

Figure 686 02 005 KHS-Mini System Control -MASTER-

Technical properties	
Power supply	230 V
Display	Graphic display with back light
Controlled through	4 buttons Up, Down, Enter, Esc
Relay flush valve switching capacity	230 V, 2 A
Floating alarm relay, max.	230 V, 2 A
Memory locations for the time, temperature and flush volume modes	16
For connecting:	
1 ea. KHS Maximum flow isolating ball valve	
1 ea. KHS Temperature Sensor Pt 1000	
1 ea. KHS flow sensor	
1 ea. KHS overflow monitor	
Acoustic alarm message during overflow monitoring (an be switched off), alarm acknowledgement on unit	
System is expandable: 1 master with max. 31 each - SLAVE - via CAN bus	
serial interface cable for the customer PC connection for configuration and to read out the flush log	
Storage of up to 4000 flushing occurrences	
External input	230 V
Internal consumption	3 VA
Manual valve operation on device	
Ambient temperature range from	0 °C to + 50 °C
Protection class	IP 54

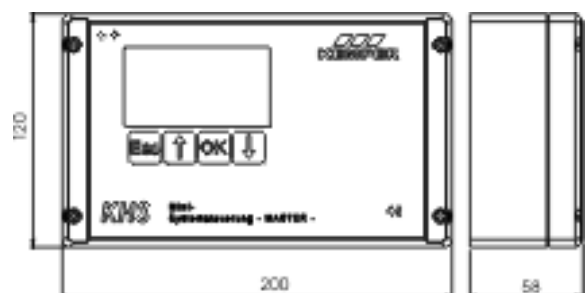


686 02 005 KHS-Mini System Control - MASTER -

Product description / Tender text	
<p>KHS Mini System Control -MASTER-, for documenting flushing measures in the operating modes of time control, temperature control or flushing volumes, triggering and signal evaluation of one each KHS VAV-plus servodrive with spring reset, KHS temperature sensor Pt 1000, KHS flow sensor or KHS overflow monitoring feasible, expandable via CAN bus interface up to 31 KHS Mini System Controls -SLAVE- to MASTER/SLAVE system, display through graphic display with 4-button operation, with integrated USB interface cable for linking a customer PC onsite for optional configuration and evaluation of the flushing process with a flushing log, with overflow monitoring acoustic and visual alarm message (can be switched off), alarm forwarding with floating alarm relay feasible, external input 230V, power supply 230 V AC 50/60 Hz, operating temperature range 0 °C to 50 °C, splashproof according to protection class IP 54, suitable for wall mounting</p>	

Optionally available accessories	
KHS Maximum flow isolating ball valve with servodrive 230 V	686 04
KHS Maximum flow isolating ball valve plus with spring-reset servo drive	686 05
KHS drain with overflow monitor	688 00
KHS Temperature Sensor Pt 1000	628 0G / 629 0G
KHS Flow Sensor	638 4G
USB adapter cable, configuration and read-out software - MASTER -	686 02 016

- Please see reverse for additional technical information



Materials	
Housing control	ABS

Technical information

The -MASTER- is the central control unit of the KHS Mini System Control. It can be operated alone or with additional SLAVES. It includes a programmable controller where the flushing programs are stored. By optionally connecting up to 31 -SLAVES- through a CAN bus, the system can be designed to meet individual customer requirements. While doing so, the -MASTER- detects the -SLAVES- during commissioning and controls and manages all flushing events in the system. By entering defined operating modes such as time, temperature or flushing volume, the operator can specifically select the respective mode of operation in the CDW system and use simulations to configure the predetermined flushing volumes or times in the KHS Mini System Control. Configuration and reading out the flushing events are possible optionally via the -MASTER- via 4 button operation or through the customer PC. Up to 4000 flushing events are continuously saved and can be evaluated as a flush log through the read-out software.

Important:

Only the max. following flushing groups can be linked to the -MASTER -: 1 ea KHS Maximum flow isolating ball valve-plus with spring reset servodrive or KHS Maximum flow isolating ball valve with servodrive 1 ea. KEMPER KHS Temperature Sensor Pt1000

1 ea KHS flow sensor

1 ea KHS Overflow Monitor

The KHS-Mini System Control MASTER/SLAVE does not have any remote control facility for triggering or reading out via a BMS. The system was developed as a decentralized solution for flushing measures in buildings. If remote read-out equipment is used in connection with BMS, we recommend the System Control KHS-Logic (Figure 686 02 003).

Figure 686 02 006 KHS Mini System Control -SLAVE-

Technical properties

Power supply 230 V
 Relay flush valve, switching capacity 230 V, 2
 A Floating alarm relay, max. 230 V, 2 A
 16 memory locations for the time,
 temperature and flush volume modes
 For connecting:
 1 ea. KHS Maximum flow isolating ball valve
 1 ea KHS Temperature Sensor Pt 1000
 1 ea KHS flow sensor
 1 ea. KHS overflow monitor
 CAN bus connection for setting up the MASTER/SLAVE system
 Internal consumption 3 VA
 Ambient temperature range from 0 °C to 50 °C
 Protection class IP 54



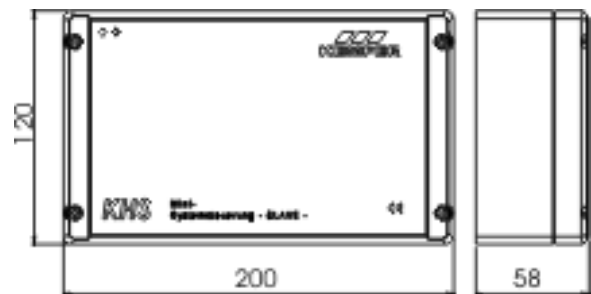
686 02 006 KHS-Mini System Control - SLAVE -

Product description / Tender text

KHS Mini System Control -SLAVE-, as expansion module for the KHS Mini System Control -MASTER-, for implementing flushing measures with the modes of operation time control, temperature control or flushing volume via a setting using CAN bus interface on the KHS Mini System Control -MASTER-, triggering and signal evaluation of one each KHS VAV-plus servodrive with spring reset, KHS temperature sensor Pt 1000, KHS flow sensor, or KHS overflow monitoring feasible, power supply 230 V AC 50/60 Hz, operating temperature range 0 °C to 50 °C, splashproof according to protection class IP 54, suitable for wall installation,

Optionally available accessories

KHS Maximum flow isolating ball valve with servodrive 230 V	686 04
KHS Maximum flow isolating ball valve with plus with spring-reset servo drive	686 05
KHS drain with overflow monitor	688 00
KHS Temperature Sensor Pt 1000	628 0G / 629 0G
KHS Flow Sensor	638 4G



Materials

Housing control	ABS
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Technical information

The -SLAVE- is the executing unit of the KHS-Mini System Control. By optionally expanding with one -MASTER- with up to another 30 -SLAVES- via a CAN bus connection, the system can be implemented individually to meet customer requirements. While the serial data transmission of „-MASTER- to -SLAVE-“ or „-SLAVE- to -SLAVE-“ is implemented via the CAN bus, each additional -SLAVE- is connected through a separate power supply.

Important:

Only the max. following flushing groups can be linked to the -SLAVE - : 1 ea KHS Maximum flow isolating ball valve-plus with spring reset servodrive or KHS Maximum flow isolating ball valve with servodrive 1 ea. KEMPER KHS Temperature Sensor Pt1000
 1 ea KHS flow sensor
 1 ea KHS Overflow Monitor

The KHS-Mini System Control MASTER/SLAVE does not have any remote control facility for triggering or reading out via a BMS. The system was developed as a decentralized solution for flushing measures in buildings. If remote read-out equipment is used in connection with BMS

See also technical information on -MASTER-

**Figure 686 02 016 USB adapter cable,
Configuration and read-out software**



Product description / Tender text

USB adapter cable, configuration and read-out software -MASTER-, for connecting and forwarding the customer PC to the KHS-Mini System Control -MASTER-, for configuring and documenting flushing measures, comprising configuration software for triggering and operating the MASTER / SLAVE system, with facility to read-out a flush log for display and evaluation of the implemented flushing processes

Technical information

By simply entering the operating modes time, temperature or flushing volume in the customer PC configuration software, the operator can specifically select the respective mode of operation in the CDW system and transmit the flush volumes or times from the calculation to the -MASTER-. All executed flushing processes can be read out and evaluated with one flush log in Excel format.
These operating systems are required for software management: Windows 2000, XP or Vista.