

Product Catalogue

Burner control systems and accessories



Contents

■ Burner control systems.	3
■ Functions and application of LAMTEC burner control systems	3
■ Functions and application of LAMTEC burner sequencers	4
■ Selection criteria for LAMTEC burner sequencers	5
■ Selection criteria for LAMTEC burner control systems	6
■ LAMTEC burner sequencers	7
■ BurnerControl BC400.	9
■ BurnerControl BC300.	12
■ LAMTEC burner control systems	16
■ Combustion Management System CMS.	16
■ CMS MCC module.	18
■ CMS AEC-TPS module.	21
■ CMS AEC-ST module.	23
■ CMS AEC-VS module.	25
■ CMS SDI module.	27
■ CMS SDO module.	29
■ CMS SAI module.	31
■ CMS BLC module.	33
■ CMS, miscellaneous	36
■ BurnerTronic BT300 BT320 ... BT341.	40
■ Display modules	46
■ UI300-BC-V2/LSB user interface.	46
■ UI400 user interface.	48
■ Graphic user interface GUI607/GUI610/GUI615.	50
■ Graphic user interface GUI307/GUI310/GUI315.	53
■ Notes.	56

Burner control systems.

Functions and application of LAMTEC burner control systems

LAMTEC burner control systems ensure safe and efficient operation of combustion systems worldwide. The applications range from standardised boiler applications and applications in the chemical industry to asphalt plants.

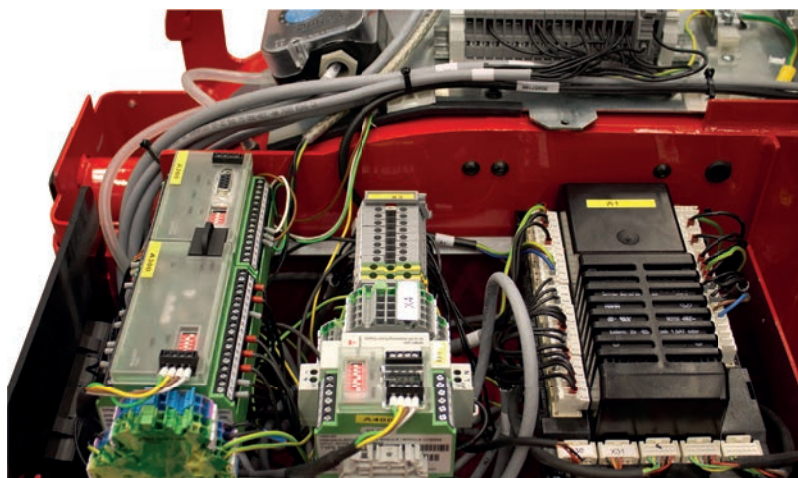
The system controls and monitors the entire burner start sequence and all safety accessories during operation. It also controls and regulates the air/fuel ratio, guaranteeing the best possible efficiency.

The LAMTEC burner control system can be installed directly on the burner or in the control cabinet.

All systems are type-approved and SIL 3-certified, meaning they can be used reliably in safety-critical applications.



LAMTEC Combustion Management System CMS with control cabinet installation



LAMTEC BurnerTronic BT300 with installation directly on the burner

Functions and application of LAMTEC burner sequencers

LAMTEC burner sequencers (Flame Safe Guard) guarantee safe operation of industrial burner systems. These control and monitor the burner in the start sequence and during operation.

With the BC300 and BC400 burner sequencers, LAMTEC covers applications in the process industry, furnace applications and classic boiler applications, offering uncompromising solutions for your requirements. The LAMTEC burner sequencer can be installed directly on the burner or in the control cabinet.

All systems are type-approved and SIL 3-certified, meaning they can be used reliably in safety-critical applications.

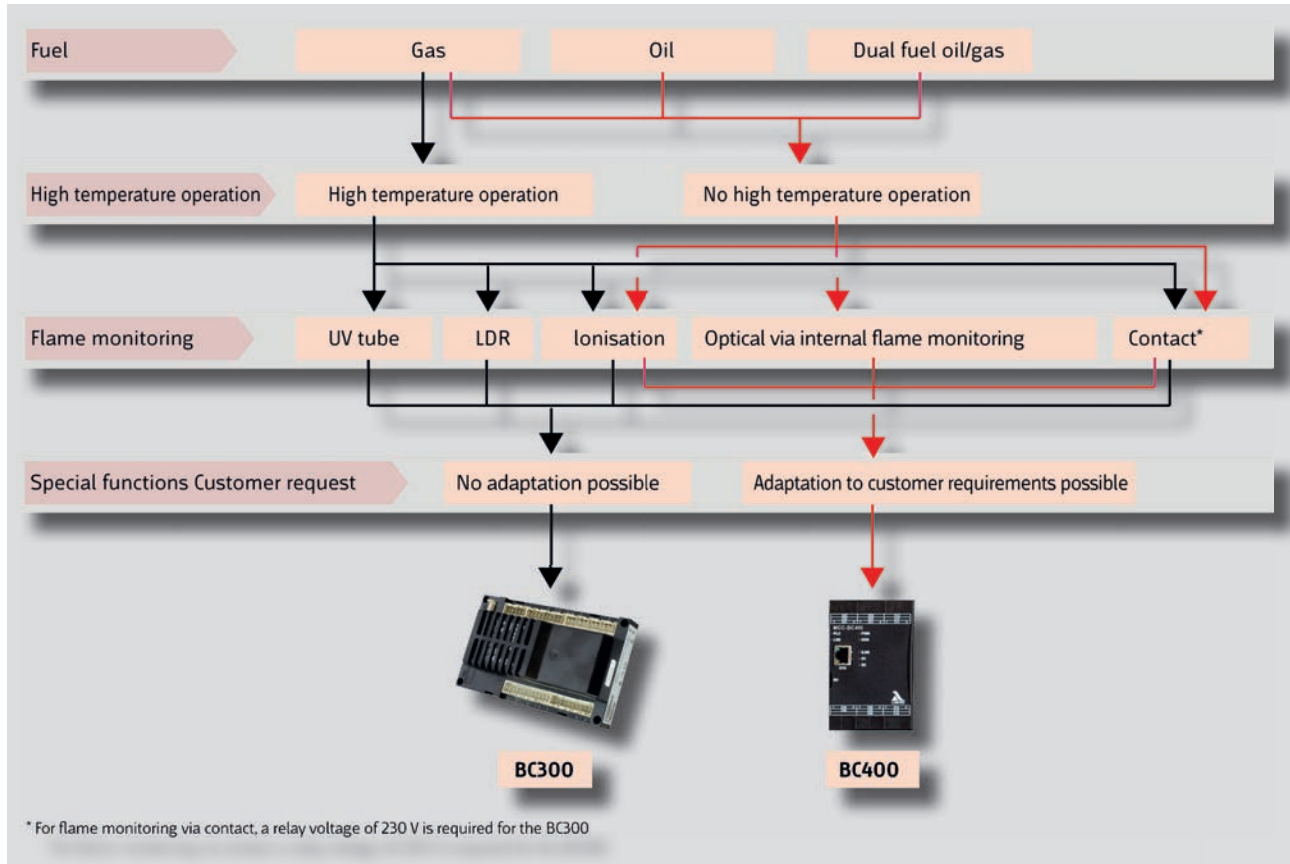


LAMTEC BurnerControl BC400 with control cabinet installation



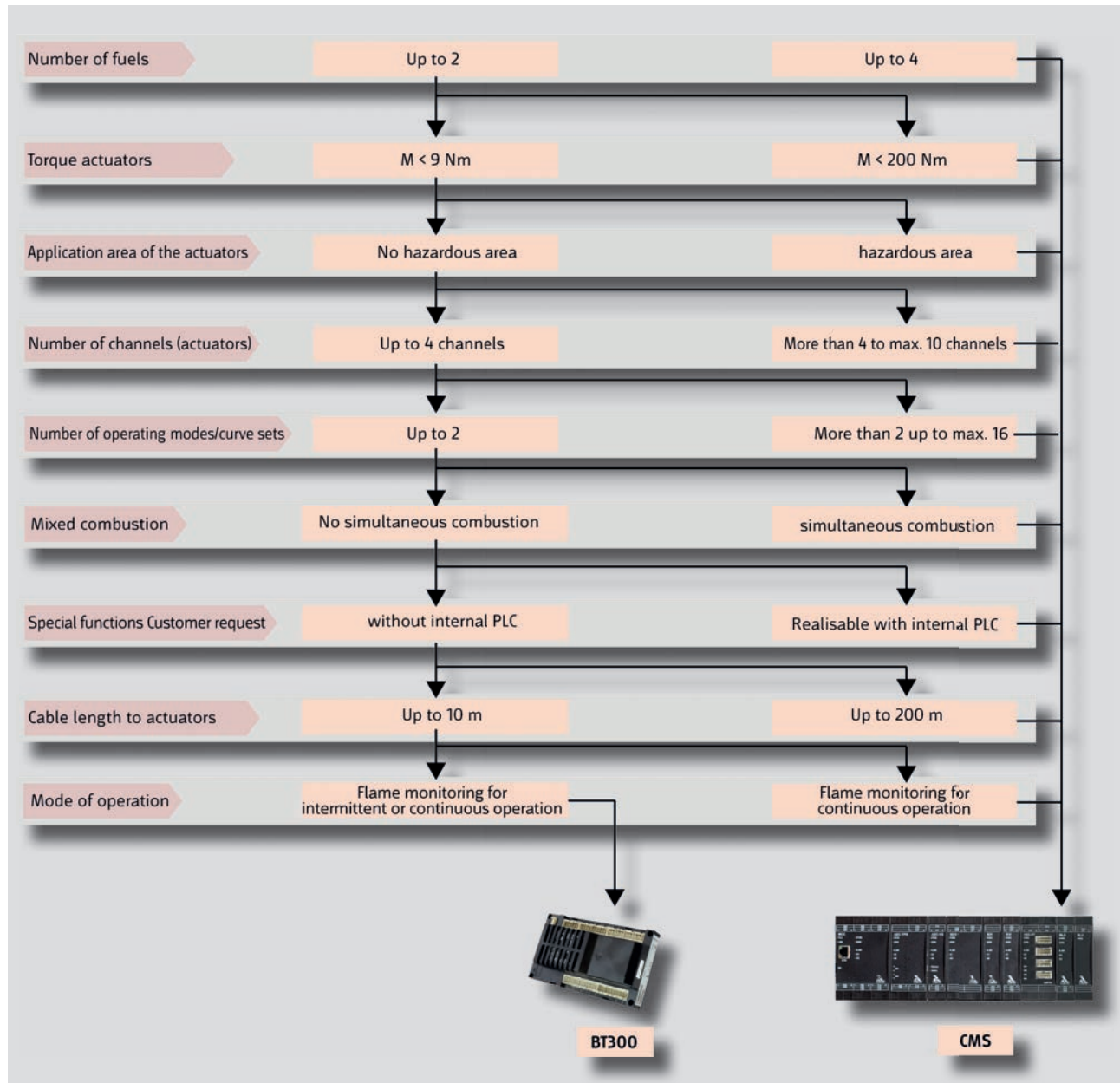
LAMTEC Burnertronic BC300 with installation in wall mounting housing

Selection criteria for LAMTEC burner sequencers



Selection of burner sequencer

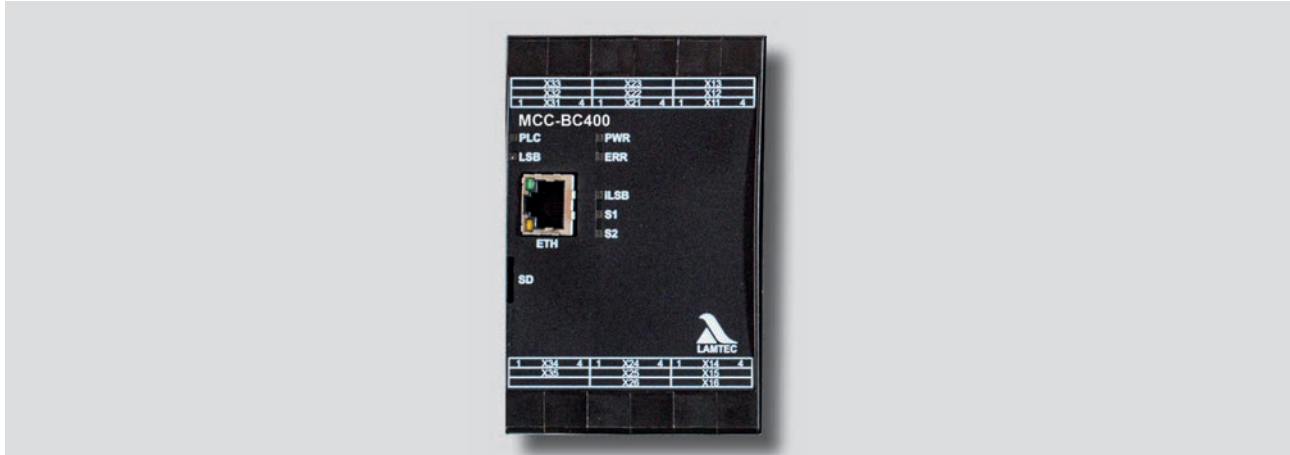
Selection criteria for LAMTEC burner control systems



Selection of the right control system

BurnerControl BC400.

Overview



BurnerControl BC400

The BC400 is an burner sequencer for gas, oil and dual-fuel burners. It controls and monitors burners with unlimited performance both in intermittent operation and in continuous operation. The last 10 faults are stored in the device for fault diagnosis.

Thanks to the comprehensive set of approvals, the device is suitable for worldwide usage. An integrated Codesys PLC in the BC400 and HMI (GUI 6xx) ensures the highest level of adaptability to customer requests, enabling special functions of all kinds that are perfectly tailored to the application and plant.

Highlights.

- Burner sequencer
- Suitable for oil/gas and dual-fuel operation
- Various sequences (e.g. burner start-up) can be set with parameters
- Standby operation
- Cooling function
- Integrated valve leakage test
- Integrated Codesys PLC
- SIL 3-certified
- CE- and UL-certified
- Language-neutral HMI for display and parameter setting
- Modbus TCP on board and other optional fieldbus interfaces

Variants.

The BC400 burner sequencer is available in 3 different variants

- BC410: Gas operation
- BC420: Oil operation
- BC430: Dual-fuel operation

Flame monitoring system.

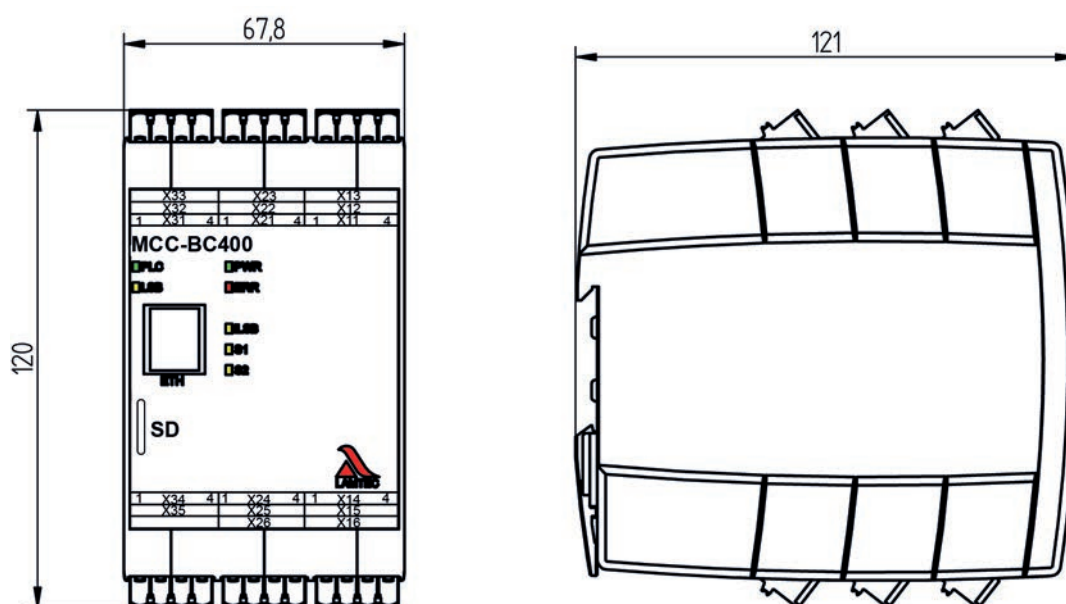
With the BC400 burner sequencer, you can choose between 3 flame monitoring system variants

- Flame monitoring system via ionisation
- Internal flame monitoring system in conjunction with FFS07 or FFS08 optical flame sensor
- Flame monitoring system via digital contact input

BurnerControl BC400.

Technical data

Item number	668R0100 ...	Dimensions [mm]	See dimensional drawings
Application	Burner sequencer for gas, oil and dual-fuel burners. Control and monitoring of burners with unlimited performance in intermittent operation and in continuous operation.	Material	Plastic
Power supply voltage		Weight [kg]	0.505
MCC: Inputs: Outputs:	24 VDC +/-20 %, SELV 230 V/120 V +10/-15 %, 47-63 Hz, 24 VDC ± 20 % 230 V/120 V +10/-15 %, 47-63 Hz, 24 VDC ± 20 %		
Power consumption	max: 10 W	Protection class	IP20 (if all terminals are fitted)
Maximum pre-fuse	8 A fast-acting	Life time	Approx. 10 years
Fieldbus coupling	MODBUS/TCP Ethernet defaults PROFINET Ethernet defaults LAMTEC SYSTEM BUS Other bus couplings via separate module	Ambient temperature	-30 ... +70 °C
Current consumption	min: 200 mA max: 335 mA	Approval	See BA-CMS-DLT7200



Dimensional drawing of BurnerControl BC400

Order information

Designation/type	Order no.
MCC Master Control Component, Vcc 24 VDC/8 W, configuration: 24-230/O/S/SW/SC/O/O/BC410 (24-230) INPUT 24 VDC / OUTPUT 230 VAC.	668R0100 ...

The BurnerControl BC400 can be customised with the following attributes.

A 10 VOLTAGES IN/OUT	Selection
INPUT 230 VAC/OUTPUT 230 VAC	230 VAC
INPUT 120 VAC/OUTPUT 120 VAC	120 VAC
INPUT 24 VDC/OUTPUT 230 VAC	24-230
INPUT 24 VDC/OUTPUT 120 VAC	24-120
INPUT 24 VDC/OUTPUT 24 VDC	24VDC
A 20 FLAME MONITORING SYSTEM	Selection
EXTERNAL FLAME MONITORING SYSTEM VIA DIGITAL INPUT	0
INTERNAL FLAME MONITORING SYSTEM OPTICAL FFS...	OP
INTERNAL FLAME MONITORING SYSTEM IONISATION, SUPPLY 230 VAC	IO-230
See also catalogue for flame scanner and accessories, MA-PK-Flame-DLT7673	
A 50 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT (connector set included)	SC
SPRING-LOADED TERMINALS (connector set included)	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for MCC"	0
A 60 MEMORY EXTENSION	Selection
WITHOUT	0
WITH MEMORY EXTENSION for saving datasets and customer-specific texts	SE
A 80 BC400 BURNER SEQUENCER	Selection
WITHOUT	0
"GAS OPERATION" BURNER SEQUENCER	BC410
"OIL OPERATION" BURNER SEQUENCER	BC420
"DUEL-FUEL OPERATION" BURNER SEQUENCER	BC430

* A commercially available display protection film can be applied to protect the touch panel (not included in the LAMTEC delivery range).

Accessories

Designation/type	Order no.
UI400 user interface, connection via LSB, connecting cable length 2.5 m, IP40	668R0300
Additional IP65 cover for UI UI300/400 including fastening screws	668R0320
GUI607 graphic display module 7", power supply voltage 24 VDC/29 W, panel installation* Protection classes IP65 front and IP20 back	668R1000
GUI610 graphic display module 10", power supply voltage 24 VDC/29 W, panel installation* Protection classes IP65 front and IP20 back	668R1002
GUI615 graphic display module 15", power supply voltage 24 VDC/29 W, panel installation* Protection classes IP65 front and IP20 back	668R1004
PSU2415 power supply 100 ... 240 VAC/24 VDC, 15 W	668R0015
PSU2430 power supply 100 ... 240 VAC/24 VDC, 36 W	668R0030
PSU2460 power supply 100 ... 240 VAC/24 VDC, 60 W	668R0060
PSU24150 power supply 100 ... 240 VAC/24 VDC, 150 W	668R0150
EBM412 fieldbus module, PROFINET IO	667R0746-1
Gateway Modbus TCP / PROFIBUS DP slave	668R1400
PC software, basic version	668R9001
PC software, commissioning version	668R9000
PC software, expert version	668R9002
Internal optical flame monitoring system with FFS07/FFS08 (see product catalogue for flame scanners and accessories)	



GUI607 graphic display module 7" 668R1000
(for technical details see chapter Indicating instruments)



UI400 user Interface 668R0300
(for technical details see chapter Indicating instruments)



PROFIBUS gateway 668R1400



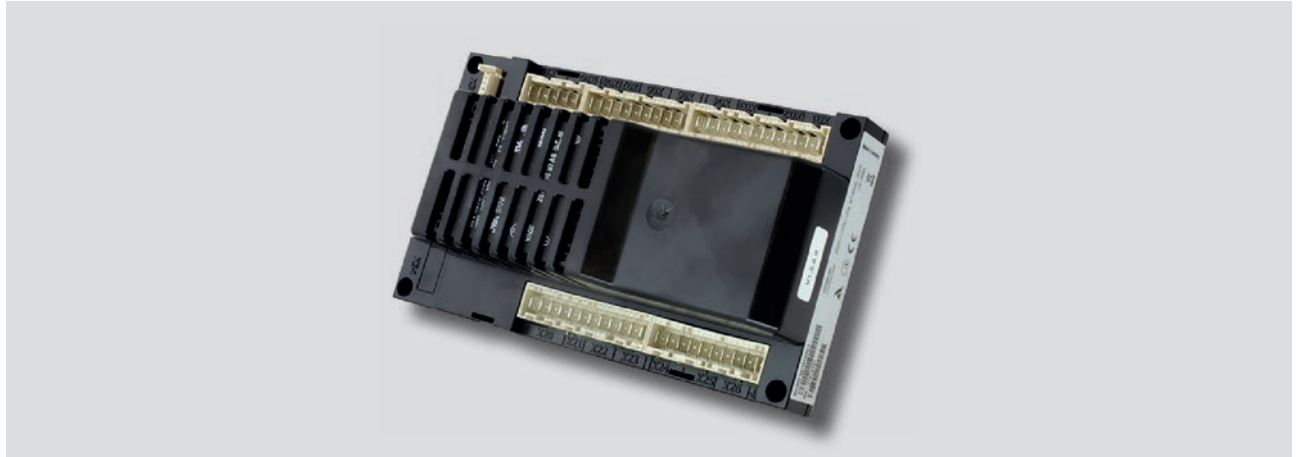
EBM412 667R0746-1 fieldbus module



PSU2415 power supply 668R0015

BurnerControl BC300.

Overview



BurnerControl BC300

The BC300 is a gas burner sequencer for industrial burners in thermal processing plants. It controls and monitors burners with unlimited performance both in intermittent operation and in continuous operation. The output is controlled in 1 or 2 stages, with pneumatic modulation or in cycle operation.

The BC300 is also suitable for operation at furnace temperatures over 750 °C. The last 10 faults are stored in the device for fault diagnosis. Thanks to the comprehensive set of approvals, the device is suitable for worldwide usage.

Highlights.

- Burner sequencer
- Intermittent and continuous operation
- Control and monitoring of burners with unlimited performance
- High-temperature operation over 750 °C (flame-free operation)
- Cooling function
- Language-neutral UI300-BC user interface
- Fieldbus connection (PROFINET)
- SIL 3- and CE-certified
- Mounting directly on burner
- Suitable for burners with central air supply
- Process and fault indicator output

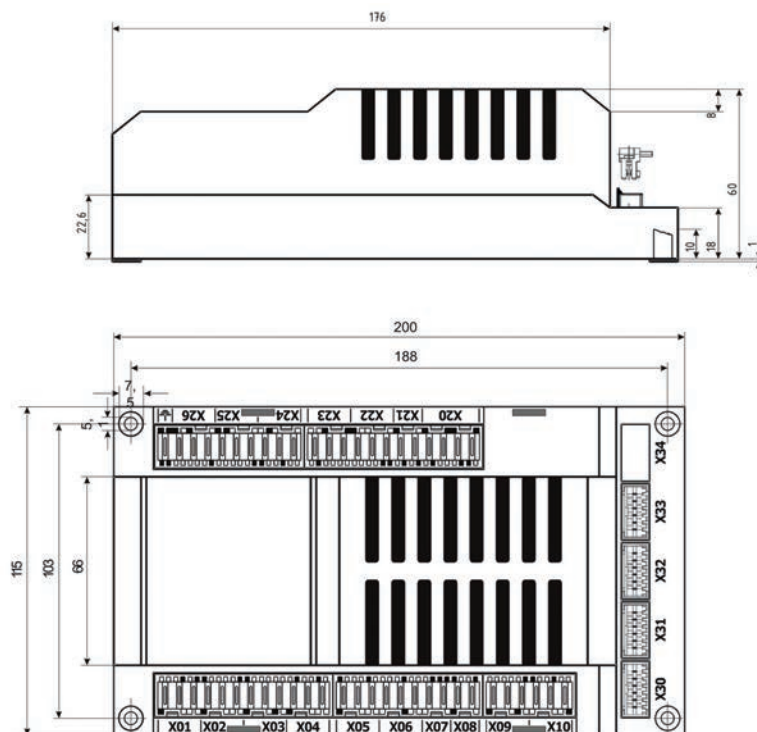
Flame monitoring system.

With the BC300 burner sequencer, you can choose between 4 flame monitoring system variants

- Flame monitoring system via ionisation (single and twin electrode operation)
- UV tubes
- LDR
- Flame monitoring system via digital contact input (230 V) for example F152 with FFS07/FFS08

Technical data

Item number	667R1420-1 BC300, 230 VAC 667R1421-1 BC300, 120 VAC 667R0140-1 UI300,	Dimensions [mm]	See dimensional drawings
Application	Gas burner sequencer for industrial burners in thermal processing plants for controlling and monitoring burners with unlimited performance both in intermittent operation and in continuous operation	Material	Polycarbonate + ABS
Power supply voltage	230 V +10/-15 % 47-63 Hz 115 V +10/-15 % 47-63 Hz (on request)	Weight [kg]	1.0
Power consumption	max. 30 VA	Protection class BC300 UI300-BC-V2 front	IP00 (housing) IP20 (terminals uncovered) IP40 (clamped) IP54 (adhered) IP65 with additional cover
Number of programming operations	unlimited (EEPROM)	Life time	Approx. 10 years
Maximum pre-fuse	10 A slow-blow	Ambient temperature	-20 ... +60 °C
Fieldbus coupling (optional)	PROFINET	Approval	See BA-BC300-DLT1211 manual



Dimensional drawing of BC300

Order information

Designation/type	Order no.
Set for BurnerControl 230 VAC, BC300/UI300, consisting of: BurnerControl BC300, 230 VAC, burner sequencer for furnace applications UI300 user interface for BC300	667R1440-1 ¹ 667R1420-1 667R0140-1
Set for BurnerControl 120 VAC, BC300/UI300, consisting of: BurnerControl BC300, 120 VAC, burner sequencer for furnace applications UI300 user interface for BC300	667R1441-1 667R1421-1 667R0140-1
Set for BurnerControl 230 VAC, BC300/UI300, consisting of: 667R1420-1 BurnerControl BC300, 230 VAC, mounting plate for BC300 including mounting for DIN mounting rail TS35, connector set for BC300, glow wire resistant, screw connection, 667R0140-1 UI300 user interface for BC300	667R1460-1
Set for BurnerControl 120 VAC, BC300/UI300, consisting of: 667R1421-1 BurnerControl BC300, 120 VAC, carrier plate for BC300 including mounting for DIN mounting rail TS35, connector set for BC300, glow wire resistant, screw connection, 667R0140-1 UI300 user interface for BC300	667R1461-1
BC300 in wall mounting housing 230 VAC, consisting of: Wall mounting housing made of sheet steel, H300xW200xD150 mm, RAL7035 light grey, door hinge right, protection class IP54. Other colours on request Protection class IP65 on request BurnerControl BC300, 230 VAC, connector set for BC300, glow wire resistant, screw connection, UI300 user interface for BC300	667R1480-1
BC300 in wall mounting housing 120 VAC, consisting of: Wall mounting housing made of sheet steel, H300xW200xD150 mm, RAL7016 anthracite grey, door hinge right, protection class IP54 (IP65 on request) BurnerControl BC300, 120 VAC, connector set for BC300, glow wire resistant, screw connection UI300 user interface for BC300	667R1481-1

¹ Connector set for BC300 must be ordered separately.

Accessories

Designation/type	Order no.
PSU2415 power supply, 100 ... 240 VAC/24 VDC, 15 W	667R1415
LSB-PC software for BC300, including adapter and cable	667R1430
Connector set for BC300, glow wire resistant, screw connection	667R0900-2
Ignition transformer 230 VAC for single electrode operation	667P1442
Ignition transformer 120 VAC for single electrode operation	667P1443
Ignition transformer 230 VAC for twin electrode operation	667P1440
Ignition transformer 120 VAC for twin electrode operation	667P1441
Voltage booster transformer IN 110 ... 120 VAC / OUT 130 ... 140 VAC	646P1039
EBM312 fieldbus module, PROFINET 2 ports ²	667R0745-1 ²
BC-EBM312 connecting cable, length 1 m	667P0515
Interference suppression resistor 1 kOhm	667P1412
Additional IP65 cover for UI300 including fastening screws	668R0320
UI300-BC user interface for BC300	667R0140-1
F152 flame monitoring system with FFS07 or FFS08, see product catalogue for flame scanners and accessories	



BC300 in 667R1480-1 wall mounting housing



F152 flame scanners with FFS07 or FFS08 sensors (see product catalogue for flame scanners and accessories)



BC-EBM312 connecting cable, length 1 m 667P0515



Interference suppression resistor 1 kOhm 667P1412



EBM312 667R0745-1 fieldbus module



Mounting for DIN mounting rail TS35



Ignition transformer for single electrode operation



IP65 cover for UI300 668R0320



UI300-BC user Interface 667R0140-1
(for technical details see chapter Indicating instruments)

Combustion Management System CMS.

Overview



Combustion Management System CMS

Whether for standard industrial combustion or more complex process applications, the revolutionary LAMTEC CMS burner and system control sets new standards. From small industrial burners to large systems, the modular system makes it possible to control and regulate everything.

Thanks to an integrated soft PLC, non-fail-safe functions can be integrated on a case-by-case basis and adapted to customer requirements. Simple setting and clear, language-neutral HMIs make commissioning and maintenance easier.

Advantages.

- Modular combustion management
- Easy operation
- From simple to high-end applications
- Inputs/Outputs can be freely configured
- Language-neutral thanks to display with icons
- Worldwide CE/UL/SIL 3 certification
- CODESYS soft PLC integrated
- Option of visualisation when using GUI HMI
- Integrated fault indicator system
- Modbus TCP on board
- Modules can be positioned centrally/decentrally
- Fixed ratio mixed combustion of up to 4 fuels possible

Technical highlights.

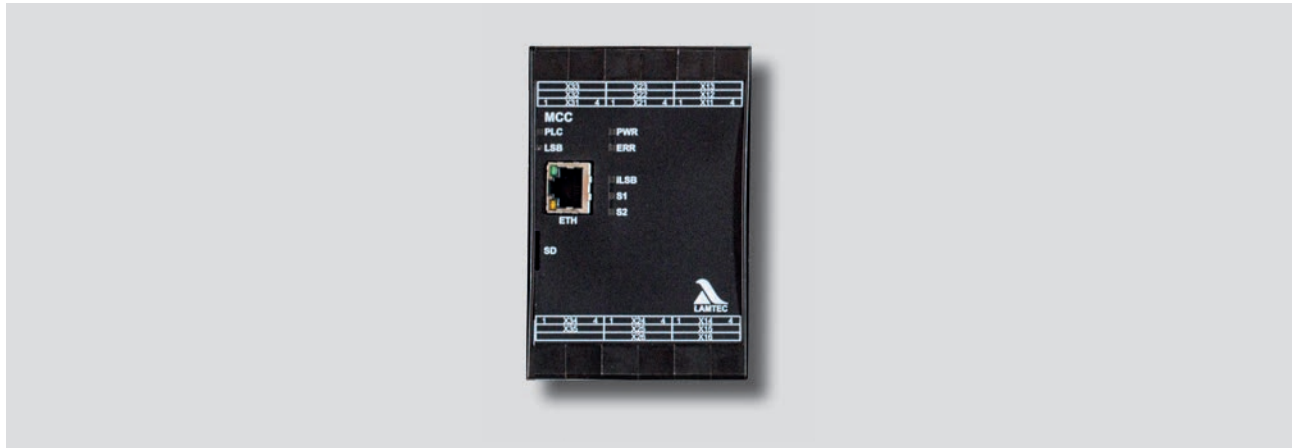
- Up to 10 actuators for fuel/air ratio
- Up to 60 safe digital inputs
- Up to 41 safe digital outputs
- Up to 18 analogue inputs (up to 9 safe analogue inputs as an alternative), language-neutral thanks to display with icons
- Up to 16 curve sets (operating modes)
- Up to 4 valve leakage tests
- 6 correction inputs, e.g. temperature compensation
- Fixed ratio mixed combustion for simultaneous combustion of up to 4 fuels
- Compliance with current safety requirements
- CO/H₂ control for optimum combustion
- Integrated flame monitoring system (optical flame sensors or ionisation)
- Security (protection against unauthorised access, data encryption)

Flame monitoring system.

- Internal flame monitoring system with ionisation electrode
- Internal flame monitoring system with FFS07/FFS08 optical flame sensor
- Flame monitoring system via contact (digital input), for example in conjunction with the LAMTEC F200K or F300K flame scanner

CMS MCC module.

Technical data



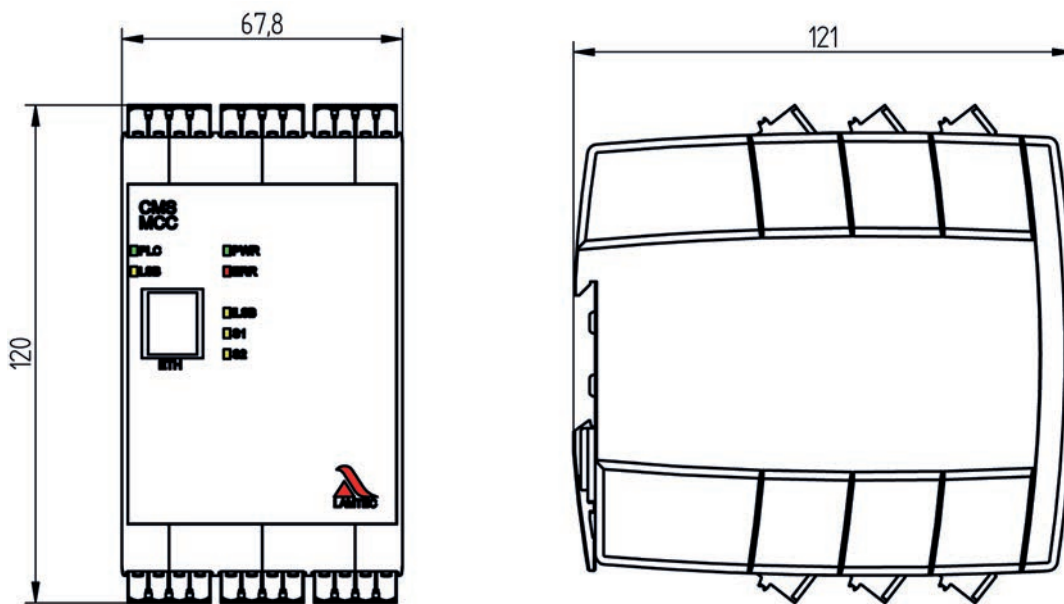
MCC module

MCC burner module

- Power supply +24 VDC
- 12 safe digital inputs
- 9 safe digital outputs
- Ethernet with Modbus TCP
- CODESYS soft PLC integrated
- 5 versions available:
 - Input 24 VDC/ Output 24 VDC
 - Input 24 VDC/ Output 120 VAC
 - Input 24 VDC/ Output 230 VAC
 - Input 120 VAC / Output 120 VAC
 - Input 230 VAC / Output 230 VAC

Item number	Type 668R0100-XX*	Dimensions [mm]	See dimensional drawings
Application	The MCC module (Master Control Component burner module) is equipped with both the burner sequencer with flame monitoring system, the valve leakage test as well as the complete communication interfaces	Material	Polycarbonate + ABS
Power supply voltage MCC: Inputs: Outputs:	24 VDC +/-20 %, SELV 230 V/120 V +10/-15 %, 47-63 Hz, 24 VDC ± 20 % 230 V/120 V +10/-15 %, 47-63 Hz, 24 VDC ± 20 %	Weight [kg]	0.505
Power consumption	max. 10 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	min: 200 mA max: 335 mA	Life time	Approx. 10 years
Maximum pre-fuse	8 A fast-acting	Ambient temperature	-30 ... +70 °C
Fieldbus coupling (optional)	MODBUS/TCP Ethernet defaults PROFINET Ethernet defaults LAMTEC SYSTEM BUS Other bus couplings via separate module	Approval	See BA-CMS-DLT7200

* XX = depends on the configuration



Dimensional drawing of MCC module

Order information

Designation/type	Order no.
MCC Master Control Component, power supply voltage 24 VDC/8 W, burner module	668R0100 ...
A 10 VOLTAGES IN/OUT	Selection
INPUT 230 VAC/OUTPUT 230 VAC	230 VAC
INPUT 120 VAC/OUTPUT 120 VAC	120 VAC
INPUT 24 VDC/OUTPUT 230 VAC	24-230
INPUT 24 VDC/OUTPUT 120 VAC	24-120
INPUT 24 VDC/OUTPUT 24 VDC	24VDC
A 20 FLAME MONITORING SYSTEM	Selection
EXTERNAL FLAME MONITORING SYSTEM VIA DIGITAL INPUT	0
INTERNAL FLAME MONITORING SYSTEM OPTICAL FFS...	OP
INTERNAL FLAME MONITORING SYSTEM IONISATION, SUPPLY 230 VAC	IO-230
A 30 CUSTOMER	Order no.
DEFAULT	S
A 40 COLOUR	Order no.
BLACK (DEFAULT)	BK
A 50 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT (connector set included)	SC
SPRING-LOADED TERMINALS (connector set included)	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for MCC"	0
A 60 MEMORY EXTENSION	Selection
WITHOUT	0
WITH MEMORY EXTENSION for saving datasets and customer-specific texts	SE

Separate connector sets for CMS MCC (when attribute 50 "CONNECTOR SET" = selection "0")

Designation/type	Order no.
MCC screw terminals input 120/230 VAC/output 120/230 VAC	668R0085
MCC screw terminals input 24 VDC/output 120/230 VAC	668R0086
MCC input screw terminals 24 VDC/output 24 VDC	668R0087
MCC spring-loaded terminals input 120/230 VAC/output 120/230 VAC	668R0095
MCC spring-loaded terminals input 24 VDC/output 120/230 VAC	668R0096
MCC input spring-loaded terminals 24 VDC/output 24 VDC	668R0097

CMS AEC-TPS module.

Technical data



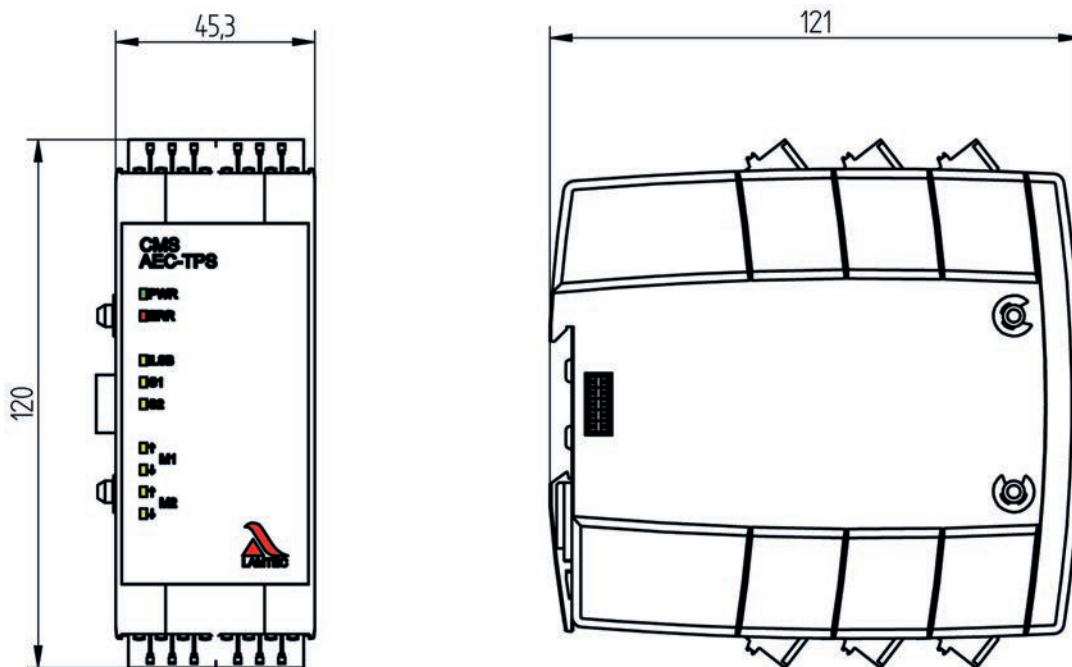
AEC-TPS module

AEC-TPS motor module

- 2 outputs: Open/Close for servomotors
 - Compatible with LAMTEC TPS motors
 - Position feedback for potentiometer 5 kOhm
- 2 versions: 120 VAC and 230 VAC
 - Max. 5 AEC-TPS modules in the system

Item number	668R0200-XX*	Dimensions [mm]	See dimensional drawings
Application	AEC-TPS (Actuator Extension Component module) for controlling and monitoring 2 three-point step actuators with potentiometer for position feedback.	Material	Polycarbonate + ABS
Power supply voltage AEC-TPS: Motor outputs	24 VDC \pm 20 % (via plug-in connection from MCC) 230 VAC +10/-15 %, 47 - 63 Hz, 0.4 A max 120 VAC +10/-15 %, 47 - 63 Hz, 0.4 A max	Weight [kg]	0.244
Power consumption	2 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	min: 50 mA max: 60 mA	Life time	Approx. 10 years
Maximum pre-fuse	1.6 A slow-blow for each output module	Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

*XX = depends on the configuration



Dimensional drawing of AEC-TPS motor module

Order information

Designation/type	Order no.
AEC-TPS Actuator Extension Component - max. 2 TPS drives, power supply voltage 24 VDC/1.5 W	668R0200...
A 10 CONTROL VOLTAGE	Selection
120 ... 230 VAC	AC
A 20 POSITION FEEDBACK	Selection
1 POTENTIOMETER	1PO
2 POTENTIOMETERS	2PO
A 30 CUSTOMER	Selection
DEFAULT	S
A 40 COLOUR	Selection
BLACK (DEFAULT)	BK
A 50 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for AEC-TPS"	0

Separate connector set for AEC-TPS (when attribute 50 "CONNECTOR SET" = selection "0")

Designation/type	Order no.
AEC-TPS screw terminals, 2 actuators with 1 potentiometer each	668R0083
AEC-TPS spring-loaded terminals, 2 actuators with 1 potentiometer each	668R0093
AEC-TPS screw terminals, 2 actuators with 2 potentiometers each	668R0084
AEC-TPS spring-loaded terminals, 2 actuators with 2 potentiometers each	668R0094

CMS AEC-ST module.

Technical data



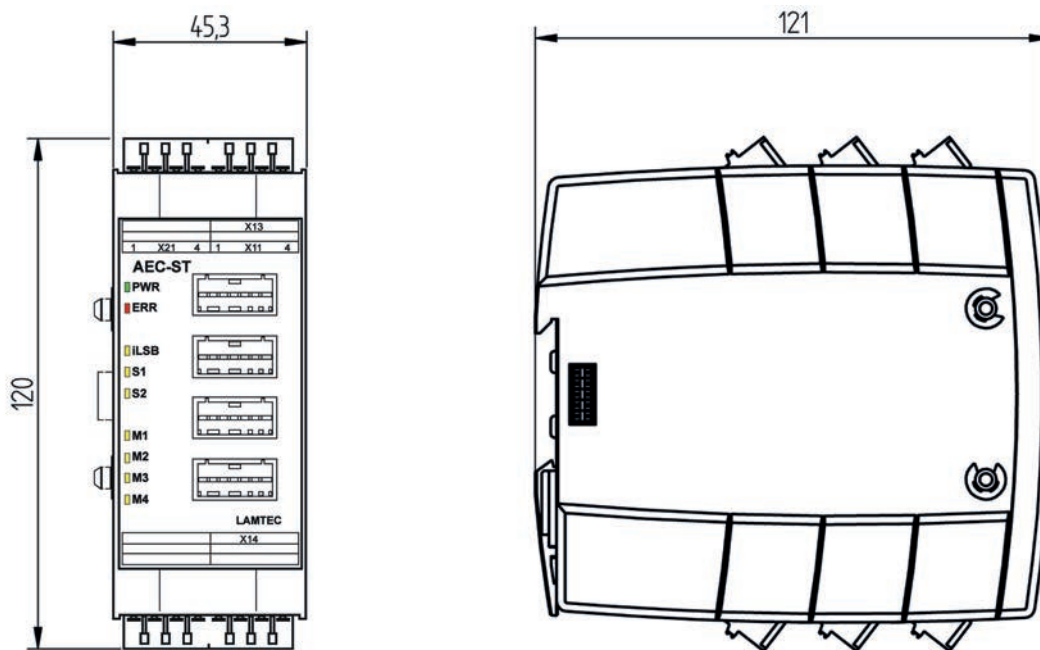
AEC-ST module

AEC-ST stepper motor module

- Compatible with stepper motors of the BT300
- 1 module for 4 stepper motors
- Maximum 2 modules per system
- Motor torque of 0.8 Nm, 1.2 Nm, 3 Nm, 9 Nm

Item number	668R0220-XX*	Dimensions [mm]	See dimensional drawings
Application	AEC-ST (Actuator Extension Component module) for controlling and monitoring max. 4 step actuators	Material	Polycarbonate + ABS
Power supply voltage	24 VDC ± 20 % (via plug-in connection from MCC and/or via X13)	Weight [kg]	0.260
Power consumption	min: 1.2 W max. 2 W (without connected actuators)	Protection class	IP20 (when all terminals are fitted)
Actuator power consumption	7-10 W	Life time	Approx. 10 years
Current consumption	min: 50 mA max. 90 mA (without connected actuators)	Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

* XX = depends on the configuration



Dimensional drawing of AEC-ST module

Order information

Designation/type	Order no.
AEC-ST Actuator Extension Component – step, power supply voltage 24 VDC/1.5 W	668R0220...
A 10 CUSTOMER	Selection
DEFAULT	S
A 20 COLOUR	Selection
BLACK (DEFAULT)	BK
A 30 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see “Separate connector sets for AEC-TPS”	0

Separate connector sets for AEC-ST (when attribute 30 “CONNECTOR SET” = selection “0”)

Designation/type	Order no.
AEC-ST screw terminals	668R0066
AEC-ST spring-loaded terminals	668R0076

CMS AEC-VS module.

Technical data



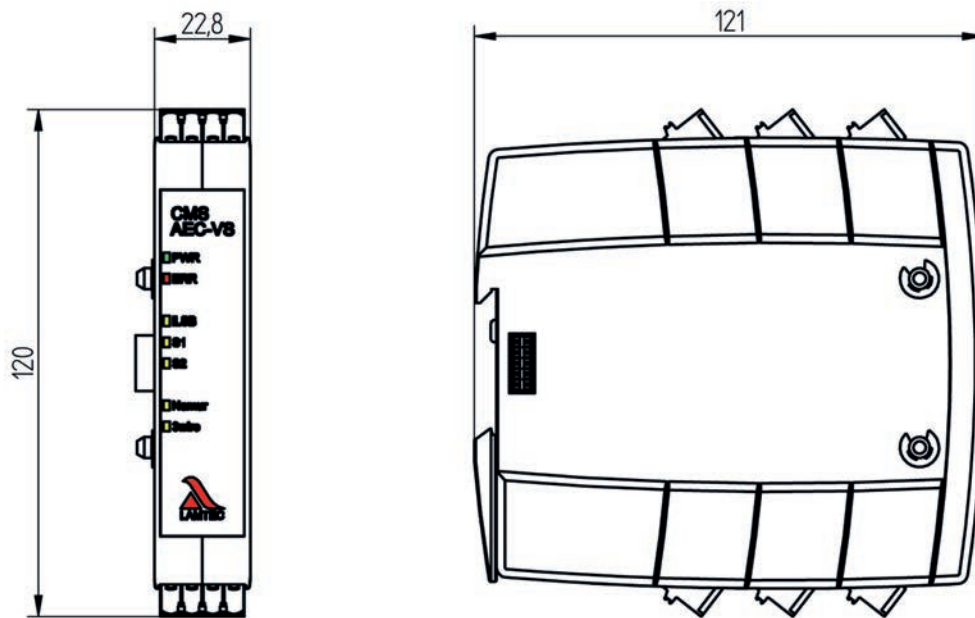
AEC-VS module

AEC-VS speed module

- 4 ... 20 mA output for frequency inverter
- Alternative: 4 ... 20 mA output for positioner
- NAMUR RPM sensor, 3-wire sensor or 4 ... 20 mA
- Digital output for "Fan on"
- Digital input for "FI fault/ready"
- Max. 10 AEC-VS modules in the system

Item number	668R0230-XX*	Dimensions [mm]	See dimensional drawings
Application	AEC-VS (Actuator Extension Component Variable Speed module) for controlling and monitoring frequency inverters or actuators with 4 ... 20 mA input and 4 ... 20 mA acknowledgement.	Material	Polycarbonate + ABS
Power supply voltage	24 VDC ± 20 % (via plug-in connection from MCC)	Weight [kg]	0.160
Power consumption	2 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	min: 50 mA max: 60 mA	Life time	Approx. 10 years
		Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

*XX = depends on the configuration



Dimensional drawing of AEC-VS module

Order information

Designation/type	Order no.
AEC-VS Actuator Extension Component – variable speed, power supply voltage 24 VDC/1.5 W	668R0230...
A 10 CONTROL VOLTAGE DIGITAL INPUT	Selection
120 VAC	120VAC
230 VAC	230VAC
+24 VDC	24VDC
A 20 CUSTOMER	Selection
DEFAULT	S
A 30 COLOUR	Selection
BLACK (DEFAULT)	BK
A 40 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see “Separate connector sets for VS”	0

Separate connector sets for AEC-VS (when attribute 40 “CONNECTOR SET” = selection “0”)

Designation/type	Order no.
AEC-VS screw terminals control voltage digital input 120/230 VAC	668R0081
AEC-VS screw terminals control voltage digital input 24 VDC	668R0082
AEC-VS spring-loaded terminals control voltage digital input 120/230 VAC	668R0091
AEC-VS spring-loaded terminals control voltage digital input 24 VDC	668R0092

CMS SDI module.

Technical data



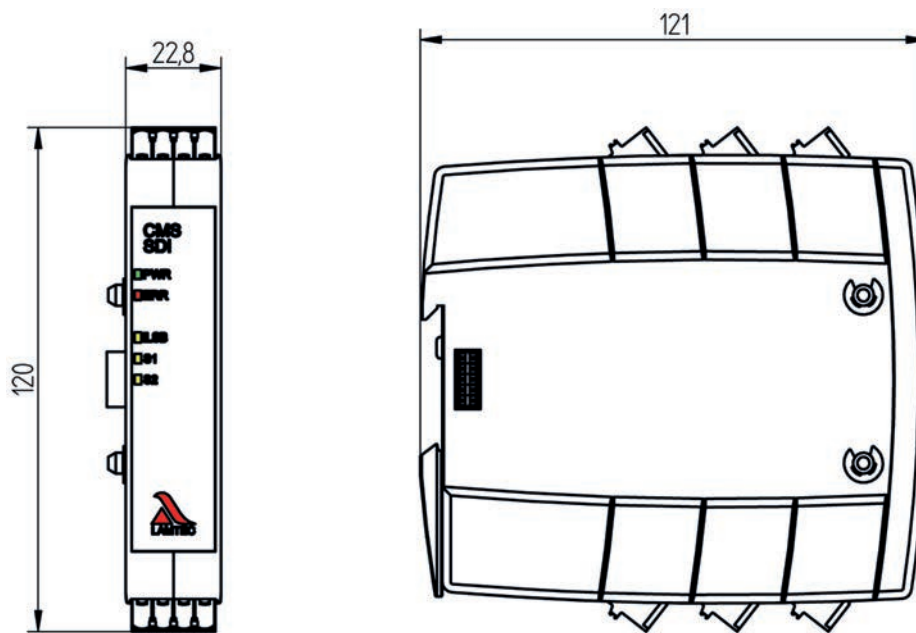
SDI module

SDI safe input module

- 8 safe digital inputs per module
- 3 versions: 24 VDC, 120 VAC, 230 VAC
- Max. 6 SDI modules in the system

Item number	668R0400-XX*	Dimensions [mm]	See dimensional drawings
Application	SDI Safe Digital Input Component, module with 8 safe digital inputs.	Material	Polycarbonate + ABS
Power supply voltage	24 VDC \pm 20 % (via plug-in connection from MCC)	Weight [kg]	0.140
Power consumption	max. 1.5 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	min: 40 mA max: 45 mA	Life time	Approx. 10 years
		Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

*XX = depends on the configuration



Dimensional drawing of SDI module

Order information

Designation/type	Order no.
SDI Safe Digital Input Component, power supply voltage 24 VDC / 1.1 W	668R0400...
A 10 CONTACTOR VOLTAGE DIGITAL INPUT	Selection
120 VAC	120VAC
230 VAC	230VAC
+24 VDC	24VDC
A 20 CUSTOMER	Selection
DEFAULT	S
A 30 COLOUR	Selection
BLACK (DEFAULT)	BK
A 40 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for VS"	0

Separate connector sets for SDI (when attribute 40 "CONNECTOR SET" = selection "0")

Designation/type	Order no.
SDI screw terminals contactor voltage digital input 120/230 VAC	668R0088
SDI screw terminals contactor voltage digital input 24 VDC	668R0089
SDI spring-loaded terminals contactor voltage digital input 120/230 VAC	668R0098
SDI spring-loaded terminals contactor voltage digital input 24 VDC	668R0099

CMS SDO module.

Technical data



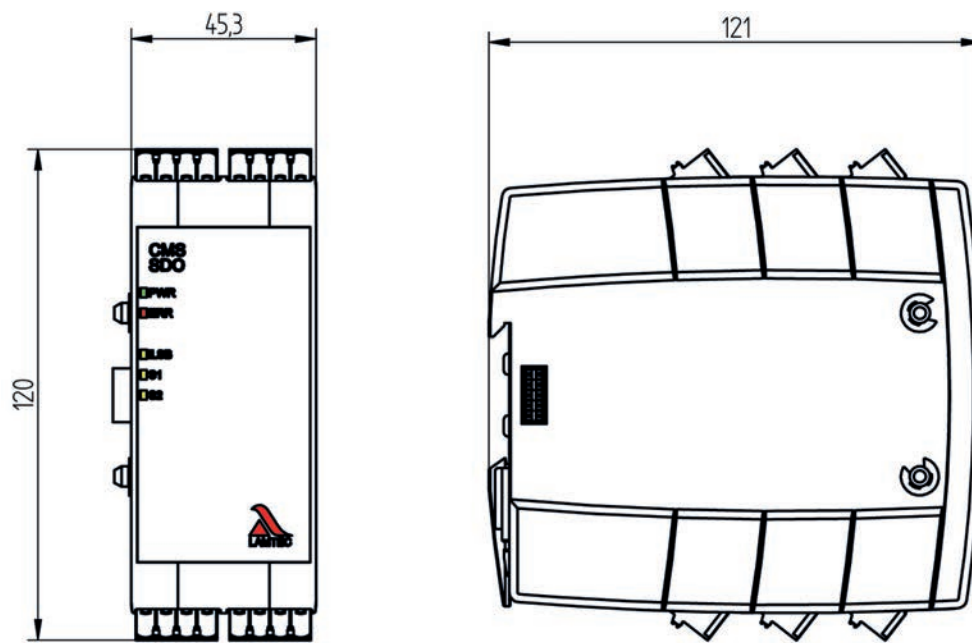
SDO module

SDO safe output module

- 8 safe digital outputs
- Max. 2 A per output
- 3 versions: 24 VDC, 120 VAC, 230 VAC
- Max. 4 SDO modules per system

Item number	668R0500-XX*	Dimensions [mm]	See dimensional drawings
Application	SDO Safe Digital Output Component, module with 8 safe digital outputs.	Material	Polycarbonate + ABS
Power supply voltage	24 VDC \pm 20 % (via plug-in connection from MCC)	Weight [kg]	0.335
Power consumption	max. 5 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	min: 40 mA max: 170 mA	Life time	Approx. 10 years
Pre-fuse of outputs	max. 8 A fast-acting	Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

* XX = depends on the configuration



Dimensional drawing of SDO module

Order information

Designation/type	Order no.
SDO Safe Digital Output Component, power supply voltage 24 VDC / 4.1 W	668R0500...
A 10 POWER SUPPLY VOLTAGE OF OUTPUTS	Selection
120 VAC	120VAC
230 VAC	230VAC
+24 VDC	24VDC
A 20 CUSTOMER	Selection
DEFAULT	S
A 30 COLOUR	Selection
BLACK (DEFAULT)	BK
A 40 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for VS"	0

Separate connector sets for SDO (when attribute 40 "CONNECTOR SET" = selection "0")

Designation/type	Order no.
SDO screw terminals power supply voltage of outputs 120/230 VAC	668R0068
SDO screw terminals power supply voltage of outputs 24 VDC	668R0069
SDO spring-loaded terminals power supply voltage of outputs 120/230 VAC	668R0078
SDO spring-loaded terminals power supply voltage of outputs 24 VDC	668R0079

CMS SAI module.

Technical data



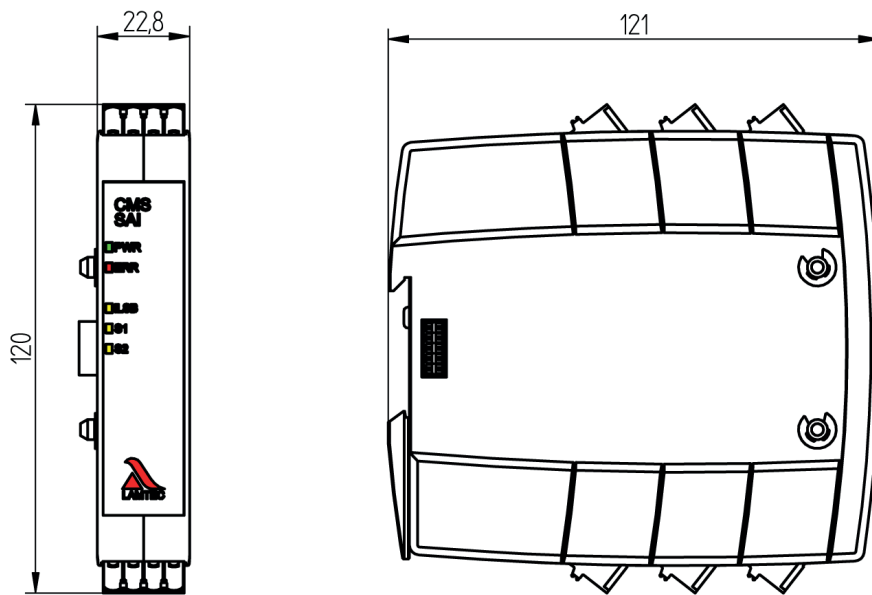
SAI module

SAI analogue input module

- 3 safe and 6 non-safe analogue inputs or any combination thereof, optionally 4-20 mA, Pt100, Pt1000
- Max. 3 SAI modules in the system

Item number	668R0600-XX*	Dimensions [mm]	See dimensional drawings
Application	SAI Safe Analogue Input Component, module with 6 non-safe analogue inputs or 3 safe analogue inputs and 2 pulse inputs for fuel meters.	Material	Polycarbonate + ABS
Power supply voltage	24 VDC \pm 20 % (via plug-in connection from MCC)	Weight [kg]	0.131
Power consumption	8.4 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	min: 65 mA max: 350 mA	Life time	Approx. 10 years
Current-carrying capacity of reference voltage outputs	(X11-X16 pin 1): max. 80 mA per input	Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

* XX = depends on the configuration



Dimensional drawing of SAI module

Order information

Designation/type	Order no.
SAI Safe Analogue Input Component, power supply voltage 24 VDC / 8.4 W	668R0600...
A 10 CUSTOMER	Selection
DEFAULT	S
A 20 COLOUR	Selection
BLACK (DEFAULT)	BK
A 30 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for VS"	0

Separate connector sets for SAI (when attribute 30 "CONNECTOR SET" = selection "0")

Designation/type	Order no.
SAI screw terminals	668R0067
SAI spring-loaded terminals	668R0077

CMS BLC module.

Technical data



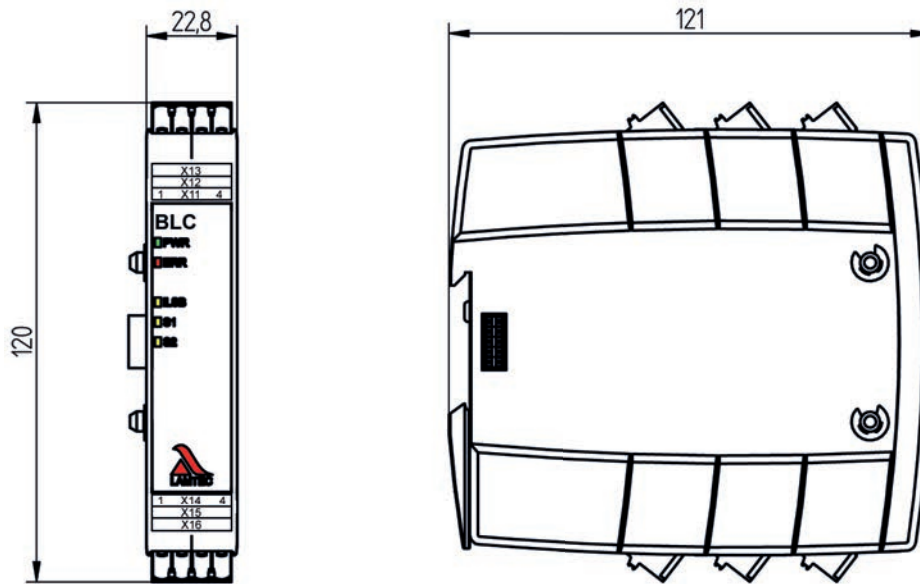
BLC module active (left), BLC module passive (right)

Bus link module

- Module for coupling spatially separated module blocks
- BLC active and passive are used as transmitter and receiver modules.
- BLC active starts a new bus segment
- Maximum length of a bus segment 70 m

Item number	668R0800-XX* active 668R0810-XX* passive	Dimensions [mm]	See dimensional drawings
Application	BLC (active/passive, Bus Link Component module), expansion module for the internal secure LAMTEC SYSTEM BUS	Material	Polycarbonate + ABS
Power supply voltage	24 VDC ± 20 % (via plug-in connection from MCC and/or via X13)	Weight [kg]	Passive 0.130 Active 0.140
Power consumption	Passive 0.7 W Active 1.8 W	Protection class	IP20 (when all terminals are fitted)
Current consumption	Passive 30 mA Active 75 mA	Life time	Approx. 10 years
Internal fuse	8 A slow-blow	Ambient temperature	-30 ... +70 °C
		Approval	See BA-CMS-DLT7200

* XX = depends on the configuration



Dimensional drawing of BLC module

Order information for BLC active

Designation/type	Order no.
BLC (active) Bus Link Component, Vcc 24 VDC	668R0800...
A 10 VERSION	Selection
ACTIVE	00
A 20 CUSTOMER	Selection
DEFAULT	S
A 30 COLOUR	Selection
BLACK (DEFAULT)	BK
A 40 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for BLC"	0

Order information for BLC passive

Designation/type	Order no.
BLC (passive) Bus Link Component, Vcc 24 VDC	668R0810...
A 10 VERSION	Selection
PASSIVE	10
A 20 CUSTOMER	Selection
DEFAULT	S
A 30 COLOUR	Selection
BLACK (DEFAULT)	BK
A 40 CONNECTOR SET	Selection
SCREW TERMINALS DEFAULT Connector set included	SC
SPRING-LOADED TERMINALS connector set included	FED
WITHOUT Connector set not included, must be ordered separately, see "Separate connector sets for BLC"	0

Separate connector sets for BLC (when attribute 40 "CONNECTOR SET" = selection "0")

Designation/type	Order no.
BLC screw terminals	668R0065
BLC spring-force terminals	668R0075

Accessories

Designation/type	Order no.
Connection cable for CANopen / iLSB 2x2x0.34 mm ² , shielded	05L052X2X0.34

CMS, miscellaneous

Software options

Designation/type	Order no.
Default power control unit	668R1200
Standby operation	668R1210
Purging of fuel train (oil only, gas in the pipeline)	668R1230
Channel 3, external correction in CMS	668R1270
Channel 4, external fail-safe correction in CMS	668R1271
2 additional curve sets (max. 16 possible)	668R1330
3. Fuel, including 2 additional curve sets ¹	668R1343
4. Fuel, including 2 additional curve sets (requirement is 3rd fuel) ¹	668R1344
Additional main flame monitoring (max. 2 possible)	668R1350
Correction with special function	In the pipeline
Power control unit with special function	In the pipeline
Fuel changeover via pilot burner	668R1360
Online curve set changeover	668R1320
Fixed ratio mixed combustion, including 2 additional curve sets and online curve set changeover	668R1370
Variable mixed combustion, including 2 additional curve sets	In the pipeline
Online fuel changeover	In the pipeline
PLC option: Staged operation	669R1201
PLC option: Hiding firing rates	669R1202
PLC option: Manual/Automatic locking/change-over	669R1203
PLC option: Combustion chamber pressure regulation	669R1205
PLC option: Signal-dependent curve set change-over (PLC analogue input or internal firing rate, can be switched via parameters) Additionally required: SAI module, order no.: 668R0600 ²	669R1207
PLC option: Automatic solo curve set change-over Additionally required: Option of fixed ratio mixed combustion 668R1370	669R1208
PLC option: Multi-burner sequences in CMS with up to 3 slaves Required for MASTER: - 5 additional digital outputs - 4 digital inputs per slave - 3 free chain elements per slave - 3 additional chains - 1 additional chain element in the safety chain installation per slave - 1 AEC-VS channel per slave Required per SLAVE: - 5 additional digital inputs - 4 digital outputs - 3 free chain elements per slave - 1 additional chain element in the safety chain installation per slave - Analogue input at terminal 35.4 must be assigned as "external firing rate" - Analogue output on terminal 34.4 must be assigned as output of "internal firing rate"	669R1210
PLC option: FGR temperature compensation, default	669R1215
PLC option: FGR fan	669R1216
PLC option: Temperature compensation of combustion air	669R1217
PLC option: Ignition lance retraction function	669R1220
PLC option: Shut-off damper for burner (partition function)	669R1225
PLC option: Cooling mode via digital input or analogue limit value with burner OFF	669R1231
PLC option: Fuel lance retraction function	669R1240

¹ For gas including leakage test

² Required depending on application

Software options

Designation/type	Order no.
PLC option: O ₂ control correction forwarding when measuring on 2 CMS Additionally required: AEC-VS module, order no.: 668R0230 SAI module, order no.: 668R0600 (only for follow-on CMS) ² Channel 3, external correction, order no.: 668R1270 (only for follow-on CMS)	669R1245
PLC option: O ₂ control with external O ₂ value (third-party connection) Additionally required: SAI module, order no.: 668R0600	669R1248
CMS Open PLC Edition COPE	669R1260

Accessories

Designation/type	Order no.
UI400 user interface in "standard design" panel-mounted housing, housing colour RAL7016, protection class IP40, including connecting cable, cable length 2.5 m	668R0300
Additional IP65 cover for UI... including fastening screws	668R0320
GUI607 graphic display module 7", power supply voltage 24 VDC/29 W, panel installation	668R1000
GUI610 graphic display module 10", power supply voltage 24 VDC/29 W, panel installation	668R1002
GUI615 graphic display module 15", power supply voltage 24 VDC/29 W, panel installation	668R1004
PSU2415 power supply 100 ... 240 VAC/24 VDC, 15 W	668R0015
PSU2430 power supply 100 ... 240 VAC/24 VDC, 36 W	668R0030
PSU2460 power supply 100 ... 240 VAC/24 VDC, 60 W	668R0060
PSU24150 power supply 100 ... 240 VAC/24 VDC, 150 W	668R0150
EBM412 fieldbus module, PROFINET IO	667R0746-1
Gateway Modbus TCP / PROFIBUS DP slave	668R1400
Gateway Modbus RTU (in the pipeline)	On request
Gateway Modbus TCP / Ethernet IP (in the pipeline)	On request
PC software, basic version	668R9001
PC software, commissioning version	668R9000
PC software, expert version	668R9002
PC software, commissioning version upgrade to expert version	668R9003
Transformer for voltage boost during ionisation monitoring 120 VAC IN 120 VAC/OUT 140 VAC	646P1039
Network switch, 5x RJ45, 24 VDC, IP30, -10 ... +60 °C	668R1010
F152 flame monitoring device, power supply voltage 230 VAC	659G0501
F152 flame monitoring device, power supply voltage 120 VAC	659G0502
FFS07 flame sensor, axial light entry opening, IP66/IP67	659D21...
FFS08 flame sensor, radial light entry opening, IP66/IP67	659D31...
F200K compact flame scanner, power supply voltage 24 VDC/4 W, IP66/IP67	659R60...
F300K compact flame scanner, power supply voltage 24 VDC/3.7 W, IP66/IP67, NEMA 4X	659A50...
LAMTEC LT3 with KS1D for O ₂ or CO control (see product catalogue for measuring systems)	

Accessories



F300K/F200K compact flame scanner



F152 flame scanners with FFS07 or FFS08 sensors (see product catalogue for flame scanners and accessories)



GUI607 graphic display module 7" 668R1000
(for technical details see chapter Indicating instruments)



UI400 668R0300
(for technical details see chapter Indicating instruments)



LAMTEC LT3 with KS1D for O₂ or CO control



AEC-ST actuators



CMS actuators



PSU2415 power supply 668R0015

AEC-ST actuators

Designation/type	Order no.
Actuator 1.2 Nm, with plug, without cable, spring-tensioned gearing	662R5001-0
Actuator 3 Nm, with plug, without cable, spring-tensioned gearing	662R5003-0
Actuator 3 Nm, 1.5 m cable, spring-tensioned gearing	662R5003-1
Actuator 9 Nm, with plug, without cable, spring-tensioned gearing	662R5009-0
Connecting cable for 662R500x-0 actuator, length 10 m	662R5591 10m
Connecting cable for 662R500x-0 actuator, length 5 m	662R5591 5m
Connecting cable for 662R500x-0 actuator, length 3.0 m	662R5591 3.0m
Connecting cable for 662R500x-0 actuator, length 1.5 m	662R5591 1.5m
Connecting cable for 662R500x-0 actuator, length 3.0 m, UR-certified	662R5593 3.0m
Connecting cable for 662R500x-0 actuator, length 1.5 m, UR-certified	662R5593 1.5m

The x in the item numbers of the connecting cable must be replaced with the motor torque of the desired actuator.

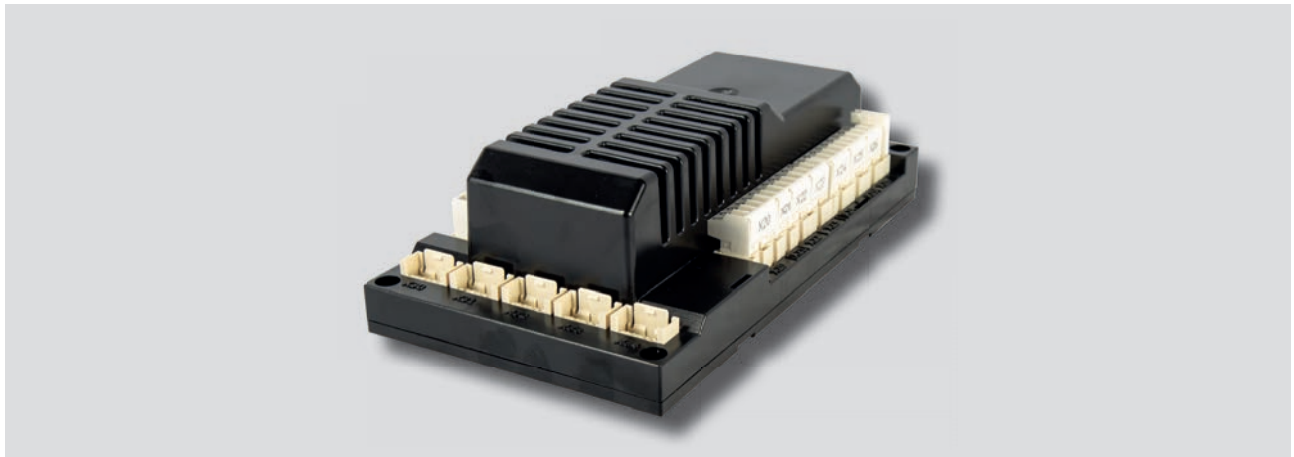
AEC-TPS actuators

Designation/type	Order no.
TPS06 - 6 Nm electric actuator, TPS, position feedback potentiometer 5 kOhm, conductive plastic, 2 limit switches for limiting the drive, electric hand feed, protection class IP65	668M2006...
TPS20 - 20 Nm electric actuator, TPS, position feedback potentiometer 5 kOhm, conductive plastic, 2 limit switches for limiting the drive, electric hand feed, protection class IP65	668M2020...
TPS40 - 40 Nm electric actuator, TPS, position feedback potentiometer 5 kOhm, conductive plastic, 2 limit switches for limiting the drive, electric hand feed, IP65	668M2040...
TPS60.1 - 60 Nm electric actuator, TPS, position feedback potentiometer 5 kOhm, conductive plastic, 2 limit switches for limiting the drive, electric hand feed, protection class IP65	668M2060-1...
TPS100.1 - 100 Nm electric actuator, TPS, position feedback potentiometer 5 kOhm, conductive plastic, 2 limit switches for limiting the drive, electric hand feed, protection class IP65	668M20100-1...
TPS200.1 - 200 Nm electric actuator, TPS, position feedback potentiometer 5 kOhm, conductive plastic, 2 limit switches for limiting the drive, electric hand feed, protection class IP65	668M20200-1...

For more information on configuring the motors and the available control dampers as well as the required accessories, see MA-Product Catalogue-Motors-DLT2100

BurnerTronic BT300 BT320 ... BT341.

Overview



BurnerTronic BT300

The BurnerTronic BT300 burner control system combines the advantages of an electronic fuel/air ratio control with an electronic burner control unit. 3 motorised actuators are available.

In addition, the BurnerTronic BT300 can be expanded with various modules, for example with a module for controlling the speed of the combustion air fan. The burner control systems and the modules communicate uniformly using the LAMTEC SYSTEM BUS (LSB).

Highlights.

- Modular combustion management
- 3-channel fuel/air ratio
- Flue gas recirculation
- Optional control of the combustion air fan
- Simple parameter setting with icons, language-neutral with the UI300 user interface
- Integrated flame monitoring system and valve leakage test
- Operating hours and start-up counter.
- Cost-saving installation by mounting directly on burner
- Enormous cost reduction through CO/H₂ or O₂ control possible

Flame monitoring system.

With the BC300 burner sequencer, you can choose between 4 flame monitoring system variants

- Flame monitoring system via ionisation (single and twin electrode operation)
- UV tubes
- LDR
- Flame monitoring system via digital contact input (230 V) for example F152 with FFS07/FFS08

Variants of the BT300.

The LAMTEC BurnerTronic BT300 burner control system is available in 6 different versions:

BurnerTronic BT320:

- 2 motorised continuous outputs
- 1 constant control output 0 ... 10 V, 0/4 ... 20 mA for speed control of the combustion air fan via VSM100 (optional)
- continuous operation

BurnerTronic BT330:

- 3 motorised continuous outputs
- 1 constant continuous output 0 ... 10 V, 0/4 ... 20 mA for speed control of the combustion air fan via VSM100 (optional)
- Approved for continuous operation in combination with a flame sensor suited for continuous operation

BurnerTronic BT331:

Functions like BT330, but also with the following approvals:

- DIN EN 61508:2002 Parts 1-7 for SIL 3
- Performance Level PLE according to DIN EN ISO 13849-1

BurnerTronic BT335:

- 3 motorised continuous outputs
- Simple oil/gas dual-fuel operation without DFM300
- 1 constant continuous output 0 ... 10 V, 0/4 ... 20 mA for speed control of the combustion air fan via VSM100 (optional)
- Approved for continuous operation in combination with a flame sensor suited for continuous operation

BurnerTronic BT340:

- 3 motorised continuous outputs
- Oil/Gas or gas/gas dual-fuel operation via DFM300
- 1 constant continuous output 0 ... 10 V, 0/4 ... 20 mA for speed control of the combustion air fan via VSM100 (optional)
- Approved for continuous operation in combination with a flame sensor suited for continuous operation

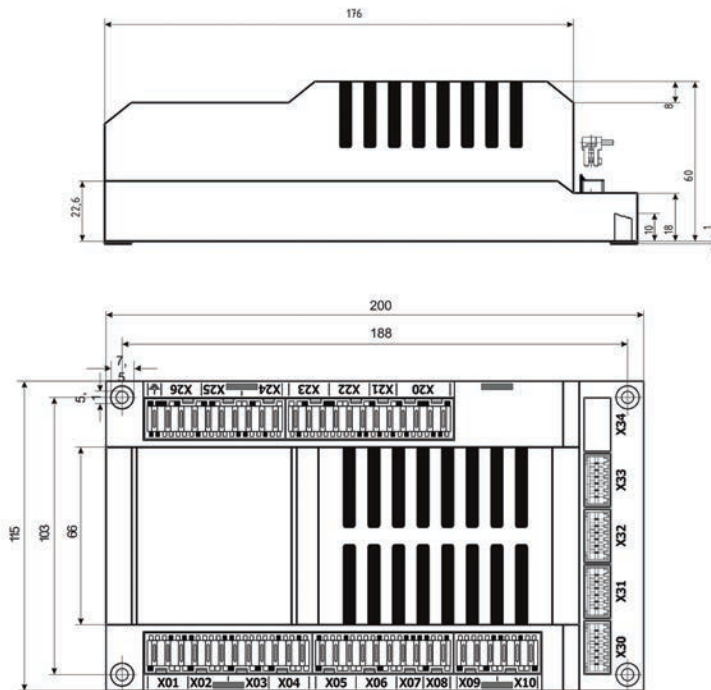
BurnerTronic BT341:

Functions like BT340, but also with the following approvals:

- DIN EN 61508:2002 Parts 1-7 for SIL 3
- Performance Level PLE according to DIN EN ISO 13849-1

Technical data

Item number	667R13 ...	Dimensions [mm]	See dimensional drawings
Application	Electronic fuel/air ratio control with up to 3 motorised actuators for controlling and monitoring burners with unlimited performance both in intermittent operation and in continuous operation	Material	Polycarbonate + ABS
Power supply voltage	230 V +10/-15 % 47-63 Hz 115 V +10/-15 % 47-63 Hz (on request)	Weight [kg]	1.0
Power consumption	max. 30 VA	Protection class BT300 UI300-BC-V2 front UI300-LSB	IP00 (housing) IP20 (terminals uncovered) IP40 (clamped) IP54 (adhered) IP65 with additional cover IP20 (when all terminals are assigned)
Number of programming operations	unlimited (EEPROM)	Life time	Approx. 10 years
Maximum pre-fuse	10 A slow-blow	Ambient temperature	-20 ... +60 °C
Fieldbus coupling (optional)	PROFIBUS DP, Modbus TCP, PROFINET LEM100 or LCM100 mandatory	Approval	See manual BA-BT300-DLT1201



Dimensional drawing of BurnerTronic BT300

Order information

Designation/type	Order no.
BT320 up to 2 actuators, for intermittent operation only, 230 VAC	667R1320-1
BT320 up to 2 actuators, for intermittent operation only, 115 VAC	667R1321-1
BT330 up to 3 actuators, suited for continuous operation, 230 VAC	667R1330-1
BT330 up to 3 actuators, suited for continuous operation, 115 VAC	667R1331-1
BT331 up to 3 actuators, suited for continuous operation, 230 VAC, SIL 3 approved	667R1330-2
BT331 up to 3 actuators, suited for continuous operation, 115 VAC, SIL 3 approved	667R1331-2
BT335 up to 3 actuators, suited for continuous operation, for simple dual-fuel burner, 230 VAC without DFM	667R1335-1
BT335 up to 3 actuators, suited for continuous operation, for simple dual-fuel burner, 120 VAC without DFM	667R1335-2
BT340 up to 3 actuators, suited for continuous operation, for dual-fuel burners, 230 VAC, in combination with DFM300	667R1340-1
BT340 up to 3 actuators, suited for continuous operation, for dual-fuel burners, 115 VAC, in combination with DFM300	667R1341-1
BT341 up to 3 actuators, suited for continuous operation, for dual-fuel burners, 230 VAC, in combination with DFM300, SIL 3 approved	667R1340-2
BT341 up to 3 actuators, suited for continuous operation, for dual-fuel burners, 115 VAC, in combination with DFM300, SIL 3 approved	667R1341-2

Accessories

Designation/type	Order no.
Complete connector set for BT300, glow wire resistant according to IEC60335-1, unassembled, screw connection, connectible conductor cross-section. 2.5 mm ²	667R0900-2
Plug cover	667R0001
UI300-V2 user interface with graphic display, in "standard" panel installation housing, including connecting cable, IP41, UL approved	667R0100-1
UI300-LSB - user interface with graphic display, in "standard" panel housing including connection cable, IP41, UL approved, for LSB bus	667R0120-1
Cover for UI300 and UI400 for achieving protection class IP65, including fastening nuts	668R0320
BT300 X31 connection cable for LCM100/LEM100	667P0515
LSB-Remote-Software for BT300, including LSB service adapter, USB/CAN module and connecting cable	667R0300-1
LAMTEC LT3 with KS1D for O ₂ or CO control (see product catalogue for measuring systems)	
GUI307 graphic display module 7", power supply voltage 24 VDC/29 W, panel installation*	663R9064
GUI310 graphic display module 10", power supply voltage 24 VDC/29 W, panel installation*	663R9066
GUI315 graphic display module 15", power supply voltage 24 VDC/29 W, panel installation*	663R9068

Additional modules

Designation/type	Order no.
LCM100 power control unit expansion module (including LSB interface and 24 V power supply)	667R0500-1
LEM100 expansion module for LSB	667R0400-1
VSM100 "standard design" RPM module (requires LCM100)	667R0200-1
DFM300* expansion module for dual-fuel burner for BT34x 230 VAC	667R0600-1
DFM300* expansion module for dual-fuel burner for BT34x 115 VAC	667R0600-2
RAST5 adapter module for DFM, screw terminals to RAST5	667R0620-1
PBM100 field bus module, PROFIBUS DP	667R0700-1
EBM102 field bus module, MODBUS TCP	667R0725-1
EBM112 fieldbus module, PROFINET 2 port	667R0740-1

* At least one LCM or LEM is required when using a DFM300 module

Flame scanner

Designation/type	Order no.
F152 flame monitoring device, power supply voltage 230 VAC	659G0501
F152 flame monitoring device, power supply voltage 120 VAC	659G0502
FFS07 flame sensor, axial light entry opening, IP66/IP67	659D21...
FFS08 flame sensor, radial light entry opening, IP66/IP67	659D31...
KLC1000 UV flame scanner for oil, gas, and combination burners, radial viewing angle	667R0800-1
KLC2002 UV broadband flame scanner for oil flames during intermittent burner operation, axial viewing angle	667R0810-1
KLC10 UV flame sensor, side lighting, IP41, 120 V	667R0800-2
KLC20 broadband flame sensor, front lighting, IP41, 120 V	667R0810-2
KLC angle adapter for KLC2002 radial viewing angle	667R0811-1
Mounting flange 7 mm for KLC	667R0812-1
Connecting line for KLC 1000 mm, angular plug	667R0813-1000

Actuators

Designation/type	Order no.
Actuator 0.8 Nm, with plug, without cable, spring-tensioned gearing	662R5500-0
Actuator 1.2 Nm, with plug, without cable, spring-tensioned gearing	662R5001-0
Actuator 3 Nm, with plug, without cable, spring-tensioned gearing	662R5003-0
Actuator 3 Nm, 1.5 m cable, spring-tensioned gearing	662R5003-1
Actuator 9 Nm, with plug, without cable, spring-tensioned gearing	662R5009-0
Connecting cable for 662R500x-0 actuator, length 10 m	662R5591 10m
Connecting cable for 662R500x-0 actuator, length 5 m	662R5591 5m
Connecting cable for 662R500x-0 actuator, length 3.0 m	662R5591 3.0m
Connecting cable for 662R500x-0 actuator, length 1.5 m	662R5591 1.5m
Connecting cable for 662R500x-0 actuator, length 3.0 m, UR-certified	662R5593 3.0m
Connecting cable for 662R500x-0 actuator, length 1.5 m, UR-certified	662R5593 1.5m

The x in the item numbers of the connecting cable must be replaced with the motor torque of the desired actuator.

Modules



LEM100 expansion module for LSB 667R0400-1



EBM112 fieldbus module, PROFINET 2 port 667R0740-1



VSM100 RPM module 667R0200-1



DFM300 expansion module for dual-fuel burner 667R0600-1



PBM100 fieldbus module, PROFIBUS DP 667R0700-1



EBM102 fieldbus module, MODBUS TCP 667R0725-1

Accessories



BT300 X31 connection cable for LCM100/LEM100
667P0515



667R0001 plug cover



LSB-Remote-Software 667R0300-1



Complete connector set for BT300 667R0900-2



BT300 actuators



LT3 with KS1D probe, CO/H₂ control



GUI307 graphic display module 7" 663R9064
(for technical details see chapter Indicating
instruments)



UI300 667R01...
(for technical details see chapter Indicating
instruments)

UI300-BC-V2/LSB user interface.

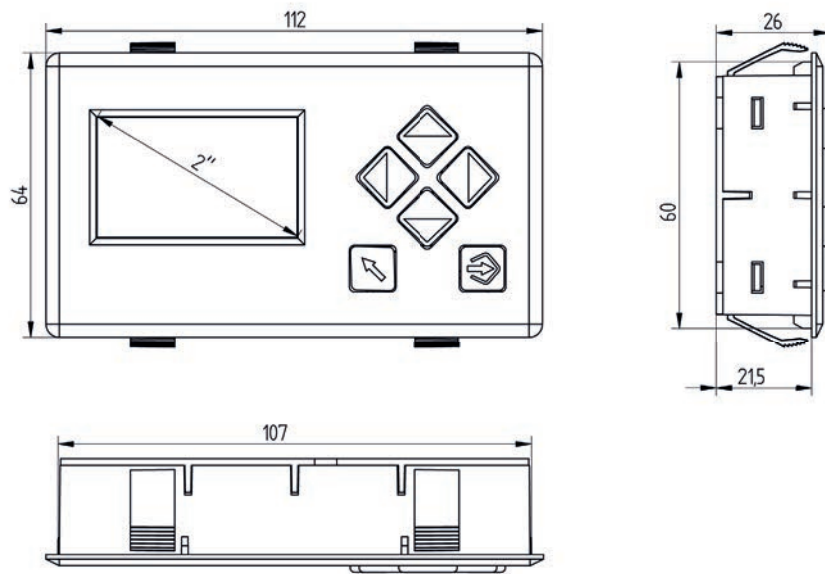
Technical data



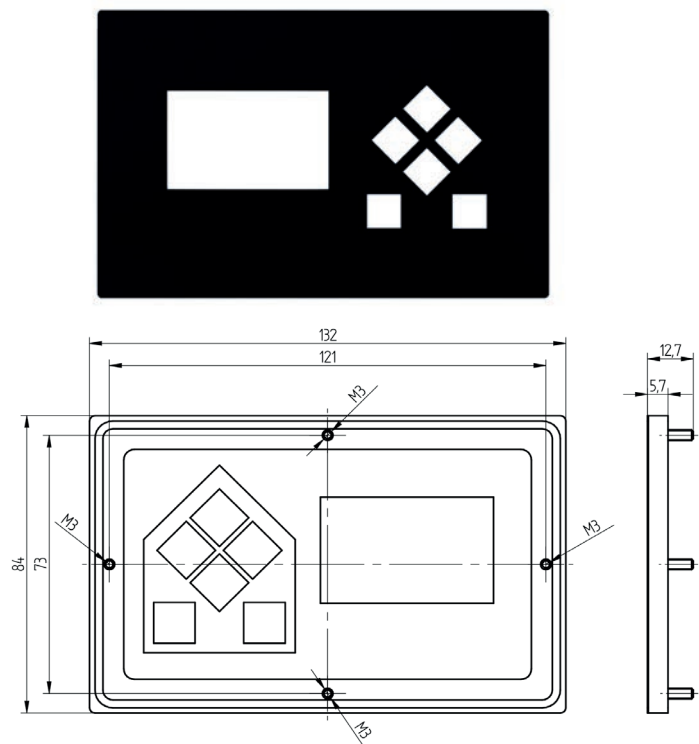
UI300-BC-V2/LSB user interface

- Compatible with BT300 and BC300
 - Extensive setting options
- Compact and sturdy user interface
 - Language-neutral operation with intuitive icons

Item number	667R0100-1 UI300-V2 667R0140-1 UI300 BC-V2 (cable length 1 m) 667R0120-1 UI300-LSB (cable length 2.5 m)	Dimensions [mm]	See dimensional drawings
Application	Graphical, language-neutral display of the status conditions and sequences of burners and control system	Material	Basic housing unit: Polyamide, glass fibre-reinforced LCD inspection window: Polycarbonate
Display	128 x 64 pixels, monochrome white backlight, dimmable	Weight [kg]	0.14
Temperature range	-20 ... +60 °C	Protection class	IP40 (clamped) IP54 (adhered) IP65 with additional cover
		Flammability	Basic housing unit UL-94 V0 UL-94 V2 LCD inspection window



Dimensional drawing of UI300-BC-V2/LSB



Dimensional drawing of additional IP65 cover

Order information

Designation/type	Order no.
UI300 BC-V2 user interface for BC300 in "standard design" panel-mounted housing, housing colour RAL7016, protection class IP42 (with LAMTEC logo), including connecting cable, cable length 1 m	667R0140-1
UI300-LSB user interface in "standard design" panel-mounted housing, housing colour RAL7016, protection class IP40 (with LAMTEC logo), including connecting cable, cable length 2.5 m	667R0120-1
UI300-V2 user interface in panel-mounted housing, housing colour RAL7016, protection class IP41	667R0100-1
Additional IP65 cover for UI300-BC-V2/LSB including fastening screws	668R0320

UI400 user interface.

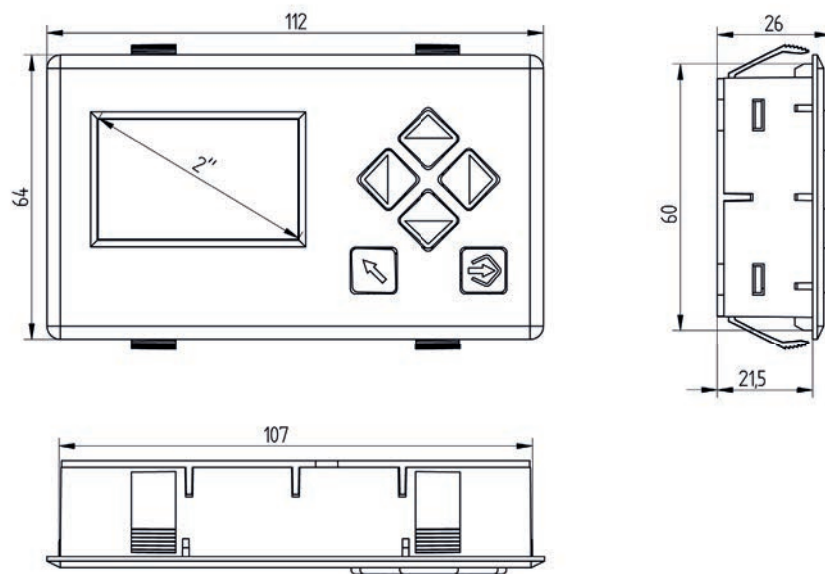
Technical data



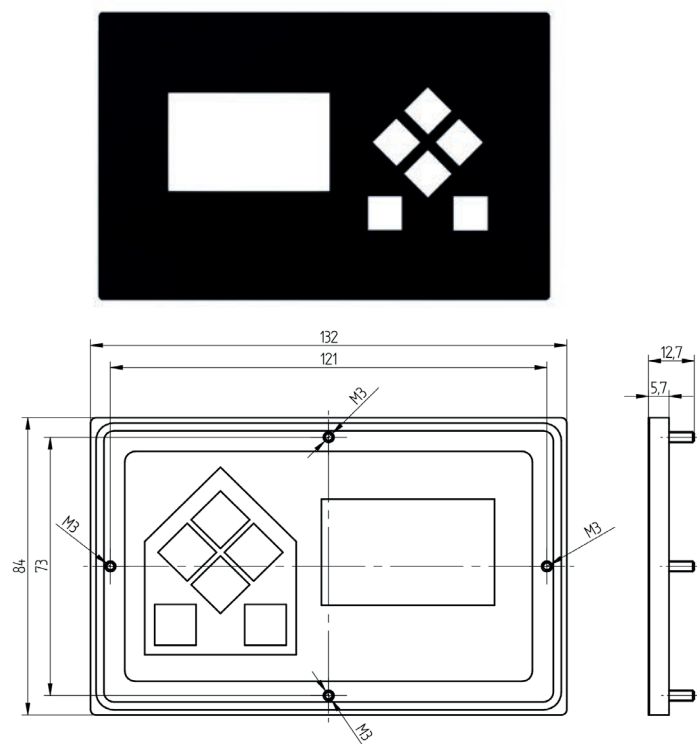
UI400 user interface

- Compatible with CMS and BC400
 - Extensive setting options
- Compact and sturdy user interface
 - Language-neutral operation with intuitive icons

Item number	668R0300 connection via LSB (cable length 2.5 m)	Dimensions [mm]	See dimensional drawings
Application	Compact HMI for fault status signals, curve programming, simple parameter setting and system queries.	Material	Basic housing unit: Polyamide, glass fibre-reinforced LCD inspection window: Polycarbonate
Display	128 x 64 pixels, monochrome white backlight, dimmable	Weight [kg]	0.149
Temperature range	-30 ... +70 °C	Protection class	IP40 (clamped) IP65 with additional cover
Power consumption	1 W	Flammability	Basic housing unit UL-94 V0 UL-94 V2 LCD inspection window



Dimensional drawing of UI400



Dimensional drawing of additional IP65 cover

Order information

Designation/type	Order no.
UI400 user interface in "standard design" panel-mounted housing, housing colour RAL7016, protection class IP40, including connecting cable, cable length 2.5 m	668R0300
Additional IP65 cover for UI... including fastening screws	668R0320

Graphic user interface GUI607/GUI610/GUI615.

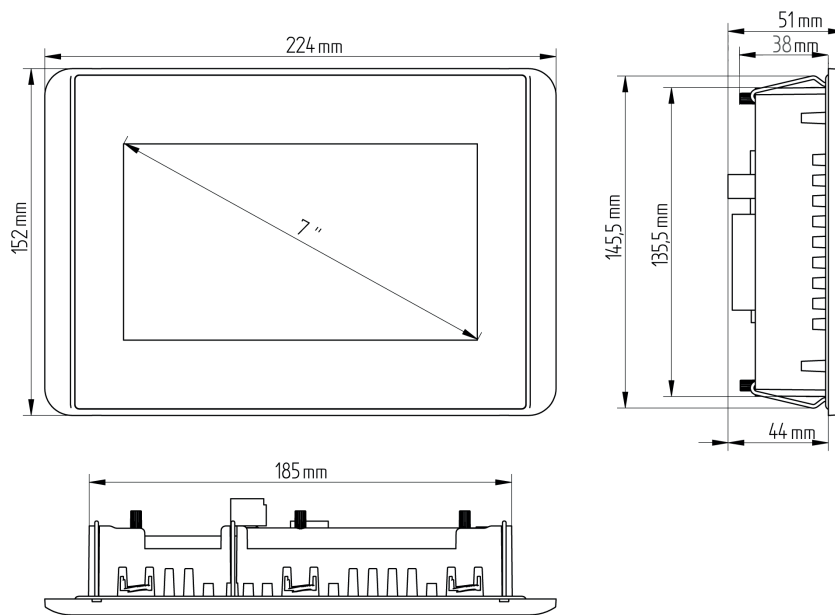
Technical data



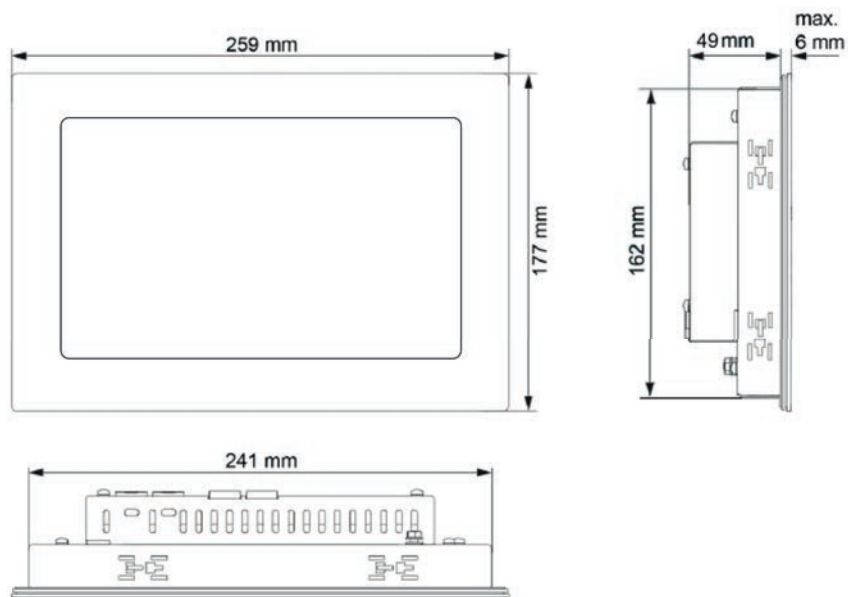
Graphic user interface – GUI607/GUI610/GUI615.

- Compatible with CMS and BC400
 - Extensive setting options
 - Customisation through internal PLC
- Graphical user interface as a touch variant
 - Available in 3 different sizes

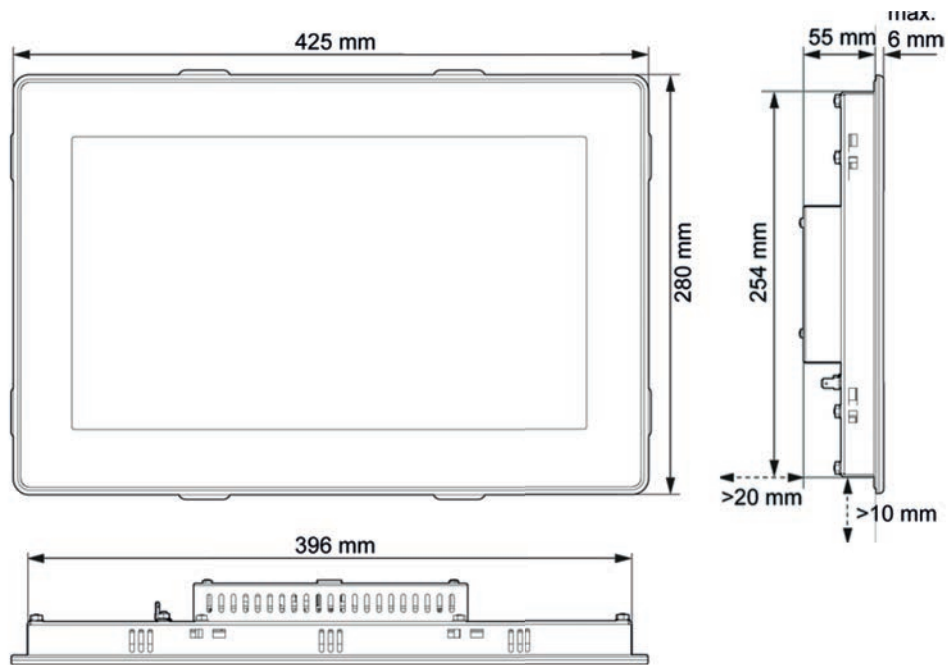
Item number	668R1000 GUI607 668R1002 GUI610 668R1004 GUI615	RAM/FLASH/Retain storage	GUI607: 256 MB RAM/256 MB Flash/100 kB FRAM GUI610/615: 512 MB RAM/2048 MB Flash/100 kB FRAM
Application	Touch panel with graphical menus for convenient curve programming, advanced parameter setting and all system queries	Communication interfaces	2 x Ethernet, 10/100 Base, RJ45
Power supply voltage	24 VDC -15/+20 % SELV max. AC voltage percentage 5 % with inverse-polarity protection	Dimensions [mm]	See dimensional drawings
Module electronics current consumption	GUI607: 0.3 A, max. 3 A at +24 VDC GUI610/615: 0.8 A, max. 1.2 A at +24 VDC	Material	Plastic
Diagonal/Resolution display	7" display, 800 x 400 (WVGA) 10,1" display, 1280 x 800 (WXGA) 15,6" display, 1366 x 768 (WXGA)	Weight [kg]	GUI607: 0.6 GUI610: 2.5 GUI615: 3
Colours	TFT: 16.7 M (24 bit/pixel)	Protection class	IP20 back IP65 front, with tensioned twist-lock catches
Touch condition	Resistive	Life time	Approx. 10 years
CPU	800 MHz ARM® CPU with Cortex™-A9 single core	Ambient temperature	0 ... +55 °C



Dimensional drawing of GUI607



Dimensional drawing of GUI610



Dimensional drawing of GUI615

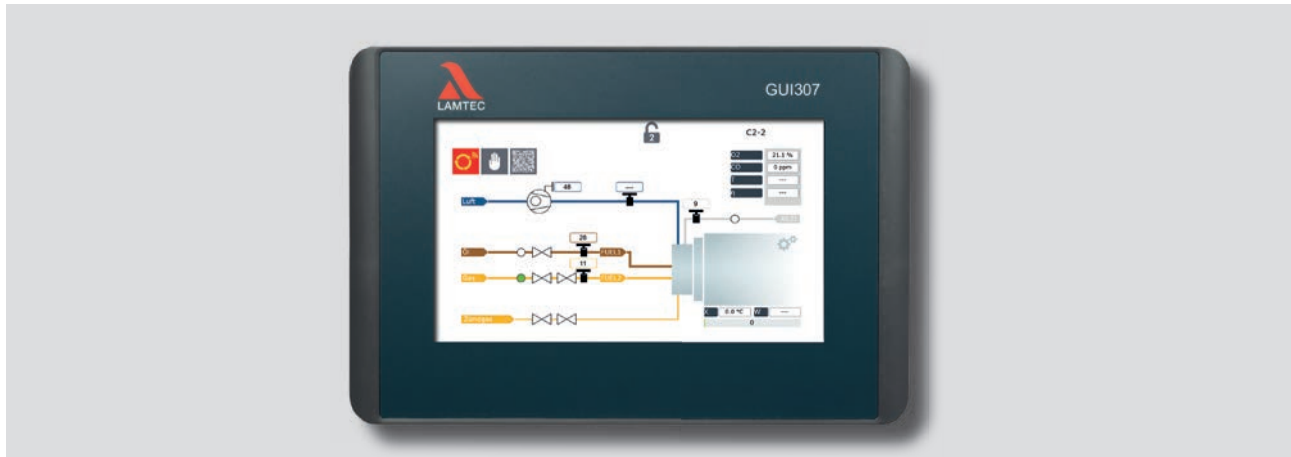
Order information

Designation/type	Order no.
GUI607 graphic display module 7", power supply voltage 24 VDC/29 W, panel installation*	668R1000
GUI610 graphic display module 10", power supply voltage 24 VDC/29 W, panel installation*	668R1002
GUI615 graphic display module 15", power supply voltage 24 VDC/29 W, panel installation*	668R1004

* A commercially available display protection film can be applied to protect the touch panel (not included in the LAMTEC delivery range).

Graphic user interface GUI307/GUI310/GUI315.

Technical data

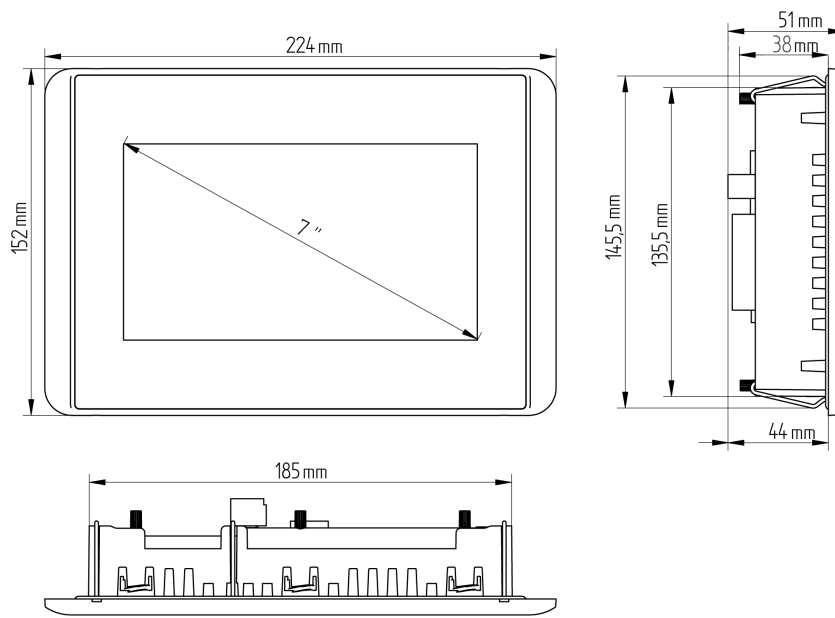


Graphic user interface - GUI307/GUI310/GUI315

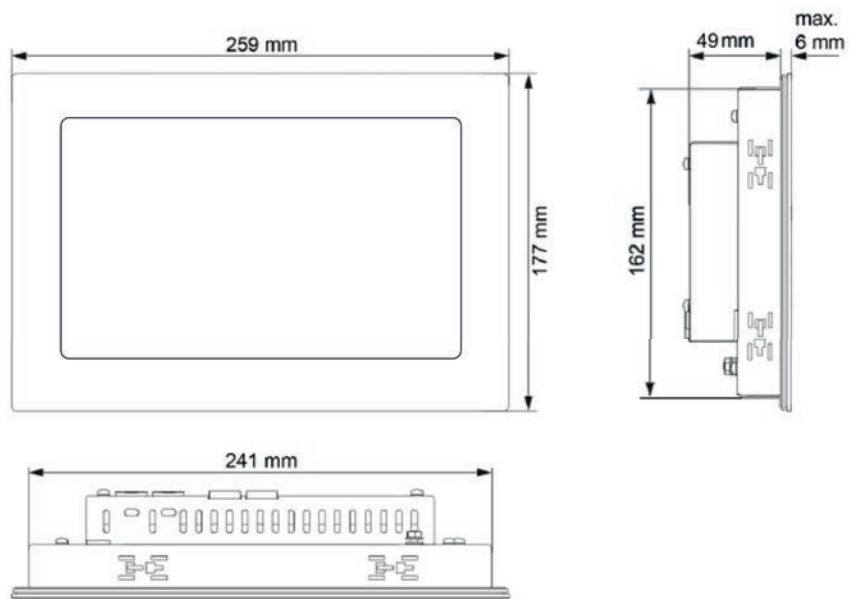
- Compatible with BT300, ETAMATIC, FMS, VMS
- Extensive setting options
- Customisation through internal PLC
- Graphical user interface as a touch variant
- Available in 3 different sizes

Item number	663R9064 GUI307 663R9066 GUI310 663R9068 GUI315	RAM/FLASH/Retain storage	GUI307: 256 MB RAM/256 MB Flash/100 kB FRAM GUI310/315: 512 MB RAM/2048 MB Flash/100 kB FRAM
Application	Touch panel with graphical menus for convenient curve programming, advanced parameter setting and all system queries	Communication interfaces	2 x Ethernet, 10/100 Base, RJ45
Power supply voltage	24 VDC -15/+20 % SELV max. AC voltage percentage 5 % with inverse-polarity protection	Dimensions [mm]	See dimensional drawings
Module electronics current consumption	GUI307: 0.3 A, max. 3 A at +24 VDC GUI310/315: 0.8 A, max. 1.2 A at +24 VDC	Material	Plastic
Diagonal/Resolution display	7" display, 800 x 400 (WVGA) 10,1" display, 1280 x 800 (WXGA) 15,6" display, 1366 x 768 (WXGA)	Weight [kg]	GUI307: 0.6 GUI310: 2.5 GUI315: 3
Colours	TFT: 16.7 M (24 bit/pixel)	Protection class	IP20 back IP65 front, with tensioned twist-lock catches
Touch condition	Resistive	Life time	Approx. 10 years
CPU	800 MHz ARM® CPU with Cortex™-A9 single core	Ambient temperature	0 ... +55 °C

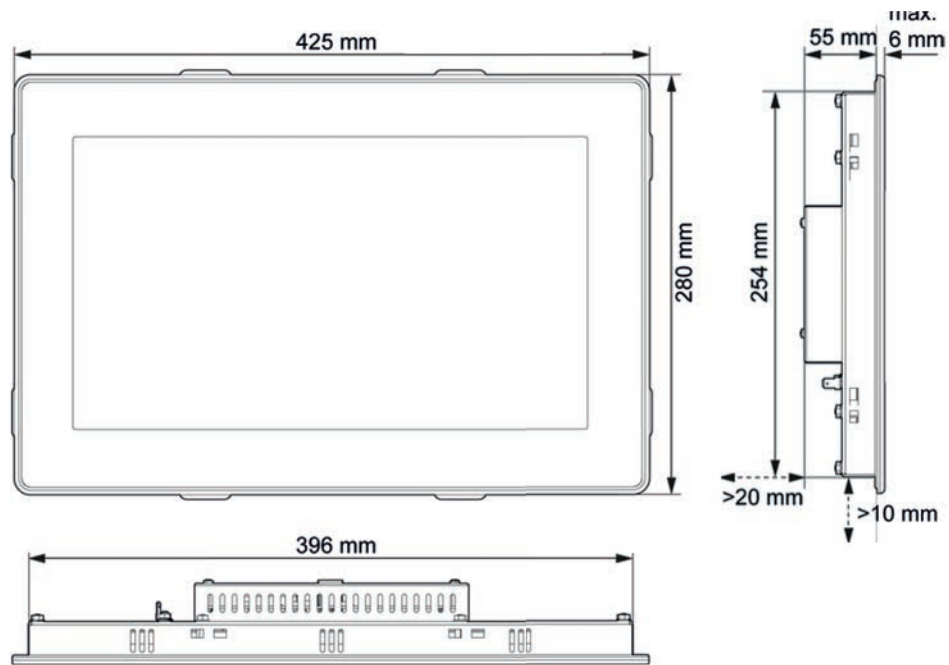
Display modules



Dimensional drawing of GUI307



Dimensional drawing of GUI310



Dimensional drawing of GUI315

Order information

Designation/type	Order no.
GUI307 graphic display module 7", power supply voltage 24 VDC/29 W, panel installation*	663R9064
GUI310 graphic display module 10", power supply voltage 24 VDC/29 W, panel installation*	663R9066
GUI315 graphic display module 15", power supply voltage 24 VDC/29 W, panel installation*	663R9068

* A commercially available display protection film can be applied to protect the touch panel (not included in the LAMTEC delivery range).

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