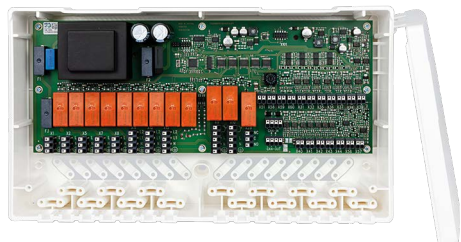


Basic Module Regulation Center

HZS 5420



The HZS 5420 basic module regulation center is used for heat distribution in a modular heating system. All interfaces and connections for the heat distribution are located on the control board. Communication with the CPU (HZS 77x) and the control panel is established over the CAN bus.

The electronics of the basic module regulation center are implemented in a plastic housing, which is designed for wall mounting. Cable clamps provide strain relief in the housing with for the connected cables.

Performance Data

Controller	LPC11C24	
Controller frequency	48 MHz	
Interfaces	1x CAN IN/OUT 1x JTAG	
Internal program memory	32-kbytes (Flash)	
Internal data and/or program buffering (internal EEPROM)	1-kbyte (Flash), no buffer battery required!	
Memory for module identification and calibration data	4-kbyte (Flash)	

Electrical Requirements

Power supply for the relay and internal electronics	230 V AC $\pm 10\%$	
Power supply frequency	50-60 Hz	
Electronics current consumption	typically 50 mA	maximum 115 mA
Current consumption of electronics and connected loads	maximum 5 A	
Fuses	400 mA (F1) for primary transformer fuse 1.0 AT (F2) for secondary transformer fuse 6.3 AT (F3) for 230 V AC relay output	

+24 V Supply for External Consumers

Available current for external users (e.g. HZS 352)	maximum 500 mA
Connector	X100, X200

Digital Relay Output Specifications

Number	11
Relay types	normally open
Relays	RT 314024
Switching range	16.8-30 V DC
Switching current	typically 9 mA at +24 V
Switching time	< 10 ms
Switching power	see data sheet: Tyco Schrack RT1 series
Fuse	6.3 AT
Terminal clamp	3-pin Weidmüller LSF-SMT5.0/3/180 3.5 SW 4-pin Weidmüller LSF-SMT5.0/4/180 3.5 SW 5-pin Weidmüller LSF-SMT5.0/5/180 3.5 SW

Digital Relay Output Potential-free Specifications

Number	1
Relay types	Changeover contact potential-free
Relays	RT 314024
Switching range	16.8-30 V DC
Switching current	typically 9 mA at +24 V
Switching time	< 10 ms
Switching power	see data sheet: Tyco Schrack RT1 series
Fuse	None
Terminal clamp	3-pin Weidmüller LSF-SMT5.0/3/180 3.5 SW

Specifications for the +24 V DC Digital Inputs

Number	4	
Input voltage	typically +24 V	maximum +30 V
Signal level	low: < +8 V	high: > +14 V
Switching threshold	typically +11 V	
Input current	5 mA at +24 V	
Input delay	typically 5 ms	
Fuse	0,2 A PTC fuse	
Connector	2-pin Weidmüller LSF-SMT_3.5/2/180_3.5_SW	

0-10 V Analog Outputs Specifications

Number	2	
Output voltage	10 V PWM	0 ...+10 V
Base frequency	250 Hz	-
Output value	0-255	0-10000
Resolution	8 bits (256d)	50 mV
Accuracy	±1 % of max. output value	
Output voltage capacity	maximum 10 mA	
Connector	2-pin Weidmüller LSF-SMT_3.5/2/180_3.5_SW	

Temperature Inputs KTY81-110/PT1000 Specifications

Number	10	
Sensor type	KTY81-110	PT1000
Measurement range	-30 ... +130 °C	
Sensor range	623,6-2023,4 Ω	882,1-1498,3 Ω
Measurement value	-300 ... +1300	
Resolution	0,1 °C	
Measurement precision	±0.5 % of measurement range	
Typical current measurement	< 0,3 mA	
Input resistance	33 kΩ	
Input filter	100 msec	
Short-circuit and sensor break detection	yes	
Connector	2-pin Weidmüller LSF-SMT_3.5/2/180_3.5_SW	

Temperature Inputs KTY81-110 with 5-step resp. PT1000 with 4-step Connection Specifications

Number of channels	2		
Sensor type	KTY81-110	PT1000	Widerstand
Measurement range	0-50 °C	0-40 °C	704-3276 Ω
Measurement value	0-500	0-400	7040-32760
Resolution	0.1 °C		0.1 Ω
Sensor range	761-3261 Ω	996-1777 Ω	-
Connection	Step 0: 0 Ω	761-1261 Ω	0 Ω
	Step 1: 500 Ω	1261-1761 Ω	197 Ω
	Step 2: 1000 Ω	1761-2261 Ω	391 Ω
	Step 3: 1500 Ω	2261-2761 Ω	584 Ω
	Step 4: 2000 Ω	2761-3261 Ω	1580-1777 Ω
Measurement precision	±0.5 % of measurement range		
Typical current measurement	< 0.3 mA		
Input resistance	33 kΩ		
Input filter	100 msec		
Short-circuit and sensor break detection	yes		
Connector	2-pin Weidmüller LSF-SMT_3.5/2/180_3.5_SW		

Environmental Conditions

Storage temperature	-20 ... +85 °C	
Operating temperature	0-60 °C	
Humidity	0-95 %, non-condensing	
EMC resistance	in accordance with EN 61000-6-2 (industrial area)	
EMC noise generation	in accordance to EN 61000-6-3 (living area)	
Vibration resistance	EN 60068-2-6	3.5 mm from 5-8.4 Hz 1 g from 8.4-150 Hz
Shock resistance	EN 60068-2-27	150 m/s ²
Protection type	EN 60529	IP20

Article Number and Miscellaneous

Article number	05-895-5420
Station number	can be set with HEX switch (S1), maximum of 16 participants possible
Dimensions	313 x 175 x 75.5 mm (W x H x D)