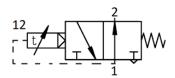


ATEX Automatic Reset Module

Typ 499



- ATEX certified for Gas, Dust and Mining
- Convenient setting of preset value by rotary knob
- Output signal of adjustable length 0.2 to 2 seconds
- DIN dimensions
- Maintenance-free operation





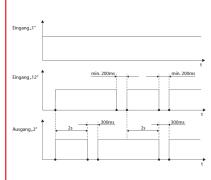


EX-CLASSIFICATION

Ex II 2G Ex h IIB T4 Gb (0° C \leq Ta \leq 60 $^{\circ}$ C) Gas: Ex II 2D Ex h IIIB T120°C Db (0°C \leq Ta \leq 60°C) Dust:

Mining: Ex I M2 Ex h I Mb (0° C \leq Ta \leq 60°C)

FUNCTION



In rest position, input "1" is switched to output "2". A compressed air pulse > 80ms applied at input "12" starts the reset module and preset delay time is started.

After preset delay time has elapsed, compressed air to output "2" is interrupted for at least 300ms. Via this interruption the reset module interrupts the supply pressure at the downstream timer, and the timer is completely reset via this interruption signal.

1 = Air input

2 = Air output

12 = Signal air supply at input

(Example diagram: Delay time preset to 2 s)

TECHNICAL DATA

Display	Digit wheel for displaying preset delay time	
Digit height	Approx. 1.5 mm x 4 mm white/black	
Operating pressure	2 6 bar	
Tightness	Max. 5 I / h	
Nominal flow (4bar) Approx. 50 I / min (Air input "1" to Output "2")		
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	
Storage temperature	-25 + 70°C	
Maximum medium temperature	30°C (maximum compressed air temperature)	

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ATEX Automatic Reset Module

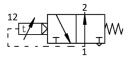
Typ 499

TECHNICAL DATA

Connnection	M5 hose screw connection
Protection (IEC 144)	IP40 with connected hoses. IP55 when using a transparent protection cover (see Accessories)
Weight	Approx. 50 g
Time setting	Continuous with rotary knob
Preset delay time	0.2 - 2 s
Repeatability	± 0.3 s (related to delay time)
Minimum pulse duration	Min. 200 ms (For reset at input "12")
Response pressure	1.2 ± 0.4 bar
Switch-off pressure	< 0.1 bar
Vibration stability	50 m/s² (10 - 500 Hz)
Shock stability	400 m/s ² (5 ms)
Input pulse duration	Min. 80 ms (Start Verzögerung am Eingang "12")
Signal interruption time	Min. 300 ms
Mounting position	Any (Upright position preferred)
Tightening torque of the connections	Max. 200 Ncm
Mounting cut out	45 + 0.6 x 22.2 + 0.3 mm
Depth (hose screw connections)	57.5 mm

CONNECTION DIAGRAMS

Automatic reset module

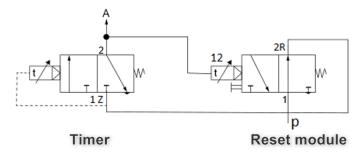


1 = Air input "1"

2 = Air output "2"

12 = Signal air supply at input "12"

Example application of pneumatic timer with automatic reset module



[&]quot;1" Reset module = Air input (mains connection "p")

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[&]quot;2R" Reset module output = "1Z" Timer = Air input

[&]quot;2" Timer (Air output) = Signal air input "12" Reset module

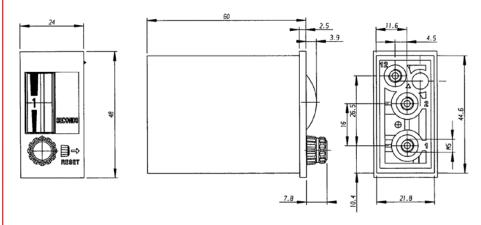


ATEX Automatic Reset Module

Typ 499

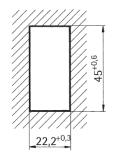
DIMENSIONAL DRAWINGS

Automatic reset module



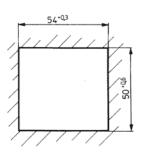
Front panel cut out

Dimensions in mm

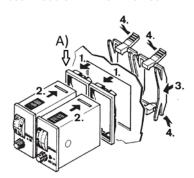


ACCESSORIES

Combined mounting of pneumatic timer + reset module with front frames



 $A = Front frame 29 \times 54 mm (2 405 218)$



Dimensions in mm

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ATEX Automatic Reset Module

Typ 499

ORDERING INFORMATION Reset module

Accessories

	Ordering code
Automatic reset module	0 499 735
Front frame 29 x 54 mm	2 405 218

For further accessories, please refer to the pneumatic timers

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ATEX Pneumatic Timer

Type 499



- ATEX certified for Gas, Dust and Mining
- Convenient setting of preset value by rotary knob
- Preset and remaining time values continuously visible

Ex II 2G Ex h IIB T4 Gb (0° C \leq Ta \leq 60 $^{\circ}$ C)

Mining: Ex I M2 Ex h I Mb (0° C \leq Ta \leq 60°C)

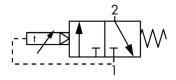
Ex II 2D Ex h IIIB T120°C Db (0°C \leq Ta \leq 60°C)

- Precise time preset 0.2 s to 300 s
- DIN dimensions

Gas: Dust:

• Maintenance-free operation

See also Automatic Reset Module (Type 499)



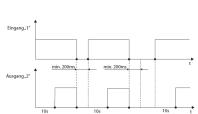




EX-CLASSIFICATION

TECHNICAL DATA

FUNCTION



When compressed air is applied at port "1", or "12" (at "negative" version) the timer starts. After the preset time has elapsed, compressed air is passed from port "1" to port "2", or compressed air at port "2" will be closed.

This state remains active until the compressed air supply at port "1" (or optionally "12") is interrupted. If the compressed air is removed from port "1" (or

optionally "12"), the timer is reset to the previous state and time preset and the process can be restarted.

1 = Air input "1"

12 = Signal air supply at input "12"

2 = Air output "2"

Display	1 digit wheel displaying preset time 1 digit wheel displaying remaining time
Digit height	1.5 mm x 4 mm white/black (preset time) 1.5 mm x 3 mm white/black (remaining time)
Operating pressure	2 6 bar
Tightness	Max. 51/h
Nominal flow (4bar)	Approx. 50 I / min (Air input "1" to Output "2")
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
Storage temperature	- 25 + 70°C
Maximum medium temperature	30°C (maximum compressed air temperature)

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ATEX Pneumatic Timer

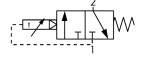
Type 499

TECHNICAL DATA

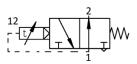
Connnection	M5 hose screw connection				
Protection (IEC 144)	ion (IEC 144) IP40 with connected hoses. IP55 when using a transparent protection cover (see Accessories)		~		
Weight	Approx. 50 g				
Time setting	Continuous v	vith rotary knob			
Time range Repeatability Setting accuracy	0.2 - 3 s ± 0.1 s ± 0.3 s	2 - 30 s ± 0.3 s ± 0.6 s	8 - 120 s ± 1.2 s ± 3 s	20 - 300 s ± 3 s ± 6 s	
Minimum pulse duration	se duration 200ms (For resetting at input "1")				
Response pressure	1.2 ± 0.4 bar				
Switch-off pressure	< 0.1 bar				
Vibration stability	30 m/s ² (10 - !	500 Hz)			
Shock stability	400m/s ² (5 ms	s)			
Mounting position	Any (Upright	position preferre	ed)		
Tightening torque of the connections	Max. 200 Ncm				
Mounting cut out	45 + 0.6 x 22.2	2 + 0.3 mm			
Depth (hose screw connections)	•				

CONNECTION DIAGRAMS

Timer standard version ("Normally closed")



Timer "Normally open" special version ("negative")



1 = Air input "1" 12 = Signal air supply at input "12" 2 = Air output "2"

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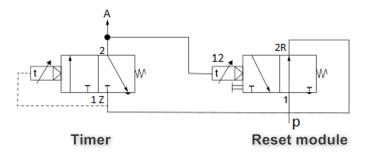


ATEX Pneumatic Timer

Type 499

CONNECTION DIAGRAMS

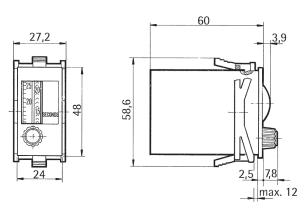
Example application of pneumatic timer with automatic reset module



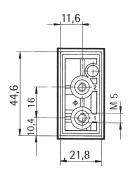
- "1" Reset module = Air input (mains connection "p")
- "2R" Reset module output = "1Z" Timer = Air input
- "2" Timer (Air output) = Signal air input "12" Reset module

DIMENSIONAL DRAWINGS

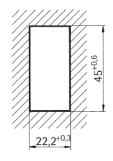
Pneumatic timer (with clamping frame)



Dimensions in mm



Front panel installation



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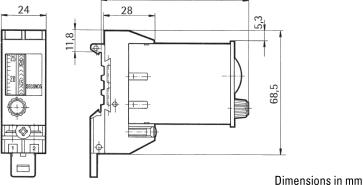


ATEX Pneumatic Timer

Type 499

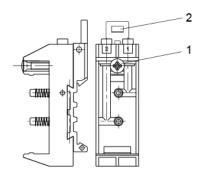
DIMENSIONAL DRAWINGS

Pneumatic timer (in DIN-rail socket and bypass slide)



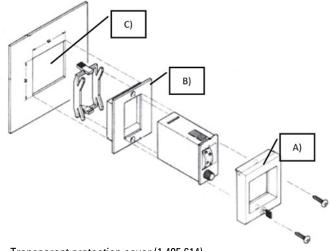
ACCESSORIES

DIN-rail socket and bypass slide



- 1 = DIN-rail socket with M5 female threaded inputs (1 499 511)
- 2 = Bypass slide for 35 mm "H" DIN-rails (3 513 306)

Front panel mounting with transparent protection cover



- A = Transparent protection cover (1 405 614)
- $B = Front frame 60 \times 75 mm (1 405 614)$
- C = Front plate cut out 52mm x 52mm

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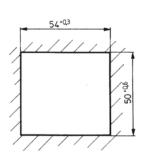


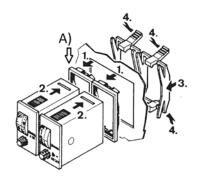
ATEX Pneumatic Timer

Type 499

ACCESSORIES

Combined mounting of pneumatic timer + reset module with front frames





A = Front frame 29 x 54 mm (2 405 218)

Dimensions in mm

ORDERING INFORMATION Timer

Version	Time range			
	0.2 3 s	2 30 s	20 300 s	
Standard ("Normally closed")	0 499 720	0 499 700	0 499 750	
Special ("Normally open") *				

Accessories

DIN-rail socket with M5 female threaded inputs	1 499 511
Bypass slide for 35 mm "H" DIN-rails	3 513 306
Transparent protection cover	1 405 614
Front frame 60 x 75 mm	1 499 512
Front frame 29 x 54 mm	2 405 218

^{*} On request

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