

**TECHNICAL DATASHEET**
**ATEX Pneumatic Preset Counters**
**Type 497**


Adding version



Subtracting version

- ATEX certified for Gas, Dust and Mining
- Preset values continuously visible
- Integrated pneumatic reset
- Optional automatic reset
- 3 or 5-digit display
- Convenient button setting
- Maintenance-free operation


**EX-CLASSIFICATION**

 Gas: Ex II 2G Ex h IIB T4 Gb ( $0^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ )

 Dust: Ex II 2D Ex h IIB T130°C Db ( $0^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ )

 Mining: Ex I M2 Ex h I Mb ( $0^{\circ}\text{C} \leq T_a \leq 60^{\circ}\text{C}$ )

**TECHNICAL DATA**

Display	5-digit, digits 3 mm x 4 mm, white/black 3-digit, digits 3 mm x 4 mm, white/black
Digit height	4 mm
Counting range	1 to 99 999, 1 to 999
Operating pressure	2 ... 6 bar
Air quality	Filtered, dried and unlubricated air according to ISO 8573 -1: 2010 [7:4:4]; designed for use with compressed air. Operates with other media/pure gases upon request
Filter pore size	< 40 microns; use suitable filters when necessary
Ambient temperature	0 ... + 60°C
Maximum medium temperature	30°C (maximum compressed air temperature)
Connection	M5 hose screw connection
Fastening	Suitable for front panel fastening. Two M4 clearance holes
Protection (IEC 144)	IP40 with connected hoses. IP55 when using a transparent hinged cover (see Accessories)
Weight	Approx. 100 g, with automatic reset approx. 150 g
Counting	Adding or subtracting
Pneumatic signaling at Port "X"/"Y"	Square-wave signal (almost, no "slow" pressure rise/drop)
Maximum counting frequency	5 Hz (count input "X")

Specifications subject to change without notice.

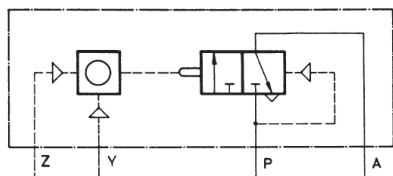
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#### TECHNICAL DATA

Minimum counting pulse duration	8 ms (count input "X")
Reset	<ul style="list-style-type: none"> <li>- Manual with button</li> <li>- By external pneumatic signal at input "Y"</li> <li>- Automatic reset after preset has been reached (only in version with automatic reset)</li> </ul>
Maximum reset frequency	4 Hz (reset input "Y")
Minimum reset pulse duration at input "Y"	180 ms
Air delay time until counting restart	Minimum 50 ms (after pulse end of the reset signal at input "Y" and the restart of counting at input "X")
Signal output "A"	After reaching preset value, pressure air "ON" from "P" to "A"
Signal duration at outlet "A"	From reaching preset value until Reset Timers with automatic reset: 300 ... 340 ms

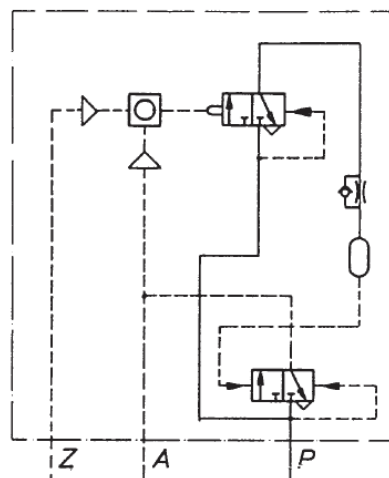
#### CONNECTION DIAGRAMS

Preset counter without automatic reset

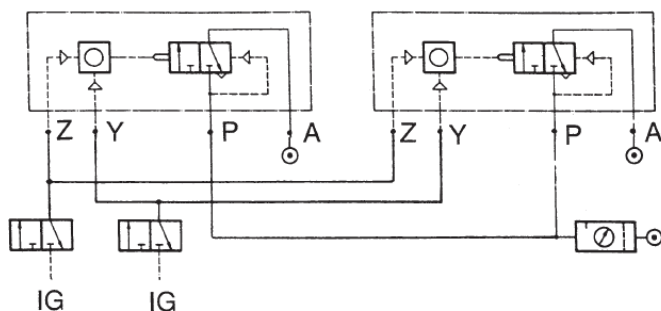


X = Air input for time pulse generator    Y = Pneumatic reset input  
P = Compressed air input                    A = Air output / End signal

Preset counter with automatic reset



Connection diagram for pre-signal by a second counter

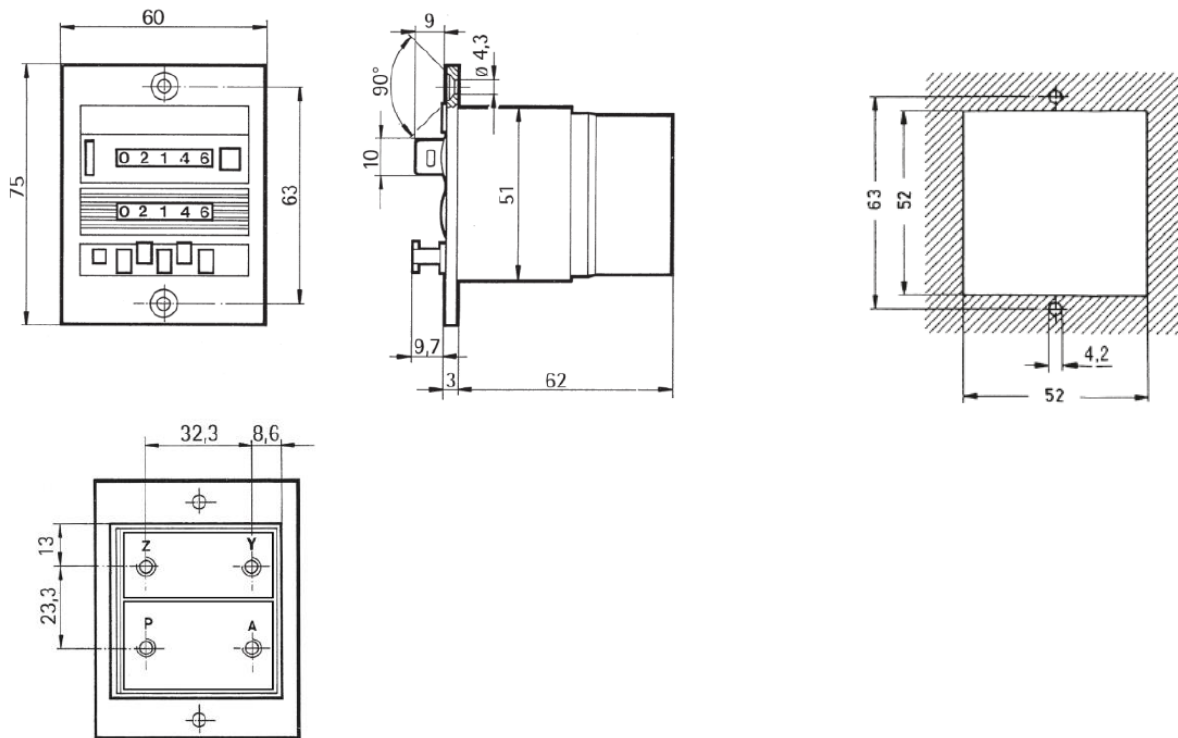


Specifications subject to change without notice.

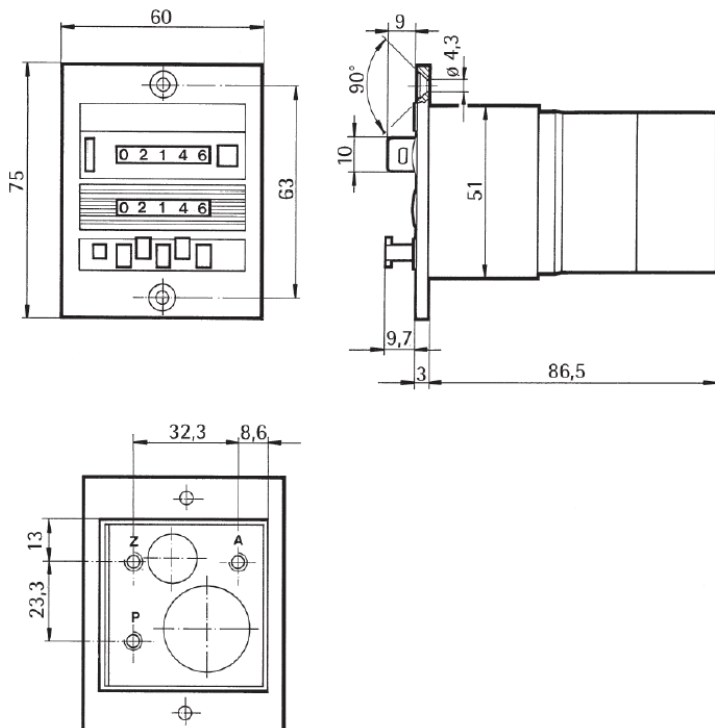
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#### DIMENSIONAL DRAWINGS

Dimensional drawing of pneumatic preset counter without automatic reset (adding)



Dimensional drawing of pneumatic preset counter with automatic reset (adding)



Dimensions in mm

Specifications subject to change without notice.

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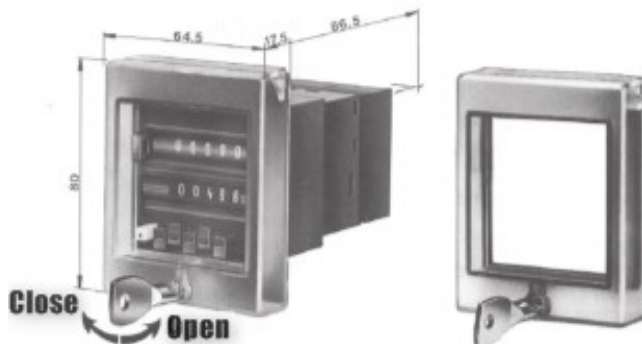
**TECHNICAL DATASHEET**

**ATEX Pneumatic Preset Counters**

**Type 497**

**ACCESSORIES**

Optional use of a protection transparent cover



**ORDERING INFORMATION**  
Preset counters

Version	Button and pneumatic reset		Automatic reset	
	3-digit	5-digit	3-digit	5-digit
Adding	0 497 719	0 497 786	0 497 793	0 497 772
Subtracting	0 497 730	0 497 750	-	-

**Accessories**

Transparent cover	With knob	1 405 613
	With Key	1 405 614

Specifications subject to change without notice.



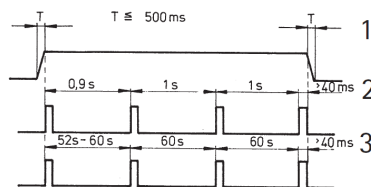
- ATEX certified for Gas, Dust and Mining
- Preset values continuously visible
- Integrated pneumatic reset
- Optional automatic reset
- 3 or 5-digit display
- Convenient button setting
- Maintenance-free operation



**EX-CLASSIFICATION**

Gas: Ex II 2G Ex h IIB T4 Gb (0°C ≤ Ta ≤ 60°C)  
 Dust: Ex II 2D Ex h IIIB T100°C Db (0°C ≤ Ta ≤ 60°C)  
 Mining: Ex I M2 Ex h I Mb (0°C ≤ Ta ≤ 60°C)

**FUNCTION**



When compressed air is pressurized from 2 to 6 bar at port "X", the time pulse generator will start and emit a pneumatic pulse to the preset counter, depending on the version, every second or minute.

- 1 = Air input „X“
- 2 = pulses each second
- 3 = pulses each minute

**TECHNICAL DATA**

Display	5-digit, digits 3 mm x 4 mm, white/black 3-digit, digits 3 mm x 4 mm, white/black
Digit height	4 mm
Counting range	1 to 99 999, 1 to 999 [minutes or seconds]
Operating pressure	2 ... 6 bar
Air quality	Filtered, dried and unlubricated air according to ISO 8573 -1: 2010 [7:4:4]; designed for use with compressed air. Operates with other media/pure gases upon request
Filter pore size	< 40 microns; use suitable filters when necessary
Ambient temperature	0 ... + 60°C
Maximum medium temperature	30°C (maximum compressed air temperature)
Connection	M5 hose screw connection
Fastening	Suitable for front panel fastening. Two M4 clearance holes
Protection (IEC 144)	IP40 with connected hoses. IP55 when using a transparent hinged cover (see Accessories)

Specifications subject to change without notice.

## TECHNICAL DATASHEET

### ATEX Pneumatic Preset Timer

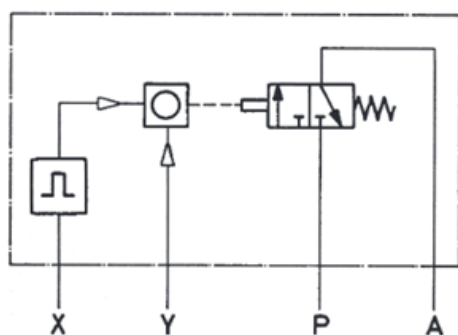
Type 497

#### TECHNICAL DATA

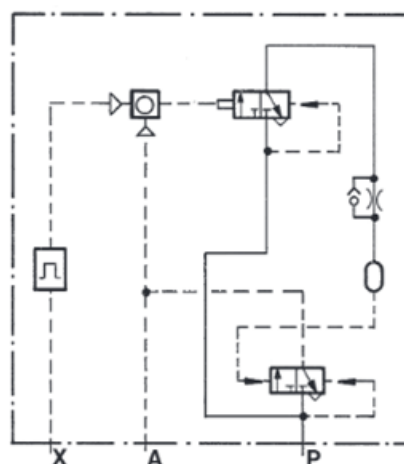
Weight	Approx. 320 g, with automatic reset approx. 350 g
Counting	Adding up
Resolution	Minutes or seconds, according to the chosen version
Maximum counting frequency	Preset timer operate internally in seconds or minutes, based on chosen version
Time deviation	Maximum 15% in the first time unit (seconds or minutes)
Frequency offset	1/min 0.5% (minutes version) 1/s 2% (seconds version)
Reset	<ul style="list-style-type: none"> <li>- Manual with button</li> <li>- By external pneumatic signal at input "Y"</li> <li>- Automatic reset after preset has been reached (only in version with automatic reset)</li> </ul>
Minimum reset pulse duration at input "Y"	Min. 180 ms
Reset frequency	Max. 1 per 2 s
Signal output "A"	After reaching preset value, pressure air "ON" from "P" to "A"
Signal duration at outlet "A"	From reaching preset value until Reset Timers with automatic reset: 300 ... 340 ms

#### CONNECTION DIAGRAMS

Preset timer without automatic reset



Preset timer with automatic reset



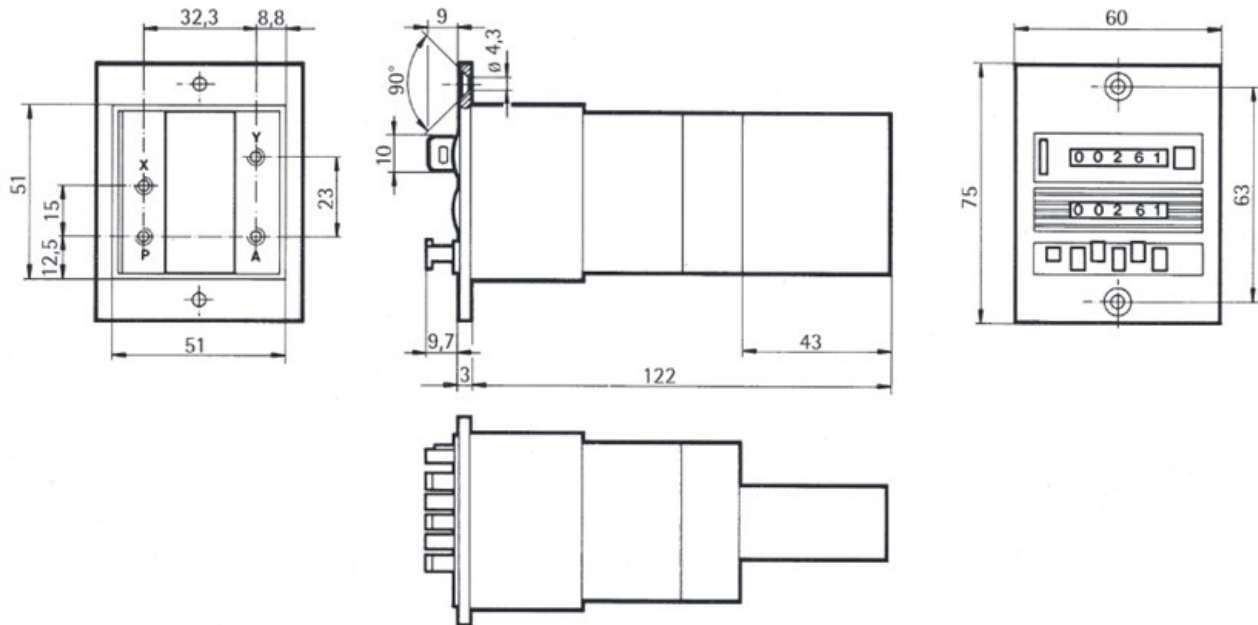
X = Air input for time pulse generator    Y = Pneumatic reset input  
P = Compressed air input                    A = Air output / End signal

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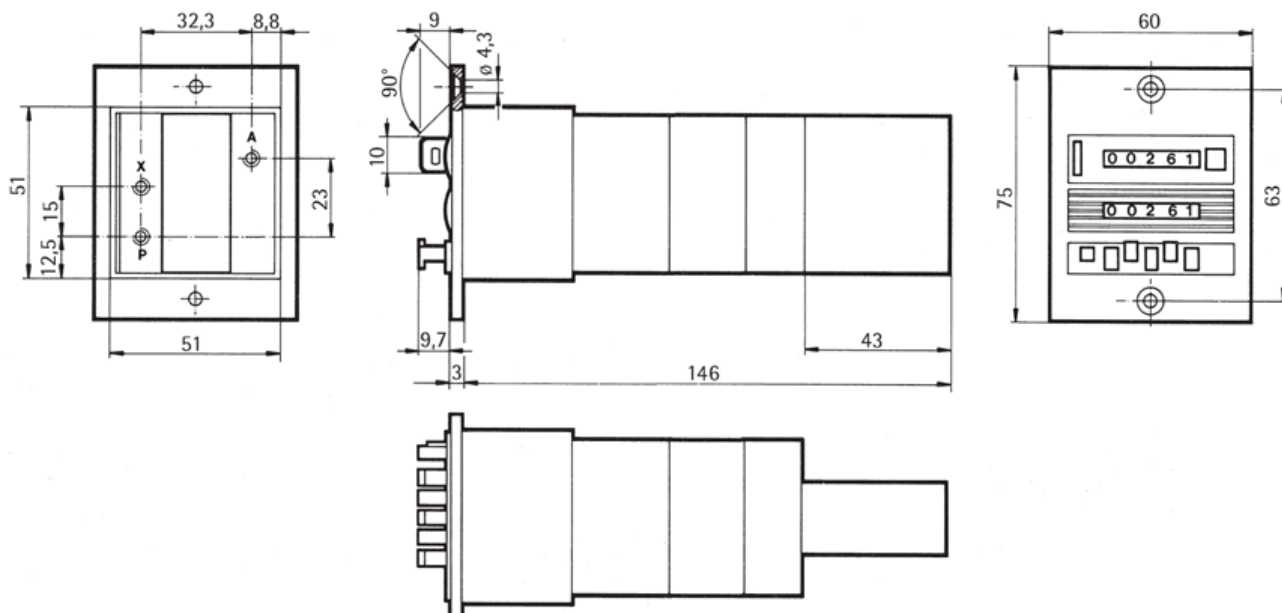
#### DIMENSIONAL DRAWINGS

Dimensional drawing of pneumatic preset timer without automatic reset



Dimensions in mm

Dimensional drawing of pneumatic preset timer with automatic reset



Dimensions in mm

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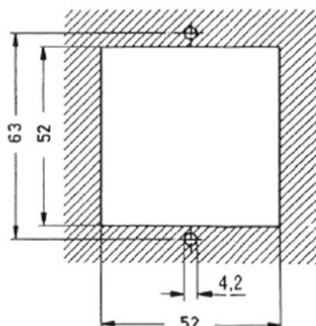
## TECHNICAL DATASHEET

### ATEX Pneumatic Preset Timer

Type 497

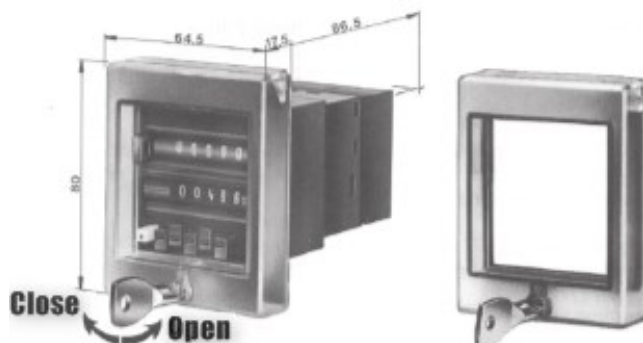
#### DIMENSIONAL DRAWINGS

##### Front panel installation



#### ACCESSORIES

##### Optional use of a protection transparent cover



#### ORDERING INFORMATION

##### Preset timers

Version		Art. Nr.
3-digit	Seconds indication	0 497 721
	Minutes indication	0 497 722
5-digit	Seconds indication	0 497 752
	- with automatic Reset	0 497 765
5-digit	Minutes indication	0 497 754
	- with automatic Reset	0 497 766

#### Accessories

Transparent protection cover	With knob	1 405 613
	With key	1 405 614

Specifications subject to change without notice.