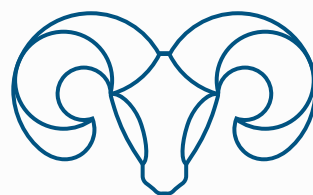


TRAFFIC LIGHT CONTROL



ALPHATRONICS
innovators in access technology

TRAFFIC LIGHT CONTROL

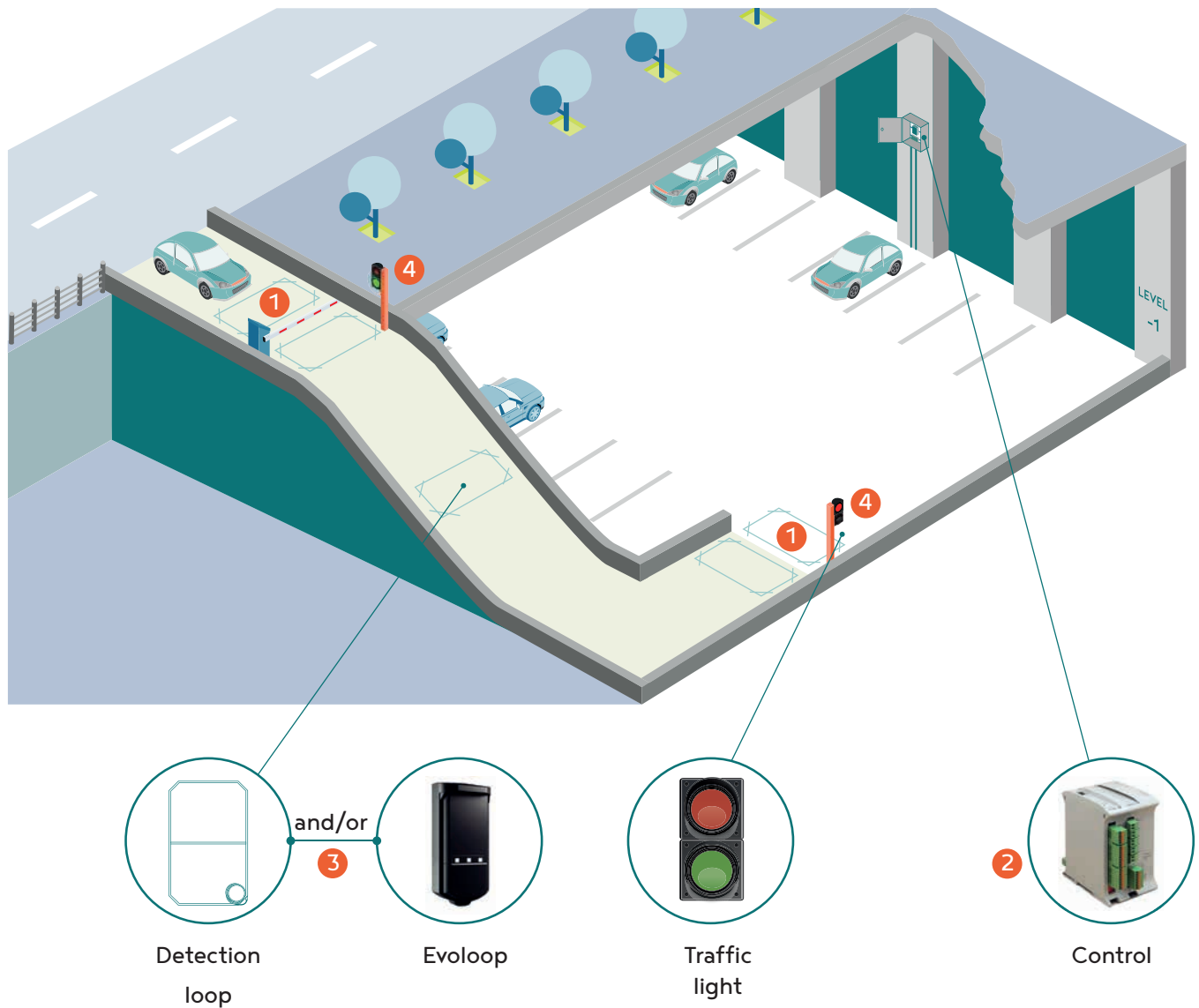
The AT-Traffic Control is an intelligent traffic light control system designed for locations where two opposing traffic flows share the same passageway. Typical applications include apartment buildings, parking garages, company parking facilities and logistics sites where vehicles cannot pass each other simultaneously.

The controller processes signals from vehicle detection systems such as induction loops, radar sensors or Evoloop sensors and, based on these signals, controls traffic lights, barriers and gates. This ensures safe and efficient traffic management without the need for complex programming.

The AT-Traffic Control is not only suitable for new projects. Do you already have traffic lights, barriers or gates installed? Simply connect them to our traffic light control system. This allows you to upgrade your existing installation, making it smarter, safer and more user-friendly, without major modifications or complex programming.



HOW DOES THE SYSTEM WORK?



When a vehicle requests access to the passageway (1), the AT-Traffic Control (2) receives a signal from the connected detection sensor (3).

The controller then determines which traffic direction has priority according to the configured traffic logic. As soon as the passageway is clear, the traffic light (4) switches to green and any barriers or gates can be opened automatically.

After the vehicle has passed, the passageway is secured again and the system awaits the next request. This ensures that only one traffic flow uses the passageway at a time.

FLEXIBLE CONFIGURATION

Every location has its own traffic situation.

That is why the AT-Traffic Control supports different priority rules.

Profile

Weekday

Rule

5 - priority_for_side

1 - startup_hold
2 - priority_for_first
3 - priority_for_first_and_stay
4 - timed_alternating
5 - priority_for_side
6 - all_off
7 - alarm
8 - evacuate

Selected profile: Weekday

	00	15	30	45		00	15	30	45
00	2	2	2	2	06	5A	5A	5A	5A
01	2	2	2	2	07	5A	5A	5A	5A
02	2	2	2	2	08	5A	5A	5A	5A
03	2	2	2	2	09	5A	5A	5A	5A
04	2	2	2	2	10	5A	5A	5A	5A
05	2	2	2	2	11	5A	5A	5A	5A
					16	5A	5A	5A	5A
					17	5A	5A	2	2
					18	2	2	2	2
					19	2	2	2	2
					20	2	2	2	2
					21	2	2	2	2
					22	2	2	2	2
					23	2	2	2	2

Rules used in this profile

2 priority_for_first

5 priority_for_side

- First come, first served
- Priority direction based on the last vehicle
- Alternating priority direction according to a predefined schedule
- Permanent priority direction
- Weekly schedule configurable in 15-minute intervals
- Specific settings for particular days or events



AVAILABLE CONFIGURATIONS

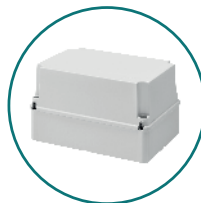
AT-Traffic Control Controller

Compact DIN rail controller with integrated traffic logic.



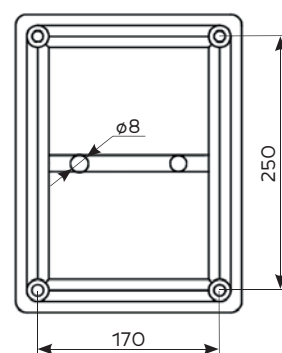
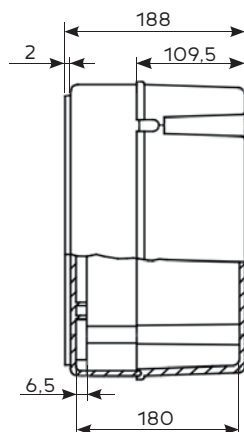
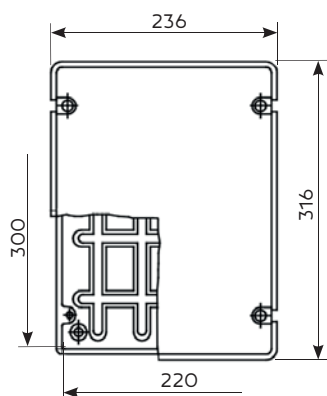
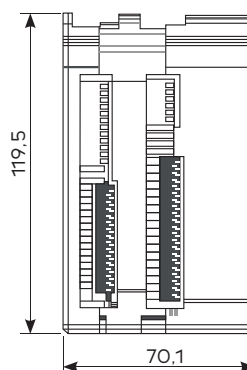
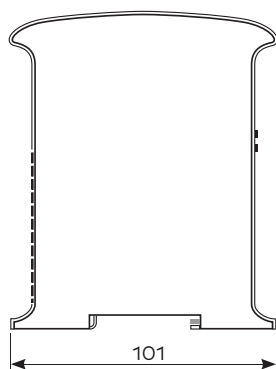
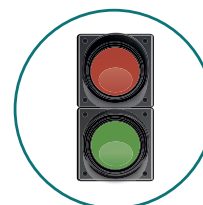
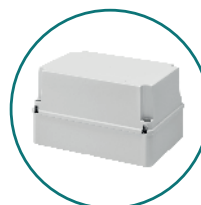
AT-Traffic Control Cabinet

Controller integrated into a robust wall-mounted cabinet, ready for on-site connection.



Complete solution

Controller, cabinet, traffic lights and vehicle detection combined in one complete package.



Specifications		
General specifications	Controller	Controller + enclosure
Supply voltage	11,4 – 25,4 Vdc	230 Vac
Power consumption	30W max	70W max
Ambient temperature (operation)	0 – 60 °C	0 – 40 °C (note1)
Ambient humidity (operation)	10 % – 90 % (niet condenserend)	
Dimensions	L 101 × W 70.1 × H 119.5 mm	L 316 × W 236 × H 188 mm
Impact resistance		IK08
Water and dust protection rating		IP56 (note2)
Mounting	DIN rail	Wall-mounted with screws
Article number	4-080404-0009-100	1-030702-0001-000
System specifications		
Microcontroller	ESP32	
External Flash Memory	4MB	
SRAM	520 kB	
ROM	448 kB	
Hardware specifications		
Inputs	Function: Vehicle detection IND1 to IND6 Logic “1”: 5 to 24 Vdc (rated voltage: 24 Vdc) Logic “0”: 0 Vdc or open circuit	
Outputs	Function: Control of barriers, gates and traffic lights OUTR1 to OUTR7 Maximum switching capacity AC: 220 Vac / 5 A Maximum switching capacity DC: 30 Vdc / 3 A A flyback diode must be provided for inductive loads	
Communication interface for configuration	Ethernet	
Application specifications		
Configuration	Via a local web interface	
Priority rules	• First come, first served a. In the idle state, both traffic lights are red. b. The direction that submits the first request receives a green light. c. After the vehicle has passed, the green light returns to red. • Priority direction determined by the last vehicle a. In the idle state, one of the two directions has a green light. b. The direction that submits a request first receives or retains a green light. c. The light remains green for that direction until a request is made from the opposite direction. d. The red light for the requesting direction only turns green after the opposite direction has been set to red and the passageway is clear. • Priority direction determined by time a. One direction has a green light. b. After a configurable period, both directions switch to red. c. As soon as the passageway is clear, the other direction receives a green light. • One direction is designated as the priority direction a. In the idle state, the priority direction has a green light. b. When a request is made from the other direction, that direction receives a green light as soon as the passageway is clear and no active request remains from the priority direction. c. After the vehicle has passed, the green light immediately returns to red. d. Once the passageway is clear again, the priority direction receives a green light again. • ...	
Scheduling	Weekly schedule configurable in 15-minute intervals. A different priority rule can be configured for each 15-minute interval.	
Overrides	The weekly schedule can apply different priority rules on specific days (for example public holidays, open days, etc.).	

Live monitoring	· Active priority rule · Input status · Output status
Types of barriers	· DBK barrier (set/reset control) · Sectional door (pulse control)
Barrier position	· Both on entry and exit · On entry · On exit · No barrier
Traffic light	Direct connection without interface relays (see DOI for connection details and supported types)
Traffic light incident	Active during emergency situations (optional)
Date/time settings	Automatically via NTP or manually
Network settings	DHCP or manual configuration
Backup	Import and export of settings
Accessories	
4-080308-0064-000	Traffic light (red/green) 100 mm
1-010105-000x-xxx	DBK barrier
4-050503-0013-000	Evoloop, radar sensor for vehicle detection

Note1: If the enclosure is exposed to direct sunlight, the maximum allowable ambient operating temperature is lower than +40 °C.

Note2: The IP56 protection rating is only maintained when using mounting accessories and cable glands rated at least IP56.

TAILOR-MADE IN BELGIUM

Alphatronics is a **manufacturer** of customised perimeter security solutions with the flexibility to adapt security needs to a specific situation.

In-house development and production, modularly designed to integrate with other business processes. It is in our DNA to **innovate** and in doing so, we always deliver the highest quality.

SOFTWARE INTEGRATION

We feature a **very accessible RESTfull API**. This enables the integration of Alphatronics-supplied hardware devices and a third-party software solution.

INSTALLATION AND SERVICE

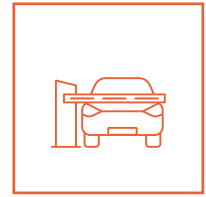
With more than **35 years of experience** in installation and service, we offer the expertise for perfect integration of your entire system.

A maintenance contract guarantees that the system will always be up and running.

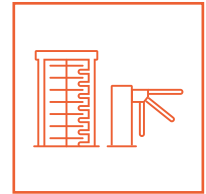
The helpdesk with professional and fast service is always ready for support.

COUNT ON ALPHATRONICS FOR

- an extensive and innovative product range
- creative and sophisticated solutions
- technical and commercial support
- project strategy
- excellence in system integration



ACCESS FOR
VEHICLES



ACCESS FOR
PEDESTRIANS



OPERATING COLUMNS
& PILLARS



API