Module-X4

ANPR camera system

The Module-X IR is designed as a comprehensive all-in-one camera system, tailored for parking and access control solutions.

It can be installed as a standalone unit or seamlessly integrated into a terminal.

With advanced neural processing capabilities, the Module-X performs AI based license plate recognition and determines the direction of vehicle movement.

Its extensive range of built-in communication protocols and interfaces ensures smooth integration with any third-party system.

All processing is done on device.

Features

- Embedded ANPR engine to read number plates
- PoE+ enabled to simplify cabling and deployment
- IR LED illumination for day and night operation
- Internal storage of 256 GB for embedded recording and data buffering.
- IP67 rated enclosure for performance in all weather conditions and harsh environments
- Remote accessibility for fast and cost-effective service and support

Highlighted

Low light technology - The IR sensitive sensor with IR LEDs and daylight filter on one hand and the low light colour sensor on the other hand, ensure high accuracy ANPR under all weather and lighting conditions.

Built-in interfaces and I/O ports - OSDP, Wiegand and IP connectivity facilitate communication with access control systems. The potential free contacts directly operate any gate, indicator or electronic peripheral.

Mounting options - The Module-X can be mounted standalone or built into a terminal. The many mounting options, its compact size and attractive design add style to any installation.

Integration and connectivity - The provided database-, FTP- and REST API module meet most integration demands. The scripting engine, specialised connector modules, the AVUTEC integration service and a developers SDK ensure connectivity and integration with any other system or interface.

Module-X4
Connectivity & I/O cable

Software connectivity

The standard FTP-, database- and REST API module cover most common connectivity with third party systems. The scripting engine implements additional project required functionality. Specialised connector modules take care of more complex or specific software integration.

I/O cable

The Module-X comes with a network and a I/O cable. The I/O cable brings out 14 pins to facililitate relais contacts, RS-485, OSDP and external power (see table below). The Module-X can be powered via PoE+ using the network cable or providing 12 - 48 Volt DC on the I/O cable.

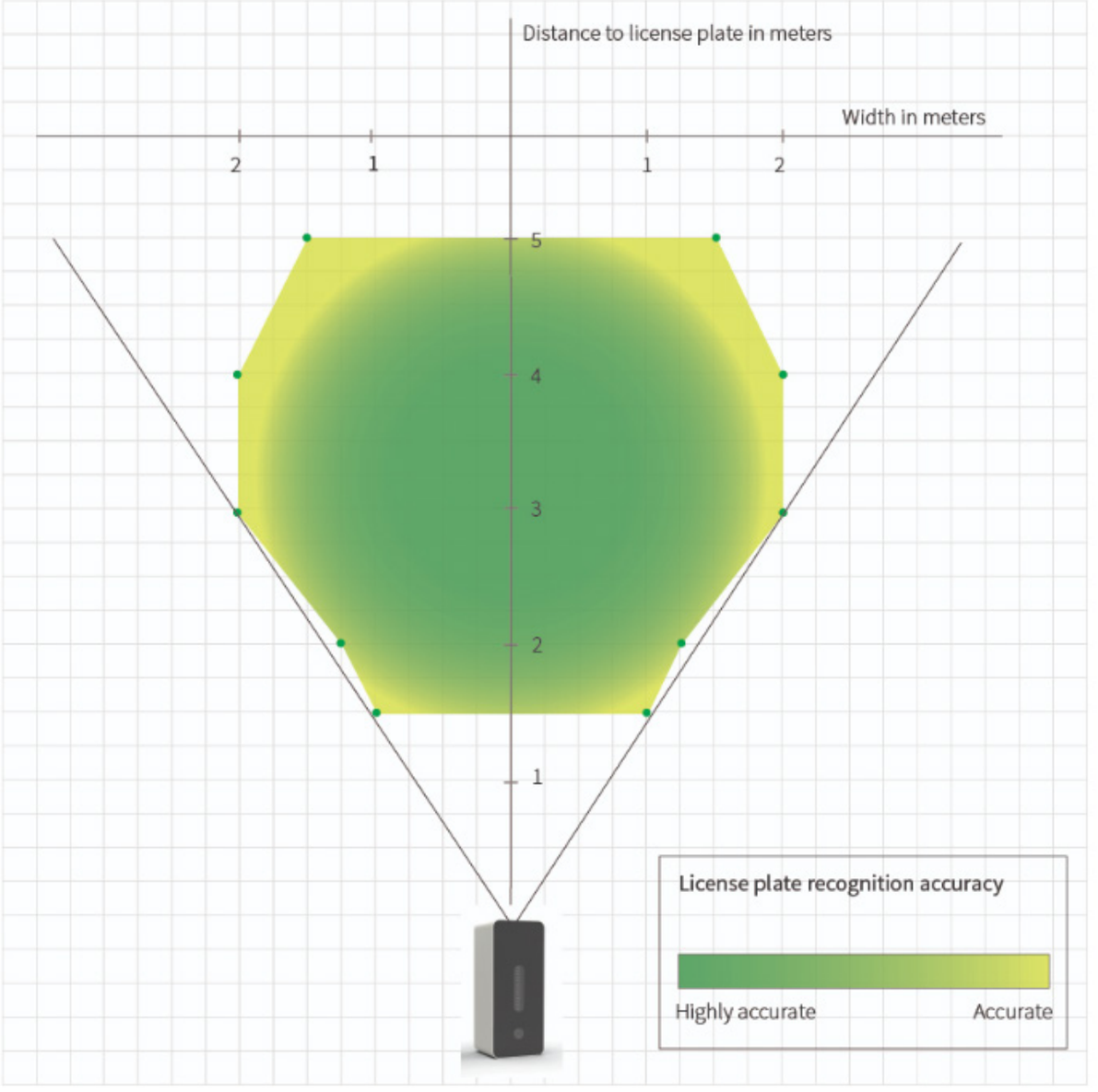
I/O cable: AV0017-02, TRVVPS 7X2x0.2m2			
P1	**Color**	**Description**	
1	orange	RS485- (B)	OSDP
2	white/red	Wiegand D0	
3	black	Relay_B COM	
4	white/black	Relay_A NO	
5	red	Wiegand D1	
6	black/orange	RS485+ (A)	OSDP
7	brown	GND	
8	black/brown	Relay_B NO	
9	blue	Relay_A COM	
10	black/blue	CTL IN1	>2.2=high
11	green	GND	
12	black/green	Wiegand GND in	
13	yellow	EXT power in	24 VDC~48VDC
14	black/yellow	Wiegand +12V in	24 VDC~48VDC

Module-X

Mounting the camera

	Description
Mounting height	80-100 cm above the floor
Maximum horizontal recognition angle	40 degrees
Recognition area	2-5 meters
Built-in options	yes (see page 4 and 5)
Mounted standalone	yes (see page 4)

Range charts



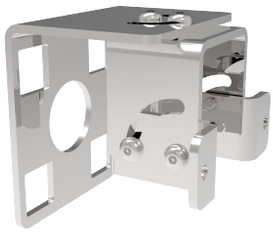
Module-X

Mounting the camera

Mounting compatibility

The AVUTEC **Mod-brackets** are designed with many degrees of freedom to position the Module-X on any surface or pole. The stainless steel brackets are compact in size and provide for cable transit. They come with hex pin security fasteners (M5 x 8 mm. hex pin 3 mm.) and a corresponding bit (25 mm. BZK-PIN 3 mm.) for installation.

Wall mount



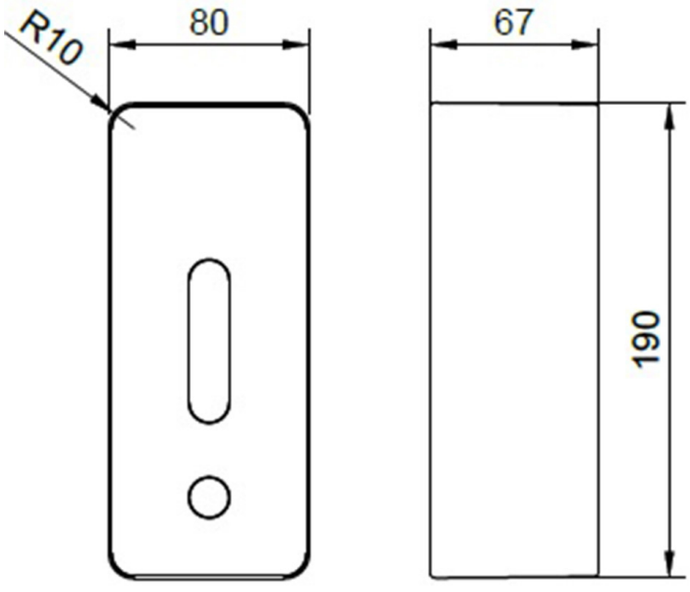
Pole mount

Built-in into a terminal

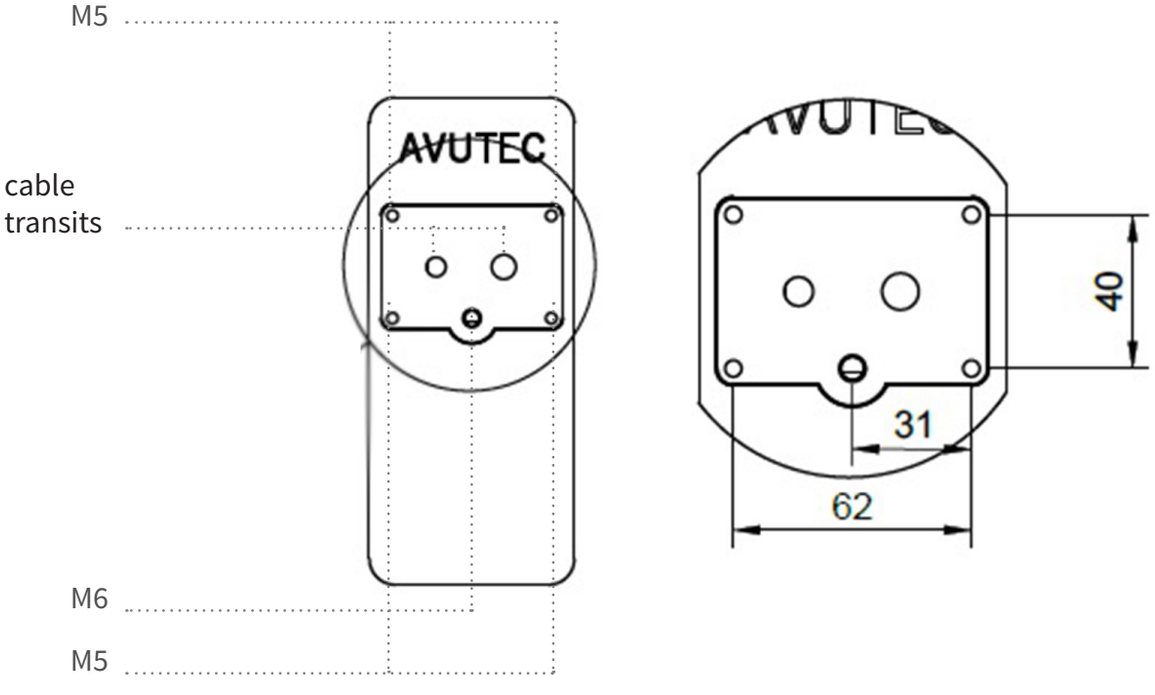
The Module-X is designed for installation within a terminal, serving as a key element of the entrance configuration.

Avutec offers the option of providing a complete terminal, or alternatively, a kit for integrating the Module-X into an existing terminal setup.

Module-X
Measurements



Front view Side view



Back view

FACT SHEET TECHNICAL SPECIFICATIONS

SENSOR AND LENS	
IR sensor	1920 x 900 , 25 fps
Color sensor	1920x1080 , 25 fps
Daylight filter	850 nM IR band pass filter

HARDWARE	
IR LEDs	Frame speed synchronized 850 nm. high power LED illuminator
Processing unit	• Embedded quad core 2.0GHz, 64-bit CPU • Neural Processing Unit

ENCLOSURE	
Measurements	190 x 80 x 67 mm.
Weight	0.75 kg
Material	Aluminium zinc alloy
Protection level	IP67
Color	RAL9002 / custom RAL colors possible
Bracket footprint	Conform WBOVA2, Videotec standard, AVUTEC brackets

POWER	
Power supply	• PoE+ (Plus), IEEE 802.3at, 25 Watts minimal at RJ-45 socket • 24-48 Volt regulated DC

OPERATING CONDITIONS	
Recognition area	2-5 meter
Max lane width	3 meter
Vehicle speed	0 - 20 km/h.
Operating temperature range	-18°C to 45°C environment

CONNECTIVITY	
Communication ports	1 x 10/100/1000 Base-T Ethernet port,
Inputs/Outputs	• 2 x relay • RS-485, Wiegand, 2x EXT power, 3x GND See page 2 for I/O cable specifications
Interfaces	RS485(OSDP), Wiegand, http, https, ftp(s), REST, ONVIF profile S