

#### DESIGNER SERIES

Remote monitoring and adjustment options are available through BACnet®, Modbus® and tekmarNet® communication.

TYPE	DESCRIPTION	INCLUDED
680	Snow Melting Control 680 BAS, Boiler and Mixing	1 × Outdoor Sensor 070



#### SNOW MELTING ACCESSORIES

Ensure efficient and reliable operation with automatic snow and ice detection and slab temperature control.

TYPE	DESCRIPTION
072	Slab Sensor 072 – 20' (6 m) wire
073	Slab Sensor 073 – 40' (12 m) wire
090	Snow / Ice Sensor 090 – In-slab 65' (20 m) Wire
094	Snow / Ice Sensor 094 – In-slab 208' (63 m) Wire
091	Snow / Ice Sensor Socket 091
095	Snow Sensor 095 – Aerial Mounting



072 / 073



090 / 094



091



095

### SETPOINT — DOMESTIC HOT WATER TANKS, POOLS AND HOT TUBS

#### CLASSIC SERIES

Operate the mechanical equipment to maintain a fixed heating or cooling temperature at the sensor location.

TYPE	DESCRIPTION	INCLUDED
150	One Stage Setpoint Control 150	1 × Universal Sensor 071
152	Two Stage Setpoint Control 152	1 × Universal Sensor 071
153	Mixing Setpoint Control 153 Floating Action	1 × Universal Sensor 071
257	DHW Control 257 – Two Stage	1 × Universal Sensor 082



150



153



152



257

#### PERFORMANCE SERIES

Use tekmarNet® communication between the setpoint control and the boiler control to optimize energy savings and comfort.

TYPE	DESCRIPTION	INCLUDED
161	tekmarNet® 4 Setpoint Control 161 One Stage Heat	1 × Universal Sensor 071
162	tekmarNet® 4 Setpoint Control 162 One Stage Heat/Cool	1 × Universal Sensor 071



161



162

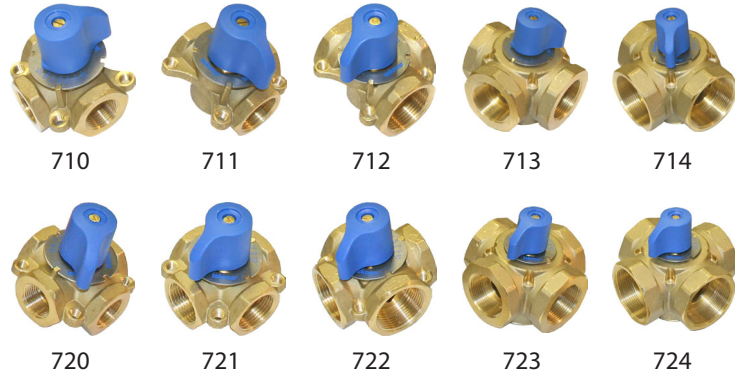
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### ACCESSORIES

#### VALVES

TYPE	DESCRIPTION
710	3-Way Mixing Valve 710 – 3/4" Brass
711	3-Way Mixing Valve 711 – 1" Brass
712	3-Way Mixing Valve 712 – 1-1/4" Brass
713	3-Way Mixing Valve 713 – 1-1/2" Brass
714	3-Way Mixing Valve 714 – 2" Brass
720	4-Way Mixing Valve 720 – 3/4" Brass
721	4-Way Mixing Valve 721 – 1" Brass
722	4-Way Mixing Valve 722 – 1-1/4" Brass
723	4-Way Mixing Valve 723 – 1-1/2" Brass
724	4-Way Mixing Valve 724 – 2" Brass



#### ACTUATORS

TYPE	DESCRIPTION
741	Actuating Motor – 741 Floating Action
742	Actuating Motor – 742 0-10 V (dc)



#### TIMERS AND REMOTE ACCESS

TYPE	DESCRIPTION
033	tekmarNet®4 Timer 033
479	tN4 User Switch 479 – Pre-Programmed
480	tN4 User Switch 480 – Three Inputs
481	tN4 User Switch 481 – Three Outputs
482	tN4 Gateway 482 RS232 (for Home Automation Systems)
485	tekmarNet® Internet Gateway 485 WiFi / Ethernet





**ACCESSORIES (cont'd)**
**SENSORS**

TYPE	DESCRIPTION
070	Outdoor Sensor 070
071	Universal Sensor 071 – 1' (300 mm) wire
072	Slab Sensor 072 – 20' (6 m) wire
073	Slab Sensor 073 – 40' (12 m) wire
076	Indoor Sensor 076
077	Indoor Sensor 077 – Cover Plate
078	Universal Sensor 078 – 15' (4.6 m) wire
079	Slab Sensor 079 – 10' (3 m) wire
080	Universal Sensor Enclosure 080
081	Three Outdoor Sensor Module 081
082	Universal Sensor 082 – 8' (2.4 m) wire
083	Duct Sensor 083 – 6" Probe
084	Indoor Sensor 084 – Flush Mount
085	Solar Sensor 085 – 5' (1.5 m) Wire
086	Humidity and Temperature Sensor 086 Flush Mount
090	Snow / Ice Sensor 090 – 65' (20 m) Wire
094	Snow / Ice Sensor 094 – 208' (63 m) Wire
091	Snow / Ice Sensor Socket 091
095	Snow Sensor 095 – Aerial Mounting


**MISCELLANEOUS**

TYPE	DESCRIPTION
002	10K Temperature Simulator 002
003	Relay 003 – 24 V (ac) coil
004	Relay 004 – 120 V (ac) coil
005	0-135 $\Omega$ Converter 005
007	Adaptor Plate 007
009	24 V (ac) Transformer 009 – 40 VA
009K	24 V (ac) Transformer Kit 009K 40 VA, Includes Mounting Box
012	Adaptor Plate 012
013	24 V (ac) Transformer 96 VA Includes Mounting Box

