Figure 686 02 003 KHS-Logic Control System special version

Technical properties
For connecting sensors and actuators (servomotors)
With parameterization software
230 V Power supply
Maximum ambient temperature 55 °C
CX_9000 computer
IP55 protection class
Equipped in line with client requirements for connecting:
Servomotors (Type A, B or C)
Pt 1000 temperature measurement devices
Throughput measurement devices
Overflow monitoring units
Hygiene flush units

686 02 003 special version

Product description / Tender text [1]

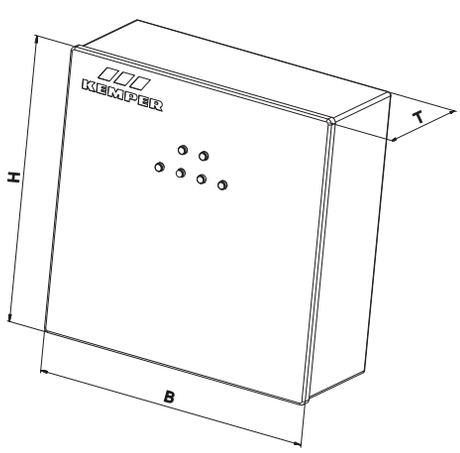
KEMPER KHS Logic Control System for the performance and documentation of flushing processes in cold potable water, as well as temperature monitoring in hot potable water, comprising a parameterization and visualisation software for operating the KEMPER KHS, including the possible output of a flushing report for displaying and evaluating the flushing processes carried out, a temperature protocol for hot potable water, a CX_9000 computer with Ethernet interface for integration in a building network or a local laptop interconnection, 230 V power supply, protection class IP 55, maximum ambient temperature 55°C, control system with SPC and control modules for KHS sensors and actuators, for driving and evaluating the signals of:

Servomotors (type A, B or C)
Pt 1000 temperature measurement devices
Throughput measurement devices
Overflow monitoring units
Hygiene flushing units

In the operating modes
- time control
- temperature control
- flow rate control

- owing to the object-related configuration, the delivery period from order receipt / technical clarification amounts to 3 weeks

[1] **The information listed on the next page and the „Service Engineer Services“ tender position need to be included in the tender specifications in order to ensure a smooth start-up, handover and briefing (Figure 99-3012).**



Dimensions		
Height (H) mm	760	
Width (B) mm	760	
Depth (T) mm	210	

- dimensions may vary, depending on requirements

Materials	
Casing	sheet steel, powder coated, grey

Technical Information

The KHS Logic Control System provides a central interface for automated flushing processes in cold potable water systems, as well as a central monitoring unit for the temperature levels of hot potable water. It comprises a programmable control unit where the flushing programs and hot potable water monitoring parameters are stored and which is compatible with all KHS servomotors and sensors.
The operator can select the required operation mode in a targeted manner by entering operation types such as time control, temperature control or volume flow control, while parameterizing the flushing volumes or periods previously established via simulation within the KHS Logic. The temperature sensors required for temperature monitoring in hot potable water can be integrated in the KHS Logic Control System and monitored individually.
A fault message will then be given as soon as a predefined temperature level is no longer complied with. A temperature report for the cold/hot potable water system can be created.

Figure 99-3012, Start-Up
„Service Engineer Start-Up Services for KHS Logic“

Tender Information for KHS Logic

KEMPER recommends the employment of a service engineer to ensure that the KEMPER KHS Logic Control System is started up correctly, in conjunction with the respectively integrated KHS components.
The start-up activities to be put out to tender are described in the position „Service Engineer Start-Up Services for KHS Logic“ and need to be included in the tender specifications.

Owing to the customized nature of the position „Service Engineer Start-Up Services for KHS Logic“, KEMPER will determine and offer an individual price for each single object. The cost level depends on the number of data points to be generated and the effort involved.
KEMPER is only able to accept any warranty obligations for KHS Logic if a service engineer selected by KEMPER is employed for the entire start-up procedure. Only this way can malfunctions and any consequential damage to the control unit be excluded. KEMPER needs to be notified of the completion of the sanitary and electrical services to be provided by the client, including information on the respective contact persons in charge.

Any sanitary/electrical services to be provided by the client but not rendered by the time the service engineer arrives at the building site may lead to additional costs. Any consequential costs resulting from this fact also need to be borne by the client.
Taking KHS Logic into operation via a service engineer engaged by KEMPER serves to ensure the proper functioning and smooth operation of the system and its individual components. This will enable the operator to perform the flushing operations required for stagnation prevention in cold potable water and monitoring the temperature in hot potable water systems.
The sanitary and electrical services to be rendered by the client are listed below and need to be completed locally at the building site before the arrival of the service technician selected by KEMPER.

Information to be included in the tender specifications:

The following sanitary and electrical conditions need to be provided by the client at the building site in order to ensure fast and complete service performance:

Electrical services to be rendered by the client:
- Assembly of the KHS Control System with a 230 V AC mains connection
- Installation of all the electrical wiring, wire lead-ins into the KHS Control System wall cabinet and dropping of the wires inside the wall cabinet.
- Provisional marking of electrical wires and their entry in the wiring table (included in KHS Logic documentation)
- Cable connections on the actuator and sensor side

Electrical engineering requirements
The following conditions need to be met for the performance of a start-up:
- Provision of a floor space plan, information on the KHS components included in the operation and a wiring table (locally)
- Completed power supply of the KHS Control Unit
- Completed network connection (if required by the operator)
- Trip release by the operator

Sanitary services to be rendered by the client:
- Installation system completed, pressurized and ready for operation
- The required drainage connections / KHS handover points are operational

Sanitary requirements
The following conditions need to be met for the performance of a start-up:
- Sanitary line diagram with description of the KHS fixtures used
- Sanitary floor space plan
- Information on the KHS operation mode used for flushing activities (time-, temperature-, volume-controlled process)

Tender Position: Figure 99-3012, Start-Up

Service Engineer Start-Up Services for KHS Logic

- Identification of the electrical wires with plastic cable tags (service engineer delivery scope)
- Provision of the prepared electrical connection wires
- Performance of an input / output test on all actuators and sensors, including additional visual control to the extent possible architecturally
- Input / output test report
- Creation and loading of the project-specific application program in the KHS Control Unit (time, temperature or volume program)
- Installation of the parameterization software in a PC provided by the client
- Briefing of the operator

The contact persons for all the trades involved (sanitary fitter, electrical engineer, operator representative) need to be available, if possible on site, or at least per telephone

1, all-inclusive _____ €