› Pneumatic Timers
Sub-base Mount

- 4 Timing Functions: Positive Output (On-delay), Negative Output, Impulse Generator and Frequency Generator
- Timing ranges: 0.4 s, 0.1 to 15 s, 0.1 to 30 s, 0.1 to 60 s
- Long lifetime (10^7 operation cycles)
- ATEX compliant options for explosive environments

Standard version

ATEX Compliant Version

Selection guide

Timing Functions	Timing/Frequency	Standard Part Number	ATEX compliant Part Number
Positive Output (On-Delay)	0.4 s (Fixed)	**81503540**	**81503543**
	0.1 → 15 s (Adjustable)	**81503710**	**81503728**
	0.1 → 30 s (Adjustable)	**81503720**	**81503729**
	0.1 → 60 s (Adjustable	**81503725**	**81503731**
Negative Output	0.1 → 15 s (Adjustable)	**81506710**	**81506714**
	0.1 → 30 s (Adjustable)	**81506720**	**81506721**
	0.1 → 60 s (Adjustable)	**81506725**	**81506727**
Impulse Generator	0.4 s (Fixed)	**81507540**	**81507543**
	0.1 → 30 s (Adjustable)	**81507720**	**81507724**
Frequency Generator	0.02 → 8 Hz (Adjustable)	**81506940**	**81506945**
	0.02 → 14 Hz (Adjustable)	**81506920**	**-**

Do you have a special project with specific needs? Contact us on **www.crouzet.com**

Description:

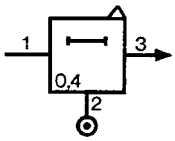
Crouzet offers a wide **pneumatic timers'** range, with several functions and timing range to suit different customer needs.
ATEX compliant options are also available for applications in explosive environment.

For more information about Crouzet's pneumatic timers range, please visit **www.crouzet.com**

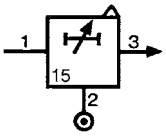
	Positive Output (On-Delay)	Negative Output	Impulse Generator	Frequency Generator
Timing Specifications				
Specified time ranges	Fixed: 0.4 s Adjustable 1: 0.1 → 15 s Adjustable 2: 0.1 → 30 s Adjustable 3: 0.1 → 60 s	- Adjustable 1: 0.1 → 15 s Adjustable 2: 0.1 → 30 s Adjustable 3: 0.1 → 60 s	Single: 0.4 s Adjustable: 0.1 → 30 s	Adjustable 1: 0.02 → 8 Hz Adjustable 2: 0.02 → 14 Hz
Accuracy	± 5 %			
Min. reset time	<0.1 s			
General characteristics				
Operating pressure	2 → 8 bar			
Flow at 6 bars	170 Nl/min.			
Orifice diameter	2.7 mm (without sub-base) 4 mm with sub-base			
Mounting	Sub-base Mount			
Casing	32 x 25 mm			
Operating temperature	-5 → + 50 °C			
Mechanical life	10^7 operations			

Timers symbols

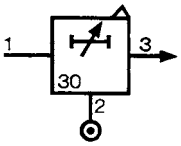
Part Number 81503540



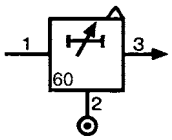
Part Number 81503710



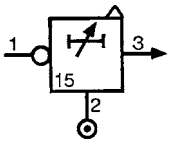
Part Number 81503720



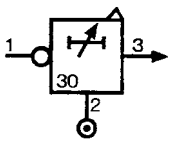
Part Number 81503725



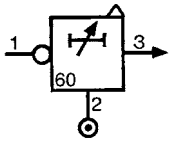
Part Number 81506710



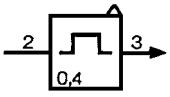
Part Number 81506720



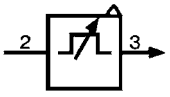
Part Number 81506725



Part Number 81507540



Part Number 81507720



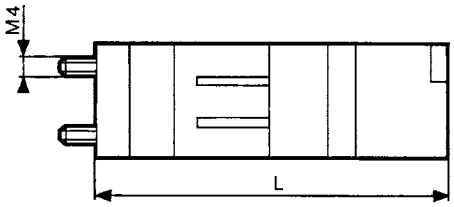
Part Number 81506940

Part Number 81506920

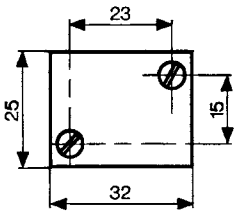
Diagrams

Dimensions (mm)

Side View



Front view

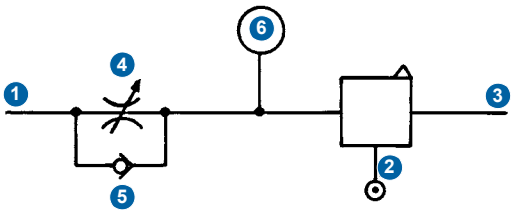


Standard / ATEX compliant Part Number	L (mm)	Weight (g)
81503540 / 81503543	76	106
81503710 / 81503728	78	90
81506710 / 81506714		
81503720 / 81503729	92	100
81506720 / 81506721		
81503725 / 81503731	125	120
81506725 / 81506727		
81507540 / 81507543	73	106
81507720 / 81507724	99	180
81506940 / 81506945	72	85
81506920		

Functional Diagram

The operation of these pneumatic timers is similar to the one of electronic timers (circuit with capacitor/resistor) as can be seen in the following functional diagram:

Timing by charging of reservoir



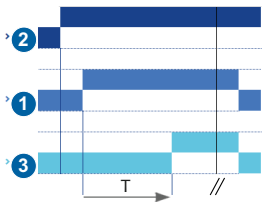
1. Control input
2. Air supply
3. Air Output
4. Flow Restrictor
5. Non-return valve
6. Capacitor

The reservoir inside the timer fills via the connection (1) that is passing through the flow restrictor (4), until it reaches the switching point (Timing set-up). The non-return valve (5) allows the reservoir of the timer to be emptied rapidly for the next timing.

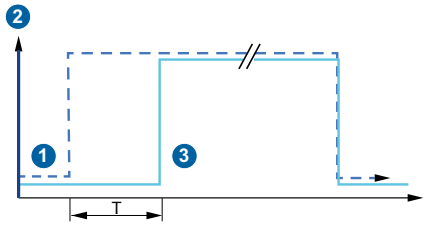
Timing Functions

Positive Output (On-Delay)

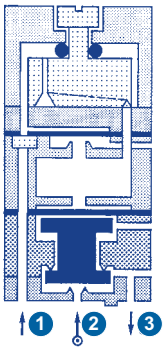
Time chart style 1



Time chart style 2



Timer view in 2D

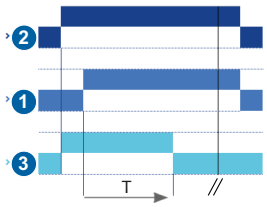


1. Control input
2. Air supply
3. Air Output

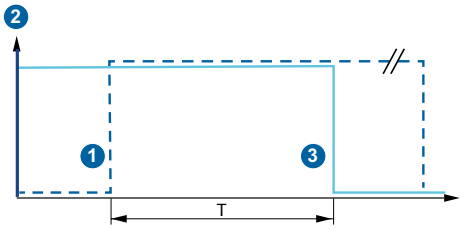
T: Timing
// Supply off

Negative Output

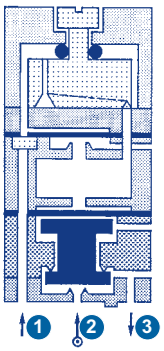
Time chart style 1



Time chart style 2



Timer view in 2D

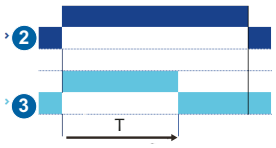


1 Control input
2 Air supply
3 Air Output

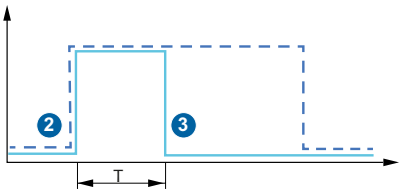
T: Timing
// Supply off

Impulse Generator

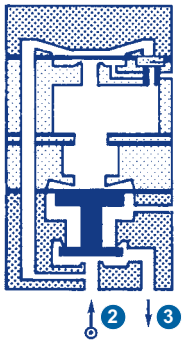
Time chart style 1



Time chart style 2 - Single impulse generator



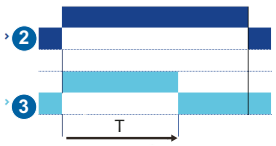
Timer view in 2D



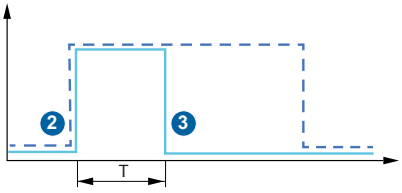
2 Air supply
3 Air Output

T: Timing

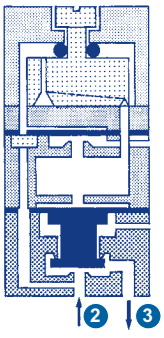
Time chart style 1



Time chart style 2 -
Adjustable impulse generator



Timer view in 2D

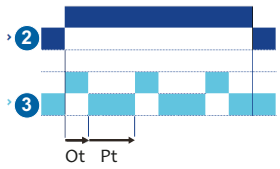


2 Air supply
3 Air Output

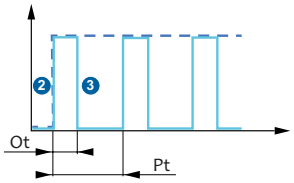
T: Timing

Frequency Generator

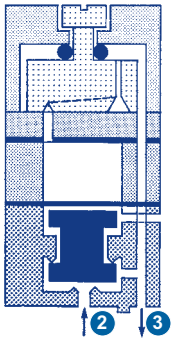
Time chart style 1



Time chart style 2



Timer view in 2D



2 Air supply
3 Air Output

Ot: Operating time
Pt: Period time

Complementary Products

SUB-BASE

	Description	Standard P/N	ATEX compliant P/N
	DIN-Rail Mount Multiple products	81 532 102	81 532 109
	DIN-Rail Mount	81 532 104	81 532 111
	Shaft Mount	81 531 001	81 531 008
	Panel Mount	81 532 001	81 532 009

OTHER PRODUCTS

	Description	Standard P/N	ATEX compliant P/N
	Non-return valve (Check-Valve)	81 529 901	-
	Air Pressure Regulator	81 527 001	-
	Air Capacitor	79 452 808	-
	Manual Timing Set-Up Knob	79 451 698 79 451 903 79 451 904 79 451 905	- - - -

AIR FLOW REGULATORS

	Description	Standard P/N	ATEX compliant P/N
	Free flow of 30 NL/min	81 525 101	-
	Free flow of 200 NL/min	81 526 001	-
	At 4 bar 0.18 → 0.30 Nm3/h	81 529 003	81 529 013
	At 4 bar 0.35 → 0.5 Nm3/h	81 529 004	81 529 014
	At 4 bar 0.58 → 0.77 Nm3/h	81 529 005	-
	At 4 bar 0.80 → 1.06 Nm3/h	81 529 006	-
	At 4 bar 1.10 → 1.39 Nm3/h	81 529 007	81 529 017
	At 4 bar 1.45 → 1.65 Nm3/h	81 529 008	81 529 018
	At 4 bar 2.30 → 2.80 Nm3/h	81 529 010	-
	At 4 bar 0.08 → 0.12 Nm3/h	81 529 025	-