



Comparison table for burner controllers

ETAMATIC OEM / ETAMATIC / CMS / FMS



Comparison of Combustion Management Systems.

	ETAMATIC OEM
Display / Operation	
Alphanumeric external display	x ¹⁾
Alphanumeric internal display	-
7" graphical user interface	x ¹⁾
10" graphical user interface	x ¹⁾
15" graphical user interface	x ¹⁾
User interface (UI300 & UI400)	-
Commissioning via display	-
Commissioning via software	x
Burner Control	
Gas / Oil	x
Gas / Gas	x
Oil / Oil	x
Number of valve leakage tests	1
Integrated PLC (CODESYS)	-
Freely configurable inputs and outputs	-
Modbus TCP	with additional module
PROFINET (5)	with additional module
PROFIBUS (5)	with additional module
Modbus RTU	-
Fuel air ratio control	
Maximum number of operating modes/curve sets	2
Maximum number of control outputs (channels)	4
Speed control	x
Type approved system EN12067-2	x
SIL 3 according to EN61508	x
Correction from Air and Fuel	
Integrated O ₂ control	x
Integrated combustion optimisation (CO/H ₂ control)	x
External, other correction	-
Number of correction inputs	2
Number of fail-safe correction inputs	-

Footnote:

1) Parameter restricted, no curve setting possible

ETAMATIC	FMS	BT300	CMS
-	-	-	-
x	x	-	-
x ¹⁾	x ¹⁾	x ¹⁾	x
x ¹⁾	x ¹⁾	x ¹⁾	x
x ¹⁾	x ¹⁾	x ¹⁾	x
-	-	x	x
x	x	x	x
x	x	x	x

x	x	with additional module	x
x	x	with additional module	x
x	x	-	x
1	1	1	4
-	-	-	x
-	-	-	x
with additional module	with additional module	with additional module	on board
with additional module	with additional module	with additional module	with additional module
with additional module	with additional module	with additional module	with additional module
-	-	-	in preparation

2	8 (5)	2	16
4	5	4	10
x	x	with additional module	x
x	x	x	x
x	x	optional	x

x	x	x	x
x	x	x	x
-	1	-	4
2	2	2	6
-	-	-	1

Comparison of Combustion Management Systems.

	ETAMATIC OEM
Ventilation	
Start without pre-purge according to EN676	x
Start without pre-purge via digital input	-
Adjustable pre-purge time	x
Adjustable post-purge time	x
Cooling operation / Continuous purge	x
Flame monitoring	
Integrated ionisation monitoring	-
Integrated optical flame monitoring	x
Digital inputs for external flame monitoring	1
Fuel change / Simultaneous combustion	
Maximum number of fuels	2
Simultaneous combustion possible	-
Automatic fuel change via burner off	x
Fuel change via ignition burner	-
Fuel change during operation without loss of power	-
Curve set change (same fuel)	x
Stage mixed combustion	-
Variable mixed combustion	-
Safety chains	
Collective input for safety chains	3
Separate inputs for chain elements	-
Number of inputs that can be configured for safety chains	-
Analogue inputs	
Maximum number of non-fail-safe inputs	2 (3)
Maximum number of fail-safe inputs	-
Actuators	
Minimum torque	6 Nm
Maximum torque	200 Nm ⁴⁾
Maximum possible number of stepper actuators	-
Maximum number of three-point step actuators	4
Maximum number of continuous outputs (0/4 ... 20 mA)	1

Footnotes:

²⁾ With flame sensor for intermittent operation

³⁾ In preparation

⁴⁾ With additional module

ETAMATIC	FMS	BT300	CMS
x	x	x	x
-	x	-	x
x	x	x	x
x	x	x	x
x	x	x	x
-	-	x	x
x	-	x ²⁾	x
1	1	1	8
2	3	2	4
-	x	-	x
x	x	x	x
-	x	-	x
-	x	-	x ³⁾
x	x	-	x
-	with additional module	-	x
-	with additional module	-	x ³⁾
3	4	3	5
-	-	-	x
-	-	-	60
2 (3)	3	7	19
-	-	-	8
6 Nm	6 Nm	0.8 Nm	0.8 Nm
200 Nm ⁴⁾	200 Nm	9 Nm	200 Nm
4	4	-	8
1	5	1	10
1	5	1	10

Comparison of Combustion Management Systems.

	ETAMATIC OEM
Maximum permissible cable lengths	
Digital inputs	10 m ¹⁰⁾
Digital outputs	10 m ¹⁰⁾
Analogue inputs	100 m
Analogue outputs	10 m
LAMTEC system bus (LSB)	500 m ^{5), 6)}
Modbus TCP	100 m ⁵⁾
Profibus	100 m ⁵⁾
Profinet	100 m ⁵⁾
Fail-safe internal LAMTEC system bus (iLSB)	-
Three-point step actuators	10 m
Stepper actuators	-
Continuous output	10 m
Feedback namur	10 m
Feedback 3-wire	10 m
Flame input	10 m ⁵⁾

Footnotes:

⁵⁾ Shielded

⁶⁾ Observe cable cross-section

⁷⁾ If there is more than one BLC passiv per bus segment

⁸⁾ Applies to digital input signals load+/load-, safety chain boiler, burner on, reset, alarm, fuel selection DFM

⁹⁾ Boiler water temperature and steam pressure are excluded; here, only a maximum length of 10 m applies

¹⁰⁾ Excluded digital signals are: burner on, control release, boiler safety chain, setpoint switchover, fuel selection, fault signal; here, the maximum permitted length is 100 m

¹¹⁾ Longer cable lengths may be possible after consultation with LAMTEC

ETAMATIC	FMS	BT300	CMS
100 m	100 m	10 m or 20 m ⁸⁾	200 m
100 m ¹¹⁾	100 m ¹¹⁾	20 m	200 m
100 m	100 m	100 m ⁹⁾	200 m ⁵⁾
100 m	100 m	100 m	200 m ⁵⁾
500 m ^{5), 6)}	500 m ^{5), 6)}	500 m ^{5), 6)}	500 m ^{5), 6)}
100 m ⁵⁾	100 m ⁵⁾	100 m ⁵⁾	100 m ⁵⁾
100 m ⁵⁾	100 m ⁵⁾	100 m ⁵⁾	100 m ⁵⁾
100 m ⁵⁾	100 m ⁵⁾	100 m ⁵⁾	100 m ⁵⁾
-	-	-	80 m or 70 m ⁷⁾
100 m ¹¹⁾	100 m ¹¹⁾	-	200 m
-	-	10 m	10 m
100 m ^{5), 11)}	100 m ^{5), 11)}	10 m	200 m ⁵⁾
100 m ^{5), 11)}	100 m ^{5), 11)}	10 m	200 m ⁵⁾
100 m ^{5), 11)}	100 m ^{5), 11)}	10 m	200 m ⁵⁾
300 m ⁵⁾	-	20 m	FLS09: 100 m ⁵⁾ FFS07/FFS08: 300 m ⁵⁾

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