



PLATON

high-speed pan/tilt head unit

Highlights:

- 360° high-end pan/tilt system with rotation speeds from 0.01 °/s up to 200°/s
- highest precision of $< \pm 0.05^\circ$ through zero-clearance drive
- panorama tour
- freely definable privacy zones
- wiper/washer and cobweb remover available
- available in stainless steel
- application of white light or IR spots with variable light cones possible (VARISpot), up to 500m range
- controlled heating
- zoom-dependent pan/tilt rotation speeds
- double-walled housing for temperature isolation
- configurable soft tours

0.01°/s up to 200°/s
rotation speeds

Rotation angle 360°

Precision of $< \pm 0.05^\circ$

-30°C up to +60°C

Panorama tour

Privacy zones

Analog

Hybrid

QUALIFIED FOR
high-end solutions



PLATON – pan/tilt head

Highest precision, durability and reliability

Thanks to its innovative technology, the high-performance pan/tilt head PLATON by Funkwerk offers a number of possibilities for dynamic applications allowing perfect adjustment to individual location factors.

Dynamic properties

Speed and speed flexibility are among PLATON's outstanding properties. With an extremely flexible pan speed of 0.01 up to 200°/s and a dynamic range of 1:20 000 together with the 128 stage speed adjustment, the PLATON can still be controlled at extreme speeds with unsurpassed precision.

Manual control

A sophisticated extra function assists the user with manual control. The maximum angle speed is calculated reciprocally proportionate to the focal length. A higher angular speed is available in the wide angle section, therefore motion is somewhat slowed down in the zoom range. This allows secure tracking of remote or fast moving objects at close-up range.

Tours, automatic fields of vision

The PLATON provides two different options for defining tours. With the setting „Rapid tour“, it is sufficient to trace the desired tour once by hand in order to edit it. The second option is the „Precision tour“. It combines saved camera positions with a soft focus function to a jerk-free tour. The tour speed can be freely configured. This allows surveillance ranging from a slow „virtual guard“ on industrial premises up to rapid tracking on a bobsled run or racing track.

Analog fields of vision „Tracing“

PLATON's analog field of vision is predestined for roads, plot boundaries and other drawn-out objects. It creates field of vision motions with an almost constant reproduction scale and consistent speed. This makes the PLATON the ideal instrument for road or border patrols.

Privacy zones

What is private shall remain private. This is why the PLATON offers the possibility to define privacy zones beforehand. These are hidden depending on the focal distance and keep the private sphere untouched even in case of automatic pass over when positioning. However, areas to be monitored are not hidden from PLATON's view.

Housing sizes

The PLATON was designed for any feasible application purpose. This is why it is available in various designs and housing lengths analog to different camera lens units ranging from PLATON 3.40 (housing length 400 mm) for compact cameras and the PLATON 3.54 (housing length 540 mm) for ½" cameras with 20-fold or 30-fold zoom up to the PLATON 3.70 (housing length 700 mm) for high-performance zooms up to 1680 mm focal length.



Automatic positioning

Up to 256 positions including positioning speed and the corresponding acceleration can be defined. This ability allows you to adapt the system to your individual requirements, for example creating evaluable images during the positioning procedure. Users no longer need to control the system manually thanks to 3D homing on the coordinates of any location in the field of vision. They see the spot they want to see without time delay.

PLATON: the universal talent

The PLATON is a dynamic camera unit with universal qualities, ranging from traffic and tunnel surveillance under extreme outdoor conditions up to stadium recordings in studio quality. High-quality video technology is used for this broad application spectrum and must be protected accordingly. The protective camera housing always consists of double walls. For „extreme cases“, we also offer a stainless steel variant besides the basic aluminium design. In order to maintain an optimum temperature range, additional options like controlled heating, a sun roof and further accessories are available for the PLATON. This ensures the reliability of the PLATON system even in extreme temperatures from -30° to +60° Celsius and in adverse weather conditions like snow, rain and hail.

The PLATON - a „concentrated“ system

The large number of plug-type connections (eight inputs, three outputs) offers an extensive range of connection options, e.g. for external detectors like IR detectors, sensing devices, sabotage contacts or external consumers. Contacts for controlling screen wipers, external illumination, etc. are available on the output side.

Plug&play and Wire Safe

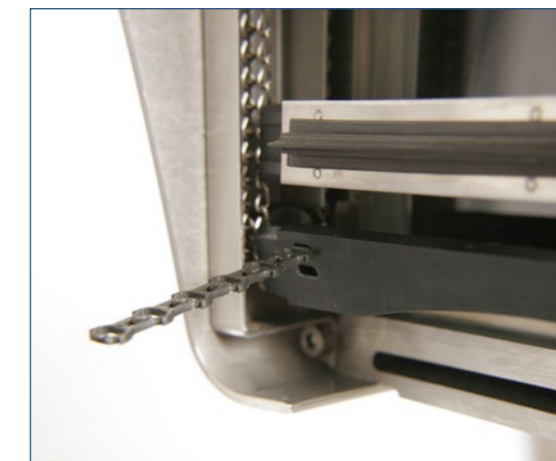
The plug&play board, which offers enough space for all kinds of plug-type connectors, is safely contained in a wire safe: weather-proof, secure, but still easily accessible.

Dynamic illumination of the field of vision

The VARISpot spot was developed as an additional option for the PLATON to achieve optimum illumination of the field of vision. With these zoomable spots, the light cone is automatically adjusted analog to the focal length of the lens. This prevents the formation of spots in the field of vision if the system is set to wide angle. On the other hand, the VARISpot guarantees a very large illumination range of up to 500m!

Installation types

The PLATON features a multitude of installation options to suit almost any location conditions. Whether upright on poles or consoles, suspended, with a wall-mounted console or installed in hard to access corners - the PLATON keeps track of all important incidents.



Screen cleaning options

Even high-quality lenses cannot detect anything if the screen of the camera housing is dirty. Dirt build-up through snow, rain, water splashes and last but not least spiders is inevitable in case of outdoor installation. In order to guarantee optimum vision at all times, the PLATON can be equipped with an optional patented screen washer and wiper system. The screen wiper cleans the entire screen surface and the integrated cobweb remover eliminates dirt build-up in front of the screen.

PLATON series	A 3.40	A 3.50	A 3.54	S 3.40	S 3.50	A 3.70
Description:	aluminium, length 400 mm	aluminium, length 500 mm	aluminium, length 540 mm	stainless steel length 400 mm	stainless steel length 500 mm	aluminium, length 700 mm
Kinematic data						
Speed [°/s]						
Pan:	0.01 – 200		0.01 – 180		0.01 – 160	
Tilt:	0.01 – 100		0.01 – 90		0.01 – 80	
Acceleration [°/s²]						
Pan:	100 – 800	100 – 600	100 – 400	100 – 600	100 – 400	
Tilt:	100 – 800	100 – 600	100 – 400	100 – 600	100 – 600	
Rotation angle						
Pan:	unlimited (continuous panning without end position limit)					
Tilt:	± 90° with flip function					
Manual control						
Speed levels:	128					
Control characteristics:	4 different speed scales from linear to logarithmic					
Max./min. speed:	independent configuration for P/T					
Acceleration:	independent configuration for P/T					
Focal length dependent speed control:	allows precise control even with extreme focal length by visual field dependent speed scaling					
Timeout:	configurable from 0 to 15 s					
Privacy zones:	4 free definable; automatic circumnavigation during the positioning					
Positioning						
Positioning accuracy:	typ. ± 0.01° / max. ± 0.05°					
Fixed positions:	256 (pan-, tilt-, zoom- and focus positions)					
Special features:	variable speed profile (reduction of mast swinging); linear motion					
Vector control (abs. pos. ctrl)						
Motion control (continuous with soft focus):	16 Bit (P, T, Z, F)					
Positioning & vector response:	16 Bit (P, T, Z, F)					
Special features:	allows motion control by coordinate transformation / linear motion / variable speed profiles (soft focus) / zoom and focus tracing regulated by the width of the visual field and object distance					
Privacy zones						
Number:	4 free definable privacy zones					
Special features:	physical segregation; automatic circumnavigation during the positioning close-by bordering due to the calculation of the visual field					
Tours						
Number:	4 separate tours (trajectories P/T/Z/F) without time limit					
Features:	3 endless modi (reverse, repeat, random) / soft focus / auto start / copy function / additional editing possibility / teach function / exact definition of base points					
Interfaces						
External interfaces						
Video:	Composite video / alternatively twisted pair transmission / alternatively S-Video / alternatively RGB/YUV					
Data:	RS422/RS485 bidirectional, communication parameters configurable					
Contact inputs:	8 optical isolation					
Contact outputs:	3 open-collector					
Power supply output:	12 V DC / 1 A for external actuators and sensors					
Internal interfaces						
Power supply DC:	12 V DC / 1,5 A for camera und optional applications					
Power supply AC:	230 V AC / 1 A for camera, additional screen wiper heating and optional equipment					
Camera parameterisation:	I²C, RS232 or RS422/485					
Manual aperture control:	0-10 V configurable or 20 levels; -5 V / 0 V / +5 V differential					
Colour / black & white switch:	potential-free contact max. 50 V / 1 A					
Optional applications:	potential-free contact max. 50 V / 1 A					
Lens control:	independent configuration of zoom and focus control between 0 and 18 V / max. 200 mA					

PLATON series	A 3.40	A 3.50	A 3.54	S 3.40	S 3.50	A 3.70
Power specifications						
Power consumption:	max. 150 W without spotlight / max. 350 W with spotlight / idle state typ. <20 W					
Power supply:	230 V AC ± 10 % 50/60 Hz / 115 V AC ± 10 % 50/60 Hz					
General data						
Colour 2):	RAL 7035 and RAL 7037			blank		see A 3.40
Material:	aluminium EN 5083			stainless steel 1.4571		see A 3.40
Ultimate load:	max. 24 kg		max. 18 kg	max. 20 kg		max. 13 kg
Weight:	18,5 kg	19 kg	26 kg	28 kg	28,5 kg	33 kg
Action perimeter (D x H):	0.75 x 0.60 m	0.91 x 0.81 m	1.01 x 0.82 m	0.75 x 0.60 m	0.91 x 0.81 m	1.16 x 1.04 m
Action perimeter with spotlight (D x H):	0.75 x 0.72 m	0.91 x 0.83 m	1.01 x 0.90 m	0.75 x 0.72 m	0.91 x 0.83 m	1.16 x 1.15 m
Mounting:	upright or inverted					
Attachable to:	mast top / mast-side / wall / wall corner					
Surface exposed to wind:	approx. 0.2 m²		approx. 0.22 m²	approx. 0.2 m²		approx. 0.25 m²
Protection category:	IP 66					
Temperature range standard:	-20 up to +50 °C					
Temperature range extended 1):	-30 up to +60 °C					
Camera protective housing:	double-walled all around					
Camera-lens device (max. assembly dimensions L x B x H mm):	340 x 125 x 117	440 x 125 x 117	480 x 163 x 151	340 x 125 x 117	440 x 125 x 117	630 x 205 x 185
Temperature controlled heating standard (to -20 °C): extended (to -30 °C) 1):	max. 15 W max. 50 W	max. 15 W max. 50 W	max. 50 W on request	max. 15 W max. 50 W	max. 15 W max. 50 W	max. 50 W (up to -30 °C)
Sun blind for pan-tilt-device:	temperature range extension up to + 60 °C					
Additional options						
Spotlight VARISPOT						
Angle of reflected beam:	infinitely adjustable setting 5 to 45°			only available in aluminium		see A 3.40
Range whitelight pane:	approx. 800 m			only available in aluminium		see A 3.40
Range 830 nm IR-filter pane:	approx. 500 m			only available in aluminium		see A 3.40
Range 890 nm IR-filter pane:	approx. 300 m			only available in aluminium		see A 3.40
Illuminant:	halogen 24 V / 150 W 2000 hours			only available in aluminium		see A 3.40
Adjustment linked to the optical lens axis:	remote controlled by 2 DC-motors (horizontally and vertically)			only available in aluminium		see A 3.40
Mode:	auto			only available in aluminium		see A 3.40
Power consumption:	max. 200 W			only available in aluminium		see A 3.40
Colour:	RAL 7035			only available in aluminium		see A 3.40
Material:	aluminium alloy, EN 1706 AC-51400			only available in aluminium		see A 3.40
Dimensions L x D x H mm:	275 x 257 x 379			only available in aluminium		see A 3.40
Weight:	approx. 6 kg			only available in aluminium		see A 3.40
Further features:	operating hours counter, temperature and humidity display showing current, minimal and maximal value, VARISPOT-Menu			only available in aluminium		see A 3.40

PLATON series	A 3.40	A 3.50	A 3.54	S 3.40	S 3.50	A 3.70
Screen wiper						
Wiper function principle:	circulating					
Number of wipe cycles:	configurable 1 to 5					
Wiper activation:	manual or automatic					
Cleaning procedure:	fully automatic					
Stand-by position wiper blade:	contact-free under cover plate, weather and freeze proof					
Colour 2):	RAL 7037		blank		RAL 7037	
Material:	Aluminium EN 5083		1.4571		alu EN 5083	
Weight:	0.7 kg		1.6 kg		2.0 kg	
Temperature range standard:	20 up to +60 °C					
Screen wiper heater 1):	temperature controlled, max. 50 W / temperature range extension down to -30 °C / snow storm protection					
Cobweb remover:	operation of the 2 brushes always simultaneous with screen wiper					
Screen washer						
Delivery height:	8 m					
Number of wash cycles:	configurable: 0 up to 5					
Washer activation:	manual or automatic					
Cleaning procedure:	fully automatic					
Wash medium:	compound: lime free water, cleaning additive and antifreeze according to ASTM D 1177-82-winter or equivalent					
Washer tank volume:	10 l					
Washer tank version:	plastics canister with hose coupling designed for fast changeover					
Nozzle:	adjustable, integrated in the base extension					
Plugging protection:	filter in intake hose					
Refill signalling:	automatic refill notification at less than 3 l wash medium					
Cable and hose duct:	wire safe technology					
Access options:	power supply, data line, alarm line					
Mounting:	mast or wall mount					
Colour 2):	blank					
Material:	stainless steel 1.4301		stainless steel 1.4571		see A 3.40	
Weight:	15 kg					
Dimensions B x H x T mm:	380 x 460 x 210					
Temperature range:	-30 to + 60 °C with appropriate anti freeze					
Accessories:	rain shield / wall mounting device / mast mounting device / stainless steel 1.4301 bulkhead door clip					

Legend	
1)	optional model
2)	special lacquering
D	diameter
PMU	PLATON Montage Unit

PLATON series	A 3.40	A 3.50	A 3.54	S 3.40	S 3.50	A 3.70
Complete equipment						
Equipment						
Hooded cable duct „wire safe“:	●	●	●	●	●	●
Double-walled camera protective housing:	●	●	●	●	●	●
Electronically controlled protective housing heater:	●	●	●	●	●	●
Camera interface RS232, RS422/RS485, I²C:	●	●	●	●	●	●
Manual shutter control:	●	●	●	●	●	●
Additional heater for temperatures down to -30 °C:	0	0	0	0	0	0
Sunshade:	0	0	0	0	0	0
Windshield shell:	0	0	0	–	–	0
Camera-lens device						
Compact camera 1/4", 1/3":	0	–	–	0	–	–
Standard camera 1/3", 1/2":	0	0	0	0	0	0
High performance lens 16-fold zoom:	0	0	0	0	0	–
High performance lens 20-fold zoom:	–	–	0	–	0	–
High performance lens 30-fold zoom:	–	–	0	–	–	–
High performance lens 55-fold zoom:	–	–	–	–	–	0
Accessories						
Spotlight VARISPOT 830 nm:	0	0	0	–	–	0
Spotlight VARISPOT 890 nm:	0	0	0	–	–	0
Spotlight VARISPOT whitelight:	0	0	0	–	–	0
Screen wiper with cobweb remover:	0	0	0	0	0	0
Additional heater for screen wiper:	0	0	0	0	0	0
Screen washer:	0	0	0	0	0	0
Two wire transmitter:	0	0	0	0	0	0
Installation accessories						
Wall bracket WMU 550:	0	0	–	–	–	–
Wall bracket WMU 650:	–	–	0	–	–	0
Wall bracket WMU 550 V4A:	–	–	–	0	0	–
Surface adapter for wall bracket:	0	0	0	–	–	0
Corner-element for wall bracket:	0	0	0	–	–	0
Mast-element for wall bracket:	0	0	0	0	0	0
Tear-off mechanism:	0	0	0	–	–	0
Adapter flange for tear-off mechanism:	0	0	0	–	–	0
Connector cable						
Cable loom standard:	0	0	0	0	0	0
Cable loom weather-proof:	0	0	0	0	0	0
Cable loom tunnel:	0	0	0	0	0	0
Terminal box						
For mast-„interior“-mounting without optic fibre connection:	0	0	0	0	0	0
with optic fibre connection:	0	0	0	0	0	0
For exterior mounting without optic fibre connection:	0	0	0	0	0	0
with optic fibre connection:	0	0	0	0	0	0
Mast						
Standard mast:	0	0	0	0	0	0
Tilt mast:	0	0	0	0	0	0
Mast for optic fibre connection:	0	0	0	0	0	0

PLATON series	A 3.40	A 3.50	A 3.54	S 3.40	S 3.50	A 3.70
Special features						
Virtual free of play multi-turn transmission:	●	●	●	●	●	●
Gold plated slip ring transmitter:	●	●	●	●	●	●
Normal/inverse line of vision:	●	●	●	●	●	●
Camera remote setup:	0	0	0	0	0	0
Position forcing:	●	●	●	●	●	●
Flip-function with „kick down“:	●	●	●	●	●	●
Focal length dependent speed control:	●	●	●	●	●	●
4 pre-definable tours (endless):	●	●	●	●	●	●
4 control characteristics (speed trajectory) for manual control:	●	●	●	●	●	●
128 speed levels (for P/T/Z/F):	●	●	●	●	●	●
Multi protocol ability (Multisec RS422/RS485 , Pelco-D):	●	●	●	●	●	●
Firmware adaptation for special applications:	0	0	0	0	0	0
Ready-to-plug-in compact assembly (integrated power supply unit):	●	●	●	●	●	●

Legend

●	standard equipment
0	optional accessories
–	non-compatible