

LOW WATER CUTOFF & WATER FEEDER

# Competitive Cross-Reference Guide



# Cross-Reference Guide

Taco	McDonnell & Miller	Hydrolevel	Honeywell
LFA1203S-1 <b>LTA1203N-1</b> <b>LTA1203S-1</b>	PS-801-120 PSE-801-120 <b>PS-800-120</b> <b>PS-850-120</b> <b>900</b> <b>900C</b>	450 CG450 CGT450 <b>OEM170TD</b>	<b>RW700A1031</b> <b>RW700A1056</b> <b>RW700A1080</b>
LFM1203S-1 <b>LTM1203N-1</b> <b>LTM1203S-1</b>	PS-801-M-120 PS-851-M-120 PS-851-SP-M-120 <b>PS-850-M-120</b> <b>900M</b> <b>901M</b> <b>902M</b>	550 550SV 750 <b>OEM170MC</b> <b>OEM170M</b>	<b>RW700B1054</b> <b>RW700B1039</b> <b>RW700B1021</b>
LFA0243S-1 <b>LTA0243N-1</b> <b>LTA0243S-1</b>	PS-802-24 PSE-802-24 <b>PS-800-24</b> <b>PS-850-24</b>	400 CG400 <b>OEM24TD</b>	<b>RW700A1098</b>
LFM0243S-1 <b>LTM0243N-1</b> <b>LTM0243S-1</b>	PS-802-M-24 PS-852-M-24 PS-852-SP-M-24 <b>PS-850-M-24</b>	500 500SV 700 <b>OEM24MC</b>	
LFA1203R-1 <b>LTA1203R-1</b>	750-T-120 <b>750-120</b>	650R	
LFM1203R-1 <b>LTM1203R-1</b>	750-MT-120 <b>750-M-120</b>	550R	
LFA1202R-1 <b>LTA1202R-1</b>	PS-851-RX2-120	650R	
LFM1202R-1 <b>LTM1202R-1</b>	PS-851-M-RX2-120	550R	
LFA0242R-1 <b>LTA0242R-1</b>	PS-802-RX2-24	400R	
LTA0243S-2 <b>LNA0243S-1</b>	PS-852-24 PS-852-SP-24 750-MT-SP-24 750P-MT-24 750P-MT-U-24	24 24SV 600 600SV <b>OEM24C</b>	
LTA1203S-2 <b>LNA1203S-1</b>	RB-120 RB-122E PS-851-120 PS-851-SP-120 750P-MT-120 750P-MT-SP-120 750P-MT-U-120 <b>901</b> <b>RB-120II</b> <b>RB-122</b>	170 170SV 1150 650 650SV <b>OEM170C</b> <b>OEM170</b>	<b>RW700A1007</b> <b>RW700A1006</b>
LTR0243T-1	RB-24E <b>RB-24</b>	1100	
P3R-1	RS-1-BR-1 RS-1-LP RS-1-LP-S	EL1214-R	
EWFI20	WFE-120 <b>WF2-U-120V</b> <b>WF-2-120</b> <b>WF-4-120</b>	VRTX-120 <b>V-120-1&amp;2</b>	<b>VW400A1004</b>
EWFO24	WFE-24 <b>WF2-U-24V</b> <b>WF-2-24</b> <b>WF-4-24</b>	VRTX-24 <b>V-24-1&amp;2</b>	<b>VW800A1004</b>

**Bold / Italics** (Indicates Discontinued Part Number)

# LTR Competitive Comparison

Manufacturer	Taco	Taco	Hydrolevel	Hydrolevel	McDonnell & Miller	McDonnell & Miller
Model	LTR0243T-1	LTR0243U-1 LTR0243L-1	Model 1100	Model 1100H2, H4, H5*	RB-24E	RB-24E-A,-L, -S **
Input Power	24VAC	24VAC	24VAC	24VAC	24VAC	24VAC
Contact Rating	50VA @ 24VAC 5.0A Max. Load @24 VAC	50VA @ 24VAC 5.0A Max. Load @24 VAC	50VA @ 24VAC 5.0A Max. Load @24 VAC	50VA @ 24VAC 5.0A Max. Load @24 VAC	2A @ 24VAC Switching	2A @ 24VAC Switching
Ambient Temp.	32°F - 120°F	32°F - 120°F	Room	Room	32°F - 120°F	32°F - 120°F
Water Temp.	250°F	250°F	250°F	250°F	250°F	250°F
Water Pressure	<b>160 psi</b>	<b>160 psi</b>	50 psi	50 psi	160 psi	160 psi
Reset Type	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic
Testable	Yes	Yes	Yes	Yes	Yes	Yes
LED Indicators	<b>Low H<sub>2</sub>O Power &amp; Service</b>	<b>Low H<sub>2</sub>O Power &amp; Service</b>	Low H <sub>2</sub> O Power	Low H <sub>2</sub> O Power	Low H <sub>2</sub> O Power	Low H <sub>2</sub> O Power
Service	Hot Water	Hot Water	Hot Water	Hot Water	Hot Water	Hot Water
Max. Probe Sensitivity	<b>40K Ohms</b>	<b>40K Ohms</b>	15K Ohms	15K Ohms	15K Ohms	15K Ohms
Process Connection	3/4"	3/4"	3/4"	3/4"	3/4"brass	3/4"brass
Probe Style	Short (1")	Short (1")	Short (1")	Short (1")	Short (1-3/16") Self Cleaning	Short (1-3/16") Self Cleaning
OEM Wiring Harness Options	Standard Wiring Harness	Harness for connecting with OEM Boiler Controls	Standard Wiring Harness	Harness for connecting with OEM Boiler Controls	Self Cleaning Standard Wiring Harness	Harnesses for connecting with OEM Boiler Controls
Listings/Approvals	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2		UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls		UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2	

\*Hydrolevel Harnesses

- 1100 + 45-348 = H2 Model = Taco U Model
  - 1100 + 45-349 = H5 Model = Taco L Model
  - 1100 + 45-350 = H4 Model
- (H4 Model is special for Burnham Models: SCG, PVG and Alpine)

\*\*McDonnell & Miller Harnesses

- A : 4-pin "Y" Harness
- L : Lochinvar Boiler Control = Taco L Model
- S : United Technologies = Taco U Model

# LTA-2 Competitive Comparison

Manufacturer	Taco	Hydrolevel	Hydrolevel	Hydrolevel	McDonnell & Miller	McDonnell & Miller	McDonnell & Miller	McDonnell & Miller
<b>Model (Series)</b>	LTA-2	1150	24 & 170	600 & 650	RB-120	RB-122E	PS-851 & PS-852	751P & 752P
<b>Input Power</b>	24 & 120 VAC	120 VAC	24 & 120 VAC	24 & 120 VAC	24 VAC	120 VAC	24 & 120 VAC	24 & 120 VAC
<b>Contact Rating</b>	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC	5.8FLA @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 5.8FLA @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 5.8FLA @ 120VAC 34.8LRA@120VAC	5.8A @ 120VAC 34.8LRA@120VAC	5.8A @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC	50VA @ 24 VAC 125VA @ 120VAC
<b>Ambient Temp</b>	20° - 150° F	Room	Room	Room	32-120° F	32-120° F	32-120° F	32-135° F
<b>Water Temp</b>	250° F	250° F	Not Available	Not Available	250° F	250° F	250° F	250° F
<b>Water Pressure</b>	<b>250 psi (water &amp; steam)</b>	160 psi	160 psi	250 psi	160 psi	160 psi	160 psi	160 psi
<b>Reset Type</b>	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic	Automatic*	Automatic*
<b>Testable</b>	Yes	Yes	Yes	Yes	No	Yes	Yes	Yes
<b>LED Indicators</b>	<b>Power / Low H<sub>2</sub>O &amp; Service</b>	Low H <sub>2</sub> O & Power	---	Low H <sub>2</sub> O / Shorted Probe	None	Low H <sub>2</sub> O & Power	Low H <sub>2</sub> O / Shorted Probe & Power / Test	Low H <sub>2</sub> O & Power
<b>Service</b>	Hot Water, Secondary Steam	Water	Water	Water	Water	Water	Hot Water, Secondary Steam	Hot Water, Secondary Steam (Manual reset version only)
<b>Max. Probe Sensitivity</b>	<b>40K ohms</b>	Not Available	Not Available	Not Available	6k ohms	20K ohms	7k ohms	20k ohms
<b>Process Connection</b>	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"	3/4"
<b>Probe Style</b>	Standard (1.31")	Short (1-27/32")	Short (1") EL 1214 Probe	Short (1") EL 1214 Probe	Short (1-3/8") Self Cleaning	Short (1-3/8") Self Cleaning	Standard (2-1/8") Self Cleaning**	Standard (2-1/8") Self Cleaning**
<b>Listing / Approvals</b>	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2  Fully meets installation requirements of CSD-1 for automatic controls	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2  Approved for Canada per CSA Standard C22.2	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls.  CSA 3211-07	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  CSA 3211-07	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  CSA 4813-02  FM Approved	UL GUIDE (MBPR2) for Limit Controls-Components per UL Standard 353 Limit Controls  CSA 4813-02  FM Approved  Manual reset models meet installation requirements of CSD-1
<b>Delays</b>	None	None	None	None	None	None	None	None
<b>Notes</b>	---	---	Electro-mechanical operation, relay type  Alarm Contacts  See Hydrolevel "SV" note below (1)	Alarm Contacts  See Hydrolevel "SV" note below (1)	Electro-mechanical operation, relay type	---	*This series also available in manual reset which crosses with the Taco LF Series  **Extended barrel, remote and short probe models available	*This series also available in manual reset which crosses with the Taco LF Series  **Extended barrel, remote and short probe models available

(1) Hydrolevel note: By adding "SV" to the end of their part numbers (example 600SV), the control will be supplied with the shorter model EL 1214-SV probe (usually needed for mounting in reducing tees).

# LF Competitive Comparison

Manufacturer	Taco	Hydrolevel	Hydrolevel	Hydrolevel	Hydrolevel	McDonnell & Miller	McDonnell & Miller	McDonnell & Miller	McDonnell & Miller
Model	LF	400 & 450	CG400, CG450 & CGT450	500 & 550 **	700 & 750	PS-801 & PS-802	PSE-801 & PSE-802	PS-851 & PS-852	750
Input Power	24 & 120VAC	24 & 120VAC	24 & 120VAC	24 & 120VAC	24 & 120VAC	24 & 120VAC	24 & 120VAC	24 & 120VAC	24 & 120VAC
Contact Rating	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC	50VA @ 24VAC 5.8FLA @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 5.8FLA @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 5.8FLA @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 5.8FLA @ 120VAC 34.8LRA@120VAC	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC	50VA @ 24VAC 7.5FLA @ 120VAC 43.2LRA@120VAC
Ambient Temp	20° - 150° F	Room	32 - 100° F	Room	Room	32 - 120° F	32 - 120° F	32 - 120° F	32 - 135° F
Water Temp	250° F	Not Available	Not Available	Not Available	Not Available	250° F	250° F	250° F	250° F
Water Pressure	<b>250 psi</b>	Steam only	Steam Only	200 psi	200 psi	160 psi	160 psi	160 psi	160 psi
Steam Pressure	15 psi	15 psi	15 psi	15 psi	15 psi	15 psi	15 psi	15 psi	15 psi
Reset Type	Manual & Automatic	Automatic	Automatic	Manual	Manual	Manual & Automatic	Manual & Automatic	Manual & Automatic	Manual & Automatic
Testable	Yes	No	No	Yes	No	Yes	Yes	Yes	Yes
Foam Compensating	Patented Dual-Vision Technology	None	Patented Intermittent Level Test (ILT)	None	None	None	Patented Resistance Measurements	None	None
Delays	Automatic	15 sec. DOB, 30 sec. DOM	ILT frequency every 10, 20 or 50 minutes, duration of 60 or 90 sec. (1)	30 sec. DOB	30 sec. DOB	10 sec. DOB, 15 sec. DOM	Delay on Break of 10 sec. and Delay on Make of 30 sec.	None	None
Alarm Option	Yes	No	No	Yes	Yes	Yes	Yes	No	Yes
LED Indicators	Power / Low H <sub>2</sub> O & Service	Low H <sub>2</sub> O	Low H <sub>2</sub> O & ILT Activated	Power & Low H <sub>2</sub> O	Power & Low H <sub>2</sub> O	Low H <sub>2</sub> O / Shorted Probe & Power / Test	Power & Low H <sub>2</sub> O	Low H <sub>2</sub> O / Shorted Probe & Power / Test	Power & Low H <sub>2</sub> O
Service	Hot Water, Steam	Steam	Steam	Hot Water, Secondary Steam	Hot Water, Secondary Steam	Steam	Steam	Hot Water, Secondary Steam	Hot Water, Secondary Steam (Manual reset)
Max. Probe Sensitivity	40K ohms	7k ohms	7k ohms	7k ohms	Not Available	7k ohms	7k ohms	7k ohms	20k ohms
Process Connection	1/2" or 3/4"	1/2" or 3/4"	1/2" or 3/4"	1/2" or 3/4"	1/2" or 3/4"	3/4"	3/4"	3/4"	3/4" Remote
Probe Style	Standard (1.31")	Standard (3-7/8")	Standard* (3-7/8")	Standard (3-7/8")	Standard (3-7/8")	Short* (1-3/8")	Standard* (2-1/8") Self Cleaning	Standard* (2-1/8") Self Cleaning	Standard (2-1/8") Self Cleaning
Remote Probe Option	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)	Yes (NEMA 1)
Extended Probe Option	Yes (NEMA 1 & 4)	No	No	No	No	No	No	No	Yes (4.5-36")
24VAC Wire Harness Connector	Yes (LFx024xx model only)	Yes (400 only)	Yes (400 only)	No	No	Yes (PS-802-24)	Yes (PSE-802-24)	Yes (PS-852-24)	No
Listing / Approvals	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2  Fully meets installation requirements of CSD-1 for automatic and manual controls  24 VAC model meets ANSI Z21.13a specification	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2  24 VAC model meets ANSI Z21.13a specification	UL GUIDE (MBPR2) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR8) Limit Control Components Certified for Canada per CSA Standard C22.2  24 VAC model meets ANSI Z21.13a specification	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2  Fully meets installation requirements of CSD-1	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  UL GUIDE (MBPR7) Limit Controls Certified for Canada per CSA Standard C22.2  Fully meet installation requirements of CSD-1	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  CSA 4813-02 FM Approved 24 VAC model meets ANSI Z21.13a specification	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  CSA 4813-02 24 VAC model meets ANSI Z21.13a specification FM Approved	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  CSA 4813-02 FM Approved	UL GUIDE (MBPR) for Limit Controls per UL Standard 353 Limit Controls  CSA 4813-02 FM Approved Manual reset models meet installation requirements of CSD-1
Notes	---	---	*Extended 3/4" barrel model available. CGT 450 has additional terminals to support domestic hot water applications.	Has a non replaceable fuse in the burner circuit for overload protection	---	*Extended barrel models available	*Extended barrel models available	*Extended barrel, remote and short (1-3/8") probe models available	Requires the purchase of a separate remote probe like the RS-1-RB-1, RS-1-HP or RS-1-LP

(1) Hydrolevel CG Model Suffix Reference Table

Models Ending In	Run Time	Test Time
1090	10 Min.	90 Sec.
1560***	50 Min.	60 Sec.
2060	20 Min.	60 Sec.
2090***	20 Min.	90 Sec.

\*\*\* These models are not on their standard price sheet, may be custom OEM models.

There is also a 30 second on-time delay on all CG models to allow solenoid valves and water feeders to bring feed water past the probe to a safe operating level. Plus an additional 30 second delay once water reaches the probe. There is a 15 second off-time delay in a low water condition to help prevent burner short cycling due to surging and priming.

(2) Shuts down the burner when water drops below the probe for 2 seconds. Requires manual reset if the water level remains below the probe for 30 seconds

\*\* In November of 2010 Hydrolevel issued Field Technical Bulletin No. 111910 which stated, "Hydrolevel Company has discovered the potential for nuisance lock-outs resulting from power outages on many 500 and 550 Series low water cut-offs produced in 2010. The 55/550 Series low water cut-offs includes a feature to prevent such lock-outs from occurring. However, a problem with the a circuit board component has resulted in inconsistent operation of this feature. The problem was not discovered in production line testing as it can only occur in power outages exceeding 8 seconds - longer than the test parameter. The effected items had date codes from March 15, 2010 - October 19, 2010. Hydrolevel recommended that any unit with that date code be replaced.

# EWF Competitive Comparison

Manufacturer	Taco	Hydrolevel	Hydrolevel	McDonnell & Miller
Model	EWF	VXT	VXTC	WFE
Input Power	24 & 120 VAC	24 & 120 VAC	120 VAC	24 & 120 VAC
Power Consumption During Feed	10 VA @ 24 VAC 12 VA @ 120 VAC	15 VA @ 24 VAC 10 VA @ 120 VAC	15 VA @ 24 VAC 10 VA @ 120 VAC	15 VA @ 24 VAC 20 VA @ 120 VAC
Process Connections	3/8" FNPT or 3/8" NPT to 1/2" copper fittings	3/8" FNPT or 3/8" NPT to 1/2" copper fittings	3/4" NPT	3/8" FNPT or 3/8" NPT to 1/2" copper fittings
Enclosures	NEMA 1	NEMA 1	NEMA 1	NEMA 1
Maximum Input Pressure	150 PSI	150 PSI	150 PSI	150 PSI
Maximum Outlet Pressure	15 PSI	15 PSI	15 PSI	15 PSI
Maximum Media Temperature	<b>160° F</b>	150° F	100° F	120° F
Maximum Ambient Temperature	100° F	100° F	100° F	100° F
Feed Rate	1 gpm	1 gpm	10 gpm @ 40 psi	1, 2 or 4 gpm
Feed Choices	LWCO, Fixed Feed, Manual Feed	LWCO, Fixed Feed, Manual Feed	LWCO, Fixed Feed, Manual Feed	Fixed Feed, Manual Feed
Lock-out Flood Protection	Yes	Yes*	Yes	Yes
Underfeed Protection	Yes	Yes	No*	No
Manual Feed Button	Yes	Yes	Yes	Yes
External LED's	Yes	No	No	Yes
Digital Feed Counter	No	Yes	Yes	No
Programmable Excess Feed Indicator	<b>Yes</b>	No	No	No
Hold after Water OK	Yes (0.5, 1, 2 minutes)	No	Yes (2 Minutes)	No
Internal Reset Button	Yes	Yes	No	No
Programmable Feed Delays	<b>0, 0.5, 1, 2, 4, 6, 8 or 10 minutes</b>	0.5, 2, 4, 6, 8 or 10 minutes	5 settings from 0-10 minutes	0, 0.5, 1 or 2 minutes
Programmable Feed Amounts	1-5 gallons	1-5 gallons	4 feed amounts up to 120 seconds = 20 gallons max.	60, 180, 270 or 300 seconds at 1, 2 or 4 gpm = 1 - 20 gallons*
Notes	---	*De-activated in the 1 and 5-gallon feed modes	*Single 10 minute feed cycle. The VXTC Includes a water meter to track make-up water added, a strainer and flow restrictor	*2 gpm standard, 1 and 4 gpm requires an orifice change