## **Accepted Electrical Equipment List**



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The list is not exhaustive. If a make and model is not specified then check acceptibility with Unitywater.

New products are regularly being released on to the market. Product appraisal requests can be sent to <a href="mailto:products@unitywater.com">products@unitywater.com</a>.

This list should be read in conjunction with Unitywater Specifications Pr9835 - Electrical Installations at Sewage Treatment Plants and with Pr9380 - Electrical Installations at Network Sites.

Product Type	MAKE and Model	Manufacturer /Supplier	Trade Name	Specific Requirements	COMMENTS
Actuator Valves - Chlorine Auto	Chlorshield	Westwater Enterprises Pty Ltd	Chlorshield		
Shut Off System	Chicishicia	Westwater Enterprises 1 ty Eta	Officialicia		
Ammeters					Refer to Power Meter requirements.
Analogue Digital Displays	Red Lion				
Analysers - Nutrient	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
Analysers - Nutrient	Hach				
Analysers - Nutrient	Siemens	Siemens			
Analysers - pH, Turbidity, Chlorine, Conductivity, Nutrient	Evoqua Depolox 3	Evoqua Water Technologies LLC	Wallace & Tiernan GmbH		
Analysers - pH, Turbidity, Chlorine, Conductivity, Nutrient	Prominent Dulcometer, Dulcotest (sensor)	Prominent			
Analysers - pH, Turbidity, Chlorine, Conductivity, Nutrient	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
Analysers - pH, Turbidity, Chlorine, Conductivity, Nutrient	Hach Peristaltic Sampler				
Analysers - pH, Turbidity, Chlorine, Conductivity, Nutrient	Evoqua Chloroclam				
Antenna Mounting Brackets	RFI (wireless) Industries UNV, UNV2, UC1, UCR1, UCR2			Use of hockey stick mounts is not acceptable.	
Antenna Pole	Birch Sheet Metals custom vent pole clamp			Timber or vent pole, alternatively stainless steel pole/aluminium poles accepted to match the structure. Materials throughout shall be matched to prevent galvanic corossion.	
Antennae	RFI (wireless) Industries Yagi YBSS9-61, YBSS6-61			Stainless steel, 450-480Hz	Refer to Preferred Control Systems List
Batteries	Telemetry or Generators/repeaters			Batteries shall be maintenance free, lead acid 900CCA, N120, N200.	
Batteries	Panasonic LC-X1212P 12Ah	Panasonic		Batteries shall be maintenance free, lead acid 900CCA, N120, N200.	
Batteries	Panasonic LC-X1228P 28Ah	Panasonic		Batteries shall be maintenance free, lead acid 900CCA, N120, N200.	
Batteries	AGM HGL100-12C,HGL120-12B, ED121600,HGL260-12.			Batteries shall be maintenance free, lead acid 900CCA, N120, N200.	
Battery Chargers	CTEK M200 12V 15A, M300 12V 25A, XT14000 24V 14A				
Battery Chargers	Victron				
Battery Chargers	Projecta PC2100 12V 21A, PC1600 12V 16A				
Battery Plugs & Receptacles	Molex Mini-Fit Series 428180212 Plug	Koch Industries			
Battery Plugs & Receptacles	Molex Mini-Fit Series 428160212 Receptacle	Koch Industries			
Cable Ladder Supports	motor man r x contact 120 1002 12 (total place)	TOON MAGELLOC		Ensure separation of dissimilar metals or use the same material as cable ladder.	
Cable Lugs				Correctly sized hole and lug.	
Cable Pits				Correctly sized flote and lag.	Refer to Specifications Pr9835 and Pr9380
Cable trays and ladders					Refer to Specifications Pr9835 and Pr9380
Chlorine Dosing Pumps	Grundfos DDA (Digital Dosing Advanced)	Grundfos Holding AG			Accepted only for use at STP's.
	Grundios DDA (Digital Dosing Advanced)	Grundios Holding AG			
Chlorine Dosing Pumps Circuit Breakers - Air	Schneider Masterpact NW25 H1, MTZ2	Schneider Electric	Schneider Electric		Refer to Pr11053 for requirements for water network.  Others accepted upon approval for Type 2 coordination, arc
Circuit Breakers - Air	NHP - Terasaki	NHP Electrical	Terasaki		flash and discrimination.  Others accepted upon approval for Type 2 coordination, arc
Circuit Breakers - Miniature Circuit Breakers (MCB's) - Motor,	Schneider	Schneider Electric	Schneider Electric	+	flash and discrimination.
General Purpose, RCD Circuit Breakers - Miniature Circuit Breakers (MCB's) - Motor,	NHP - Terasaki	NHP Electrical	- Simolasi Eloutio		
General Purpose, RCD	THII - TOTUSANI	Tan Liounda			
Circuit Breakers - Miniature Circuit Breakers (MCB's) - Motor, General Purpose, RCD	Siemens	Siemens			
Circuit Breakers - Moulded Case Circuit Breakers (MCCB's)	NHP – Terasaki	NHP Electrical			Others accepted upon approval for Type 2 coordination, arc flash and discrimination.
Circuit Breakers - Moulded Case Circuit Breakers (MCCB's)	Schneider	Schneider Electric	Schneider Electric		Others accepted upon approval for Type 2 coordination, arc flash and discrimination.
Circuit Breakers - Moulded Case Circuit Breakers (MCCB's)	Siemens	Siemens			Others accepted upon approval for Type 2 coordination, arc flash and discrimination.
Coax Cables	CNT-400				Accepted for DOL sites.
Coax Cables	LDF4-50				Accepted for VFD and soft starter sites.

Generators  Cummins  Must comply with Pr9913 Accoustic Enclosed General Refer to Unitywater Preferred Control System Equipm for details of Network HMI.  Indication Lamps (22.5 mm)  Sprecher & Schuh D7P Series  Rockwell Automation, Inc  Sprecher & Schuh  Indication Lamps (22.5 mm)  Schneider  Schneider  Schneider Electric  Schneider Electric  Indication Lamps (22.5 mm)  Siemens SIRUIS  Siemens	Product Type	MAKE and Model	Manufacturer /Supplier	Trade Name	Specific Requirements	COMMENTS
Construction   Cons	Coax Cables				For use between radio and surge diverters.	
Construction   Description	Coax Surge Diverters	PolyPhaser IS-50NX-C2				
Control Transformance	Coax Surge Diverters	Critec CSPNB90				
Controller   Con	Coax Surge Diverters	Novaris CN-FF-90-2				
Controlled   Species & South CAT   Recent   Asternation   Species & South CAT   Recent   Asternation   Species & South CAT   Recent   Asternation   Species & South CAT   Species	Communication Racks	Dell				
Controls   Special   Spe	Conduits - Flexible					Refer to specifications Pr9835 and Pr9380.
Contactors	Conduits - Rigid					Refer to specifications Pr9835 and Pr9380.
Someware Security General Security Gener		Sprecher & Schuh CA7	Rockwell Automation. Inc	Sprecher & Schuh		·
Sements   Seme	Contactors	Schneider	Schneider Electric	Schneider Electric		
Control Solution & Statution						
Control Statemes & Selections   Specified & Schwide						
Contract Princetous			NHP Electrical	Sprecher & Schuh		
Concent Introducers   Taxensities Clip on CTs						
Current Transactioners Transactioners City on CTs		Octifiedel	Octificides Electric	Schlieder Liectric	Not required. Phased out prior to year 2016	
Press   PACT RD 400A IA 085 - 2049021   Post		0		+	Not required. Friased out prior to year 2010.	
Current Transformers		Phoenix - PACT RCP-4000A-1A-D95 - 2904921, PACT RCP-4000A-1A-D140 - 2904922,	Phoenix Contact			
Corrent Transformers Pricents	Current Transformers	Crompton 781-943 Series				
Current Transformers						
DC Converters			Phoenix Contact			
DECOMPRISES   Sengench   Sengen					24VDC to 12VDC (10A)	
Dissolved Oxygen DC Sensors and Transmillers			Wediweii		24480 to 12480 (1011)	
Dissolved Oxygen DO Sensors and Transmitters   Endress & Hauser (EAH)		Onaptech			TS35 aluminium or etainless steel	
Dissolved Oxygen DO Sensors and Transmitters Door Switches Carmoo Door Switches Door Door Door Occupant Door Switches Door Switches Door Switches Door Switches Door Switches Door Switches Door Door Door Door Door Door Door Door		Endroes & Houser (E&H)	Endross & Houser (E&H)		1333 aluminium of stainless steel.	
Dissolved Corgon DO Sensor and Transmitters			Elidless & Hausel (E&H)			
Door Switches			0:			
Earth Links			Siemens			
Earth PIS   Replete Authorisin 120x1207/from						
Earth Pilis						
Earth PIS						
Earth PBIS						
Earth reminals						
Emergency Stop Pushbuttons Emergency Stop Safety Monitoring Relays Fans Rittal Cosmotice Final Cosmotice Final Fin		ACO PEP225 Earth Rod Pit				
Emergency Stop Safety Monitoring Relays Fars Rittal Cosmotice Cosmotic Flyst EMM 15 Potat with suitable cable length Xylem    Find Switches (must activate within 50 mm of contact)   Find Switches (must activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate within 50 mm of contact)   Find Switches (Pust activate withi	Earth Terminals				No push in terminal allowed.	See also 'Terminals'.
Rittal	Emergency Stop Pushbuttons				Enclosures to be yellow.	
Fans Cosmotec Cosmotec Fige Edwith of Sorm of contact) Flygt EMM 10 Float with suitable cable length Float Switches (must activate within 50 mm of contact) Flygt EMM 10 Float with suitable cable length Float Switches Cosmother	Emergency Stop Safety Monitoring Relays					
Float Switches (must activate within 50 mm of contact) Float Switches (must activate within 50 mm of contact) Float Switches (must activate within 50 mm of contact) Float Switches - Diesel Fluet Line Flow Switches - Diesel Fluet Line Flow Switches - Process Flow Switches - Process Burket 8030 Flow Switches - Process Flow Flow Float - Rangetic ABB Watermaster ABB Ltd Flowmeters - Magnetic Flowmeters - Magn	Fans	Rittal				
Float Switches - Diesel Fluel Line   Kelco   K	Fans					
Float Switches - Diesel Fluel Line   Kelco   K	Float Switches (must activate within 50 mm of contact)	Flygt ENM 10 Float with suitable cable length	Xylem			
Flow Switches - Process   Burket 8000   No paddle types   Flow Switches - Process   Burket 8000   Flow Switches - Process   Flow Effector   Flow Switches - Process   Flow Effector   Flow Switches - Process   Flow Effector   Flow Switches - Process   Endress & Hauser (E&H) DTT31   Flow Endress & Hauser (E&H)   Flow Endress & Hauser (E&H) Promases   Flow Endress & Hauser (E&H) Promases   Flow Endress & Hauser (E&H) Promases   Flow Endress & Hauser (E&H)   Flow Endre	Float Switches (must activate within 50 mm of contact)					
Flow Switches - Process Flow Flow Flow Flow Flow Flow Flow Flow						
Flow Switches - Process   IFM Effector   No paddle types					No paddle types	
Flow Switches - Process						
Flowmeters - Magnetic ABB Watermaster ABB Ltd			Endress & Hauser (F&H)			
Flowmeters - Magnetic				+	No paddio types	
Flowmeters - Magnetic Endress and Hauser (E&H) Promag 50 Endress & Hauser (E&H)   Fobots AFS DIN Rail Mounted 24 port minimum for sewage treatment plants.  Fluse Cartridges Nil preference.  Fluse Holders Nil preference.  Fluse Generator Controllers and Synchronisation Controllers Proconnect 63A < 25 kW  Generator Inlets Proconnect 125A, 25 to 60 kW  Generator Inlets Proconnect 125A, 25 to 60 kW  Generator Inlets Proconnect 125A, 25 to 60 kW  Generators Proconnect 125A, 25 to 60 kW  Generators Proconnect 125A, 25 to 60 kW  Generators Proconnect 125A, 25 to 60 kW  Generator Inlets Proconnect 125A, 25 to 60 kW  Generators Proconnect 125A, 25 to 60 kW  Generator Inlets Proco						
Fobots AFS DIN Rail Mounted 24 port minimum for sewage treatment plants. Nil preference. Fuse Holders Fuse Holders Fuses Generator Controllers and Synchronisation Controllers Generator Inlets Froconnect 125A, 25 to 60 kW Generator Inlets Proconnect 125A, 25 to 60 kW Generator Inlets Generators Generator						
Fuse Cartridges Fuse Holders Fuses Generator Controllers and Synchronisation Controllers Generator Inlets Generator Generator Inlets Generator Inlets Generator Inlets Generator Inlets Generator Inlets Generator Generator Inlets Generator Generator Inlets Generator Inlets Generator Inlets Generator Generator Inlets Generator Generator Generator Inlets Generator Generator Generator Inlets Generator Gene			Endress & Hauser (E&H)			
Fuse Holders Fuses Generator Controllers and Synchronisation Controllers Generator Inlets Generator Sequential Mating Box >60 kW Generator Sequential Mating Box >60 kW Generators Generators Generators Generators Generators Generators Generators Generators Generators Cummins HMIs Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens Siemens Siemens		ALO DIN Kali Monuted			24 port minimum for sewage treatment plants.	NEC
Fuses Generator Controllers and Synchronisation Controllers Generator Inlets Proconnect 63A < 25 kW Generator Inlets Proconnect 125A, 25 to 60 kW Generator Inlets Powersafe Sequential Mating Box >60 kW Generator Inlets Fig. Wilson Generators Generators Cummins HMIs HMIS HIGICATION Sprecher & Schuh D7P Series Refer to Unitywater Preferred Control System Equipm for details of Network HMI. Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens SIRUIS Siemens			+	-		
Generator Controllers and Synchronisation Controllers Generator Inlets Generator Sequential Mating Box > 60 kW Generators Cummins  Must comply with Pr9913 Accoustic Enclosed Generators HMIs Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens Siemens					1	· ·
Generator Inlets Proconnect 63A < 25 kW Generator Inlets Proconnect 125A, 25 to 60 kW Generator Inlets Proconnect 125A, 25 to 60 kW Generator Inlets Powersafe Sequential Mating Box >60 kW Generators FG Wilson Generators Generators Cummins Must comply with Pr9913 Accoustic Enclosed Generators HMIs Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens SIRUIS Siemens						Nil preference.
Generator Inlets Proconnect 125A, 25 to 60 kW Generator Inlets Powersafe Sequential Mating Box > 60 kW Generators FG Wilson Generators Cummins Must comply with Pr9913 Accoustic Enclosed Generators HMIs Refer to Unitywater Preferred Control System Equipm for details of Network HMI.  Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens Siemens			1			
Generators Inlets Powersafe Sequential Mating Box >60 kW Generators FG Wilson Must comply with Pr9913 Accoustic Enclosed Generators Cummins Must comply with Pr9913 Accoustic Enclosed Generators Fefer to Unitywater Preferred Control System Equipm for details of Network HMI.  Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens SIRUIS Siemens						
Generators FG Wilson Must comply with Pr9913 Accoustic Enclosed Generators Cummins Must comply with Pr9913 Accoustic Enclosed Generators Must comply with Pr9913 Accoustic Enclosed Generators Must comply with Pr9913 Accoustic Enclosed Generators Pefer to Unitywater Preferred Control System Equipment (Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens SIRUIS Siemens SIRUIS						
Generators Cummins Must comply with Pr9913 Accoustic Enclosed General Refer to Unitywater Preferred Control System Equipm for details of Network HMI.  Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh Indication Lamps (22.5 mm) Schneider Schneider Electric Schneider Electric Indication Lamps (22.5 mm) Siemens SIRUIS Siemens	Generator Inlets					
HMIs  Refer to Unitywater Preferred Control System Equipm for details of Network HMI.  Indication Lamps (22.5 mm)  Indication Lamps (22.5 mm)  Schneider  Schneider Electric  Schneider Electric  Indication Lamps (22.5 mm)  Siemens SIRUIS  Siemens	Generators					Must comply with Pr9913 Accoustic Enclosed Generators.
HMIs  Refer to Unitywater Preferred Control System Equipm for details of Network HMI.  Indication Lamps (22.5 mm) Sprecher & Schuh D7P Series Rockwell Automation, Inc Sprecher & Schuh  Indication Lamps (22.5 mm) Schneider Schneider Electric Schneider Electric  Indication Lamps (22.5 mm) Siemens SIRUIS  Siemens  Refer to Unitywater Preferred Control System Equipm for details of Network HMI.	Generators	Cummins				Must comply with Pr9913 Accoustic Enclosed Generators.
Indication Lamps (22.5 mm)  Sprecher & Schuh D7P Series  Rockwell Automation, Inc  Sprecher & Schuh  Indication Lamps (22.5 mm)  Schneider  Schneider Electric  Schneider Electric  Indication Lamps (22.5 mm)  Siemens SIRUIS  Siemens	HMIs					Refer to Unitywater Preferred Control System Equipment List for details of Network HMI.
Indication Lamps (22.5 mm) Schneider Schneider Electric Schneider Electric Undication Lamps (22.5 mm) Siemens SIRUIS Siemens SIRUIS Siemens	Indication Lamps (22.5 mm)	Sprecher & Schuh D7P Series	Rockwell Automation, Inc	Sprecher & Schuh		
Indication Lamps (22.5 mm) Siemens SIRUIS Siemens Intrinsipally Safe Equipment (Hazardaya Area Poted						
Intringically Cafe Equipment / Hazardaya Area Dated						
Illiumoraniy Care Equipment (Hazarucus Area Nateu	Intrinsically Safe Equipment (Hazardous Area Rated					
Must meet eX rating as per the design.					Must meet eX rating as per the design.	

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	MAKE and Model	Manufacturer /Supplier	Trade Name	Specific Requirements	COMMENTS
	Schneider	Schneider Electric	Schneider Electric		
	Terasaki	NHP Electrical			
	NHP Socomec SLB Series	NHP Electrical			
	Schneider	Schneider Electric	Schneider Electric		
	Terasaki				
	Sprecher and Schuh	Rockwell Automation, Inc	Sprecher & Schuh		
Junction Boxes					Refer Pr9835 and and Pr9380.
Labels					Refer to specifications Pr9835, Pr9380, Pr8843 for indoor and outdoor including cables, wiring ferrules, terminals, equipment, switchboards etc.
Level Control Relays - Emergency Pump Starter	Multitrode Safe-TL	Xylem			Not allowed in sewage treatment plants.
Level Control Relays - Overflow N	Multitrode Safe-FS	Xylem			Not allowed in sewage treatment plants.
Level Probes - Capacitive					
Level Probes - Hydrostatic V	Vegawell 52 (WL52.XXA4AMD1DD1X)	Grieshaber Gmbh & Co.			
Level Probes - Single Element Overflow N	Multitrode 0.2/1-10	Xylem			Not allowed in sewage treatment plants.
Level Probes - Three Element Emergency Pump Starter	Multitrode 0.5/3-10	Xylem			Not allowed in sewage treatment plants.
Level Switches - Network sites	Flygt ENM 10 Ball Float	Xylem			-
Level Switches - Network sites	Kelco Heavy Duty Float Switch				
Level Switches - Sewage Treatment Plant sites IF	IFM Efector				
Level Transmitters – Radar E	Endress & Hauser (E&H) Liquiphant FTL31	Endress & Hauser (E&H)			
Level Transmitters – Radar E	Endress & Hauser (E&H) Prosonic FDU90	Endress & Hauser (E&H)			
Level Transmitters – Radar E	Endress & Hauser (E&H) Prosonic FMU92	Endress & Hauser (E&H)			
	VegaPuls 61	Grieshaber Gmbh & Co.			
	VegaSon	Grieshaber Gmbh & Co.			
	Eye Lighting			All lighting to be LED.	
	Pierlite			All lighting to be LED.	
	Phillips			All lighting to be LED.	
	Honeywell Heavy Duty LS series			7 th lighting to 20 222.	
	Schneider	Schneider Electric	Schneider Electric		
	Endress & Hauser (E&H)	Endress & Hauser (E&H)	Commencer Electric		
	AusWeigh AWSB Shear Beam Load Cell	Enargo a riador (Earr)			
	Flintec SLB				
	Nuweigh JAC Shear Beam	Newcastle Weighing Services Pty Ltd (NWS)			
Locks					Refer to Pr9380 for Network requirements or Pr9835 for STP requirements.
	Hach Radcom Multilog				
	i2O Water ALGA3250, ALGA1150				
Loggers - Odour D	Draeger				
	OdaLog	App Tech International Pty Ltd			
Mixers - Water Reservoir P	PAX Water PWM400-V2.0	PAX Water Technologies		Submersible mixer	
	Flygt 4400-010	Xylem	Flygt		
Mixers - Water Reservoir	De Nora EJ100 (2kg/hr)	De Nora		Inline static mixer	
Mixers - Water Reservoir	WEARS - Resmix Vital	WEARS Australia		Mixer and Motor / Gearbox Set.	The manufacturer's control box shall not be utilised. Instead, an alternative control box shall be manufactured by Brisbane Electrical (BE) to meet UW requirements.
Modems					Refer to Preferred Control System List.
Motor Contactors S	Sprecher & Schuh CA7-23E	Rockwell Automation, Inc	Sprecher & Schuh		
Motor Contactors S	Schneider	Schneider Electric	Schneider Electric		
Motor Contactors S	Siemens SIRIUS	Siemens			
Motor Protection Relays S	Schneider TeSys T LTM R27EBD	Schneider Electric	Schneider Electric	Dual ethernet port TCP/IP model.	
	Siemens Simocode 3UF7100, 3UF7101, 3UF7110, 3UF7110	Siemens		Dual ethernet port TCP/IP model.	
	WEG			4 pole preferred	For performance requirement refer to Pr9835 and Pr9380.
Motors T	Teco			4 pole preferred	For performance requirement refer to Pr9835 and Pr9380.
Networking - Managed					Refer to Preferred Control System List.
Networking - Unmanaged				Unmanaged switches not allowed in sewage treatment plants.	Refer to Preferred Control System List and Control Systems Specification.
	Clipsal BP 165 Series				
	DORE Electrics 165E Series				
pH Sensors and Transmitters	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
pH Sensors and Transmitters	Hach				
pH Sensors and Transmitters S	Siemens	Siemens			
	Carlo Gavazzi DPB02-C-M48				
	Rhomberg SP430-DP Clipsal 56 SSR – 3 wire only				

Product Type	MAKE and Model	Manufacturer /Supplier	Trade Name	Specific Requirements	COMMENTS
Poles - Lighting					See electrical specs for performance requirements.
Power Meters	Electrex Zepto PFA8611-18	Akse s.r.l (Electrex Italy)		24V DC Aux	
Power Meters	Schneider Power Logic Meters	Schneider Electric	Schneider Electric		
Power Meters	Siemens Sentron PAC3200	Siemens			
Power Outlets - 1 Phase Extenal	Clipsal 56 series				
Power Outlets - 1 Phase Extenal	NHP ISO	NHP Electrical			
Power Outlets - 1 Phase Internal	Clipsal classic or 2000 series or similar			Red for UPS backed GPOs.	
Power Outlets - 3 Phase	Clipsal 56 series			Must be suitable for installation outside.	
Power Outlets - 3 Phase	NHP ISO	NHP Electrical		Must be suitable for installation outside.	
Power Supplies - 240V AC / 24V DC	Puls QS10.241-C1, QS5.241, QS20.241	THE Electrical		Preferably with Modbus, SNMP or Profinet comms where available.	
Power Supplies - 240V AC / 24V DC	Siemens SITOP PSU8600 and PSU6200 series	Siemens		Preferably with Modbus, SNMP or Profinet comms where available.	
Power Supplies - 240V AC / 24V DC	Weidmuller PROTOP1 series	Weidmüller Interface GmbH & Co.		Preferably with Modbus, SNMP or Profinet comms where available.	
Power Supplies - Uniterruptable - UPS 12/24V DC	Phoenix QUINT-4 series	Phoenix Contact		Preferably with Modbus, SNMP or Profinet comms where available.	
Power Supplies - Uniterruptable - UPS 12/24V DC	Puls UB10.245			For Network sites only.	
Pressure Switches	SquareD Industrial Class 9012G				
Pressure Switches	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
Pressure Switches	Burkert	Bürkert GmbH & Co. KG			
Pressure Transmitters – Differential Pressure	Vega	Grieshaber Gmbh & Co.			
Pressure Transmitters – Differential Pressure	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
Pressure Transmitters – Differential Pressure  Pressure Transmitters – Differential Pressure	Rosemount/Emerson	Linuissa & Hausel (EXII)		+	
Pressure Transmitters – Differential Pressure  Pressure Transmitters – Differential Pressure	ABB	ABB Ltd			
Pressure Transmitters – Differential Pressure	ABB	ABB Ltd			
Pressure Transmitters - Hydrostatic	Vega	Grieshaber Gmbh & Co.		Must be supplied with S/S isolating valve manifold when used on sewage (to prevent blockages).	
Pressure Transmitters - Hydrostatic	Endress & Hauser (E&H)	Endress & Hauser (E&H)		Must be supplied with S/S isolating valve manifold when used on sewage (to prevent blockages).	
Pressure Transmitters - Hydrostatic	Rosemount/Emerson			Must be supplied with S/S isolating valve manifold when used on sewage (to prevent blockages).	
Pressure Transmitters - Hydrostatic	ABB	ABB Ltd		Must be supplied with S/S isolating valve manifold when used on sewage (to prevent blockages).	
Pressure Transmitters – Pressure and Level Measurement	Vega	Grieshaber Gmbh & Co.			
Pressure Transmitters – Pressure and Level Measurement	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
Pressure Transmitters – Pressure and Level Measurement	Rosemount/Emerson				
Pressure Transmitters – Pressure and Level Measurement	ABB	ABB Ltd			
Process Control SCADA Systems					Refer to Preferred Control System List.
Programmable Logic Controller Output Relays					Refer to Preferred Control System List.
Programmable Logic Controllers					Refer to Preferred Control System List.
Protocol Convertors					Refer to Preferred Control System List.
Proximity Switches	IFM Efector				
Proximity Switches	NHP – Sprecher & Schuh D7P Series	NHP Electrical	Sprecher & Schuh		
Proximity Switches	Schneider	Schneider Electric	Schneider Electric		
Proximity Switches	Siemens SIRIUS	Siemens	- 51.110.000. 2100010		
Proximity Switches	Turck				
Proximity Switches	Pepperl and Fuchs				
Pushbuttons	Sprecher & Schuh D7P Series	Rockwell Automation, Inc	Sprecher & Schuh		
Pushbuttons	Schneider	Schneider Electric	Schneider Electric		
Pushbuttons	Siemens SIRIUS	Siemens			24 - 24 - 12 - 13 - 11
Radios	F . APPRA 00 A	<del> </del>			Refer to Preferred Control System List.
Rectifier 24V Relays	Eaton APR24-3G Access Finder 55 Series	Eaton		Must be with DIN rail mounting base and retaining	Refer to Preferred Control System List.
•				clip – 4 contact minimum	
Relays	Telemecanique			4 contact minimum	
Relays - Safety	440R-C23017 Minotaur MSR6T 24V				
					Refer to Preferred Control System List.
Remote Telemetry Units (RTUs)					
Remote Telemetry Units (RTUs) RTUs - 3G/4G Small Sites					Refer to Preferred Control System List.
	Emotron				Refer to Preferred Control System List.

Product Type	MAKE and Model	Manufacturer /Supplier	Trade Name	Specific Requirements	COMMENTS
		Manutacturer /Supplier	i rade Name		COMMENTS
Sealing compounds	Henley's compound			Not grout, not foam-a-fill.	
Sealing compounds	Denso Mastic			Not grout, not foam-a-fill.	
Signal Isolators and Converters	APCS SL332				
Signal Isolators and Converters	Weidmuller eLine API (aka Burkert)	Weidmüller Interface GmbH & Co.			
Signal Isolators and Converters	Red Lion IAMA and AIMI series				
Soft Starters	Danfoss MCD500			Not allowed in sewage treatment plants.	
Soft Starters	Schneider Altistart	Schneider Electric	Schneider Electric	Not allowed in sewage treatment plants.	
Solenoid Valves	Process Systems B25-2-2-8VM 24V DC				
Solenoid Valves	Burkert type 0331				
Stop / Start Stations	Kraus & Naimer				Other brands accepted with approval from Unitywater. The functionality must be as per Pr9835 and Pr9380.
Stop / Start Stations	Custom				Other brands accepted with approval from Unitywater. The functionality must be as per Pr9835 and Pr9380.
Surge Diverters	Critec DSD340TNC275A				
Surge Diverters	Transtech TLP Series+B154:B166				
Surge Diverters	Novaris				
Surge Diverters	Erico				
Outge Diverters	Phoenix PLT-SEC-T3 series, TTC-6P series,				
Surge Diverters	VAL-MS series	Phoenix Contact			
Surge Diverters	MTL				
Surge Diverters	Weidmuller VPU or VSS series	Weidmüller Interface GmbH & Co.			
Surge Reduction Filters	Critec DSD340TNC275A				
Surge Reduction Filters	Transtech TLP Series+B154:B166				
Surge Reduction Filters	Novaris				
Surge Reduction Filters	Erico				
cargo rioddollori moro					
Surge Reduction Filters	Phoenix PLT-SEC-T3 series, TTC-6P series, VAL-MS series	Phoenix Contact			
Surge Reduction Filters	MTL				
Surge Reduction Filters	Weidmuller VPU or VSS series	Weidmüller Interface GmbH & Co.			
Terminals	Phoenix UT series	Phoenix Contact		No push in terminal allowed.	
Terminals	Weidmuller W series	Weidmüller Interface GmbH & Co.		No push in terminal allowed.	
Terminals	Telemachinique			No push in terminal allowed.	
Terminals	Sprecher & Schuh	Rockwell Automation, Inc	Sprecher & Schuh	No push in terminal allowed.	
Thermal Overloads	Sprecher & Schuch CEP7-EE-DB	Rockwell Automation, Inc	Sprecher & Schuh		
Thermal Overloads	Schneider - Telemecanique	Schneider Electric	Schneider Electric		
Thermistor Protection Relays	Schneider LT3 24V DC	Schneider Electric	Schneider Electric	VFD connections preferred.	
Thermostats	Rittal	Schlieder Electric	Schilleider Electric	VFD connections preferred.	
	Cosmotec				
Thermostats	Cosmotec				<del>-</del>
Timers	Schneider Zelio	Schneider Electric	Schneider Electric		To be avoided. Unitywater preference is to use PLC/SCADA/RTU for this function.
Timers	Carlo Gavazzi				To be avoided. Unitywater preference is to use PLC/SCADA/RTU for this function.
Transducers	Crompton				
Transducers	NHP	NHP Electrical			
Transfer Switches - Automatic	Schneider	Schneider Electric	Schneider Electric		
Transfer Switches - Automatic	NHP – Terasaki	NHP Electrical			
Transfer Switches - Automatic	SIRCOVER	NHP Socomec			
Transfer Switches - Manual	SIRCOVER for >125A	NHP Socomec			
Transfer Switches - Manual	ABB switch ABBOT80F4C	ABB Ltd		Includes handle, shrouds and shaft <125A	
Transient Barriers	Erico Critec UTB-30SP				
Transient Barriers	Erico Critec UTB-30SPG			For use in disconnection cubicles	
Transient Barriers	Novaris SL36-G				
Transient Barriers	Novaris SL36-EC90			For use in disconnection cubicles	
Transient Barriers	MTL SD32				
Turbidity Sensors and Transmitters	Endress & Hauser (E&H)	Endress & Hauser (E&H)			
Turbidity Sensors and Transmitters  Turbidity Sensors and Transmitters	Hach	Z.i.a. ooo a riaasor (Earr)	1		
Turbidity Sensors and Transmitters  Turbidity Sensors and Transmitters	Siemens	Siemens			
,		SIGNIEUS		Must have network interface card with SNMP	Assessed at both OTD and a should alter
Uninterruptible Power Supplies UPS	Eaton			capability for monitoring purposes.  Must have network interface card with SNMP	Accepted at both STP and network sites.
Uninterruptible Power Supplies UPS	Emerson			capability for monitoring purposes.	Accepted only at network sites.
Valves - Electrical Actuator	Auma		Auma		Accepted only for storage tank outlets and only if specified by the designer.
Valves - Electrical Actuator	George Fisher			EA15 24VDC, actuator with ball valve	Accepted only if specified by the designer to meet unique requirements.

Product Type	MAKE and Model	Manufacturer /Supplier	Trade Name	Specific Requirements	COMMENTS
Valves - Electrical Actuator	Limitorque/Acrodyne		Limitorque MX and QX Series		Accepted only if specified by the designer to meet unique requirements.
Valves - Electrical Actuator	Bettis SCE300	Emerson	Emerson		Accepted only if specified by the designer to meet unique requirements.
Valves - Electrical Actuator	Keystone F777	Keystone Flow Control	Pentair plc		Accepted only if specified by the designer to meet unique requirements.
Valves - Electrical Actuator	AVS	Prominent			Other options will be considered for single phase powered or DC ELV valves. Refer also to "Preferred STP Equipment List"
Valves - Electrical Actuator	Ventim	Prominent			Other options will be considered for single phase powered or DC ELV valves. Refer also to "Preferred STP Equipment List"
Valves - Electrical Actuator	Burkert	Prominent			Other options will be considered for single phase powered or DC ELV valves. Refer also to "Preferred STP Equipment List"
Valves - Electrical Actuator	Spirac		Spirac		Other options will be considered for single phase powered or DC ELV valves. Refer also to "Preferred STP Equipment List"
Valves - Electrical Actuator	Rotork IQ		Rotork		Other options will be considered for single phase powered or DC ELV valves. Refer also to "Preferred STP Equipment List"
Variable Frequency Drives	Schneider ATV600 series	Schneider Electric	Schneider Electric	Ethernet and MODBUS interface required.	
Variable Frequency Drives	Danfoss VLT Aqua FC202			Ethernet and MODBUS interface required.	
Variable Frequency Drives Remote Key Pads				As per VFD requirements.	
Variable Frequency Drives Speed Control Potentiometers					Not allowed.
Voltmeters					Refer to Power Meter requirements.

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