Specifications FMS

Offer no.: _____

Technical Consultant: _____ Phone: _____

Plant: _____

Type no.: _____ Order no.: _____

Configuration like serial no.: [1] _____

Configuration like LAMTEC order no.: [1] _____

Firing rate	☐ 0 … 20 mA a20	☐ 4 … 20 mA a20	☐ 0 … 20 mA with 24 V supply from FMS[KO]	☐ 4 … 20 mA with 24 V supply from FMS[KO]
	☐ TPS a30	☐ Potentiometer a10	☐ Internal firing rate controller (definition in section „Options“)	

Safety time: 1. oil _____ s, 2. oil _____ s, 1. gas _____ s, 2. gas _____ s
(without any selection safety times are set as follows: 1. oil = 4 s, 2. oil = 4 s, 1. gas = 3 s, 2. gas = 3 s)

Channels	Functions	Output	Feedback	Correction 1	Correction 2
Channel 1	☐ OFF ☐ Recirculation ☐ Fuel: _____ ☐ Air: _____ ☐ Fan: _____ ☐ Flue gas ☐ Mechanic compound ☐ Steam	☐ TPS [2] ☐ 0 … 20 mA [7] ☐ 4 … 20 mA [7]	☐ Potentiometer [7] b110 ☐ 0 … 20 mA b120 ☐ 4 … 20 mA b120 ☐ 4 … 20 mA b180 with supply from FMS [KO] ☐ RPM sensor [KO] ☐ 2-wire (Namur) ☐ 3-wire RPM survy rang: ☐ 175 … 4200 pulse/min ☐ 355 … 8430 pulse/min ☐ 15 … 440 pulse/min ☐ 45 … 1320 pulse/min	☐ 0 … 20 mA ☐ 4 … 20 mA ☐ Internal O_2 controller [KO2] ☐ Internal CO controller [KO]	☐ 0 … 20 mA ☐ 4 … 20 mA

[1] 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.
[2] only potentiometer feedback available with output TPS
[3] recommended for 1 pulse/revs
[4] recommended for 2 pulse/revs
[5] channel opens completely at burner start and remains open until ignition is completed
[6] same function as fuel channel; but remains closed during pre-purge
[7] When using actuators with electronic control 4 … 20 mA the integrated signal 4 … 20 mA for the position feedback, in combination with ETAMATIC/FMS/VMS, cannot be used as an independent and fail-safe position feedback in according to EN12067-2. In combination with ETAMATIC/FMS/VMS these actuators will be only delivered with additional position feedback POTENTIOMETER 5 kΩ (CONDUCTIVE PLASTIC), TÜV APPTOVED. During system planning keep the Following in mind: In combination wit FMS/VMS the position feedback for the corresponding control output must be configured to POTENTIOMETER
[KO] option at extra cost
[KO2] option at extra cost if you do not use a LAMTEC meassuring system

Specifications FMS

Channel	Funktion	Output	Feedback	Correction 1	Correction 2
Channel 2	☐ OFF ☐ Recirculation ☐ Fuel _____ ☐ Air _____ ☐ Fan _____ ☐ Flue gas ☐ Mechanical compound ☐ Steam[6]	☐ TPS [2] ☐ 0 … 20 mA [7] ☐ 4 … 20 mA [7]	☐ Potentiometer [7] b210 ☐ 0 … 20 mA b220 ☐ 4 … 20 mA b220 ☐ 4 … 20 mA b280 supply from FMS [KO] ☐ RPM sensor ☐ 2-wire (Namur) ☐ 3-wire RPM survey range ☐ 175 … 4200 puls/Min ☐ 355 … 8430 puls/Min ☐ 15 … 440 puls/Min ☐ 45 … 1320 puls/Min	☐ 0 … 20 mA ☐ 4 … 20 mA ☐ Internal O_2-controler [KO2] ☐ Internal CO-controler [KO]	☐ 0 … 20 mA ☐ 4 … 20 mA
Chanel 3	☐ OFF ☐ Recirculation ☐ Fuel _____ ☐ Air _____ ☐ Fan _____ ☐ Flue gas ☐ Mechanical compound ☐ Steam [6]	☐ TPS [2] ☐ 0 … 20 mA [7] ☐ 4 … 20 mA [7]	☐ Potentiometer [7] b310 ☐ 0 … 20 mA b320 ☐ 4 … 20 mA b320 ☐ 4 … 20 mA b380 supply from FMS [KO] ☐ RPM sensor [KO] ☐ 2-wire (Namur) ☐ 3-wire RPM survey range ☐ 175 … 4200 puls/Min ☐ 355 … 8430 puls/Min ☐ 15 … 440 puls/Min ☐ 45 … 1320 puls/Min	☐ 0 … 20 mA ☐ 4 … 20 mA ☐ Internal O_2 controller [KO2] ☐ Interner CO controler [KO]	☐ 0 … 20 mA ☐ 4 … 20 mA

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[2] only potentiometer feedback available with output TPS
[3] recommended for 1 pulse/revs .
[4] recommended for 2 pulse/revs
[5] channel opens completely at burner start and remains open until ignition is completed
[6] same function as fuel channel; but remains closed during pre-ventilation
[7] When using actuators with electronic control 4 … 20 mA the integrated signal 4 … 20 mA for the position feedback, in combination with ETAMATIC/FMS/VMS, cannot be used as an independent and fail-safe position feedback according to EN12067-2. In combination with ETAMATIC/FMS/VMS these actuators will be delivered Only with additional position feedback POTENTIOMETER 5 kΩ (CONDUCTIVE PLASTIC), TÜV TYPE APPROVED. During system planning keep the following In mind: In combination wit FMS/VMS the position feedback for the corresponding control output must be configured to POTENTIOMETER
[KO] option at extra cost
[KO2] option at extra cost if you do not use LAMTEC meassuring system

Specifications FMS

Channel	Functions	Output	Feedback	Correction 1	Correction 2
Channel 4	☐ OFF ☐ Recirculation ☐ Fuel_____ ☐ Air _____ ☐ Fan_____ ☐ Flue gas [5] ☐ Mechanical compound ☐ Steam [6]	☐ TPS [2] ☐ 0 … 20 mA [7] ☐ 4 … 20 mA [7]	☐ Potentiometer [7] b410 ☐ 0 … 20 mA b420 ☐ 4 … 20 mA b420 ☐ ☐ 4 … 20 mA b480 supply from FMS [KO] ☐ RPM sensor [KO] ☐ 2-wire (Namur) ☐ 3-wire RPM survey range ☐ 175 … 4200 puls/Min ☐ 355 … 8430 puls/Min ☐ 15 … 440 puls/Min ☐ 45 … 1320 puls/Min	☐ 0 … 20 mA ☐ 4 … 20 mA ☐ Internal O_2-controler [KO2] ☐ Internal CO-controler [KO]	☐ 0 … 20 mA ☐ 4 … 20 mA
Channel 5	☐ OFF ☐ Recirculation ☐ Fuel _____ ☐ Air _____ ☐ Fan_____ ☐ Flue gas [5] ☐ Mechanical compound ☐ Steam [6]	☐ 0 … 20 mA [7] ☐ 4 … 20 mA [7]	☐ Potentiometer [7] b510 ☐ 0 … 20 mA b520 ☐ 4 … 20 mA b520 ☐ 4 … 20 mA b580 supply from FMS [KO] ☐ RPM sensor [KO] ☐ 2-wire (Namur) ☐ 3-wire RPM survey range ☐ 175 … 4200 puls/Min ☐ 355 … 8430 puls/Min ☐ 15 … 440 puls/Min ☐ 45 … 1320 puls/Min	☐ 0 … 20 mA ☐ 4 … 20 mA ☐ Internal O_2 controller [KO2] ☐ Internal CO controler [KO]	☐ 0 … 20 mA ☐ 4 … 20 mA

[1] 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
[2] only potentiometer feedback available with output TPS
[3] recommended for 1 pulse/revs .
[4] recommended for 2 pulse/revs
[5] channel opens completely at burner start and remains open until ignition is completed
[6] same function as fuel channel; but remains closed during pre-purge
[7] When using actuators with electronic control 4 … 20 mA the integrated signal 4 … 20 mA for the position feedback, in combination with ETAMATIC/FMS/VMS, cannot be used as an independent and fail-safe position feedback according to EN12067-2. In combination with ETAMATIC/FMS/VMS these actuators will be delivered only with additional position feedback POTENTIOMETER 5 kΩ (CONDUCTIVE PLASTIC), TÜV TYPE APPROVED. During system keep the following In mind: In combination wit FMS/VMS the position feedback for the corresponding control output must be configured to POTENTIOMETER
[KO] option at extra cost
[KO2] option at extra cost if you do not use LAMTEC meassuring system

Option (some at extra cost)

☐ Power supply 115 VAC (standard 220 VAC) F2

☐ Burner firing rate controller active:
- ☐ Pt100 _____ up to 320 °C (608 °F) a50
- ☐ Pressure _____ bar equal to 4 … 20 mA a90
- ☐ Pressure _____ bar equal to 4 … 20 mA with 24 V supply from FMS a80
- ☐ Pressure _____ bar equal to 4 … 20 mA manual changeover a92

Regulate firing rate input (manual) ☐ 0 … 20 mA ☐ TPS ☐ Potentiometer

☐ Input controlled by atmospheric conditions, firing rate controller: (only aviliable with active firing rate controller)
☐ 0 … 20 mA ☐ Potentiometer ☐ Pt100 h5
☐ 0 … 20 mA with 24 V supply from FMS h8

☐ Stand by operation:
- ☐ Activation by internal firing rate controller t1
- ☐ Activation by fieldbus t2
- ☐ Activation by LSB module (communication processor required) t3

☐ Curve selection: ☐ 2 x oil or ☐ 2 x gas (without selection: 1 x oil and 1 x gas)

☐ 4 cuve preselection by: ☐ Fielbus ☐ LSB module (communication processor required) L02/ L04

☐ 8 curve preselection by: ☐ Fielbus ☐ LSB module (communication processor required) L12/ L14

Fuel allocation at 4 or 8 curve sets (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/cruve change (only one selection valid):

☐ Flying curve switching (the same fuel only) m1
☐ Curve switching with pilot burner (oil and gas) L22
☐ Sliding fuel change without the loss of power at FMS (oil and gas) L24
☐ Mixed fuel firing, specifications sheet "Mixed Fuel Firing and Special Configurations"

Fieldbus connection: ☐ PROFIBUS DP ☐ Modbus RTU ☐ Ethernet (Modbus TCP) ☐ INTERBUS

☐ Leakage test

☐ Purge oil gun _____ s - extension of the 2. safety time oil (communication processor required) u1/2

☐ Spill atomiser (not avilable with mixed fuel firing and burner firing rate controller) S1

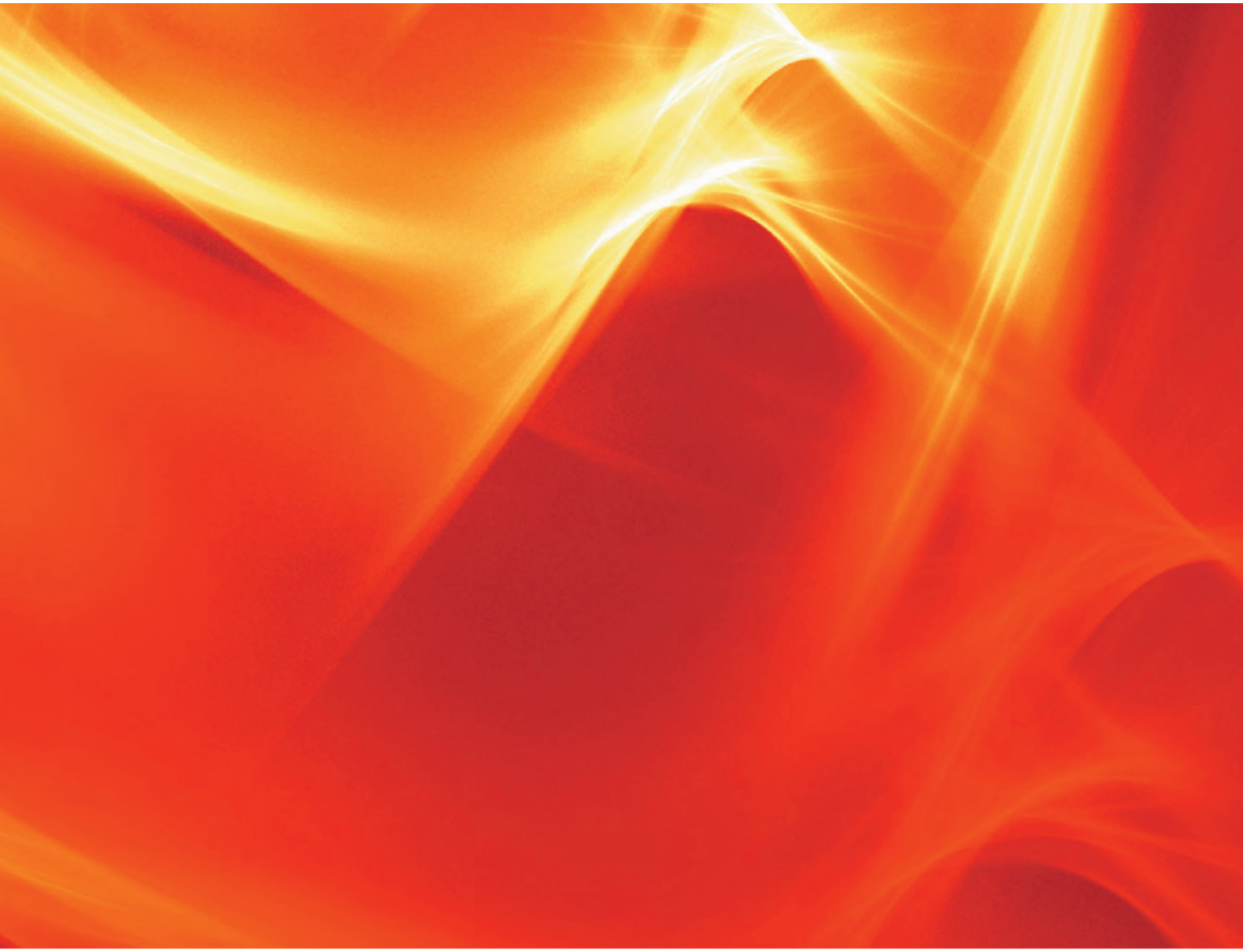
☐ Language:_____ German (standard), English, French, Italien, Swedish, Spanish, Dutch, Slovak, Danish, Portugese, Polish, Turkish, Croatian, Slovenian, Czech

☐ Frontpanal: ☐ German ID ☐ English IE ☐ French IF ☐ Spanish IS

Other:

Remarks:

Date: _____ Signature: _____



The information in this publication is subject to technical changes.

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