

# 1 Specifications FMS

## 1 Specifications FMS

Offer no.:

Technical Consultant:

Phone.:

Plant:

Type no.:

Offer no.:

Configure like serial no.<sup>1)</sup>:

Configure like LAMTEC order no.<sup>1)</sup>:

<b>Firing-rate</b>	<input type="checkbox"/> 0...20 mA	<input type="checkbox"/> 4...20 mA	<input type="checkbox"/> 0...20 mA with 24 V power supply from FMS (option at extra cost)	<input type="checkbox"/> 4...20mA with 24 V power supply from FMS (option at extra cost)
	<input type="checkbox"/> TPS	<input type="checkbox"/> potentiometer	<input type="checkbox"/> integrated burner firing-rate controller (to define in the options)	

Safety period: 1. oil \_\_\_\_\_s, 2. oil \_\_\_\_\_s, 1. gas \_\_\_\_\_s, 2. gas \_\_\_\_\_s  
(without choice safety periods get standard settings → 1. oil 4s, 2. oil 4s, 1. gas 3s, 2. gas 3s)

Channel	Function	Output	Feedback	Correction 1	Correction 2
<b>Channel 1</b>	<input type="checkbox"/> OFF	<input type="checkbox"/> TPS <sup>2)</sup>	<input type="checkbox"/> potentiometer	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA
	<input type="checkbox"/> recirculation	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA
	<input type="checkbox"/> fuel _____	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA		
	<input type="checkbox"/> air: _____		<input type="checkbox"/> 0...20mA 24V supply from FMS (option at extra cost)	<input type="checkbox"/> internal O <sub>2</sub> controller 663 R 0030 (option at extra cost, if no LAMTEC measuring system is in use)	
	<input type="checkbox"/> fan: _____		<input type="checkbox"/> 4...20mA 24V supply from FMS (option at extra cost)		
	<input type="checkbox"/> flue gas <sup>5)</sup>		<input type="checkbox"/> r.p.m. sensor <input type="checkbox"/> 2-wire (Namur) <input type="checkbox"/> 3-wire  r.p.m. survey range : <input type="checkbox"/> 300 - 3600 pulse/Min <sup>3)</sup> <input type="checkbox"/> 600 - 7200 pulse/Min <sup>4)</sup> <input type="checkbox"/> 30 - 300 pulse/Min <input type="checkbox"/> 60 - 600 pulse/Min <input type="checkbox"/> 175 - 4200 pulse/Min <input type="checkbox"/> 355 - 8430 pulse/Min <input type="checkbox"/> 15 - 440 pulse/Min <input type="checkbox"/> 45 - 1320 pulse/Min	<input type="checkbox"/> internal CO controller 663 R 1030 (option at extra cost)	
	<input type="checkbox"/> mechanical compound				
<input type="checkbox"/> steam <sup>6)</sup>					

<sup>1)</sup> with this information you must not complete the form. The required information will be found in the above mentioned serial number or LAMTEC order number.

<sup>2)</sup> only potentiometer feedback available with output TPS

<sup>3)</sup> recommended for 1 pulse/revs

<sup>4)</sup> recommended for 2 pulses/revs

<sup>5)</sup> channel opens completely with start of the burner and remains at this position while ignition is completed

<sup>6)</sup> functioning same as fuel channel; but remains closed during pre-ventilation

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Channel	Function	Output	Feedback	Correction 1	Correction 2
Channel 2	<input type="checkbox"/> OFF	<input type="checkbox"/> TPS <sup>2)</sup>	<input type="checkbox"/> potentiometer	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA
	<input type="checkbox"/> recirculation	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA
	<input type="checkbox"/> fuel_____	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA		
	<input type="checkbox"/> air:_____		<input type="checkbox"/> 0...20mA 24V supply from FMS (option at extra cost)	<input type="checkbox"/> internal O <sub>2</sub> controller 663 R 0030 (option at extra cost, if no LAMTEC measuring system is in use)	
	<input type="checkbox"/> fan:_____				
	<input type="checkbox"/> flue gas <sup>5)</sup>		<input type="checkbox"/> 4...20mA 24V supply from FMS (option at extra cost)		
	<input type="checkbox"/> mechanical compound				
<input type="checkbox"/> steam <sup>6)</sup>			<input type="checkbox"/> r.p.m. sensor <input type="checkbox"/> 2-wire (Namur) <input type="checkbox"/> 3-wire  r.p.m. survey range : <input type="checkbox"/> 300 - 3600 pulse/Min <sup>3)</sup> <input type="checkbox"/> 600 - 7200 pulse/Min <sup>4)</sup> <input type="checkbox"/> 30 - 300 pulse/Min <input type="checkbox"/> 60 - 600 pulse/Min <input type="checkbox"/> 175 - 4200 pulse/Min <input type="checkbox"/> 355 - 8430 pulse/Min <input type="checkbox"/> 15 - 440 pulse/Min <input type="checkbox"/> 45 - 1320 pulse/Min	<input type="checkbox"/> internal CO controller 663 R 1030 (option at extra cost)	

<sup>2)</sup> only potentiometer feedback available with output TPS

<sup>3)</sup> recommended for 1 pulse/revs

<sup>4)</sup> recommended for 2 pulses/revs

<sup>5)</sup> channel opens completely with start of the burner and remains at this position while ignition is completed

<sup>6)</sup> functioning same as fuel channel; but remains closed during pre-ventilation

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Channel	Function	Output	Feedback	Correction 1	Correction 2
Channel 3	<input type="checkbox"/> OFF	<input type="checkbox"/> TPS <sup>2)</sup>	<input type="checkbox"/> potentiometer	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA
	<input type="checkbox"/> recirculation	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA
	<input type="checkbox"/> fuel_____	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA		
	<input type="checkbox"/> air:_____		<input type="checkbox"/> 0...20mA 24V supply from FMS (option at extra cost)	<input type="checkbox"/> internal O <sub>2</sub> controller 663 R 0030 (option at extra cost, if no LAMTEC measuring system is in use)	
	<input type="checkbox"/> fan:_____				
	<input type="checkbox"/> flue gas <sup>5)</sup>		<input type="checkbox"/> 4...20mA 24V supply from FMS (option at extra cost)		
	<input type="checkbox"/> mechanical compound				
	<input type="checkbox"/> steam <sup>6)</sup>		<input type="checkbox"/> r.p.m. sensor <input type="checkbox"/> 2-wire (Namur) <input type="checkbox"/> 3-wire  r.p.m. survey range : <input type="checkbox"/> 300 - 3600 pulse/Min <sup>3)</sup> <input type="checkbox"/> 600 - 7200 pulse/Min <sup>4)</sup> <input type="checkbox"/> 30 - 300 pulse/Min <input type="checkbox"/> 60 - 600 pulse/Min <input type="checkbox"/> 175 - 4200 pulse/Min <input type="checkbox"/> 355 - 8430 pulse/Min <input type="checkbox"/> 15 - 440 pulse/Min <input type="checkbox"/> 45 - 1320 pulse/Min	<input type="checkbox"/> internal CO controller 663 R 1030 (option at extra cost)	

<sup>2)</sup> only potentiometer feedback available with output TPS

<sup>3)</sup> recommended for 1 pulse/revs

<sup>4)</sup> recommended for 2 pulses/revs

<sup>5)</sup> channel opens completely with start of the burner and remains at this position while ignition is completed

<sup>6)</sup> functioning same as fuel channel; but remains closed during pre-ventilation

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Channel	Function	Output	Feedback	Correction 1	Correction 2
Channel 4	<input type="checkbox"/> OFF	<input type="checkbox"/> TPS <sup>2)</sup>	<input type="checkbox"/> potentiometer	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA
	<input type="checkbox"/> recirculation	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA
	<input type="checkbox"/> fuel_____	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA		
	<input type="checkbox"/> air:_____		<input type="checkbox"/> 0...20mA 24V supply from FMS (option at extra cost)	<input type="checkbox"/> internal O <sub>2</sub> controller 663 R 0030 (option at extra cost, if no LAMTEC measuring system is in use)	
	<input type="checkbox"/> fan:_____				
	<input type="checkbox"/> flue gas <sup>5)</sup>		<input type="checkbox"/> 4...20mA 24V supply from FMS (option at extra cost)		
	<input type="checkbox"/> mechanical compound				
<input type="checkbox"/> steam <sup>6)</sup>			<input type="checkbox"/> r.p.m. sensor <input type="checkbox"/> 2-wire (Namur) <input type="checkbox"/> 3-wire  r.p.m. survey range : <input type="checkbox"/> 300 - 3600 pulse/Min <sup>3)</sup> <input type="checkbox"/> 600 - 7200 pulse/Min <sup>4)</sup> <input type="checkbox"/> 30 - 300 pulse/Min <input type="checkbox"/> 60 - 600 pulse/Min <input type="checkbox"/> 175 - 4200 pulse/Min <input type="checkbox"/> 355 - 8430 pulse/Min <input type="checkbox"/> 15 - 440 pulse/Min <input type="checkbox"/> 45 - 1320 pulse/Min	<input type="checkbox"/> internal CO controller 663 R 1030 (option at extra cost)	

<sup>2)</sup> only potentiometer feedback available with output TPS

<sup>3)</sup> recommended for 1 pulse/revs

<sup>4)</sup> recommended for 2 pulses/revs

<sup>5)</sup> channel opens completely with start of the burner and remains at this position while ignition is completed

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Channel	Function	Output	Feedback	Correction 1	Correction 2
Channel 5	<input type="checkbox"/> OFF	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> potentiometer	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 0...20mA
	<input type="checkbox"/> recirculation	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 0...20mA	<input type="checkbox"/> 4...20mA	<input type="checkbox"/> 4...20mA
	<input type="checkbox"/> fuel_____		<input type="checkbox"/> 4...20mA		
	<input type="checkbox"/> air:_____		<input type="checkbox"/> 0...20mA 24V supply from FMS (option at extra cost)	<input type="checkbox"/> internal O <sub>2</sub> controller 663 R 0030 (option at extra cost, if no LAMTEC measuring system is in use)	
	<input type="checkbox"/> fan:_____				
	<input type="checkbox"/> flue gas <sup>5)</sup>		<input type="checkbox"/> 4...20mA 24V supply from FMS (option at extra cost)		
	<input type="checkbox"/> mechanical compound				
	<input type="checkbox"/> steam <sup>6)</sup>		<input type="checkbox"/> r.p.m. sensor <input type="checkbox"/> 2-wire (Namur) <input type="checkbox"/> 3-wire  r.p.m. survey range : <input type="checkbox"/> 300 - 3600 pulse/Min <sup>3)</sup> <input type="checkbox"/> 600 - 7200 pulse/Min <sup>4)</sup> <input type="checkbox"/> 30 - 300 pulse/Min <input type="checkbox"/> 60 - 600 pulse/Min <input type="checkbox"/> 175 - 4200 pulse/Min <input type="checkbox"/> 355 - 8430 pulse/Min <input type="checkbox"/> 15 - 440 pulse/Min <input type="checkbox"/> 45 - 1320 pulse/Min	<input type="checkbox"/> internal CO controller 663 R 1030 (option at extra cost)	

<sup>3)</sup> recommended for 1 pulse/revs



<sup>4)</sup> recommended for 2 pulses/revs

<sup>5)</sup> channel opens completely with start of the burner and remains at this position while ignition is completed

<sup>6)</sup> functioning same as fuel channel; but remains closed during pre-ventilation

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## Options:

- power supply 115 V AC 663 R 9999 (standard 230 V) (option at extra cost)
- burner firing-rate controller active:  PT100 \_\_\_\_\_ up to 320°C  
 663 P 8100 (PT100)  pressure \_\_\_\_\_ bar is equal to 4....20mA  
 663 P 8000 (current)  pressure \_\_\_\_\_ bar is equal to 4....20mA  
 (option at extra cost) with 24 V supply from FMS (option at extra cost)  
 pressure \_\_\_\_\_ bar is equal to 4...20 mA manual changeover   
 regular firing-rate input (manual) :  0...20 mA  TPS  potentiometer
- input controlled by atmospheric conditions, firing-rate controller:  0...20mA  Pt100  potentiometer  
 (available only in combination with active firing-rate controller) (663 P 8004) (663 P 8101) (663 P 8004)  
 (option at extra cost)

- Frontpanel:  German  English  French  Spanish

- curve selection:  2 x oil or  2 x gas (without selection: 1 x gas and 1 x oil)

- 4 curve preselection by:  fieldbus  LSB-module  
 664 R 0201 664 R 0200  
 (communication processor 663 P 0401 required)

- 8 curve preselection by:  fieldbus  LSB-module  
 664 S 0300 664 R 0300  
 (communication processor 663 P 0401 required)

- fuel allocation at 4 or 8 curvesets (only 1 fuel per curve set valid)\*:

fuel	curve 1	curve 2	curve 3	curve 4	curve 5	curve 6	curve 7	curve 8
oil								
gas								

\* with mixed fuel firing see separate Specification "Mixed Fuel Firing and Special Configurations"

- fuel change / curve change (please, select only one option):
- flying curve switching (the same fuel only) 662 R 0201
  - curve switching with pilot burner (oil and gas) 662 R 0202
  - sliding fuel change without the loss of power at FMS (oil and gas) 663 R 0202
  - mixed fuel firing, see specifications sheet "Mixed Fuel Firing and Special Configurations"

- leakage test 663 P 8002 (option at extra cost)

- Spill atomiser 663 R 8006 (not available with mixed fuel firing and burner firing rate controller)

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- Standby operation:  activation via internal firing-rate controller 663 R 8011  
(option at extra cost)  activation via LSB-module 663 R 8013  
(communication processor 663 P 0401 required)  
 activation via field bus 663 R 8012

(This option activates the pilot burner and switches off the main burner. When you switch from standby to normal operation, the main burner will start without pre-ventilation.)

- purge oil gun 663 P 8005N  
(option at extra cost) \_\_\_\_\_ s extension of the 2<sup>nd</sup> safety time oil (default: 10s)  
(communication processor required)

- field bus connection:  PROFIBUS  Modbus  Ethernet  Interbus  CANopen  
663 R 040 (option at extra cost)

- language: \_\_\_\_\_ German (standard), English, French, Italian, Swedish, Spanish, Dutch, Slovak, Danish, Portuguese, Polish, Turkish, Croatian, Slovenian, Czech

## Other:

- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_
- \_\_\_\_\_

Responsible: S. Vischer  
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