

# Internal Solar Module HZS 535



- Collector (PT1000)
- Return flow collector (PT1000)
- Storage temperature 1 (PT1000)
- Storage temperature 2 (PT1000)
- Heat counter input (digital input +24 V)
- Switching valve open (relay output)
- Switching valve closed (relay output)
- Solar pump (TRIAC output)
- 230 V AC supply in and out
- Ribbon cable connection to the controller and the next expansion module

## Power supply

Relay power supply	230 V AC
Fuse	5 A for relay outputs and/or 3 A for solar module
Internal electronics power supply	+24 V (from HZS 511), must be connected to the expansion controller
+24 V current consumption	HZS 535: maximum 15 mA (without relays) maximum 40 mA (with relays)

## Digital input specifications (counter input)

Input signal	Open Collector
Input frequency	maximum 200 Hz
Signal evaluation	1x
Counter resolution	8-bit
Input delay	typically 0.2 ms
Number of ...	1 on solar module
Connection technology	3-pin Phoenix RM 3.5 mm

## Specifications for the digital outputs: Relay output - 230 V AC 1 A / or 3 A

Output voltage	230 V AC	
Max. Output current	1 A output current	3 A output current
Number on the heating circuit module	2	1
Number on the buffer module	2	1
Amount on solar module	0	2
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	3 AT	
Connection technology	3-pin Phoenix RM 5.08 mm 3 A relay output 4-pin Phoenix RM 5.08 mm 1 A relay output (or 3 A on solar module)	

## Specifications for the 230 V AC / 1.5 A TRIAC output

Output voltage	230 V AC
Max. Output current	1.5 A output current
Number of ...	1 (solid state relay)
Connection technology	1x 3-pin. Phoenix RM 5.08 mm

## PT1000 analog output specifications

Number of channels	Heating circuit module: 2 Buffer module: 3 Solar module: 2	Heating circuit module: 0 Buffer module: 0 Solar module: 2	Expansion controller: 1
Sensor type	PT1000 (Ohmic temperature sensor)		
Measurement range	-10 to +120 °C	-50 to +200 °C	-50 to +70 °C
Sensor range	960.86 -1460.68	803.06-1758.56	803.06-1270.75
Resolution	0.2 °C	1.0 °C	0.2 °C
Measurement precision	±0.5 °C	±1 °C	±0.5 °C
Measurement value	14-bit		
Input resistance	10 kOhm		
Input filter	100 ms		
Connection technology	2-pin Phoenix RM 3.5 per PT1000 input		

### Terminal requirements

Connection technology	<p><b>Connector terminals are not included in delivery!</b></p> <p>Screw and/or spring terminals are required:</p> <ul style="list-style-type: none"><li>3x 3-pin MSTB 2.5/3-ST-5.08 Phoenix contact plug with RM 5.08 screw terminals</li><li>1x 4-pin MSTB 2.5/4-ST-5.08 Phoenix contact plug with RM 5.08 screw terminals</li><li>4x 2-pin MC 1.5/2-ST-3.5 Phoenix contact plug with RM 3.5 screw terminals</li><li>1x 3-pin MC 1.5/3-ST-3.5 Phoenix contact plug with RM 3.5 screw terminals</li></ul>
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### Article number and miscellaneous

Article number	05-895-535
Hardware version	1.x

### Environmental conditions

Storage temperature	-20 ... +70 °C	
Operating temperature	0 ... +60 °C	
Humidity	0-95 %, uncondensed	
EMV stability	according to EN 61000-6-2:2001	
Shock resistance	EN 60068-2-27	150 m/s <sup>2</sup>

## Notes