

Autioflame

Product Catalogue

AUTOFLAME[®]



Product Catalogue



Issued by:

AUTOFLAME ENGINEERING LTD
Unit 1-2, Concorde Business Centre
Airport Industrial Estate, Wireless Road
Biggin Hill, Kent TN16 3YN

Tel: +44 (0)845 872 2000

Fax: +44 (0)845 872 2010

Email: salesinfo@autoflame.com

Website: <http://www.autoflame.com/>

Registered Holder:

Company:

Department:

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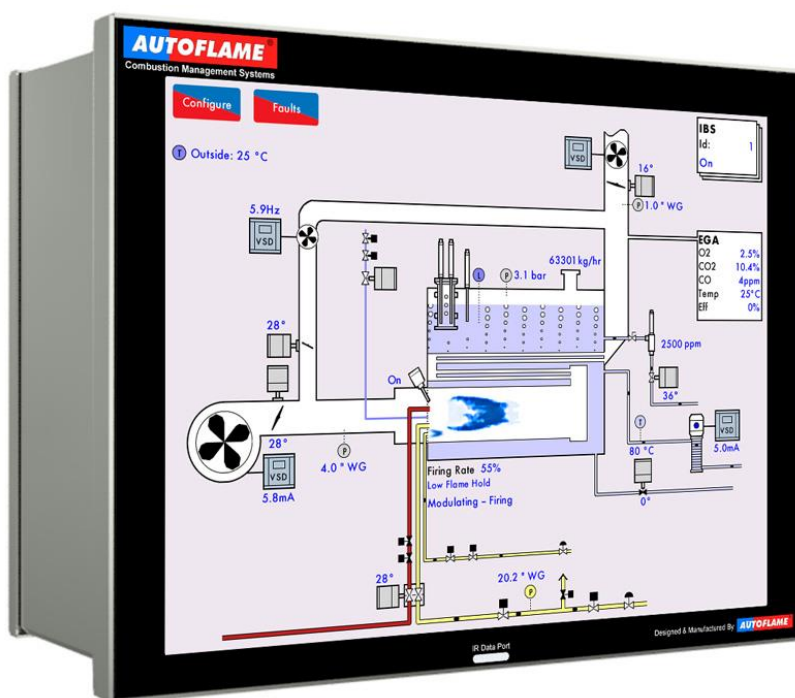
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1 MM Control Modules & Parts

1.1 Mk8 MM Control Modules – MM Burner Management Systems



Mk8 MM

Mk8 MM Electrical Specifications

Classification according to BS EN298:2012

Mains Supply: Single phase 230V, +10%/-15% } 47-63 Hz, unit max. consumption
 Single phase 120V, +10%/-15% } 140W

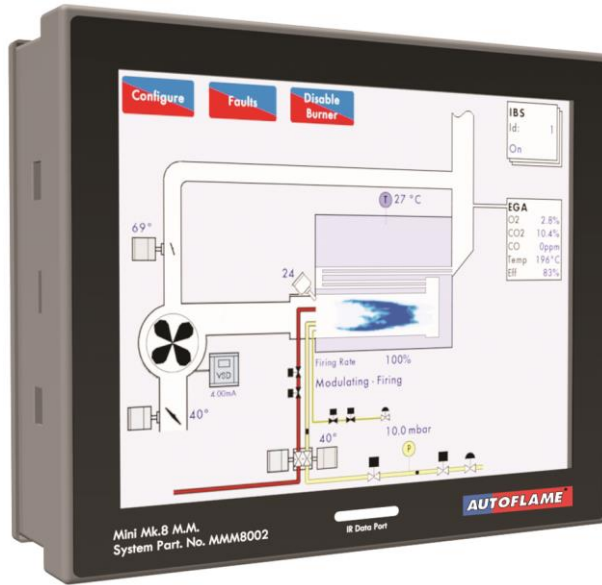
Climate: Min. Temperature 0°C (32°F)
 Recommended Temperature Less than 40°C (104°F)
 Max. Temperature 60°C (140°F)
 Humidity 0 to 90% non-condensing

Storage: Temperature -20 to 85°C (-4 to 185°F)

Protection Rating: The unit is designed to be panel mounted in any orientation and the front facia is IP65, NEMA4. The back of the unit is IP20, NEMA1

Item No.	MM Control Modules	Kgs	Part No.
1	Mk8 MM Module with Expansion Board fitted as standard <i>12.1" full colour touch screen, 7 channel with flame safeguard control</i>	4.00	MM80001
<i>Mk8 MM voltage is universal (230V/110V)</i>			

1 MM Control Modules & Parts



Mini Mk8 MM

Mini Mk8 MM Electrical Specifications

Classification According to EN298

Mains Supply: 230V, +10%/-15% } 47-63 Hz, unit max. consumption 140W
 120V, +10%/-15% }

Climate: Min. Temperature 0°C (32°F)
 Recommended Temperature Less than 40°C (104°F)
 Max. Temperature 60°C (140°F)
 Humidity 0 to 90% non-condensing

Storage: Temperature -20 to 85°C (-4 to 185°F)

Protection Rating: The unit is designed to be panel mounted in any orientation and the front facia is IP65, NEMA4. The back of the unit is IP20, NEMA1.

Item No.	MM Control Modules	Kgs	Part No.
2	Mini Mk8 Evolution Module <i>4 Channel with flame safeguard, 7" full colour touch screen</i>	2.50	MMM8002
<i>Mini Mk8 MM voltage is universal (230/110V)</i>			

1.3 Flame Scanners



IR Self Check Scanner

Item No.	Flame Scanners	Kgs	Part No.
12	IR Self Check Scanner <i>For use with Mk8 MM, Mini Mk8 MM and Mk7 MM</i>	0.20	MM70017

1 MM Control Modules & Parts



Self-Check UV Scanner, High Sensitivity, End View



Self-Check UV Scanner, High Sensitivity, Side View

Item No.	Flame Scanners	Kgs	Part No.
13	Self Check UV Scanner, High Sensitivity <i>End view only, 1" connection</i>	0.80	MM60003/HS
14	Self Check UV Scanner, High Sensitivity <i>Side view only</i>	0.85	MM60003/HS/SV

1 MM Control Modules & Parts



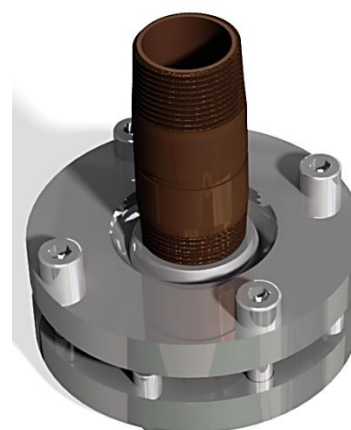
Standard UV Scanner, Side View



Standard UV Scanner, End View



Standard UV Scanner, High Sensitivity, End View



Swivel Mount Assembly, 1" connection

Item No.	Flame Scanners	Kgs	Part No.
15	New Side View UV Scanner <i>Complete with clip and plate connection</i>	0.20	MM80004
16	Standard UV Scanner <i>Side view only, complete with clip and plate connection</i>	0.20	MM60004
17	Standard UV Scanner <i>End view only, 1/2" connection</i>	0.20	MM60004/U
18	Standard UV Scanner, High Sensitivity <i>End view only, 1/2" connection</i>	0.20	MM60004/HSU
19	Swivel Mount Assembly, 1" connection <i>Mounting adaptor for optimum positioning of UV scanner</i>	1.50	UVM60003
20	Swivel Mount Assembly, 1/2" connection <i>Mounting adaptor for optimum positioning of UV scanner</i>	1.50	UVM60004

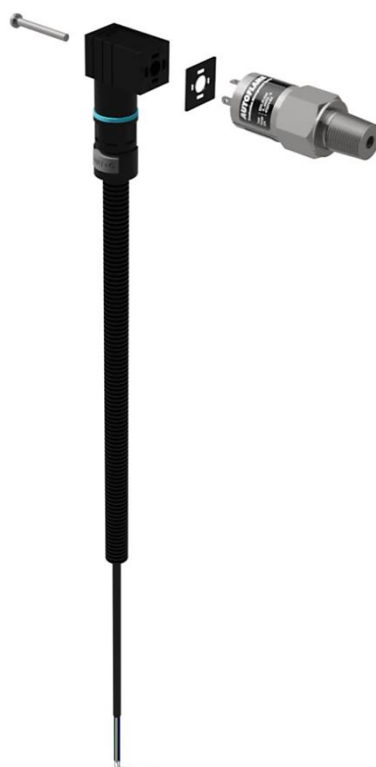
1.4 Air/Gas/Oil Sensors

*Air Pressure Sensor*

Item No.	Mk8 Air & Gas Sensors	Kgs	Part No.
21	<p>Air Pressure Sensor</p> <p><i>Analogue: 0 to 65mbar, 0 to 25"wg, 0 to 1 PSI – when used with Mk7 MM</i></p> <p><i>Digital: -65 to 65mbar, -27 to 27"wg, -1 to 1 PSI – when used with Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80005
22	<p>Air Pressure Sensor</p> <p><i>Analogue: 0 to 130mbar, 0 to 50"wg, 0 to 2 PSI – when used with Mk7 MM</i></p> <p><i>Digital: -137 to 137 mbar, -55 to 55"wg, -2 to 2 PSI – when used with Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80013
23	<p>Gas Pressure Sensor</p> <p><i>Analogue: 12.5 to 65mbar, 5 to 25"wg, 0.18 to 1PSI – when used with Mk7 MM</i></p> <p><i>Digital: -68 to 68mbar, -27 to -27"wg, -1 to 1 PSI – when used Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80006
24	<p>Gas Pressure Sensor</p> <p><i>Analogue: 52 to 340mbar, 25 to 135"wg, 0.75 to 5 PSI – when used with Mk7 MM</i></p> <p><i>Digital: -344 to 344mbar, -138 to 138"wg, -5 to 5 PSI – when used with Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80008
25	<p>Gas Pressure Sensor</p> <p><i>Analogue: 115 to 750mbar, 50 to 300"wg, 1.8 to 11 PSI – when used with Mk7 MM</i></p> <p><i>Digital: -1034 to 1034mbar, -415 to 415"wg, -15 to 15 PSI – when used with Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80011
26	<p>Gas Pressure Sensor</p> <p><i>Analogue: 207 to 1380mbar, 83 to 550"wg, 3 to 20 PSI – when used with Mk7 MM</i></p> <p><i>Digital: -2068 to 2068mbar, -831 to 831"wg, -30 to 30 PSI – when used with Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80012

1 MM Control Modules & Parts

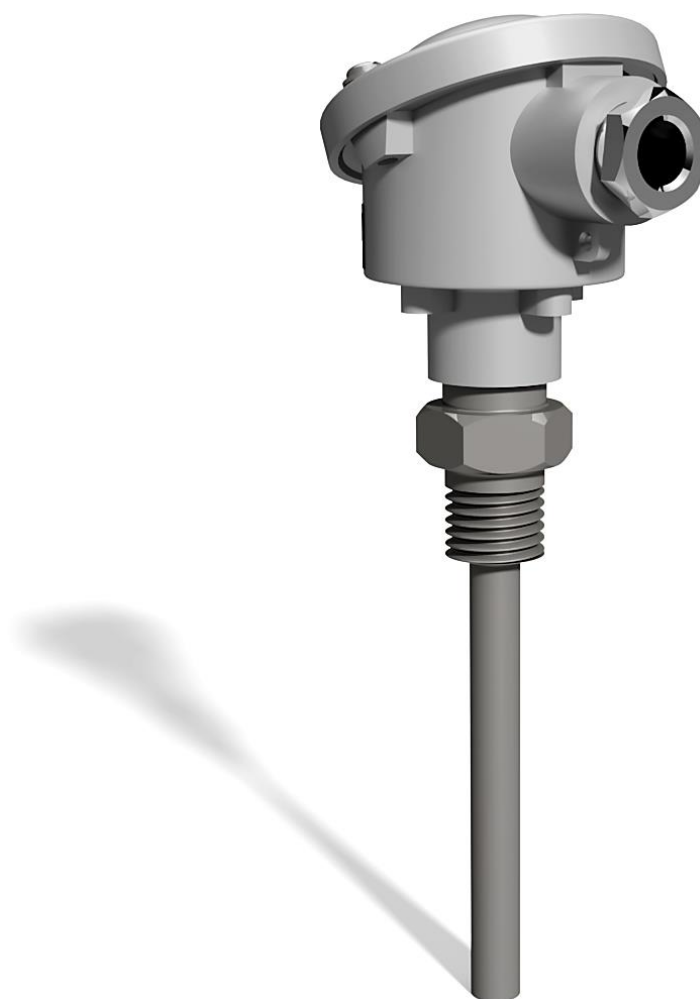
27	<p>Gas Pressure Sensor</p> <p><i>Analogue: 400 to 6000mbar, 166 to 2767"wg, 6 to 100 PSI - when used with Mk7 MM</i></p> <p><i>Digital: -6894 to 6894mbar, -2770 to 2770"wg, -100 to 100 PSI - when used with Mk8 MM and Mini Mk8 MM</i></p>	0.42	MM80014
<p><i>Mk8 Air & Gas Sensors are suitable for usage with Mk8, Mk7 and Mk6 modules</i></p>			



Oil Pressure Sensor

Item No.	Oil Sensor	Kgs	Part No.
28	<p>Oil Pressure Sensor</p> <p><i>0 to 40 Bar, 0 to 600 PSI</i></p>	0.42	MM60009

1.5 Boiler Load Detectors – Temperatures

*Temperature Detector*

Item No.	Boiler Load Detectors – Temperature	Kgs	Part No.
29	Temp. Detector, 100mm length <i>0 to 400°C</i>	0.45	MM10006/100
30	Temp. Detector, 150mm length <i>0 to 400°C</i>	0.45	MM10006/150
31	Temp. Detector, 200mm length <i>0 to 400°C</i>	0.45	MM10006/200
32	Temp. Detector, 250mm length <i>0 to 400°C</i>	0.45	MM10006/250
33	Temp. Detector, 400mm length <i>0 to 400°C</i>	0.45	MM10006/400
34	Temp. Detector, 4" length <i>With a ½" electrical conduit adaptor. 0 to 752°F</i>	0.45	MM10006/100U
35	Temp. Detector, 6" length	0.45	MM10006/150U

1 MM Control Modules & Parts

	<i>With a ½" electrical conduit adaptor. 0 to 752°F</i>		
36	Temp. Detector, 8" length <i>With a ½" electrical conduit adaptor. 0 to 752°F</i>	0.45	MM10006/200U
37	Temp. Detector, 10" length <i>With a ½" electrical conduit adaptor. 0 to 752°F</i>	0.45	MM10006/250U
38	Temp. Detector 15" length <i>With a ½" electrical conduit adaptor. 0 to 752°F</i>	0.45	MM10006/400U

1.6 Boiler Load Detectors – Pressures



Pressure Detector

Item No.	Boiler Load Detectors – Temperature	Kgs	Part No.
39	Pressure Detector <i>0 to 20 bar</i>	0.21	MM10008
40	Pressure Detector <i>0 to 34 bar</i>	0.21	MM10009
41	Pressure Detector	0.21	MM10010

1 MM Control Modules & Parts

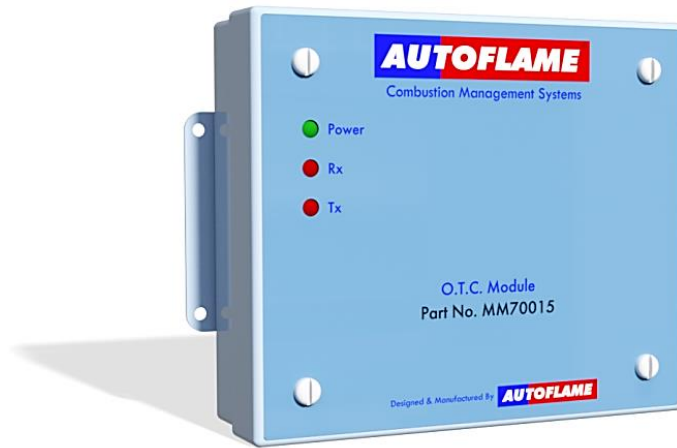
	<i>0 to 3.4 bar</i>		
42	Pressure Detector <i>0 to 100 bar</i>	0.21	MM10017
43	Pressure Detector <i>0 to 300 PSI</i>	0.21	MM10008/U
44	Pressure Detector <i>0 to 500 PSI</i>	0.21	MM10009/U
45	Pressure Detector <i>0 to 50 PSI</i>	0.21	MM10010/U
46	Pressure Detector <i>0 to 1450 PSI</i>	0.21	MM10017/U
<i>Pressure detectors are supplied with a flying lead as standard.</i>			

1.7 Outside Temperature Control



Outside Temperature Sensor

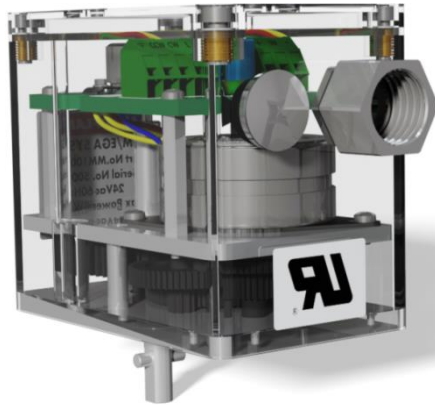
1 MM Control Modules & Parts



Outside Temperature Module

Item No.	Outside Temperature Control	Kgs	Part No.
47	Outside Temperature Sensor <i>-40 to +40°C/ -40 to +104°F</i>	0.32	MM60007
48	Mk6 Outside Temperature Controller <i>For use with Mk6 MM</i>	1.00	MM60015
49	Mk7 Outside Temperature Controller <i>For use with Mini Mk8 MM or if you have more than 1 off Mk8 MM or Mk7 MM in sequence/DTI loop</i>	1.00	MM70015

1.8 Servo Motors



Small Servomotor



Large Servomotor

Item No.	Servo Motors	Kgs	Part No.
50	Small Servo Motor, 230V 50Hz <i>4Nm, 3ft lbs – Supplied with 2off PG11 Metal Glands</i>	0.55	MM10005
51	Small Servo Motor, 230V 50Hz <i>4Nm, 3ft lbs – Supplied with 2off M20 – 1/2" NPSM Adaptors</i>	0.55	MM10005/M20
52	Small Servo Motor, 110V 60Hz <i>4Nm, 3ft lbs – Supplied with 2off M20 – 1/2" NPSM Adaptors</i>	0.55	MM10005/A
53	Small Servo Motor, 24V 50Hz <i>4Nm, 3ft lbs – Supplied with 1 off M20 – 1/2" NPSM and Blanking Plug</i>	0.55	MM10005/C

1 MM Control Modules & Parts

54	Small Servo Motor, 24V 60Hz <i>4Nm, 3ft lbs – Supplied with 1 off M20 – 1/2" NPSM and Blanking Plug</i>	0.55	MM10005/D
55	Small Servo Motor, 110V 50Hz <i>4Nm, 3ft lbs – Supplied with 2 off M20 – 1/2" NPSM Adaptors</i>	0.55	MM10005/E
56	Large Servo Motor, 230V 50/60Hz, Polycarbonate Housing <i>25Nm, 18ft lbs – Supplied with 2 off PG11 Glands</i>	1.85	MM10400
57	Large Servo Motor, 230V 50/60Hz, Polycarbonate Housing <i>25Nm, 18ft lbs – Supplied with 1 off PG11 – 1/2" NPSM and 1 off Blanking Plug</i>	1.85	MM10400/NPSM
58	Large Servo Motor, 110V 50/60Hz, Polycarbonate Housing <i>25Nm, 18ft lbs – Supplied with 2 off PG11 Glands</i>	1.85	MM10400/A
59	Large Servo Motor, 24V 50/60Hz, Polycarbonate Housing <i>25Nm, 18ft lbs – Supplied with 1 off PG11 – 1/2" NPSM and 1 off Blanking Plug</i>	1.85	MM10400/D
60	Large Servo Motor, 230V 50/60Hz <i>25Nm, 18ft lbs – Supplied with 2 off PG11 Glands</i>	1.85	MM10004
61	Large Servo Motor, 230V 50/60Hz <i>25Nm, 18ft lbs – Supplied with 1 off PG11 – 1/2" NPSM and 1 off Blanking Plug</i>	1.85	MM10004/NPSM
62	Large Servo Motor, 110V 50/60Hz <i>25Nm, 18ft lbs – Supplied with 2 off PG11 Glands</i>	1.85	MM10004/A
63	Large Servo Motor, 24V 50/60Hz <i>25Nm, 18ft lbs – Supplied with 1 off PG11 – 1/2" NPSM and 1 off Blanking Plug</i>	1.85	MM10004/D

1 MM Control Modules & Parts



Industrial Servo Motor

Item No.	Servo Motors	Kgs	Part No.
64	Industrial Servo Motor 05, 230V 50/60Hz <i>40Nm, 37ft lbs (for feed water control only)</i>	4.00	MM10070
65	Industrial Servo Motor 05, 110V 50/60Hz <i>40Nm, 37ft lbs (for feed water control only)</i>	4.00	MM10070/110
66	Industrial Servo Motor 10, 230V 50/60 Hz <i>98Nm, 72ft lbs</i>	6.00	MM10072
67	Industrial Servo Motor 10, 110V 50/60Hz <i>98Nm, 72ft lbs</i>	6.00	MM10072/110
68	Industrial Servo Motor 20, 230V 50/60Hz <i>200Nm, 148ft lbs</i>	6.00	MM10074/B
69	Industrial Servo Motor 20, 120V 50/60Hz <i>200Nm, 148ft lbs</i>	6.00	MM10074/B/110
70	Industrial Servo Motor 40, 230V 50/60Hz <i>400Nm, 295ft lbs - to be used with Solid State Relays</i>	8.00	MM10078
71	Industrial Servo Motor 40, 110V 50/60Hz <i>400Nm, 295ft lbs - to be used with Solid State Relays</i>	8.00	MM10078/110
72	Industrial Servo Motor 10, 230V (4-20mA) 50/60Hz <i>98Nm, 148ft lbs (for use with MM 4-20mA channels)</i>	6.00	MM10073
73	Industrial Servo Motor 20, 230V (4-20mA) 50/60Hz	6.00	MM10079

1 MM Control Modules & Parts

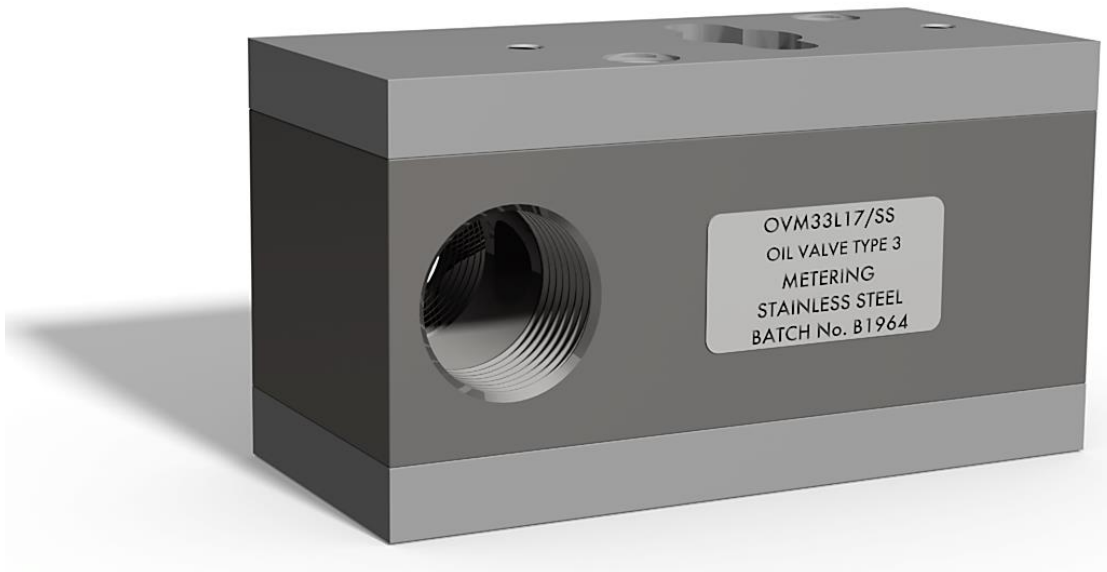
	<i>200Nm, 148ft lbs (for use with MM 4-20mA channels)</i>		
74	Industrial Servo Motor 40, 230V (4-20mA) 50/60Hz <i>400Nm, 205ft lbs (for use with MM 4-20mA channels)</i>	8.00	MM10080
75	Industrial Servo Motor 10, 110V (4-20mA) 50/60Hz <i>98Nm, 148ft lbs (for use with MM 4-20mA channels)</i>	6.00	MM10073/110
76	Industrial Servo Motor 40, 230V (4-20mA) 50/60Hz <i>200Nm, 148ft lbs (for use with MM 4-20mA channels)</i>	6.00	MM10079/110
77	Industrial Servo Motor 40, 110V (4-20mA) 50/60Hz <i>400Nm, 205ft lbs (for use with MM 4-20mA channels)</i>	8.00	MM10080/110
<p><i>Please note voltage and frequency (Hz). Servo motors are not supplied as standard with mounting kits, only mounting screws are supplied.</i></p>			

1.9 Oil Control Valves



Type 3 – Spillback/By-pass Oil Control Valve

1 MM Control Modules & Parts



Type 3 - Metering/Simplex Oil Control Valve



Type 2 - Spillback/By-pass Oil Control Valve



Type 2 - Metering/Simplex Oil Control Valve

Item No.	Oil Control Valves	Kgs	Part No.
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1 MM Control Modules & Parts

78	Type 1 - Spillback/By-pass	0.60	OVS31015
79	Type 1 - Metering/Simplex	0.60	OVM31015
80	Type 2 - Spillback/By-pass	0.60	OVS32016
81	Type 2 - Metering/Simplex	0.60	OVM32016
82	Type 3 - Spillback/By-pass	1.80	OVS33L17
83	Type 3 - Metering/Simplex	1.80	OVM33L17
84	Type 4 - Spillback/By-pass	1.80	OVS34L18
85	Type 4 - Metering/Simplex	1.80	OVM34L18
86	Type 5 - Spillback/By-pass	0.50	OVS35019
87	Type 5 - Metering/Simplex	0.50	OVM35019
88	Type 6 - Spillback/By-pass	0.50	OVS36020
89	Type 6 - Metering/Simplex	0.50	OVM36020
90	Type 8 - Spillback/By-pass	0.50	OVS38022
91	Type 8 - Metering/Simplex	0.50	OVM38022
92	Type 9 - Spillback/By-pass	0.50	OVS39023
93	Type 9 - Metering/Simplex	0.50	OVM39023
<p><i>Stainless steel body with stainless bobbin and Viton O rings fitted as standard. On certain applications other materials may be required. Please contact Autoflame for more information. All valves are fitted with an NPT thread.</i></p>			

1.10 Gas Control Butterfly Valves (Threaded)



3" Gas Control Butterfly Valve (Threaded) with Small Servomotor

Item No.	Gas Control Butterfly Valves (Threaded)	Kgs	Part No.
94	BSP 25mm (1")	0.55	GV42521
95	BSP 40mm (1.5")	0.70	GV44022
96	BSP 50mm (2")	0.74	GV45023
97	BSP 65mm (2.5")	0.85	GV46524
98	BSP 80mm (3")	0.98	GV48025
99	BSP 100mm (4")	1.00	GV410026

1 MM Control Modules & Parts

100	NPT 25mm (1")	0.55	GV42421U
101	NPT 40mm (1.5")	0.70	GV44022U
102	NPT 50mm (2")	0.74	GV45023U
103	NPT 65mm (2.5")	0.85	GV46524U
104	NPT 80mm (3")	0.98	GV48025U
105	NPT 100mm (4")	1.00	GV410026U
<p><i>Valve body manufactured from aluminium. Other materials available on request. Butterfly disc and drive manufactured from 316 Stainless Steel as standard.</i></p>			

1.11 Stainless Steel Gas Control Butterfly Valves (Threaded)

Item No.	Stainless Steel Gas Control Butterfly Valves (Threaded)	Kgs	Part No.
106	BSP 25mm (1")		GV42521/SS
107	BSP 40mm (1.5")		GV44022/SS
108	BSP 50mm (2")		GV45023/SS
109	BSP 65mm (2.5")		GV46524/SS
110	BSP 80mm (3")		GV48025/SS
111	BSP 100mm (4")		GV410026/SS
112	NPT 25mm (1")		GV42521U/SS
113	NPT 40mm (1.5")		GV44022U/SS
114	NPT 50mm (2")		GV45023U/SS
115	NPT 65mm (2.5")		GV46524U/SS
116	NPT 80mm (3")		GV48025U/SS
117	NPT 100mm (4")		GV410026U/SS
<p><i>Valve body manufactured from 303 Stainless steel. Other materials available on request. Butterfly disc and drive manufactured from 316 Stainless Steel as standard.</i></p>			

1.12 Gas Control Butterfly Valves (Flanged 30mm)



Gas Control Butterfly Valve (Flanged 30mm) with Small Servomotor

Item No.	Gas Control Butterfly Valves (Flanged 30mm)	Kgs	Part No.
118	PN16 65mm (2.5")	5.00	GVF46526/30
119	PN16 80mm (3")	6.00	GVF48027/30
120	PN16 100mm (4")	7.00	GVF410026/30
121	PN16 125mm (5")	8.00	GVF12527/30
122	PN16 150mm (6")	9.00	GVF415028/30
123	ANSI 150lb 65mm (2.5")	5.00	GVF46526/30U
124	ANSI 150lb 80mm (3")	6.00	GVF48027/30U
125	ANSI 150lb 100mm (4")	7.00	GVF410026/30U
126	ANSI 150lb 125mm (5")	8.00	GVF12527/30U
127	ANSI 150lb 150mm (6")	9.00	GVF415028/30U

Valve body manufactured from aluminium. Other materials available on request.

Butterfly disc and drive manufactured from 316 Stainless Steel as standard.

1.13 Gas Control Butterfly Valves (Flanged 50mm)



Gas Control Butterfly Valve (Flanged 50mm) with Large Servomotor

Item No.	Gas Control Butterfly Valves (Flanged 50mm)	Kgs	Part No.
128	PN16 65mm (2.5")	9.00	GVF46526/50
129	PN16 80mm (3")	10.00	GVF48027/50
130	PN16 100mm (4")	11.00	GVF410026/50
131	PN16 125mm (5")	12.00	GVF12527/50
132	PN16 150mm (6")	13.00	GVF415028/50
133	ANSI 150lb 65mm (2.5")	9.00	GVF46526/50U
134	ANSI 150lb 80mm (3")	10.00	GVF48027/50U
135	ANSI 150lb 100mm (4")	11.00	GVF410026/50U
136	ANSI 150lb 125mm (5")	12.00	GVF12527/50U
137	ANSI 150lb 150mm (6")	13.00	GVF415028/50U

1 MM Control Modules & Parts

*Valve body manufactured from aluminium. Other materials available on request.
Butterfly disc and drive manufactured from 316 Stainless Steel as standard.*

1.14 Stainless Steel Gas Control Butterfly Valves (Flanged 30mm)

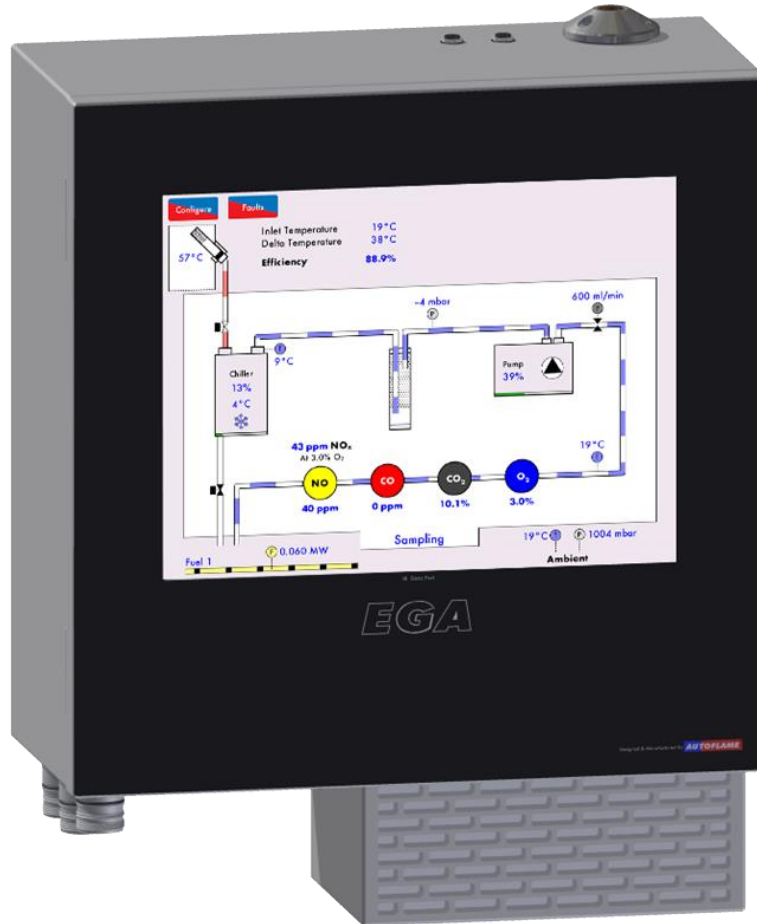
Item No.	Stainless Steel Gas Control Butterfly Valves (Flanged 30mm)	Kgs	Part No.
138	PN16 65mm (2.5")		GVF46526/30/SS
139	PN16 80mm (3")		GVF48027/30/SS
140	PN16 100mm (4")		GVF410026/30/SS
141	PN16 125mm (5")		GVF12527/30/SS
142	PN16 150mm (6")		GVF415028/30/SS
143	ANSI 150lb 65mm (2.5")		GVF46526/30U/SS
144	ANSI 150lb 80mm (3")		GVF48027/30U/SS
145	ANSI 150lb 100mm (4")		GVF410026/30U/SS
146	ANSI 150lb 125mm (5")		GVF12527/30U/SS
147	ANSI 150lb 150mm (6")		GVF415028/30U/SS
<p><i>Valve body manufactured from 303 Stainless steel. Other materials available on request.</i></p> <p><i>Butterfly disc and drive manufactured from 316 Stainless Steel as standard.</i></p>			

1.15 Stainless Steel Gas Control Butterfly Valves (Flanged 50mm)

Item No.	Stainless Steel Gas Control Butterfly Valves (Flanged 30mm)	Kgs	Part No.
148	PN16 65mm (2.5")		GVF46526/50/SS
149	PN16 80mm (3")		GVF48027/50/SS
150	PN16 100mm (4")		GVF410026/50/SS
151	PN16 125mm (5")		GVF12527/50/SS
152	PN16 150mm (6")		GVF415028/50/SS
153	ANSI 150lb 65mm (2.5")		GVF46526/50U/SS
154	ANSI 150lb 80mm (3")		GVF48027/50U/SS
155	ANSI 150lb 100mm (4")		GVF410026/50U/SS
156	ANSI 150lb 125mm (5")		GVF12527/50U/SS
157	ANSI 150lb 150mm (6")		GVF415028/50U/SS
<p><i>Valve body manufactured from 303 Stainless steel. Other materials available on request.</i></p> <p><i>Butterfly disc and drive manufactured from 316 Stainless Steel as standard.</i></p>			

2 EGA Modules & Parts

2.1 EGA Components



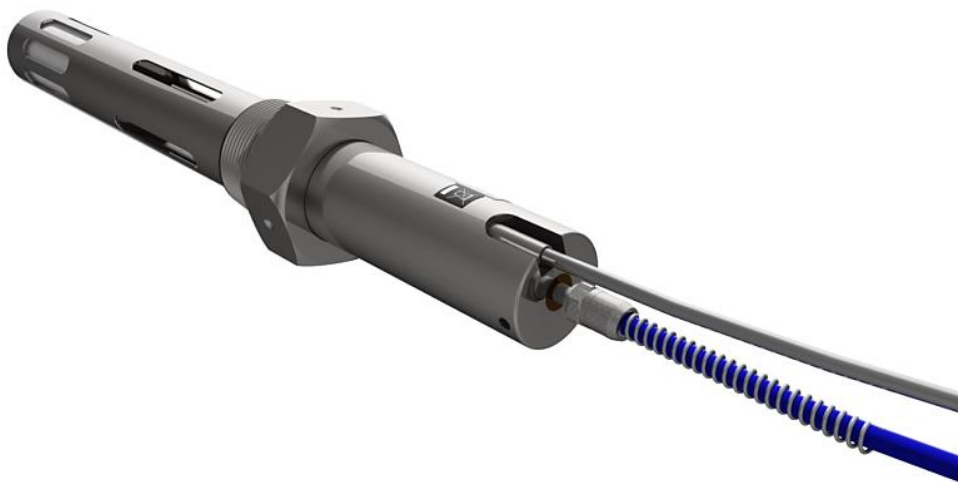
Mk8 Exhaust Gas Analyser EVO

Technical Specifications

Electrical Supply:	230/110V 50/60Hz
Power:	160W
Max Power Consumption:	225W
Fuse Rating:	4A
Pump Flow:	110 120mBar, 600mL/min
Environmental Rating:	IP20, NEMA 1
Surrounding Temperature Range:	5°C (40°F) – 40°C (104°F)

2 EGA Modules & Parts

Item No.	EGA Components	Kgs	Part No.
158	Mk8 EGA. Evo Sampling Unit in Silver <i>O₂, CO₂, CO & NO analyser, 12.1" full colour touch screen</i>	11.00	MM82004/E
159	Mk8 E.G.A. Sampling Unit in Autoflame Blue <i>O₂, CO₂, CO & NO analyser, 10.4" full colour touch screen</i>	11.00	MM82004
160	Mk8 E.P.A. EGA Sampling Unit <i>MM82004/E, EPA Compliant, Self-Cal Box & Heated Sample Line</i>	13.00	MM82004/EPA
161	Mk8 M.C.E.R.T. EGA Sampling Unit* <i>O₂, CO₂, CO & NO analyser, Fully MCERT's approved, Self Cal Box and Heated Sample Line</i>	13.00	MM82004/MCERT
162	Mk8 E.G.A. Sampling Unit in Silver <i>Standard EGA with only CO₂ cell fitted, no fittings for SO₂ or NO₂ cells</i>	11.00	MM82004/E/NC
163	Mk8 EGA Sampling Unit <i>Standard EGA with only CO₂ cell fitted, no SO₂ or NO₂ cells</i>	11.00	MM82004/NC
<p><i>*The MCERTs Mk8 EGA Sampling unit will be available upon completion of testing and certification. For further information please contact Autoflame.</i></p> <p><i>For the EPA and MCERT EGA's a Heated Sampling Line will be supplied at a standard length of 3m (10ft). Longer lengths are available, please contact Autoflame for pricing.</i></p>			



EGA Sampling Probe

2 EGA Modules & Parts



External Particulate Filter

Item No.	EGA Components	Kgs	Part No.
164	Mk8 EGA SO2 Sensor <i>Factory fitted and calibrated, price to be added to EGA price</i>	0.20	EGA80008
165	Mk8 EGA NO2 Sensor <i>Factory fitted and calibrated, price to be added to EGA price</i>	0.20	EGA80009
166	Mk8 EGA Air Inlet Filter <i>Filter assembly includes filter material</i>	2.00	EGA80106
167	EGA Sampling Probe (0–400°C or 32–752°F) <i>Flue gas sampling probe and thermocouple</i>	1.00	MM10033
168	Chilled EGA Enclosure <i>Front mounted chiller unit to keep EGA cool, excluding EGA</i>		EGAENC
169	Mk8 EGA External Particulate Filter with drain solenoid <i>EGA must be returned to office to fit EGA80103/D</i>	2.00	EGA80103/D
170	Mk7 EGA External Particulate Filter with drain solenoid <i>EGA must be returned to office to fit EGA20103/D</i>	2.00	EGA20103/D
<p><i>Sampling probes can be manufactured with a longer length if required. Please contact Autoflame for a price and lead time.</i></p> <p><i>Ceramic sampling probe available on request. Please contact Autoflame for a price and lead time.</i></p> <p><i>Heated and plain enclosures available. Please contact Autoflame for pricing.</i></p>			

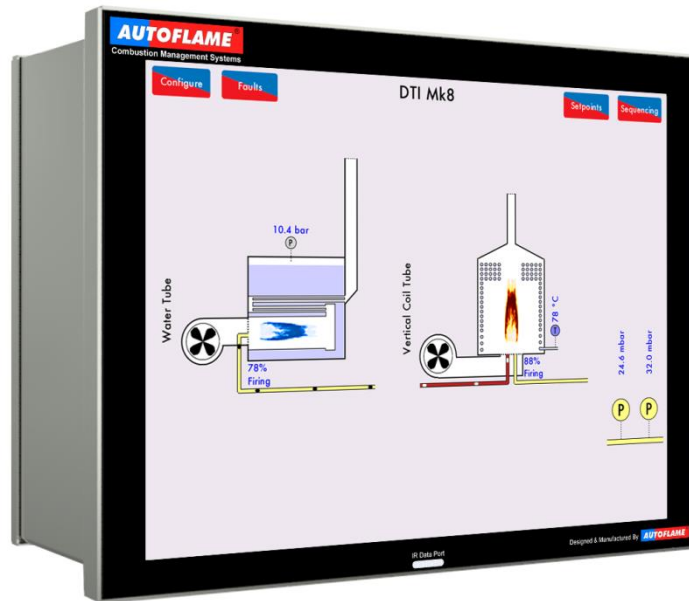
Item No.	EGA Components	Kgs	Part No.
171	3m (10ft) Heated Sampling Line, 230V <i>Used in conjunction with a MK8 EGA EPA (MM82004/EPA) or MK8 EGA Evo EPA (MM82004/E/EPA)</i>		EGA80150

2 EGA Modules & Parts

172	3m (10ft) Heated Sampling Line, 110v <i>Used in conjunction with a MK8 EGA EPA (MM82004/EPA) or MK8 EGA Evo EPA (MM82004/E/EPA)</i>	EGA80150/110
173	5m (16ft) Heated Sampling Line, 230v <i>Used in conjunction with a MK8 EGA EPA (MM82004/EPA) or MK8 EGA Evo EPA (MM82004/E/EPA)</i>	EGA80150/5
174	5m (16ft) Heated Sampling Line, 110v <i>Used in conjunction with a MK8 EGA EPA (MM82004/EPA) or MK8 EGA Evo EPA (MM82004/E/EPA)</i>	EGA80150/5/110
175	10m (33ft) Heated Sampling Line, 230v <i>Used in conjunction with a MK8 EGA EPA (MM82004/EPA) or MK8 EGA Evo EPA (MM82004/E/EPA)</i>	EGA80150/10
176	10m (33ft) Heated Sampling Line, 110v <i>Used in conjunction with a MK8 EGA EPA (MM82004/EPA) or MK8 EGA Evo EPA (MM82004/E/EPA)</i>	EGA80150/10/110
<i>Heated sampling lines to be factory fitted and calibrated, price to be added to EGA price. Please contact Autoflame for pricing.</i>		

3 DTI Modules & Parts

3.1 Remote Monitoring and Control



Mk8 DTI

Mains Supply: 230V, +10%/-15%} 47 – 63 Hz, Unit max. power
 120V, +10%/-15%} consumption 184W

Climate: Temperature 0 to +40°C (32 to 104°F)
 Humidity 0 to 90% non-condensing

Storage: Temperature -20 to 85°C (-4 to 185°F)

Protection Rating: The unit is designed to be panel mounted in any orientation and the front facia is IP65, NEMA4. The back of the unit is IP20, NEMA1.

Item No.	DTI Data Transfer Interface Modules	Kgs	Part No.
177	Mk8 DTI System Package <i>EtherNet + Modbus , CEMS Supervisor Software</i>	3.50	DTI80100
178	Mk7 DTI System Package <i>EtherNet + MODBUS, 10.4" full colour touch screen + CEMS Supervisor Software</i>	3.5	DTI70100
179	Mk8 I/O Module	1.00	DTI80022

3 DTI Modules & Parts

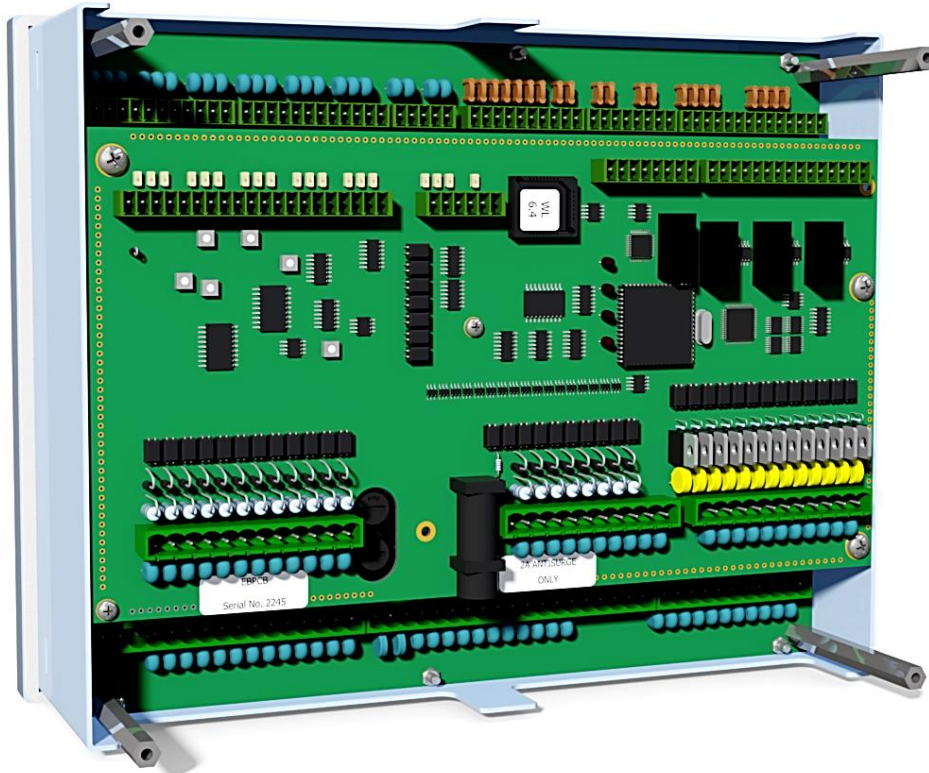
<i>6 x 4-20mA I/O, 16 x 230/110V Inputs, 8 x volt free contacts</i>
<i>Mk8 DTI & Mk8 I/O Module Voltage is universal (230/110V)</i>

3.2 PC Software and Accessories

Item No.	PC Software and Accessories	Kgs	Part No.
180	Mk7 DTI CEMS Manager Software <i>Licence for CEMS Manager Software</i>	0.25	DTI80101
181	ProtoNode Converter <i>Modbus to BACnet (for use with Mk7 DTI)</i>	0.25	DTICONVBAC
182	Download Manager Software on USB Stick + IR Lead <i>(including Serial Number and Activation Code)</i>	0.13	MM80010
183	Download Manager Software on USB Stick <i>(including Serial Number and Activation Code)</i>	0.00	MM80010/NLA
184	Serial Number and Activation Code for Download Manager Software	0.00	MM80010/NLB
Download Manager software is compatible with Mini Mk8 MM and Mk8 MM			

4 Water Level Control

4.1 Water Level Control Equipment



Mk7 Expansion Board

Item No.	Water Level Control Equipment	Kgs	Part No.
185	Mk7 Expansion Board <i>Supplied with MK7PROMS/WL software</i>	0.55	EB70001
186	Mk7 Expansion Board & Enclosure Mounting Kit <i>With housing & pillars, supplied with MK7PROMS/WL software</i>	0.75	EB70002
187	Temp. Detector, 100mm length <i>0-400°F</i>	0.45	MM10006/100
188	Temp. Detector, 150mm length <i>0-400°F</i>	0.45	MM10006/150
189	Temp. Detector, 200mm length <i>0-400°F</i>	0.45	MM10006/200
190	Temp. Detector, 250mm length <i>0-400°F</i>	0.45	MM10006/250
191	Temp. Detector, 400mm length <i>0-400°F</i>	0.45	MM10006/400

4 Water Level Control

192	Temp. Detector, 4" length <i>With a ½" electrical conduit adaptor. 0-752°F</i>	0.45	MM10006/100U
193	Temp. Detector, 6" length <i>With a ½" electrical conduit adaptor. 0-752°F</i>	0.45	MM10006/150U
194	Temp. Detector, 8" length <i>With a ½" electrical conduit adaptor. 0-752°F</i>	0.45	MM10006/200U
195	Temp. Detector, 10" length <i>With a ½" electrical conduit adaptor. 0-752°F</i>	0.45	MM10006/250U
196	Temp. Detector, 15" length <i>With a ½" electrical conduit adaptor. 0-752°F</i>	0.45	MM10006/400U

4.2 Steam Boiler Capacitance Probes



Capacitance Probe



Capacitance Probe - Internal View

Item No.	Steam Boiler Capacitance Probes	Kgs	Part No.
197	Capacitance Probe 20" (500mm) <i>Supplied with 2m (6ft) flying lead</i>	1.50	WLCP500
198	Capacitance Probe 30" (750mm) <i>Supplied with 2m (6ft) flying lead</i>	1.50	WLCP750

4 Water Level Control

199	Capacitance Probe 40" (1000mm) <i>Supplied with 2m (6ft) flying lead</i>	1.50	WLCP1000
200	Capacitance Probe 50" (1250mm) <i>Supplied with 2m (6ft) flying lead</i>	1.50	WLCP1250
201	Capacitance Probe 60" (1500mm) <i>Supplied with 2m (6ft) flying lead</i>	1.50	WLCP1500
<i>Additional capacitance probe lengths are available upon request. Please contact Autoflame for price and availability.</i>			

4.3 2nd Low Probe

Item No.	2 nd Low Probe	Kgs	Part No.
202	2 nd Low Safety Probe (750mm) <i>Supplied with 2m (6ft) flying lead</i>	1.50	SLP70001

4.4 Total Dissolved Solids Equipment



TDS Probe

Item No.	Total Dissolved Solids Equipment	Kgs	Part No.
203	TDS Management, 230V <i>With complete assembly, including probe and solenoid valve</i>	3.00	TDS70001
204	TDS Management, 110V	3.00	TDS70001/110

4 Water Level Control

	<i>With complete assembly, including probe and solenoid valve</i>		
205	TDS Management, Modulating, 230V, ½" <i>With complete assembly, including probe, 1.2" modulating valve, 230V servomotor</i>	3.00	TDS70001/M15
206	TDS Management, Modulating 230V, ¾" <i>With complete assembly, including probe, ¾" modulating valve, 230V servomotor</i>	3.00	TDS70001/M20
207	TDS Management, Modulating 24V, ½" <i>With complete assembly, including probe, ¾" modulating valve, 24V servomotor</i>	3.00	TDS70001/M15/D
208	TDS Management, Modulating 24V, ¾" <i>With complete assembly, including probe, ½" modulating valve, 24V servomotor</i>	3.00	TDS70001/M20/D
209	TDS Solenoid Valve, 230V <i>230V solenoid</i>	1.00	TDS70002
210	TDS Solenoid Valve, 110V <i>110V Solenoid</i>	1.00	TDS70002/110
211	TDS Probe only	2.00	TDS70003

4.5 Water Control Valves



Threaded Water Valve 0.75" with Large Servomotor

Item No.	Water Valves – Feed Water, Bottom Blowdown & TDS	Kgs	Part No.
212	Threaded Water Valve BSP/NPT (0.5"/15mm) <i>0.5" Feed water valve with coupling</i>	4.00	WLCVO15
213	Threaded Water Valve BSP/NPT (0.75"/20mm) <i>0.75" Feed water valve with coupling</i>	5.00	WLCVO20
214	Flanged Water Valve PN40 (1"/25mm) <i>1" Feed water valve with coupling</i>	7.00	WLCVO25/FL
215	Flanged Water Valve PN40 (1.5"/40mm) <i>1.5" Feed water valve with coupling</i>	8.00	WLCVO40/FL
216	Flanged Water Valve PN40 (2"/50mm) <i>2" Feed water valve with coupling</i>	9.00	WLCVO50/FL
217	Flanged Water Valve ANSI 300lb (1"/25mm) <i>1" Feed water valve with coupling</i>	7.00	WLCVO25/FLU
218	Flanged Water Valve ANSI 300lb (1.5"/40mm) <i>1.5" Feed water valve with coupling</i>	8.00	WLCVO40/FLU

4 Water Level Control

219	Flanged Water Valve ANSI 300lb (2"/50mm) <i>2" Feed water valve with coupling</i>	9.00	WLCVO50/FLU
<p><i>The water valves are suitable for feed water, bottom blowdown and top blowdown applications.</i></p> <p><i>The water valves are equipped with couplings and mounting brackets.</i></p> <p><i>The water valves are not supplied with servomotor. For the 0.5" and 0.75" valves, large servomotors must be used, for 1" and 1.5" valves UNIC05 servomotors, for the 2" UNIC10.</i></p>			

4.6 Bottom Blowdown

Item No.	Bottom Blowdown Valves	Kgs	Part No.
220	Bottom Blowdown Control Module <i>110/230V 50/60Hz - Battery not included, contact Autoflame</i>		BBC70004
221	Bottom Blowdown Industrial Actuator 05 <i>24V DC Only, 40NM 37ft lbs IP65, -25 to 55°C (-13 to 131°F)</i>		BBA10070
222	Bottom Blowdown Industrial Actuator 10* <i>24V DC Only, 40NM 37ft lbs IP65, -25 to 55°C (-13 to 131°F)</i>		BBA10072
223	1"(25mm) Bottom Blowdown Valve <i>Complete with 24V DC Actuator and Control Module</i>		BBV025 System
224	1.5"(40mm) Bottom Blowdown Valve <i>Complete with 24V DC Actuator and Control Module</i>		BBV040 System
225	2"(50mm) Bottom Blowdown Valve <i>Complete with 24V DC Actuator and Control Module</i>		BBV050 System
<p><i>*For use with 2" Bottom Blow Down Valve.</i></p> <p><i>All costs exclude any kind of approval and/or testing that may be required. Also excludes additional hardware/mating flanges etc. or any kind of installation, service or calibration.</i></p>			

5 Peripheral & Spare Parts

5.1 End Switch Proving

Item No.	End Switch Proving	Kgs	Part No.
226	End Switch Proving Unit <i>With 1 metre lead(3ft)</i>	1.00	MM70009PPU
227	Small Oil Valve Base Plate <i>Allows for end switch proving unit to be mounted to existing small oil valve</i>	0.10	MM70009OVSM
228	Large Oil Valve Base Plate <i>Allows for end switch proving unit to be mounted to existing large oil valve</i>	0.10	MM70009OVLRG
229	Air Damper Mounting Kit	0.20	MM70009UMK
<i>End switches must be ordered separately. They are not included with modified gas or oil valves. Please contact Autoflame for more information.</i>			

5.2 End Switch Proving – Modified Oil Valves

Item No.	End Switch Proving – Modified Oil Valves	Kgs	Part No.
230	Type 1 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	0.60	OVS31015/VA
231	Type 1 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	0.60	OVM31015/VA
232	Type 2 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	0.60	OVS32016/VA
233	Type 2 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	0.60	OVM32016/VA
234	Type 3 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	1.80	OVS33L17/VA
235	Type 3 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	1.80	OVM33L17/VA
236	Type 4 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	1.80	OVS34L18/VA
237	Type 4 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	1.80	OVM34L18/VA
238	Type 5 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	0.50	OVS35019/VA
239	Type 5 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	0.50	OVM35019/VA

5 Peripheral & Spare Parts

240	Type 6 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	0.50	OVS36020/VA
241	Type 6 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	0.50	OVM36020/VA
242	Type 8 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	0.50	OVS38022/VA
243	Type 8 – Metering/Simplex <i>Modified for mounting end switch proving unit</i>	0.50	OVM38022/VA
244	Type 9 – Spillback/By-pass <i>Modified for mounting end switch proving unit</i>	0.50	OVS39023/VA
245	Type 9 – Metering Simplex <i>Modified for mounting end switch proving unit</i>	0.50	OVM39023/VA
<i>End switches must be ordered separately, they are not included with modified oil valves.</i>			

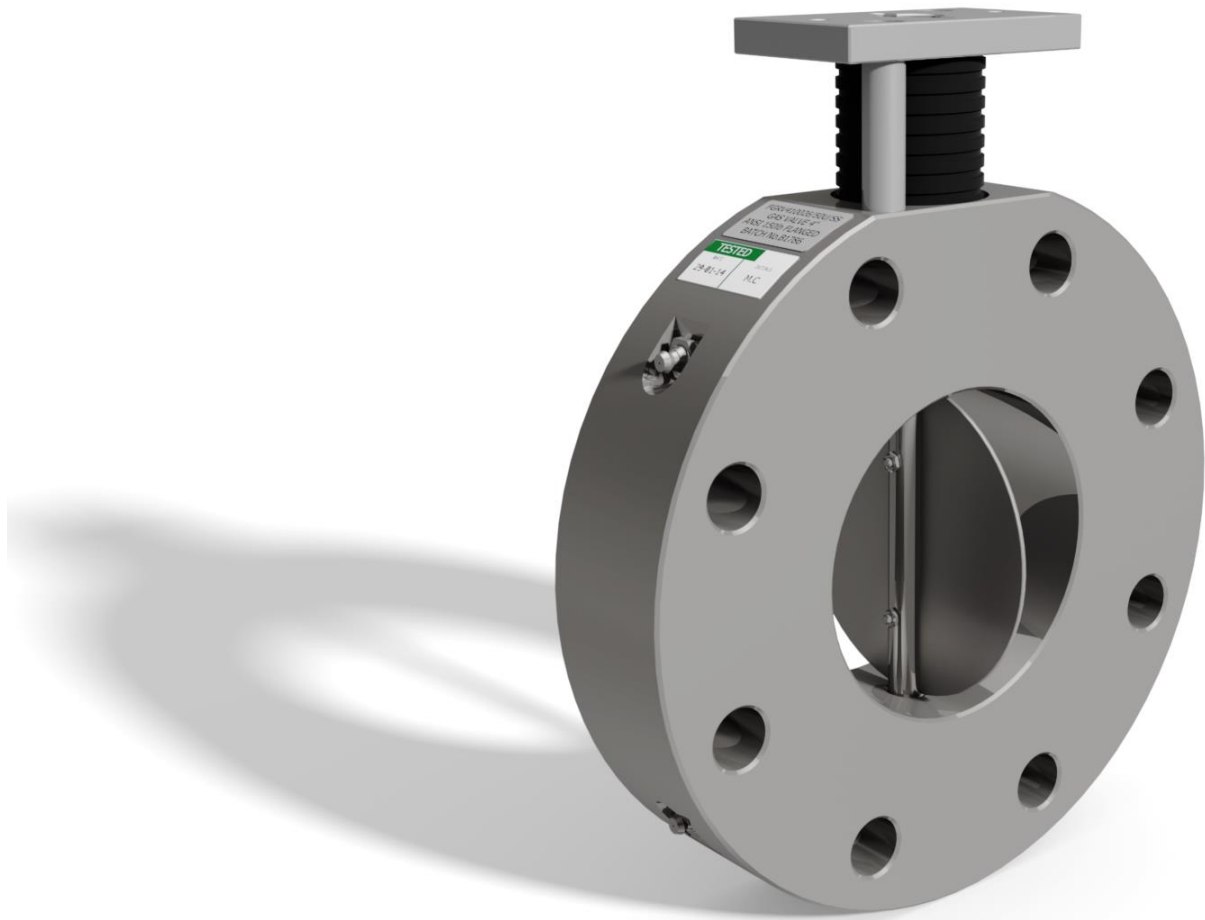
5.3 End Switch Proving Gas Control Butterfly Valves

Item No.	End Switch Proving – Modified Gas Butterfly Valves	Kgs	Part No.
246	ANSI 150lb 65mm (2.5") <i>Thickness –30mm. Modified for mounting end switch proving unit, mounting kit</i>	5.00	GVF46526/30U/VA
247	ANSI 150lb 80mm (3") <i>Thickness –30mm. Modified for mounting end switch proving unit, mounting kit</i>	6.00	GVF48027/30U/VA
248	ANSI 150lb 100mm (4") <i>Thickness –30mm. Modified for mounting end switch proving unit, mounting kit</i>	7.00	GVF410026/30U/VA
249	ANSI 150lb 125mm (5") <i>Thickness –30mm. Modified for mounting end switch proving unit, mounting kit</i>	8.00	GVF42527/30U/VA
250	ANSI 150lb 150mm (6") <i>Thickness –30mm. Modified for mounting end switch proving unit, mounting kit</i>	9.00	GVF415028/30U/VA
251	ANSI 150lb 65mm (2.5") <i>Thickness –50mm. Modified for mounting end switch proving unit, mounting kit</i>	9.00	GVF46526/50U/VA
252	ANSI 150lb 80mm (3") <i>Thickness –50mm. Modified for mounting end switch proving unit, mounting kit</i>	10.00	GVF48027/50U/VA

5 Peripheral & Spare Parts

253	ANSI 150lb 100mm (4") <i>Thickness -50mm. Modified for mounting end switch proving unit, mounting kit</i>	11.00	GVF410026/50U/VA
254	ANSI 150lb 125mm (5") <i>Thickness -50mm. Modified for mounting end switch proving unit, mounting kit</i>	12.00	GVF42527/50U/VA
255	ANSI 150lb 150mm (6") <i>Thickness -50mm. Modified for mounting end switch proving unit, mounting kit</i>	13.00	GVF415028/50U/VA
<i>End switches must be ordered separately, they are not included with modified gas valves.</i>			

5.4 Flue Gas Recirculation (FGR) Valves

*Flue Gas Recirculation Valve*

Item No.	Flue Gas Recirculation (FGR) Valves	Kgs	Part No.
256	PN16 100mm(4") <i>Thickness-50mm</i>		FGRV410026/50
257	PN16 150mm(6") <i>Thickness-50mm</i>		FGRV415028/50
258	PN16 200mm(8") <i>Thickness-50mm</i>		FGRV420029/50
259	PN16 250mm(10") <i>Thickness-50mm</i>		FGRV425030/50
260	PN16 300mm(12") <i>Thickness-50mm</i>		FGRV430031/50
261	ANSI 150lb 100mm(4") <i>Thickness-50mm</i>		FGRV410026/50U
262	ANSI 150lb 150mm(6") <i>Thickness-50mm</i>		FGRV415028/50U
263	ANSI 150lb 200mm(8")		FGRV420029/50U

5 Peripheral & Spare Parts

	<i>Thickness-50mm</i>	
264	ANSI 150lb 250mm(10") <i>Thickness-50mm</i>	FGRV425030/50U
265	ANSI 150lb 300mm(12") <i>Thickness-50mm</i>	FGRV430031/50U
<p><i>Valve manufactured from 303 Stainless steel. Please contact Autoflame if the size you require is not listed.</i></p>		

5.5 Hazardous Environment/ Explosion Proof Equipment ATEX



Small Servo Motor, 230V, ATEX Approved

Item No.	Hazardous Environment/Explosion Proof with ATEX	Kgs	Part No.
266	Large Servo Motor, 230V 50/60Hz <i>25Nm, 18ft lbs. Ex nA nL IIC T4</i>	1.85	MM10004/EXP
267	Large Servo Motor, 24V 50/60Hz <i>25Nm, 18ft lbs. Ex nA nL IIC T4</i>	1.85	MM10004/D/EXP
268	Small Servo Motor, 230V 50Hz <i>4Nm, 3ft lbs. Ex nA nL IIC T4 - Supplied with 2off PG11 Metal Glands</i>	1.85	MM10005/EXP
269	Small Servo Motor, 230V 50/60Hz <i>4Nm, 3ft lbs. Ex nA nL IIC T4 - Supplied with 1off PG11 - 1/2" NPSM Adaptor and Blanking plug</i>	1.85	MM10005/EXP/NP1
270	Small Servo Motor, 230V 60Hz <i>4Nm, 3ft lbs. Ex nA nL IIC T4 - Supplied with 2off PG11 Metal Glands</i>	1.85	MM10005/B/EXP
271	Small Servo Motor, 230V 60Hz	1.85	MM10005/B/EXP/N2

5 Peripheral & Spare Parts

	<i>4Nm, 3ft lbs. Ex nA nL IIC T4 – Supplied with 2off PG11 – 1/2" NPSM Adaptors</i>		
272	Small Servo Motor, 24V 60Hz <i>4Nm, 3ft lbs. Ex nA nL IIC T4 – Supplied with 1off PG11 – 1/2" NPSM Adaptor and Blanking plug</i>	1.85	MM10005/D/EXP
273	Small Servo Motor, 24V 50Hz <i>4Nm, 3ft lbs. Ex nA nL IIC T4 – Supplied with 1off PG11 – 1/2" NPSM Adaptor and Blanking plug</i>	1.85	MM10005/C/EXP
274	Industrial Servo Motor 10, 230V <i>98Nm, 72ft lbs. Ex nA nL IIC T4</i>	6.00	MM10072/EXP
275	Industrial Servo Motor 10, 120V <i>98Nm, 72 ft lbs. Ex nA nL IIC T4</i>	6.00	MM10072/110/EXP
276	Air Pressure Sensor <i>0 to 65mBar, 0 to 25" wg, 0 to 1 PSI. Ex Na IIC Gc</i>	0.42	MM80005/EXP
277	Air Pressure Sensor <i>0 to 120mBar, 0 to 50"wg, 0 to 2 PSI. Ex Na IIC Gc</i>	0.42	MM80013/EXP
278	Gas Pressure Sensor <i>12.5 to 65mBar, 5 to 25"wg, 0.18 to 1 PSI. Ex Na IIC Gc</i>	0.42	MM80006/EXP
279	Gas Pressure Sensor <i>52 to 340mBar, 25 to 1325"wg ,0.75 to 5 PSI. Ex Na IIC Gc</i>	0.42	MM80008/EXP
280	Gas Pressure Sensor <i>115 to 750mBar, 50 to 300"wg, 1.8 to 11 PSI. Ex Na IIC Gc</i>	0.42	MM80011/EXP
281	Gas Pressure Sensor <i>207 to 1380mBar, 83 to 550"wg, 3 to 20 PSI. Ex Na IIC Gc</i>	0.42	MM80012/EXP
282	Gas Pressure Sensor <i>0 to 4mBar, 162 to 1620"wg, 6 to 60 PSI. Ex Na IIC Gc</i>	0.42	MM80014/EXP
283	UV Sensor, End View – Explosion Proof <i>½" connection</i>	0.20	MM60004/U/EXP
284	Self Check UV Sensor – Explosion Proof <i>High Sensitivity, End View only, 1" connection</i>	0.80	MM60003/HS/EXP
285	Self Check UV Sensor, Side View – Explosion Proof <i>High Sensitivity, 1" connection</i>	0.80	MM60003/HS/SV/EXP
<i>Please note voltage and frequency (Hz). Servo motors are not supplied as standard with mounting kits.</i>			

5.6 Factory Built Single Fuel UL Control Panel

Item No.	Factory Built Control Panels – Single Fuel UL Panel	Kgs	Part No.
286	Single fuel UL panel 230V <i>Fitted with Mk8 MM</i>		CP1MK8/E
287	Single fuel UL panel 110V <i>Fitted with Mk8 MM</i>		CP1MK8/E/110
288	Single fuel UL panel 230V <i>Fitted with Mk8 MM & First Out Annunciation</i>		CP1AMK8/E
289	Single fuel UL panel 110V <i>Fitted with Mk8 MM & First Out Annunciation</i>		CP1AMK8/E/110
290	Single fuel UL panel 230V <i>Fitted with Mk8 MM, First Out Annunciation & Water Level</i>		CP1WMK8
291	Single fuel UL panel 110V <i>Fitted with Mk8 MM First Out Annunciation & Water Level</i>		CP1WMK8/110
292	Single fuel UL panel 230V <i>Fitted with Mini Mk8 MM</i>		CP1MMK8
293	Single fuel UL panel 110V <i>Fitted with Mini Mk8 MM</i>		CP1MMK8/110
<p><i>Standard specification control panel: Equipped with Autoflame MM controller. NEMA4 powder coated enclosure to match MM controller. Fully wired and tested. Supplied with control panel drawings. Standard panel size – 800mm x 600mm x 300mm enclosure (31.4" x 23.6" x 11.8") Standard water level panel size – 800mm x 800mm x 300m enclosure (31.4" x 41.4" x 11.8")</i></p> <p><i>Standard single fuel scope of supply includes: Fuel 1 On/Off Push Button – Panel on Lamp – Burner on/Off Switch – Lockout Alarm/Reset (Not available on Mini Mk8) – Hand/Auto/Low Flame Hold Switch(Not available on Mini Mk8) – Lamp as per customer request</i></p> <p><i>Standard Single Fuel Water Level scope of supply includes: Fuel 1 On/Off Push Button – Panel On Lamp – Burner On/Off Switch – Lockout Alarm/Reset – Hand/Auto/Low Flame Hold Switch – High Water Lamp – Low Water Lamp – 2nd Low Water Lamp – Water Level System Test – Water Level Alarm Mute</i></p> <p><i>Additional lamps/switches are available upon request. Fuses and contactors with overloads are not supplied as standard.</i></p> <p><i>Please contact Autoflame before ordering a panel so that the specifics can be determined at an early date. After receiving an order for a panel, drawings will be submitted for approval by the customer.</i></p> <p><i>Once approved, manufacturing will commence. Lead-times on control panels vary from 4 to 6 weeks from approval of drawings. Prices are subject to change due to specific</i></p>			

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customer requirements.

Custom sizes are available on request. Please contact Autoflame for further information and a quote on non-standard panels.

5.7 Factory Built Dual Fuel UL Control Panel

Item No.	Factory Built Control Panels – Dual Fuel UL Panel	Kgs	Part No.
294	Dual fuel UL panel 230V <i>Fitted with Mk8 MM</i>		CP2MK8
295	Dual fuel UL panel 110V <i>Fitted with Mk8 MM</i>		CP2MK8/110
296	Dual fuel UL panel 230V <i>Fitted with Mk8 MM & First Out Annunciation</i>		CP2AMK8
297	Dual fuel UL panel 110V <i>Fitted with Mk8 MM & First Out Annunciation</i>		CP2AMK8/110
298	Dual fuel UL panel 230V <i>Fitted with Mk8 MM, First Out Annunciation & Water Level</i>		CP2WMK8
299	Dual fuel UL panel 110V <i>Fitted with Mk8 MM First Out Annunciation & Water Level</i>		CP2WMK8/110
300	Dual fuel UL panel 230V <i>Fitted with Mini Mk8 MM</i>		CP2MMK8
301	Dual fuel UL panel 110V <i>Fitted with Mini Mk8 MM</i>		CP2MMK8/110
<p><i>Standard specification control panel: Equipped with Autoflame MM controller. NEMA4 powder coated enclosure to match MM controller. Fully wired and tested. Supplied with control panel drawings. Standard panel size – 800mm x 600mm x 300mm enclosure (31.4" x 23.6" x 11.8") Standard water level panel size – 800mm x 800mm x 300mm enclosure (31.4" x 41.4" x 11.8")</i></p> <p><i>Standard dual fuel scope of supply includes: Fuel 1 On/Off Push Button – Fuel 2 On/Off Push Button – Burner on/Off Switch – Lockout Alarm/Reset (Not available on Mini Mk8) – Hand/Auto/Low Flame Hold Switch(Not available on Mini Mk8) – Lamp as per customer request</i></p> <p><i>Standard dual fuel water level scope of supply includes: Fuel 1 On/Off Push Button – Fuel 2 On/Off Push Button – Burner On/Off Switch – Lockout Alarm/Reset – Hand/Auto/Low Flame Hold Switch – High Water Lamp – Low Water Lamp – 2nd Low Water Lamp – Water Level System Test – Water Level Alarm Mute</i></p> <p><i>Additional lamps/switches are available upon request. Fuses and contactors with overloads are not supplied as standard.</i></p> <p><i>Please contact Autoflame before ordering a panel so that the specifics can be determined at an early date. After receiving an order for a panel, drawings will be submitted for</i></p>			

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approval by the customer.

Once approved, manufacturing will commence. Lead-times on control panels vary from 4 to 6 weeks from approval of drawings. Prices are subject to change due to specific customer requirements.

Custom sizes are available on request. Please contact Autoflame for further information and a quote on non-standard panels.

5.8 CB Control Panel Retrofit

Item No.	CB Control Panel Retrofit Single/Dual Fuel UL Panel	Kgs	Part No.
302	Single fuel UL panel 230V <i>Fitted with Mk8 MM, CB control panel retrofit</i>		CP1 MK8/CB
303	Dual fuel UL panel 110V <i>Fitted with Mk8 MM, CB control panel retrofit</i>		CP2MK8/CB
304	Single fuel UL panel 230V <i>Fitted with Mini Mk8 MM, CB control panel retrofit</i>		CP1/MMK8/CB
305	Dual fuel UL panel 110V <i>Fitted with Mini Mk8 MM, CB control panel retrofit</i>		CP2/MMK8/CB
<p><i>Standard specification control panel: Equipped with Autoflame MM controller. NEMA4 powder coated enclosure to match MM controller. Fully wired and tested. Supplied with control panel drawings.</i></p> <p><i>Standard panel size - 600mm x 500mm x 210mm enclosure (23.6" x 19.7" x 8.3")</i></p>			

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Standard scope of supply includes:

Fuel Select OFF/Fuel 1 switch (single fuel) or Fuel Select Fuel 1/OFF/Fuel 2 switch (dual fuel) – Burner On/Off Switch – Lockout Alarm Mute(Not available on Mini Mk8) – Hand/Auto/Low Flame Hold Switch (Not available on Mini Mk8) – Lamp as per customer request.

Note: 110V direct supply only, transformers and Variable Speed Drive cannot be added to this panel. Also water level, first out annunciation, additional lamps/switches, fuses and contactors are not available due to panel size.

Please contact Autoflame before ordering a panel so that the specifics can be determined at an early date. After receiving an order for a panel, drawings will be submitted for approval by the customer.

Once approved, manufacturing will commence. Lead-times on control panels vary from 4 to 6 weeks from approval of drawings. Prices are subject to change due to specific customer requirements.

Custom sizes are available on request. Please contact Autoflame for further information and a quote on non-standard panels.

5.9 Mini Mk8 MM Control Panel

Item No.	Mini Mk8 MM Control Panel Single/Dual Pending UL	Kgs	Part No.
306	Single Fuel UL Panel 230V <i>Fitted with Mini Mk8 MM</i>		CP1MMK8/SM
307	Single Fuel UL Panel 110V <i>Fitted with Mini Mk8 MM</i>		CP1MMK8/110/SM
308	Dual Fuel UL Panel 230V <i>Fitted with Mini Mk8 MM</i>		CP2MMK8/SM
309	Dual Fuel UL Panel 110V <i>Fitted with Mini Mk8 MM</i>		CP2MMK8/110/SM
310	Flying Lead <i>3m (9.8ft) flying lead longer lengths available on request</i>		CP1SMFLY
<p><i>Equipped with Autoflame Mini Mk8 MM controller. NEMA4 powder coated enclosure to match Mini Mk8 MM. Fully wired and tested. Supplied with control panel drawings.</i></p> <p><i>Standard panel size – 320mm x 320mm x 210mm enclosure (12.6" x 12.6" x 8.3"), 371mm x 320mm x 214mm mounting bracket (14.6" x 12.6" x 8.3")</i></p> <p><i>Standard scope of supply includes: Fuel select Off/Fuel 1 switch (single fuel) or Fuel Select FUEL 1/OFF/FUEL 2 switch (dual fuel) – Burner On/Off Switch – Error/Lockout Lamp.</i></p> <p><i>A 3Phase Direct Online Motor Starter up to 7.5kW (10HP) can be added to this panel and can be used in conjunction with an external Variable Speed Drive. Note: Mini Mk8 MM only. Control circuit transformers cannot be added to this panel. Also additional lamps/switches, fuses and contactors are not available due to panel size.</i></p> <p><i>Please contact Autoflame before ordering a panel so that the specifics can be determined at an early date. After receiving an order for a panel, drawings will be submitted for approval by the customer. Once approved, manufacturing will commence. Lead-times on control panels vary from 4 to 6 weeks from approval of drawings. Prices are subject to change due to specific customer requirements. Custom sizes are available on request. Please contact Autoflame for further information and a quote on non-standard panels.</i></p>			

5.10 Danfoss Variable Speed Drives – Panel Mounted

Item No.	Danfoss Variable Speed Drives – Panel Mounted VLT® HVAC IP20 Drive 380/480V 3 Phase, 50/60Hz	Kgs	Part No.
311	1.1kW/1.5hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		1K1PANEL
312	1.5kW/2.0hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		1K5PANEL
313	2.2kW/2.9hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		2K2PANEL
314	3kW/4.0hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		3KPANEL
315	4kW/5.0hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		4KPANEL
316	5.5kW/7.5hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		5K5PANEL
317	7.5kW/10hp <i>To fit 1000x600x300mm (39"x24"x12") panel</i>		7K5PANEL
318	11kW/15hp <i>To fit 1200x600x400mm (47"x31"x16") panel</i>		11KPANEL
319	15kW/20hp <i>To fit 1600x600x400mm (63"x24"x16") panel</i>		15KPANEL
320	18.5kW/25hp <i>To fit 1600x600x400mm (39"x24"x16") panel</i>		18K5PANEL
321	22kW/30hp <i>To fit 1600x600x400mm (39"x24"x16") panel</i>		22KPANEL
322	30kW/40hp <i>To fit 1600x600x400mm (39"x24"x16") panel</i>		30KPANEL
323	37kW/50hp <i>To fit 1600x600x400mm (39"x24"x16") panel</i>		37KPANEL
324	45kW/60hp <i>To fit 1600x600x500mm (39"x24"x20") panel</i>		45KPANEL
325	55kW/75hp <i>To fit 1600x600x500mm (39"x24"x20") panel</i>		55KPANEL
326	75kW/100hp <i>To fit 1600x600x500mm (39"x24"x20") panel</i>		75KPANEL
327	90kW/125hp <i>To fit 1600x600x500mm (39"x24"x20") panel</i>		90KPANEL
	<p><i>To be ordered in addition to a factory built control panel.</i></p> <p><i>Graphical Keypad, DC Link Chokes for Harmonic Suppression & RFI Filters to meet Class C2 & C1 are fitted as standard.</i></p>		

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Price includes Danfoss Variable Speed Drive, Motor Protection Circuit Breaker, (to UL specifications) and increase in panel size from Autoflame standard panel sizes to allow for internal installation.

If externally mounted IP55/IP66 or 200/240V drives are required please contact Autoflame for more information.

5.11 Danfoss Variable Speed Drives – Stand Alone

Item No.	Danfoss Variable Speed Drives – Stand Alone VLT® HVAC IP20 Drive 380/480V 3 Phase, 50/60Hz	Kgs	Part No.
328	1.1kW/1.5hp		FC10P1K1T4
329	1.5kW/2.0hp		FC10P1K5T4
330	2.2kW/2.9hp		FC10P2K2T4
331	3kW/4.0hp		FC10P3K0T4
332	4kW/5.0hp		FC10P4K0T4
333	5.5kW/7.5hp		FC10P5K5T4
334	7.5kW/10hp		FC10P7K5T4
335	11kW/15hp		FC10P11KT4
336	15kW/20hp		FC10P15KT4
337	18.5kW/25hp		FC10P18KT4
338	22kW/30hp		FC10P22KT4
339	30kW/40hp		FC10P30KT4
340	37kW/50hp		FC10P37KT4
341	45kW/60hp		FC10P45KT4
342	55kW/75hp		FC10P55KT4
343	75kW/100hp		FC10P75KT4
344	90kW/125hp		FC10P90KT4
<p><i>Graphical Keypad, DC Link Chokes for Harmonic Suppression & RFI Filters to meet Class C2 & C1 are fitted as standard.</i></p> <p><i>If externally mounted IP55/IP66 or 200/240V drives are required please contact Autoflame for more information.</i></p>			

5.12 Direct Online Motor Starter

Item No.	Direct Online Motor Starter	Kgs	Part No.
345	1.1 – 7.5 kW / 1.5 – 10 hp <i>Can only be ordered with Autoflame panel</i>		DOL11/75
346	11kW / 15hp <i>Can only be ordered with Autoflame panel</i>		DOL11
347	15 kW / 20hp <i>Can only be ordered with Autoflame panel</i>		DOL15
348	18.5kW / 25hp <i>Can only be ordered with Autoflame panel</i>		DOL18
349	22 kW / 30hp <i>Can only be ordered with Autoflame panel</i>		DOL22
<p><i>Price includes UL compliant contactor, overload and Motor Protection Circuit Breaker. Max 2 per standard panel– 800mm x 600mm x 300mm enclosure (31.4" x 23.6" x 11.8) Max 3 per standard large panel– 800mm x 600mm x 300mm enclosure (31.4" x 23.6" x 11.8") For Star Delta or Soft Starts contact Autoflame for further information.</i></p>			

5.13 Direct Online Motor Starter

Item No.	Direct Online Motor Starter	Kgs	Part No.
350	1.1 – 7.5 kW / 1.5 – 10 hp <i>Can only be ordered with Autoflame panel</i>		DOLMCP11/75
351	11kW / 15hp <i>Can only be ordered with Autoflame panel</i>		DOLMCP11
352	15 kW / 20hp <i>Can only be ordered with Autoflame panel</i>		DOLMCP15
353	18.5kW / 25hp <i>Can only be ordered with Autoflame panel</i>		DOLMCP18
354	22 kW / 30hp <i>Can only be ordered with Autoflame panel</i>		DOLMCP22
<p><i>Price includes UL compliant contactor, overload and Motor Protection Circuit Breaker. Max 2 up to 15kW (20hp) per standard panel– 800 x 600 x 300 mm enclosure (31.4" x 23.6" x 11.8"). Max 1 for 18.5 to 22kW (25 to 30 hp) or max 3 up to 15kW (20hp) per standard large panel– 800 x 800 x 300 mm enclosure (31.4" x 31.4" x 11.8"). Max 2 for 18.5 to 22kW (25 to 30hp) per extra large panel – 1000 x 800 x 300mm enclosure (39" x 31.4" x 11.8"). For Start Delta starters or soft starters contact Autoflame for further information.</i></p>			

5.14 VSD Bypass Switch – Single Fuel

Item No.	VSD By-pass Switch	Kgs	Part No.
355	Single Fuel 1.1 – 7.5 kW / 1.5 – 10 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD11/75
356	Single Fuel 11 – 18.5 kW / 15 – 25 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD11/18
357	Single Fuel 15 kW / 20 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD15
358	Single Fuel 18.5 kW / 25 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD18
359	Single Fuel 22 kW / 30 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD22
360	Single Fuel 30 kW / 40 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD30
361	Single Fuel 37 kW / 50 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD37
362	Single Fuel 45 kW / 60 hp <i>Can only be ordered with Autoflame panel</i>		CP1VSD45
<p><i>Price includes UL compliant contactor (with overload), Motor Protection Circuit Breaker (to UL specifications), switch and Variable Speed Drive or direct fuel curve switching.</i></p> <p><i>Prices for larger kW(hp) drive switches are available on request. Please contact Autoflame for more information.</i></p>			

5.15 VSD Bypass Switch – Dual Fuel

Item No.	VSD By-pass Switch	Kgs	Part No.
363	Dual Fuel 1.1 – 7.5 kW / 1.5 – 10 hp <i>Can only be ordered with Autoflame panel</i>		CP2VSD11/75
364	Dual Fuel 11 – 18.5 kW / 15 – 25 hp <i>Can only be ordered with Autoflame panel</i>		CP2VSD11/18
365	Dual Fuel 15 kW / 20 hp <i>Can only be ordered with Autoflame panel</i>		CP2VSD15
366	Dual Fuel 18.5 kW / 25 hp <i>Can only be ordered with Autoflame panel</i>		CP2VSD18
367	Dual Fuel 22 kW / 30 hp <i>Can only be ordered with Autoflame panel</i>		CP2VSD22
368	Dual Fuel 30 kW / 40 hp <i>Can only be ordered with Autoflame panel</i>		CP2VSD30

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369	Dual Fuel 37 kW / 50 hp <i>Can only be ordered with Autoflame panel</i>	CP2VSD37
370	Dual Fuel 45 kW / 60 hp <i>Can only be ordered with Autoflame panel</i>	CP2VSD45
<p><i>Price includes UL compliant contactor (with overload), Motor Protection Circuit Breaker (to UL specifications) and switches.</i></p> <p><i>Prices for larger kW(hp) drive switches are available on request. Please contact Autoflame for more information.</i></p>		

5.16 MM System Spares

Item No.	MM System Spares	Kgs	Part No.
371	Mk6 to Mk8 MM Stand off Flange <i>Adaptor Plate for Mk6/Mk7 to Mk8 MM</i>	0.30	CP80070
372	Mk7 MM Software* <i>Includes 2 EPROMS and display SD card</i>	0.30	MK7PROMS
373	Mk7 MM Software with WLC MM software* <i>Includes 3 EPROMS and display SD card</i>	0.40	MK7PROMS/WL
374	Mk7 or Mk6 MM Connector Plugs <i>Set of 9</i>	0.50	CON1060
375	Mini Mk6 MM Connector Plugs <i>Set of 7</i>	0.50	CON1064
376	Mini Mk5 Evolution MM Connector Plugs <i>Set of 3</i>	0.50	CON1069
377	Mini Mk7 Evolution MM Connector Plugs <i>Set of 7</i>	0.50	CON1070
378	Adaptor Plate for Mk7 MM to Mini Mk8 MM	0.10	ENC10073
379	MM Enclosure Mounting Clamps <i>Set of 4</i>	0.10	ENC10061
380	MM Expansion PCB Enclosure + Pillars	0.20	ENC10065
381	Expansion PCB Control Connector Plugs <i>Set of 5</i>	0.50	CON1068
382	2A (T) Fuse <i>Set of 10</i>	0.10	FU10034
383	6.3A (T) Fuse <i>Set of 10- Mk7, Mini Mk6 and Mk6 only</i>	0.10	FU10026
384	(TE5) 2A (T) Fuse <i>Set of 10- Mini Mk6 and Mk6 only</i>	0.10	FU10027
385	(TE5) 630 mA (T) Fuse <i>Set of 10- Mini Mk6 and Mk6 only</i>	0.10	FU10028
386	(TE5) 0.315A (T) Fuse <i>Set of 10- mini Mk5 EVO only</i>	0.10	FU10024
387	5A (T) Fuse <i>Set of 10- Mini Mk8, Mini Mk7 and Mini Mk5 EVO only</i>	0.10	FU10035
388	630 mA (T) Fuse <i>Set of 10- Mini Mk5 only</i>	0.10	FU10025
389	125 mA (220V) Fuse <i>Set of 10- Mk5 only</i>	0.10	FU10022
390	250 mA (110V) Fuse <i>Set of 10- Mk5 only</i>	0.10	FU10023

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391	500 mA (T) Fuse <i>Set of 10 Mk 7</i>	0.10	FU10040
392	1A (T) Fuse <i>Set of 10 Mk 7</i>	0.10	FU10041
393	2.5A (T) Fuse <i>Set of 10 Mk 7</i>	0.10	FU10042
394	4A (T) Fuse <i>Set of 10 Mk 8</i>	0.10	FU10050
395	Complete Set of Mk8 MM Fuses <i>Consisting of: 2x TE5 0.5A, 1x 6.3A, 1x 2A, 1x TE5 2.5A, 1x TE5 4A and 1x TE5 2A</i>	0.10	FU80001
396	Complete Set of Mini Mk8 Fuses <i>Consisting of: 1x 5A and 1x 2A</i>	0.10	FU80005
<i>*To ensure correct software is sent, please specify unit serial number.</i>			

5.17 Mk8 EGA System Spares

Item No.	Mk8 EGA System Spares	Kgs	Part No.
397	Mk8 O2 Sensor <i>For the Mk8 EGA</i>	0.02	SP80004
398	Mk8 CO2 Sensor <i>Can be fitted by factory trained personnel</i>	0.09	SP80005
399	Mk8 NO Sensor <i>For the Mk8 EGA</i>	0.04	SP80007
400	Mk8 CO Sensor <i>For the Mk8 EGA</i>	0.04	SP80008
401	Mk8 SO2 Sensor <i>For the Mk8 EGA</i>	0.01	SP80013
402	Mk8 NO2 Sensor <i>For the Mk8 EGA</i>	0.04	SP80037
403	Mk8 EGA Replacement Air Inlet Filter <i>For the Mk8 EGA</i>	0.06	EGA80107
404	Mk8 EGA Fan <i>For the Mk8 EGA</i>	0.10	SP10035/8
405	EGA Fuse <i>For the Mk8, Mk7 and Mk6 EGA</i>	0.10	SP1040
406	EGA Pump 24V <i>For the Mk8, Mk7 and Mk6 EGA</i>	0.33	SP70010
407	EGA Replacement Internal Filter <i>For the Mk8, Mk7 and Mk6 EGA</i>	0.06	SP10011
408	EGA Type K Thermocouple only	0.25	SP1044

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	<i>3m (10ft) cable length</i>		
409	EGA Type K Thermocouple only <i>5m (16ft) cable length</i>	0.25	SP1044/5
410	EGA Type K Thermocouple only <i>10m (33ft) cable length</i>	0.25	SP1044/10
411	Mk8 EGA Mains & Data Flying Leads <i>For the Mk8 EGA</i>		CON8010
412	EGA Replacement External Particulate Filter <i>Suitable for Mk6, Mk7 and Mk8 EGA's</i>	0.06	SP10018
413	EGA Replacement Sampling Probe Filter & Tubing <i>For the Mk8 and Mk7 EGA Probe, 3m (10ft)</i>	0.15	SP70012
414	Replacement Glass Tube for External Particulate Filter		SP40031

5.18 Mk7 EGA System Spares

Item No.	Mk7 EGA System Spares	Kgs	Part No.
415	Mk7 EGA Software* <i>Includes 1 EPROM and display SD card</i>	0.20	MK7EGAPROMS
416	Mk7 EGA CEMS Software Upgrade** <i>EGA must be returned to Autoflame for CEMS upgrade</i>	0.01	MK7EGACEMS
417	Mk7 O2 Sensor <i>For the Mk7 EGA</i>	0.02	SP70004
418	Mk7 CO2 Sensor <i>Mk7 EGA must be returned for this part to be changed.</i>	0.09	SP70005
419	Mk7 NO Sensor <i>For the Mk7 EGA</i>	0.04	SP70007
420	Mk7 CO Sensor <i>For the Mk7 EGA</i>	0.04	SP70008
421	Mk7 SO2 Sensor <i>For the Mk7 EGA</i>	0.01	SP70013
422	Mk7 NO2 Sensor <i>For the Mk7 EGA</i>	0.04	SP70037
423	Mk7 EGA Replacement Air Inlet Filter <i>For the Mk7 EGA</i>	0.06	EGA70107
424	Mk7 EGA Replacement RH Sensor <i>For the Mk7 EGA</i>	0.10	SP70040
425	Mk7 EGA Fan <i>For the Mk7 EGA, For Mk6 EGA Fan Part No SP10035</i>	0.10	SP10035/7
426	EGA Fuse <i>For the Mk8, Mk7 and Mk6 EGA</i>	0.10	SP1040
427	EGA Pump 24V <i>For the Mk8, Mk7 and Mk6 EGA</i>	0.33	SP70010
428	EGA Replacement Internal Filter <i>For the Mk8, Mk7 and Mk6 EGA</i>	0.06	SP10011
429	EGA Type K Thermocouple only <i>3m (10ft) cable length</i>	0.25	SP1044
430	EGA Type K Thermocouple only <i>5m (16ft) cable length</i>	0.25	SP1044/5
431	EGA Type K Thermocouple only <i>10m (33ft) cable length</i>	0.25	SP1044/10
432	EGA Connector Plugs <i>16 poles 1 set of 2 plugs (For the Mk7 and Mk6 EGA)</i>	0.50	CON1010
433	EGA Replacement MK7 Sampling Probe Filter & Tubing	0.15	SP70012

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<i>For the Mk8 and Mk7 EGA Probe, 3m (10ft)</i>		
434	Replacement Glass Tube for External Particulate Filter	SP40031
<p><i>* To ensure correct software is sent, please specify unit serial number.</i></p> <p><i>** Please note that if you request to have your Standard EGA upgraded to include CEMS software it is compulsory that a standard service and calibration is carried out.</i></p> <p><i>Please contact Autoflame if you require additional thermocouple or sampling tubing lengths.</i></p>		

5.19 O2 Interface Modules

Item No.	O2 Interface Modules	Kgs	Part No.
435	Mk8 O2 Interface Module (Universal Voltage, 110V/230V) <i>For use with Mini Mk8 MM and Mk8 MM</i>	0.65	MM88002

5.20 DTI System Spares

Item No.	DTI System Spares	Kgs	Part No.
436	Mk6 DTI Fuse	0.10	SP1060
437	Mk7 and Mk6 DTI Connector Plugs set of 6	0.50	CON1065
438	Digital I/O Connector Plugs	0.50	CON1066
439	Analogue I/O Connector Plugs	0.50	CON1067
440	Universal I/O Connector Plugs	1.00	CON7066

5.21 Sundries and Spare Parts

Item No.	Sundries and Spare Parts	Kgs	Part No.
441	Tamper Proof Screwdriver <i>Setting up servo motors</i>	0.07	SP10002
442	63VA Transformer, 230–24V <i>UK specification for servo motors</i>	0.65	SP10003
443	63VA Transformer, 110–24V <i>USA specification for servo motors</i>	0.65	SP10003/110
444	Ferrite Core Set <i>3 off</i>	0.22	SU10010
445	Anti Voltage Surge Module, 230V	0.15	SU10011
446	Anti Voltage Surge Module, 110V	0.15	SU10011/110
447	Electrical Snubber, 230V* <i>Type reference must be shown on purchase order</i>	0.05	SU10030
448	Electrical Snubber, 110V* <i>Type reference must be shown on purchase order</i>	0.05	SU10040
<i>*Please contact Autoflame for a type reference prior to ordering.</i>			

5.22 Servo Motor Spares

Item No.	Servo Motor Spares	Kgs	Part No.
449	Small Servo Motor Fixing Screws <i>M5 x 35mm, set 4</i>	0.01	SP10030
450	Small Servo Motor Mounting Bracket/Coupling <i>Retrofit application for burner air damper</i>	0.50	SP10015
451	Small Valve to Large Servo Motor Mounting Coupling <i>Gas valve only applications</i>	0.50	SP10017
452	Large Servo Motor Fixing Screws <i>M6 x 45mm, set 4</i>	0.01	SP10031
453	Large Servo Motor Mounting Bracket/Coupling <i>Retrofit application for burner air damper</i>	0.50	SP10016
454	Industrial Servo Motor 05 Mounting Bracket/Coupling <i>For MM10070</i>	0.80	SP10028/05
455	Industrial Servo Motor 10 Mounting Bracket/Coupling	0.80	SP10028/10

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<i>For MM10072</i>			
456	Industrial Servo Motor 20/40 Mounting Bracket/Coupling <i>For MM10074/B & MM10078</i>	1.00	SP10028/20
457	Solid State Relay Module <i>Used in conjunction with a Unic 20/40 Motor</i>	1.00	MM10070/RK
458	2off Standard PG11 Metal Glands	0.20	EC8004
459	1off PG11 to 1/2" NPSM Aluminium Adaptor + 1off 20mm Chrome Blanking Plug	0.20	EC8007
460	2off PG11 to 1/2" NPSM Aluminium Adaptors	0.20	EC8010

5.23 Oil Valve Spares

Item No.	Oil Valve Spares	Kgs	Part No.
461	Viton O-ring Type 1,2,5,6,8,9 Small Oil Valve <i>Set of 2</i>	0.01	OR70003
462	Viton O-ring Type 3,4,7 Large Oil Valve <i>Set of 2</i>	0.01	OR70004
<i>These can only be installed by approved by Autoflame Technology Centres engineers.</i>			

5.24 Water Level Spares

Item No.	Water Level Spares	Kgs	Part No.
462	0.5" Water Valve Repair Kit <i>Spare parts for New Style water valve fitted with Tekfil seats. Excludes Mounting</i>	0.00	WLCV015/KIT
463	0.75" Water Valve Repair Kit <i>Spare for New Style water valve fitted with Tekfil seats. Excludes Mounting</i>	1.00	WLCV020/KIT
465	1" Water Valve Repair Kit <i>Spare parts for New Style water valve fitted with Tekfil seats. Excludes Mounting</i>	0.00	WLCV025/KIT
466	1.5" Water Valve Repair Kit <i>Spare parts for New Style water valve fitted with Tekfil seats. Excludes Mounting</i>	1.00	WLCV040/KIT
467	2" Water Valve Repair Kit <i>Spare parts for New Style water valve fitted with Tekfil seats. Excludes Mounting</i>	2.00	WLCV050/KIT
468	Water Level Probes Flying Leads <i>Replacement flying leads for water level probes, 2m(6ft)</i>	0.05	AUTO/0005
469	Water Level Probes Flying Leads <i>Replacement Flying Leads for Water Level Probes, Length 10m (32ft)</i>	0.05	AUTO/0005/10
470	Mounting Bracket & Coupling for 0.5", 0.75" water valve <i>Includes fixing screws & washers</i>	0.00	SP30011
471	Mounting Bracket & Coupling for 1" PN40 water valve <i>Includes fixing screws & washers</i>	0.00	SP30012
472	Mounting Bracket & Coupling for 1.5" PN40 water	0.00	SP30013

5 Peripheral & Spare Parts

	valve <i>Includes fixing screws & washers</i>		
473	Mounting Bracket & Coupling for 2" PN40 water valve <i>Includes fixing screws & washers</i>	0.00	SP30014
474	Mounting Bracket & Coupling for 1" ANSI 300lb water valve <i>Includes fixing screws & washers</i>	0.00	SP30012/U
475	Mounting Bracket & Coupling for 1.5" ANSI 300lb water valve <i>Includes fixing screws & washers</i>	0.00	SP30013/U
476	Mounting Bracket & Coupling for 2" ANSI 300lb water valve <i>Includes fixing screws & washers</i>	0.00	SP30014/U

5.25 CB Gears Drive Assembly

Item No.	CB Gears Drive Assembly	Kgs	Part No.
477	Gear Drive Assembly <i>96" 400-800hp, Shaft diameter 3.23"</i>		MMGR001
478	Gear Drive Assembly <i>96" 400-800hp, Shaft diameter 2.988"</i>		MMGR002
479	Gear Drive Assembly <i>78" 250-350hp, Shaft diameter 2.4750"</i>		MMGR003
480	Gear Drive Assembly <i>60" 50-200hp, Shaft diameter 2.3745"</i>		MMGR004

5.26 Cables

Item No.	Cables	Kgs	Part No.
480	Screened Cable 1 core <i>16-02-1C</i>	5.00	CAB50001
481	Screened Cable 2 core <i>16-02-2C</i>	5.00	CAB50002
482	Screened Cable 3 core <i>16-02-3C</i>	5.00	CAB50003
483	Screened Cable 4 core <i>16-02-4C</i>	5.00	CAB50004
484	Screened Cable 6 core <i>16-02-6C</i>	5.00	CAB50006
485	Screened Cable 8 core <i>16-02-8C</i>	5.00	CAB50008
486	Screened Cable 10 core <i>16-02-10C</i>	5.00	CAB50010
487	Screened Data Cable 1 pair	5.00	CAB50020
488	Screened Data Cable 1 pair	5.00	CAB50020
<i>Prices per 100m</i>			

5.27 Relays

Item No.	Relays	Kgs	Part No.
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5 Peripheral & Spare Parts

489	Relay LY2 12V DC	0.04	EC50200
490	Relay Base 12V	0.05	EC50201
491	Relay MY 240V AC	0.04	EC50206
492	Relay Base 240V	0.05	EC50207

5.28 Demo/Test Equipment

Item No.	Demo/Test Equipment	Kgs	Part No.
493	Mk8 MM Water Level Demo Case 230V <i>Includes Water Level Control and First Out Annunciation</i>	13.00	MM10035/WL
494	Mk8 MM Water Level Demo Case 110V <i>Includes Water Level Control and First Out Annunciation</i>	13.00	MM10035/110
495	Converting Mk7 Demo case to Mini Mk8 MM Demo Case <i>Includes Mini Mk8 MM and all work needed</i>	13.00	REPAIRDEMO
496	Mini Mk8 MM Demo Case, 230V <i>Includes Autoflame internal flame safeguard controller</i>	9.00	MM10036
497	Mini Mk8 MM Demo Case, 120V <i>Includes Autoflame internal flame safeguard controller</i>	9.00	MM10036/110
498	DTI Demo Case, 230V <i>Includes Analogue and Digital I/O</i>	12.00	MM10027
499	DTI Demo Case, 120V <i>Includes Analogue and Digital I/O</i>	12.00	MM10027/110

5.29 Engineering Services

Item No.	Engineering Services	Kgs	Part No.
500	Combustion Efficiency Audit		

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<i>Per Boiler Plant</i>	
500	Engineering Consultancy <i>Daily Rate</i>
<p><i>Audit includes review of boiler plant, report outlining efficiency calculations and recommendations. Pricing allows for one day on site reviewing boiler plant, and does not include travel expenses which would be charged at cost. Final scope to be agreed prior to audit.</i></p> <p><i>Scope of consultancy work to be agreed and documented prior to engagement. Expert capabilities include boiler plant design, control system design, burner design recommendations.</i></p> <p><i>For more information please contact Autoflame.</i></p>	

5.30 Technical Manual & Product Catalogue

Item No.	Technical Manual & Product Catalogue	Kgs	Part No.
502	7" Kindle Fire Tablet with full set of Technical Manuals, Tech Bulletins & Product Catalogue pre-installed		TECHMANTAB
<p><i>Tablets are available with the Technical Manuals written in either English or Chinese, please specify when placing your order which language you require.</i></p> <p><i>Please note that the price shown for the Kindle Tablet is non-discountable, but does come with a free lifetime update.</i></p> <p><i>Simply pay the shipping each way and we will update your Kindle free of charge with the latest Technical Manuals & Bulletins</i></p>			

Price List Terms and Conditions

All prices indicated are ex-works.

Standard Warranty

*Electronic Equipment and assemblies: 2 years from date of sale

*Electro-mechanical assemblies and parts: 2 years from date of sale

*EGA system. Parts, components and sensors: 1 year from date of sale

*EGA cells: 1 year from date of sale

*IR Scanner: 1 year from date of sale

*UV Scanners: 1 year from date of sale

Please note that prices shown may change subject to a 3% currency fluctuation

A full statement of our business terms and conditions are printed on the reverse of all invoices and shown in the Price List. A copy can be issued on written request.

Please do not hesitate to contact Autoflame for price or availability of any specific item that are not listed in this price list.

AUTOFLAME ENGINEERING LIMITED
Unit 1-2 Concorde Business Centre
Airport Industrial Estate
Wireless Road
Biggin Hill
Kent
TN16 3YN
United Kingdom

www.autoflame.com

Tel: +44 (0)1959 578 821

Email: salesinfo@autoflame.com

Autoflame Engineering Ltd
Unit1-2 Concorde Business Centre
Airport Industrial Estate, Wireless Road
Biggin Hill, Kent TN16 3YN
United Kingdom
+44 (0) 845 872 2000
www.autoflame.com

