PID continuous controller µCelsitron baelz 6496/6596

baelz 6496 / 6596

PID CONTINUOUS CONTROLLER

Constant controller with continuous control signal.

baelz 6X96 µCelsitron microprocessor controllers are compact and reliable controllers suitable for many industrial control applications, e.g.: in dryers, reactors, steam generators and superheated steam coolers (desuperheaters).

ADVANTAGES AT A GLANCE

- P/PD/PI/PID control behavior with continuous control signal
- Easy operation with 4 buttons
- Auto tuning, self-adaptation of the control parameters
- Option: RS485 Modbus RTU for connection to master computer
- Standard housing 96x96 mm / 96x48 mm
- Control digital input for OPEN, CLOSE, STOP, SP2, REM./LOC.
- Setpoint and positioning ramp with selectable gradient
- Manual/automatic switchover
- Measuring inputs PT 100, 0 / 2-10V, 0 / 4-20mA
- Thermocouple with ext. converter baelz 6261-Thermo
- 2 separate LED displays for setpoint and actual value
- 2 alarms standard: fixed, sliding, tolerance band/range
- LED status display

baelz 6496   baelz 6596

| Technical specifications, baelz 6496/6596 (6X96 stands for both types)		
	6496...	**6596...**
Controller type	PID continuous controller	
Analog inputs	PT100, 2.4 = 0...300°C or 2.2 = 0...400°C (other measuring ranges on request) Connection in 3-core technology; 0/4 ... 20 mA, Re = 50 Ω; 0/2 ... 10 V, Re = 100 kΩ	
Analog output for actual value	0...10V corresponds to 0...300°C (2.4) or 2.2 = 0...400°C (2.2) Imax = 2 mA	
Digital inputs	high active, Re = 1 kΩ; open / 0 VDC = low, 12 ... 24 VDC = high	
Digital input & transducer supply voltage	24 VDC, Imax = 60 mA	
Interface	RS485 Modbus protocol in RTU mode 1200 to 19200 baud; 1 start bit, 8 data bits, 1 stop bit, no parity	
Display	2 LED displays for setpoint and actual value	
Mounting	Panel front installation	
Housing	plastic	
Dimensions WxHxD (mm)	96 x 96 x 135	48 x 96 x 140
Ingress protection rating	IP 65 (front)	
Power supply	230 V / (special voltages on request: 115 V / 24 V), -15% / + 10%, 50/60 Hz	
Weight. approx. (kg)	0.6	0.5
Ambient temperature (°C)	Operating: 0...50; Transport / Storage: -25...+ 65	

| Options / Surcharges	Remarks
2 inputs 0/4 ... 20 mA	
2 inputs 0/2 ... 10 V	
Differential temperature 0...50 K	
Calibration of measuring input PT100	for connection to Zener barriers
RS 485 - preload S15	for connection to remote maintenance module baelz 5279-NB (only for devices with RS 485)

Note:
- Software for control technology, see baelz 4614
- Wall-mounted housing: Order No. 3570-001
- Adapter for rail mounting: Order No. 3506-004

Inputs and outputs, baelz 6496/6596 (6X96 stands for both types)						
Type	Measuring inputs	Controller output	Digital inputs	Actual value output 0...10 V (PT100)	potential-free alarm relay 250 V AC / 3 A	with RS485 interface Modbus RTU
6x96/1	2 measuring inputs can be assigned either with the process variable or the external setpoint: PT100, 0/2...10 V or 0/4...20 mA	1x 0/2...10 V oder 0/4...20 mA selectable	1x for switching external / internal setpoint	-	2x	No
6X96/2			5x (open, close, stop, external / internal and 2nd setpoint)	1x 0...10 V (PT100)	2x	No
6X96/3			With interface RS 485 Modbus RTU 5x (open, close, stop, external / internal and 2nd setpoint)	-	2x	Yes
6496/2-2.4-S7.1/S8.1-24 V DC	2 measuring inputs as above, but switchable with special software S16		5x (open, close, stop, external / internal and 2nd setpoint)	1x 0...10 V (PT100)	2x	No

Housing dimensions baelz 6496

Panel controller cut-out
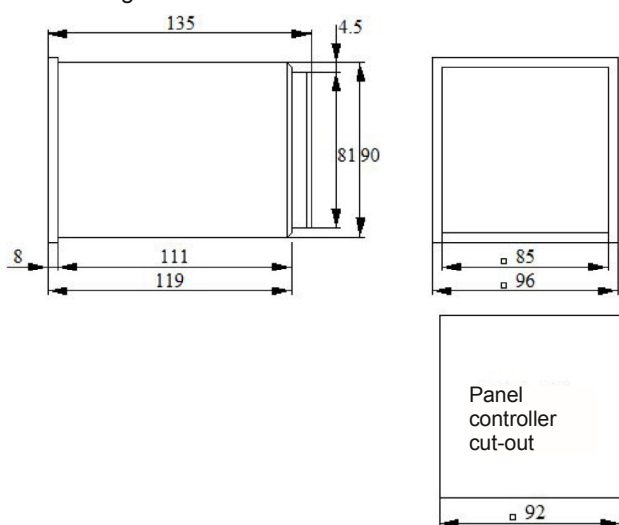
Housing dimensions baelz 6596

Panel controller cut-out
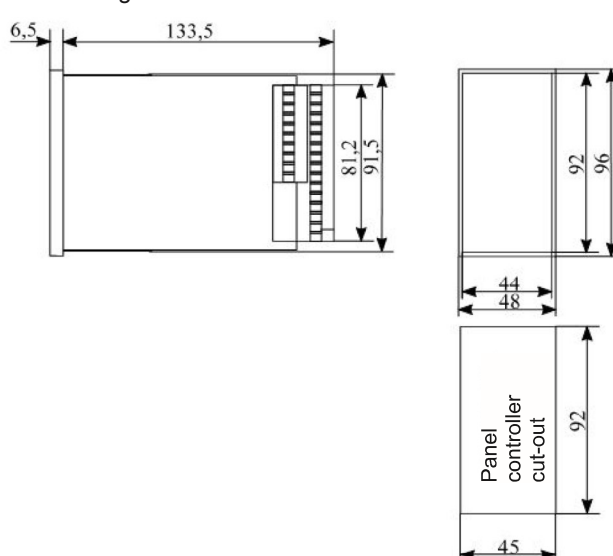
Overview features depending on type / version baelz 6496 ... / 6596 ...				
			additional right controller card	
	Equipment	.../1	.../2	.../3
Basic version	1 measuring input Pt100	✓	✓	✓
	1 measuring input 0/4 ... 20 mA	✓	✓	✓
	1 measuring input 0/2 ... 10 V	✓	✓	✓
	integrated supply voltage 24 V DC (for external two-wire transmitter and digital input)	✓	✓	✓
	1 digital input REM/LOC	✓	✓	✓
Options	5 digital inputs		✓	✓
	1 Pt100 actual value output 0...10 V		✓	
	1 serial interface RS 485			✓

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Connection diagram baelz 6x96

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