

HB-Therm[®]

PANEL-5

Control Module

Product Information 2021-10



Control Module Panel-5

The control module Panel-5 is a universal remote control for temperature control units Thermo-5, flow meters Flow-5 and switching units Vario-5. Operation and control is identical to that of singular units. It allows for simultaneously changing values for all units and to switch between individual or overview displays. It communicates always via the interface HB. Optional interfaces are available to connect to machine controls.

Standard Equipment

Command / Display		TFT-Colour display 3,5" with interactive user guidance in 21 languages
		Help button with context sensitive information
		Display of flow rate, pump pressure and process power
		Individual and overview displays with free choice of values
		Simultaneously changing values
		Temperature display in 0,1 °C
		Units of measurement for temperature, flow rate and pressure can be set
		Visual and acoustic alarms; volume adjustable
		Store function for mould specific parameters
		Display of date and time
		Timer
		Operating hours counter and service interval display
		Logbook for alarms
		Data input password protected
	Interface	USB
HB		HB-Therm data interface CAN to connect temperature control units Thermo-5, flow meters Flow-5 and switching units Vario-5 1 socket Sub-D 15 pin (female)



Additional Equipment

ZD	Interface DIGITAL	Serial data interface 20 mA, RS-232 or RS-422/485 Various protocols selectable: Arburg, Billion, Bühler, Dr. Boy, Engel, Ferromatik Milacron, Haitian, KraussMaffei, MODBUS (RTU-Mode), Negri Bossi, SPI (Fanuc, etc.), Stork, Sumitomo Demag, Wittmann Battenfeld, Zhafir 2 sockets Sub-D 25 pin (female)
ZC	Interface CAN	Serial data interface CAN-bus (Sumitomo Demag) and CANopen (EUROMAP 66; Netstal, etc.) 2 sockets Sub-D 9 pin (1 male and 1 female)
ZO	Interface OPC UA	Ethernet interface (EUROMAP 82.1) 1 socket RJ-45 (female)
ZP	Interface PROFIBUS-DP	Serial data interface PROFIBUS-DP 1 Sub-D 9-pin socket (not possible with: ZC)
ZK	Keyboard-protection	Transparent flap over display and controls



Power supply 230 V

Technical Specifications

Control module	Type		HB-FB51
Additional equipment	Interface DIGITAL	ZD	o
	Interface CAN	ZC	o
	Interface OPC UA	ZO	o
	Interface PROFIBUS-DP	ZP	o
	Keyboard-protection	ZK	o
Accessories ¹⁾			
Mains-connector Type J (Swiss Type 12) 230 V, 10 A; LNPE	O/ID		T27551
Mains-connector Type F (Schuko) 230 V, 16 A; LNPE	O/ID		T27550

Ordering example: HB-FB51-ZO-ZK, English

+ 1x Mains-connector Type F (O/ID T27550)

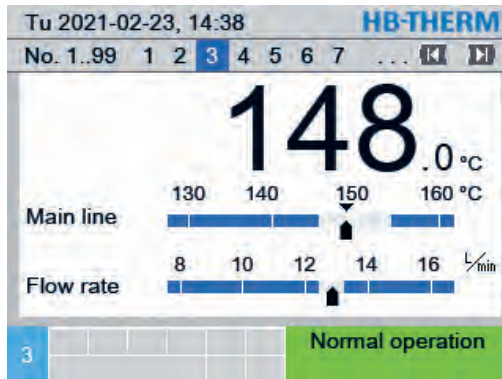
o Optional

¹⁾ Choosing a mains-connector is mandatory; Miscellaneous interface cables and other accessories: Accessories program (D8064-EN)

Display Examples

Individual display (Graph):

Temperature control unit Thermo-5



Overview display (Text):

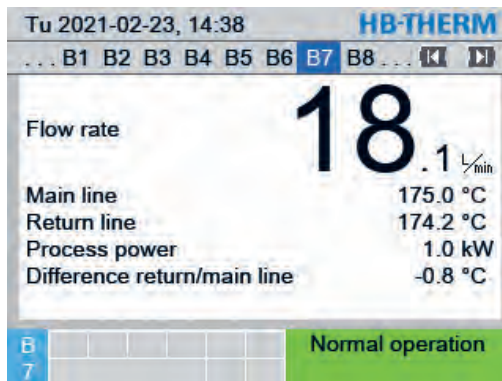
Temperature control units Thermo-5

Tu 2021-02-23, 14:38		HB-THERM										
No.	1..99	1	2	3	4	5	6	7	...	⏪	⏩	
No.	Nom	Act	L _{min}	Main	Ret	H/C						
1	40.0	40.0	16.0	40.0	39.8	7						
2	35.0	73.7	12.0	73.7	78.1	-100						
3	148.0	148.0	12.8	148.0	146.3	15						
4	35.0	35.0	18.4	35.0	35.4	-10						
5	55.0	55.0	9.5	55.0	53.8	9						
6	OFF											
7	175.0	163.8	13.8	163.8	158.1	100						
8	40.0	40.0	4.5	40.0	40.5	-12						

Display on a remotely controlled singular unit Thermo-5



Individual display (Text): Flow meter Flow-5



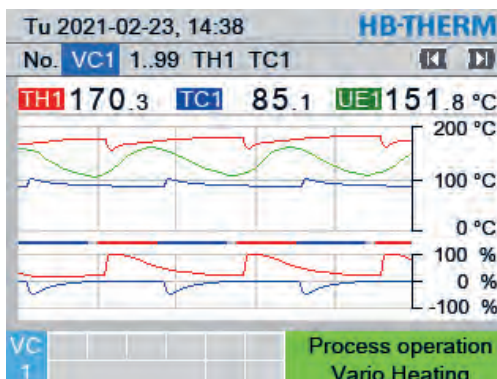
Overview display (Text): Flow meters Flow-5

Tu 2021-02-23, 14:38		HB-THERM								
...	A	B	C	A1	A2	A3	...	⏪	⏩	
No.	R	L _{min}	Ret	No.	R	L _{min}	Ret			
1		6.2	173.2	9		8.5	174.2			
2		5.3	172.8	10		6.8	173.6			
3		OFF		11		OFF				
4		10.1	174.2	12		5.4	172.9			
5		2.1	171.7	13		OFF				
6		0.7	169.3	14		OFF				
7		18.1	174.2	15		0.7	169.4			
8		4.5	173.1	16		3.6	172.7			

Individual display (Text): Switching unit Vario-5

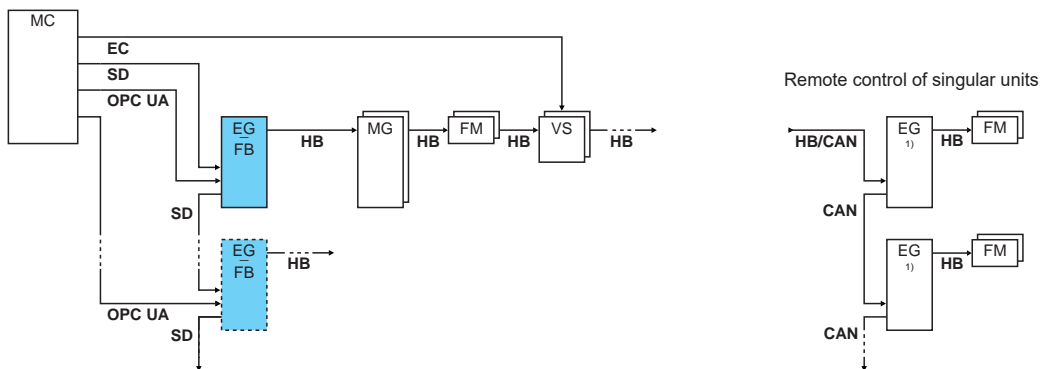


Individual display (Graph): Switching unit Vario-5

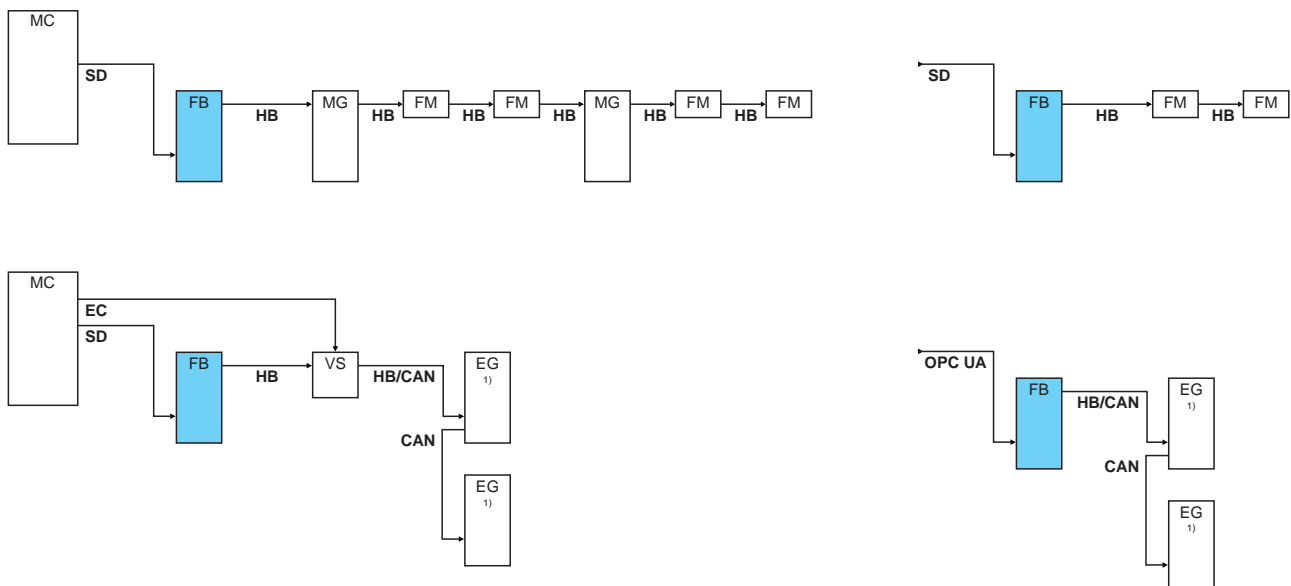


Communication (Fig. 1)

Basic circuit diagram



Examples



Legend	Description	Note
MC	Machine control	max. 1
FB	Control modul Panel-5	max. 1
EG	Temperature control unit Thermo-5, singular unit	max. 16 (per command)
MG	Temperature control unit Thermo-5, modular unit	
FM	Flow meter Flow-5	max. 32 (at 4 circuits each)
VS	Switching unit Vario-5	max. 8
SD	Communication via serial data interface DIGITAL (ZD), CAN (ZC), PROFIBUS-DP (ZP)	Maximum number of units, operating range and transfer of flow rate values depend on machine control and protocol
OPC UA	Communication OPC UA via Ethernet (ZO)	
HB ²⁾	Communication interface HB	Order of connection is not relevant
HB/CAN ²⁾	Communication interface HB/CAN	To remotely control singular units
CAN	Communication interface CAN (ZC)	
EC	External control	Assignment dependent on machine control unit

■ Command

¹⁾ Command deactivated

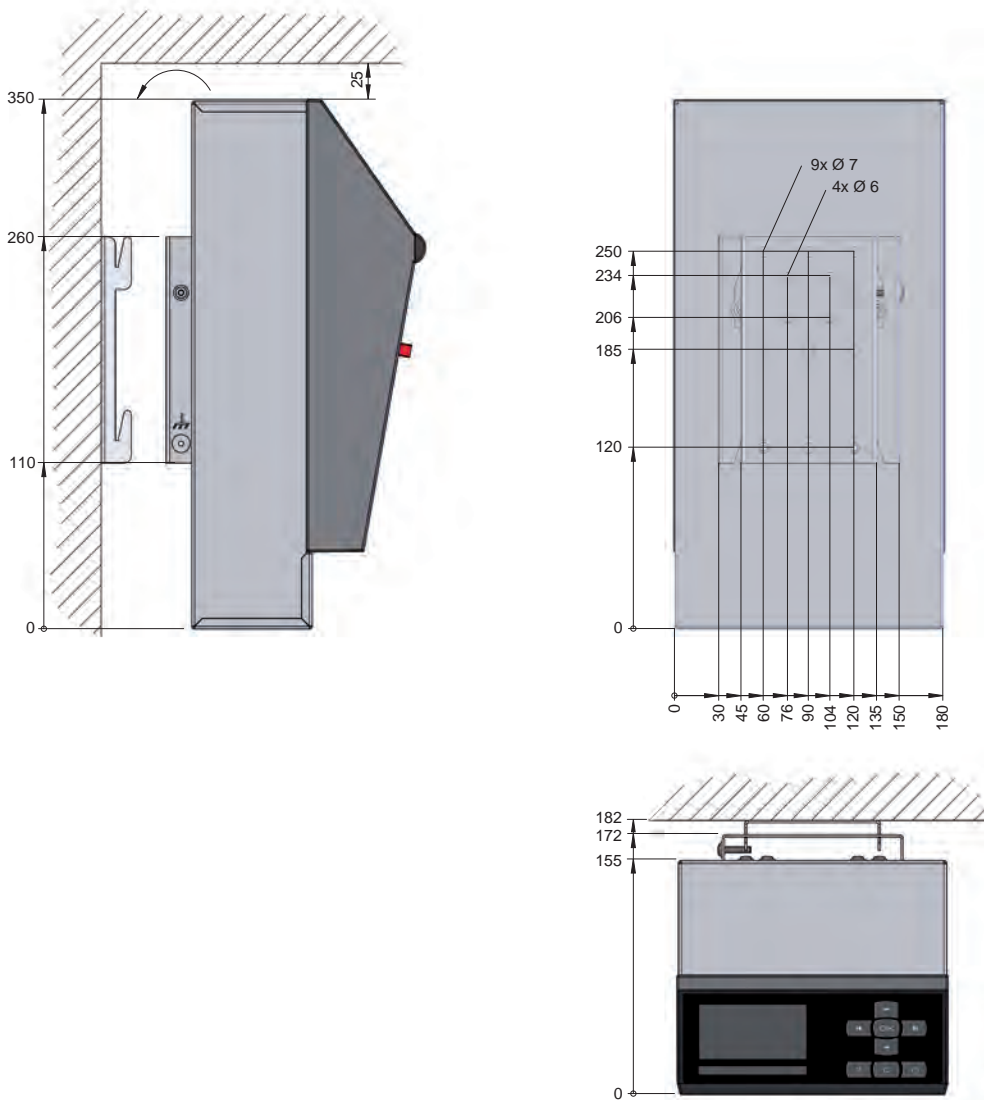
²⁾ max. length cable HB: Total 50 m

General Technical Data

Power supply	Mains voltage	100–240 V, 50/60 Hz
	Mains cable to unit	LNPE, 4 m (plug on request)
Environment	Temperature range	5–40 °C
	Relative humidity	35–85 % RH (non-condensing)
Colour	Cover	RAL 7035 (glossy light grey)
	Control panel	RAL 7012 (basalt grey)
	Access cover	RAL 7021 (glossy black grey)
Weight		5 kg
Protection class		IP 44
Standards		EN IEC 63000, EN 60204-1, EN IEC 61000-6-2, EN IEC 61000-6-4, EN ISO 12100, EN ISO 13732-1
Certification/Approval		CE (compliance with relevant CE directives)

Dimensions

HB-FB51, Scale 1:5





HB-Therm AG
St. Gallen, Switzerland

HB-Therm Distributors in over 60 countries.

Algeria
Argentina
Australia
Austria
Belgium
Bolivia
Bosnia and Herzegovina
Brazil
Chile
China
Colombia
Costa Rica
Croatia
Czech Republic
Denmark
Ecuador

El Salvador
Estonia
Finland
France
Germany
Great Britain
Guatemala
Hong Kong
Hungary
India
Indonesia
Ireland
Israel
Italy
Japan
Korea

Latvia
Liechtenstein
Lithuania
Luxembourg
Malaysia
Mexico
Morocco
Netherlands
New Zealand
North Macedonia
Norway
Paraguay
Peru
Poland
Portugal
Romania

Serbia
Singapore
Slovakia
Slovenia
South Africa
Spain
Sweden
Switzerland
Taiwan
Thailand
Tunisia
Turkey
Uruguay
USA
Venezuela
Vietnam



Contact
details