

Product Catalog 2026

Revision as of August 31, 2026



For **13** years,
we've built
a reputation as
a reliable OEM
manufacturer of industrial
pan-tilt systems

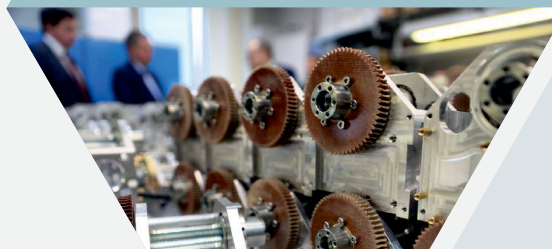


We engineer and produce
custom electronic devices
for industrial applications

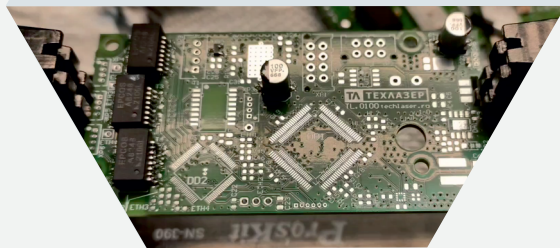
In 2025, a new
production facility
with an area of
over **1600** sq.m was
launched in Malaya Vishera



Our production
facility is equipped
with **15** modern
milling machines
and lathes



We annually
participate in
major Russian and
international exhibitions



▲ TL.0329



PAN-TILT POSITIONER

Up to **10** kg
(max load)



Maximum axial payload
capacity: 10 kg



All-weather heavy-duty
metal housing



Vibration and shock
resistance



Horizontal rotation
speed: up to 40°/s



Easy connection:
power supply 5V - 24V,
Ethernet/RS-485



Pan rotation: 320°
100° elevation angle



Device weight: 2,4 kg

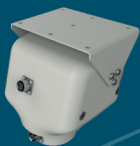
COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0329

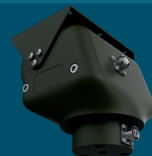
The most compact and lightweight pan-tilt positioner in its class with the best value proposition. Designed for smooth azimuth and elevation rotation with adjustable speed. Perfect for applications where minimal size, weight, and cost are critical



▲ TL.0329

TL.0329

Angular Range	vertical plane	-10...90 °
	horizontal plane	0...320 °
Angular Speed	vertical plane	3...20 °/sec
	horizontal plane	3...40 °/sec
Positioning accuracy		± 0,3 °
Maximum torque	vertical plane	0,3 kgf-cm
	horizontal plane	0,3 kgf-cm
Maximum axial load		10 kg
Device control method		"Techlaser" protocol, Pelco-D
Control interface		Ethernet 10/100BASE-T/TX RS-485 (half-duplex) (optional)
Payload channels		1 × Ethernet, 1 × RS-485 (optional)
Power supply voltage		12 VDC
Power consumption		30 W
IP rating		IP65
Weight		2,4 kg
Overall dimensions		125×131×139 mm
Operating temperature		-40...+50 °C



PAN-TILT POSITIONER ▲ TL.0329

The compact pan-tilt positioner is designed to move mounted equipment within specified limits. It provides 320° horizontal rotation and 100° vertical tilt

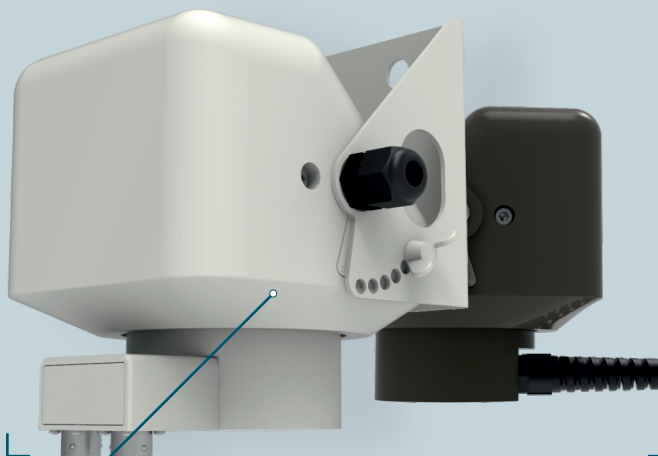
DESIGNED AND ENGINEERED FOR:

- ▲ Creating cost-effective systems of cost-sensitive components
- ▲ Positioning Light Payloads

KEY FEATURES

- ▲ The pan-tilt unit is engineered with a focus on efficiency and cost optimization, making it one of the most competitive solutions in its class
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions

▲ TL.0105



PAN-TILT POSITIONER

Up to **10** kg
(max load)

 Maximum axial payload capacity: 10 kg	 All-weather heavy-duty metal housing	 Flexible connection options for pan-tilt positioners and payloads (cable and connector solutions)
 Vibration and shock resistance	 Horizontal rotation speed: up to 40°/s	 Easy connectivity: 24VDC power, Ethernet
 High positioning accuracy	 360° continuous rotation with oscillating mode	 Device weight: 3 kg

COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0105

The maneuverable rotary platform is designed to position the installed equipment by azimuth (remotely) and elevation angle (manual adjustment). It has a low weight, which allows it to be used in systems with strict weight restrictions



SPECIFICATIONS

▲ TL.0105

		TL.0105
Angular Range	vertical plane	0...50 °
	horizontal plane	0...360 ° (∞)
Angular Speed	horizontal plane	0,01...40 °/s
Positioning accuracy		± 0,3 °
Number of fixed positions of the tilt bracket by elevation angle		6
Maximum axial load		10 kg
Maximum azimuth torque		0,4 ± (10 %) kgf·m
Stationary Interface		1 × Ethernet
Payload channels		up to 3 × Ethernet
Ethernet standard		10/100BASE-T/TX
GUI for control and settings		WEB interface
Control protocol		"Techlaser" protocol and Pelco-D
Number of presets (Pelco-D)		64
Power supply voltage		24VDC
Power consumption		85 W
IP rating		IP65
Weight		3 kg
Overall dimensions		129,7×167,2×163,8 mm
Operating temperature		-40...+50 °C



PAN-TILT POSITIONER ▲ TL.0105

High-maneuverability pan-tilt platform designed for precise azimuth positioning of mounted equipment at programmable speeds. The design includes a rotating conductive transition, allowing for power and Ethernet connection to be transmitted to the payload.

DESIGNED AND ENGINEERED FOR:

▲ Positioning of antenna feeder devices (AFD)

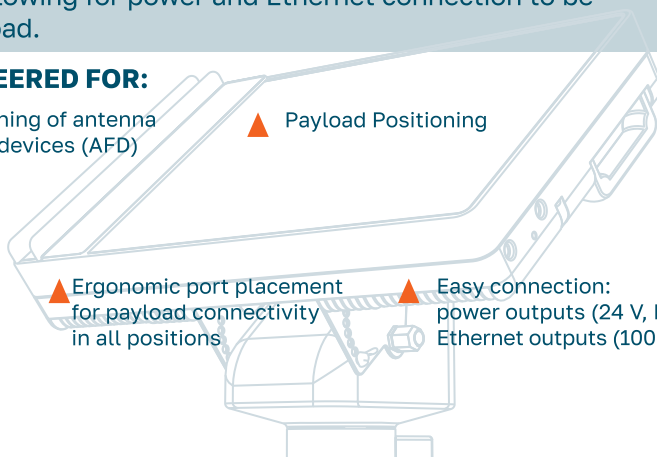
▲ Payload Positioning

KEY FEATURES

▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions

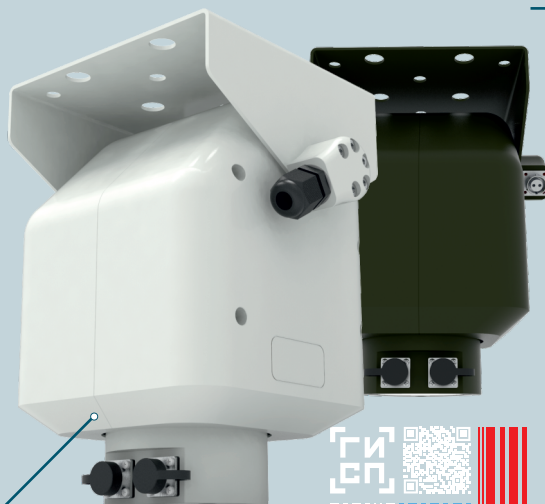
▲ Ergonomic port placement for payload connectivity in all positions

▲ Easy connection: power outputs (24 V, DC), Ethernet outputs (100Mbps)



▲ TL.0009

▲ TL.0192



PAN-TILT POSITIONER

Up to **20** kg
(max load)



 Maximum axial payload capacity: 20 kg	 All-weather heavy-duty metal housing	 Flexible connection options for pan-tilt positioners and payloads (cable and connector solutions)
 Vibration and shock resistance	 Horizontal rotation speed: up to 50°/s	 Easy connectivity: 24VDC, Ethernet, RS-485
 High positioning accuracy	 360° continuous rotation with oscillating mode	 Device weight: 6,7 kg

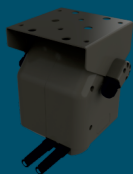
COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0009 ▲ TL.0192

The maneuverable rotary platform is designed to position installed equipment by azimuth (remotely) and elevation. It has a low weight, which allows it to be used in systems with strict weight restrictions



SPECIFICATIONS

▲ TL.0009 ▲ TL.0192

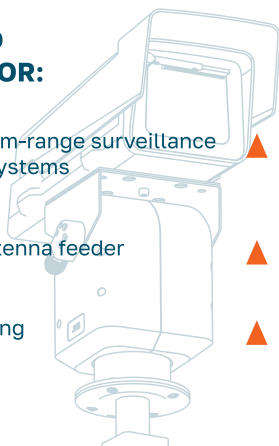
TL.0009		TL.0192	
Angular Range	vertical plane horizontal plane	+45...-90 ° 0...360 ° (∞)	
Angular Speed	vertical plane	0,01...20 (35) °/s	0,01...8 °/s
	horizontal plane	0,01...50 °/s	0,01...20 °/s
Positioning accuracy		± 0,3 °	
Forbidden zone setting		supported	
Maximum axial load		20 kg	
Maximum torque	vertical plane	1,2 kgf*m	2,1 kgf*m
	horizontal plane	0,4 kgf*m	1,0 kgf*m
GUI for control and settings		WEB interface	
Control protocol		"Techlaser" protocol and Pelco-D	
Number of presets (Pelco-D)		64	
Stationary Interface		Ethernet & RS-485 (optional)	
Payload channels		up to 3*Ethernet & RS-485 (optional)	
Ethernet standard		10/100BASE-T/TX	
Max. RS-485 communication speed		1200...115200 bits/s	
Nominal supply voltage		24 VDC	
Power consumption		no more than 90 W	
IP rating		IP65	
Weight		no more than 6,7 kg	
Overall dimensions		166,5×134×219 mm*	
Operating temperature		-40...+50 °C	

* dimensions may vary depending on pan-tilt positioner modification



DESIGNED AND ENGINEERED FOR:

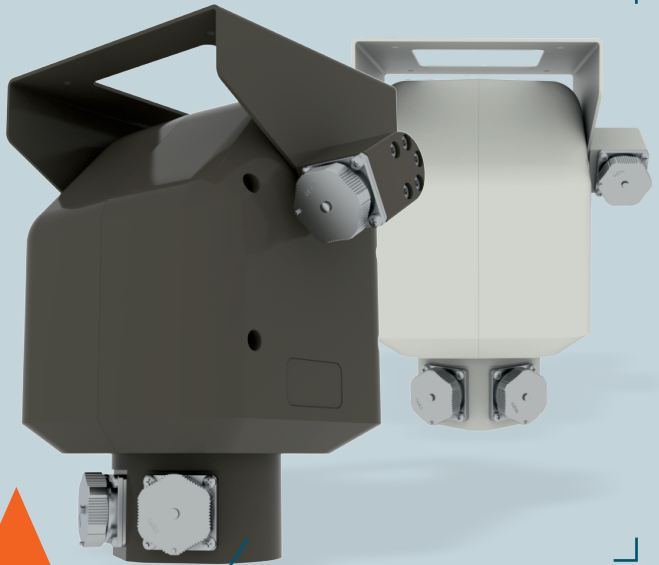
- ▲ Short- and medium-range surveillance and monitoring systems
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Payload Positioning



KEY FEATURES:

- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Lateral cable/connector terminals on tilt axis for payload connection
- ▲ Easy connection: power outputs (24V), Ethernet outputs (100Mbps)

▲ TL.0010



PAN-TILT POSITIONER

Up to **20** kg
(max load)



Maximum axial payload capacity: 20 kg



All-weather heavy-duty metal housing



Vibration and shock resistance



Horizontal rotation speed: up to 100°/s



Easy connectivity: 24VDC, Ethernet



High positioning accuracy



360° continuous rotation with oscillating mode



Device weight: 7 kg

COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0009

An upgraded TL.0009-based pan-tilt positioner that delivers twice the axis speed and high-speed 1Gb Ethernet for data transfer.



SPECIFICATIONS

▲ TL.0010

TL.0010

Angular Range	vertical plane horizontal plane	+45...-90 ° 0...360 ° (∞)
Angular Speed	vertical plane horizontal plane	0,01...90 °/s 0,01...100 °/s
Positioning accuracy		± 0,3 °
Forbidden zone setting		supported
Maximum axial load		20 kg
Maximum torque	vertical plane horizontal plane	2,0 kgf×m 1,0 kgf×m
GUI for control and settings		WEB interface
Control protocol		"Techlaser" protocol and Pelco-D
IP rating		64
Stationary Interface:		Ethernet
Payload channels		Ethernet
Ethernet standard		10/100/1000BASE-T/TX
Nominal supply voltage		24 VDC
Power consumption		no more than 100 W
IP rating		IP65
Weight		no more than 7 kg
Overall dimensions		183×134×232 mm
Operating temperature		-40...+50 °C



DESIGNED AND ENGINEERED FOR:

▲ Short- and medium-range surveillance and monitoring systems

▲ Positioning of antenna feeder devices (AFD)

▲ Payload Positioning

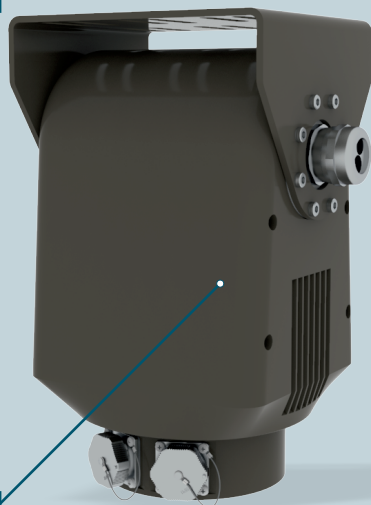
KEY FEATURES:

▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions

▲ Lateral cable/connector terminals on tilt axis for payload connection

▲ Easy connection: power outputs (24V), Ethernet outputs (100Mbps)

▲ TL.0250



PAN-TILT POSITIONER

Up to **40** kg
(max load)



Maximum axial payload capacity: 40 kg



All-weather heavy-duty metal housing



Flexible connection options for pan-tilt positioners and payloads (cable and connector solutions)



Vibration and shock resistance



Horizontal rotation speed: up to 300°/s



Quick-connect interfaces: 48VDC, Gigabit Ethernet/RS-485 / fiber optic



High positioning accuracy 0.05°



360° continuous rotation with oscillating mode



Device weight: 12 kg

COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0250

The maneuverable rotary platform is designed for precise positioning of installed equipment within specified limits in elevation and azimuth with the ability to smoothly change speed. Provides a wide range of tilt angles and high rotation speed, which expands the viewing area and increases flexibility of use



SPECIFICATIONS

▲ TL.0250

TL.0250		TL.0250-100
Angular Range	vertical plane horizontal plane	-90...+90 ° 0...360 ° (∞)
Angular Speed	vertical plane horizontal plane	0,01...170 °/s 0,01...300 °/s
Maximum angular acceleration	vertical plane horizontal plane	1...500 °/s ² 1...500 °/s ²
Positioning accuracy		± 0,05°
Forbidden zone setting		supported
Maximum axial load		40 kg
Maximum torque	vertical plane horizontal plane	6,5 kgf×m 5,9 kgf×m
GUI for control and settings		WEB interface
Control protocol		"Techlaser" protocol and Pelco-D
Number of presets (Pelco-D)		64
Stationary Interface:		Ethernet / RS-485 (opt.) Fiber optic link / RS-485
Payload channels		Ethernet / RS-485 (opt.) Fiber optic link/Ethernet/RS-485
Ethernet standard		10/100/1000BASE-T/TX
Max. RS-485 communication speed		1200...115200 bits/s
Nominal supply voltage		48 VDC
Power consumption		no more than 800 W
IP rating		IP65
Weight		12,5 kg
Overall dimensions		146×204×288 mm
Operating temperature		-40...+50 °C



PAN-TILT POSITIONER ▲ TL.0250

The maneuverable rotary platform is designed for precise positioning of the installed equipment within the specified limits in elevation and azimuth with the ability to smoothly change the speed. The design includes a rotating transition that allows for the transmission of power and Ethernet or fiber-optic communication lines for the load

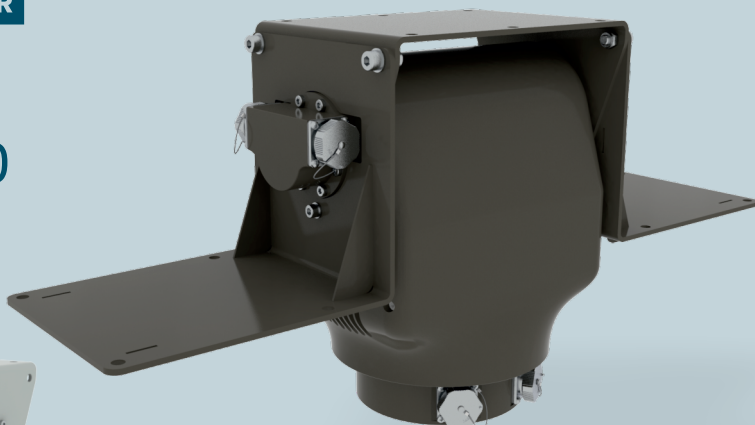
DESIGNED AND ENGINEERED FOR:

- ▲ Short and medium range surveillance and monitoring systems
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Searchlights and auxiliary payloads

KEY FEATURES:

- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Quick-connect interfaces: 48V power outputs, (1 Gbps) Ethernet ports

▲ TL.0320



PAN-TILT POSITIONER

Up to **40** kg
(max load)

 Maximum axial payload capacity: 40 kg	 All-weather heavy-duty metal housing	 Flexible connection options for pan-tilt positioners and payloads (cable and connector solutions)
 Vibration and shock resistance	 Horizontal rotation speed: up to 140°/s	 Easy connectivity: 48VDC, Gigabit Ethernet/RS-485
 Ultra-high positioning accuracy 0.013°	 360° continuous rotation with oscillating mode	 Device weight: 19,5 kg

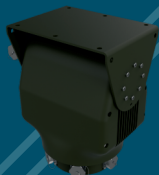
COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0320

The maneuverable rotary platform is designed for ultra-precise positioning of installed equipment within specified limits in terms of elevation and azimuth with the ability to smoothly change the speed. Provides a wide range of tilt angles and high rotation speed, which expands the viewing area and increases the flexibility of use.



SPECIFICATIONS

▲ TL.0320

TL.0320

Angular Range	vertical plane	-72.5...+72.5 °
	horizontal plane	0...360 ° (∞)
Angular Speed	vertical plane	0,01...170 ° /s
	horizontal plane	0,01...140 ° /s
Maximum angular acceleration	vertical plane	1...200 °/s ²
	horizontal plane	1...200 °/s ²
Positioning accuracy		± 0,013 °
Forbidden zone setting		supported
Maximum axial load		40 kg
Maximum torque	vertical plane	2,9 kgf×m
	horizontal plane	3,2 kgf×m
GUI for control and settings		WEB interface
Control protocol		"Techlaser" protocol and Pelco-D
Number of presets (Pelco-D)		64
Stationary Interface:		1 × Ethernet (2 × Ethernet opt.)
Payload channels		1 × Ethernet (2 × Ethernet opt.) / RS-485 (opt.)
Ethernet standard		10/100/1000BASE-T/TX
Max. RS-485 communication speed		1200... 115200 bits/s
Nominal supply voltage		48 VDC
Power consumption		no more than 800 W
IP rating		IP65
Weight		19,5 kg
Overall dimensions		653x307x180 mm
- with payload side bracket		278x307x180 mm
- without payload side bracket		
Operating temperature		-40...+50 °C



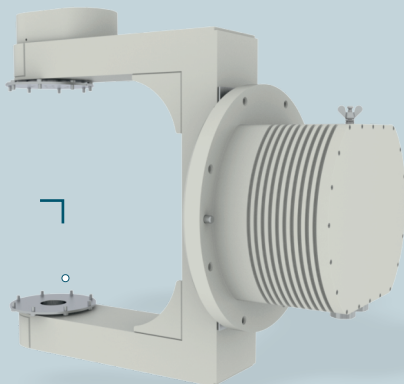
DESIGNED AND ENGINEERED FOR:

- ▲ Short and medium range surveillance and monitoring systems
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Laser systems and other payloads

KEY FEATURES:

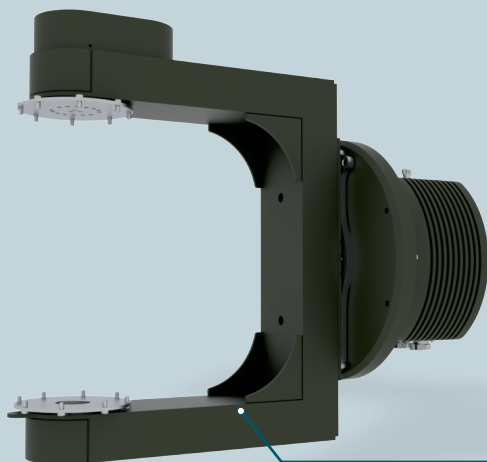
- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Quick-connect interfaces: 48V power outputs, (1 Gbps) Ethernet ports

▲ TL.0400



PAN-TILT POSITIONER

Up to **40** kg
(max load)



Maximum axial payload capacity: 40 kg



All-weather heavy-duty metal housing



Flexible connection options for pan-tilt positioners and payloads (cable and connector solutions)



Vibration and shock resistance



Horizontal rotation speed: up to 250°/s



Easy connectivity: 48VDC, Gigabit Ethernet



Ultra-high positioning accuracy 0.013°



Maximum torque vertical plane 38,9 kgf×m



Device weight: 50 kg

COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0400

It consists of two separate tilt and pan modules, spaced apart and integrated into a single unified structure. The required equipment is mounted onto the flanges using fastening bolts. This agile rotating platform is designed for ultra-precise positioning of installed equipment (surveillance cameras, searchlights, rangefinders, etc.).

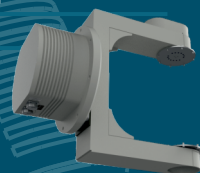


SPECIFICATIONS

▲ TL.0400

TL.0400

Angular Range	vertical plane horizontal plane	-19,7...+89,5 ° -45...+45 ° (∞)
Angular Speed	vertical plane horizontal plane	0,01...70 ° /s 0,01...250 ° /s
Maximum angular acceleration	vertical plane horizontal plane	1...2000 °/s ² 1...2000 °/s ²
Positioning accuracy		± 0,013 °
Forbidden zone setting		supported
Maximum axial load		40 kg
Maximum torque	vertical plane horizontal plane	38,9 kgf×m 5,9 kgf×m
GUI for control and settings		WEB interface
Control protocol		"Techlaser" protocol and Pelco-D
Number of presets (Pelco-D)		64
Stationary Interface:		1 × Ethernet
Payload channels		1 × Ethernet
Ethernet standard		10/100/1000BASE-T/TX
Nominal supply voltage		48 VDC
Power consumption		no more than 1500 W
IP rating		Ip65
Weight		50 kg
Overall dimensions		666x360x569 mm
Operating temperature		-50...+50 °C



DESIGNED AND ENGINEERED FOR:

- ▲ Short and medium range surveillance and monitoring systems
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Laser systems and other payloads

KEY FEATURES:

- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Quick-connect interfaces: 48V power outputs, (1 Gbps) Ethernet ports

TL.0251



PAN POSITIONER

Up to **40** kg
(max load)



Maximum axial payload capacity: 40 kg



All-weather heavy-duty metal housing



Reliable connectors for connection the positioner and payload



Vibration and shock resistance



Horizontal rotation speed: up to 300°/s



Easy connectivity: 48VDC, Gigabit Ethernet/ RS-485 / fiber optic



High positioning accuracy 0.05°



360° continuous rotation with oscillating mode



Device weight: 8 kg

COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0251

The maneuverable rotary platform is designed to position the installed equipment in azimuth. The device ensures uniform circular rotation with adjustable speed and its rapid positioning in the specified angular coordinates.



SPECIFICATIONS

▲ TL.0251

	TL.0251	TL.0251-050
Angular Range	0...360 ° (∞)	
Angular Speed	0,01...50 °/s	0,05...250 °/s
Maximum angular acceleration	1...500 °/s ²	
Positioning accuracy	0,05 °	0,12 °
Forbidden zone setting	supported	
Maximum axial load	40 kg	
Maximum torque	5,9 kgf×m	2,47 kgf×m
GUI for control and settings	WEB interface	
Control protocol	"Techlaser" protocol and Pelco-D	
Number of presets (Pelco-D)	64	
Stationary Interface:	1 × Ethernet / RS-485 (opt.) or Fiber optic / RS-485 (opt.)	
Payload channels	1 × Ethernet / 1 × RS-485 (opt.) or 1 × Ethernet / Fiber optic / RS-485 (opt.)	
Ethernet standard	10/100/1000BASE-T/TX	
Max. RS-485 communication speed	1200...115200 bits/s	
Nominal supply voltage	48 VDC	
Power consumption	no more than 500 W	
IP rating	IP65	
Weight	8 kg	
Overall dimensions	168x192x188 mm	
Operating temperature	-40...+50 °C	



PAN POSITIONER ▲ TL.0251

The maneuverable rotary pan platform is designed for precise positioning of installed equipment in azimuth with the ability to smoothly change the speed. The design includes a rotating transition that allows for the transmission of power and Ethernet or fiber-optic communication lines for the payload

DESIGNED AND ENGINEERED FOR:

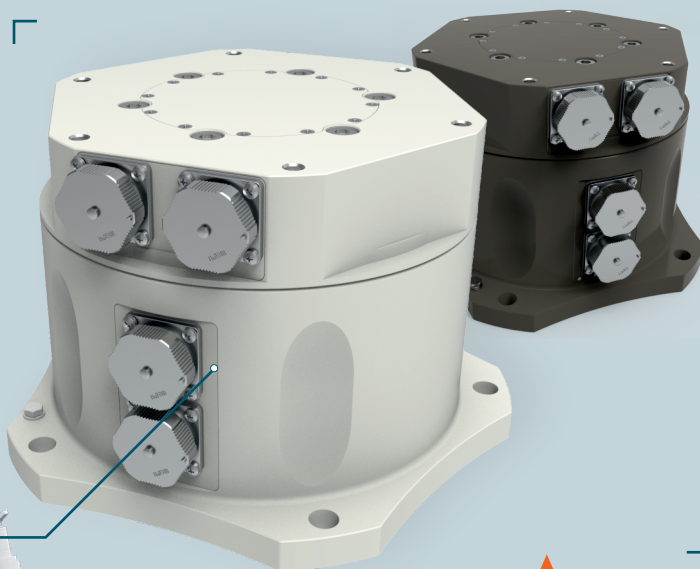
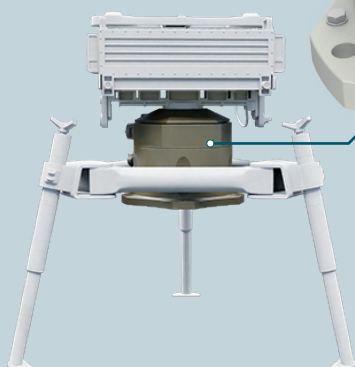
- ▲ Radar systems construction
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Payload positioning

KEY FEATURES:

- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Quick-connect interfaces: 48V power outputs, (1 Gbps) Ethernet ports

▲ TL.0026

▲ TL.0027



PAN POSITIONER

Up to **50** kg
(max load)



Maximum axial payload capacity: 50 kg



All-weather heavy-duty metal housing



High positioning accuracy 0.02°



Vibration and shock resistance



Ultra-high rotation speed: up to 1800°/s



Easy connectivity: 24VDC, Gigabit Ethernet/RS-485 / fiber optic



360° continuous rotation with oscillating mode



Device weight: 3 kg

COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0026 ▲ TL.0027

Designed for high-speed radar systems. Provides uniform rotation in azimuth with adjustable speed and precise positioning in specified angular coordinates.



SPECIFICATIONS

▲ TL.0026 ▲ TL.0027

	TL.0026	TL.0027
Angular Range horizontal plane	0...360 ° (∞)	
Angular Speed horizontal plane	10...1800 °/s	
Discreteness of return of the actual position of the rotary platform	0,01 °	
Positioning accuracy	0,02 °	
Maximum axial load	50 kg	
Encoder type	absolute	
Forbidden zone setting	supported	
Maximum torque	1,06 kgf×m	
Energy recovery during braking	present	
Braking mode when power is off	supported	
Nominal supply voltage	24 VDC	
Power consumption	no more than 500 W	
Control interface	RS-485	Ethernet, (RS-485 opt.)
Exchange rate	1200...115200 bps	10...1000 Mbps
Payload channels	Single-mode fiber optic	1×Ethernet; 1×RS-485
IP rating	IP66	
Weight	no more than 12,5 kg	
Overall dimensions	246×239×158 mm	
Operating temperature	-40...+70 °C	



PAN POSITIONER ▲ TL.0026 ▲ TL.0027

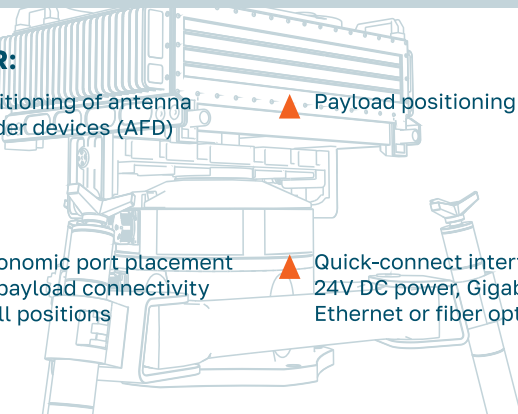
High-maneuverable pan platform is designed for high-speed radar systems. The design includes a rotating transition that allows power and Ethernet or fiber-optic communication for the payload.

DESIGNED AND ENGINEERED FOR:

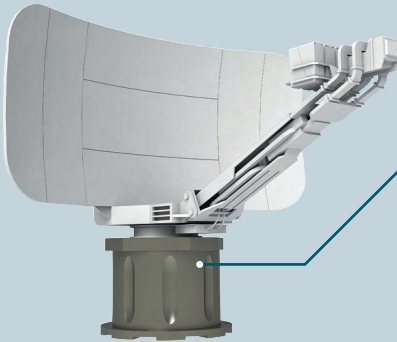
- ▲ Radar systems construction
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Payload positioning

KEY FEATURES:

- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Quick-connect interfaces: 24V DC power, Gigabit Ethernet or fiber optic



▲ TL.0020



PAN POSITIONER

Up to **100** kg
(max load)



Maximum axial payload capacity: 100 kg



All-weather heavy-duty metal housing



High positioning accuracy 0.05°



Vibration and shock resistance



Ultra-high rotation speed: up to 1100°/s



Easy connection: 24V power supply, Ethernet (1Gbps) / RS-485 / fiber optic



360° continuous rotation with oscillating mode



Device weight: 28 kg

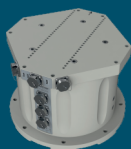
COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

PAN-TILT POSITIONER

▲ TL.0020

Designed for heavyhigh-speed radar systems. Provides uniform rotationin azimuth with adjustable speedand precise positioning at specifiedangular coordinates.



SPECIFICATIONS

▲ TL.0020

TL.0020

Angular Range horizontal plane	0...360 ° (∞)
Angular Speed horizontal plane	3...1100 °/s
Discreteness of return of the actual position of the rotary platform	0,01 °
Positioning accuracy	0,05 °
Maximum axial load	100 kg
Encoder type	absolute
Forbidden zone setting	supported
Maximum torque	1,6 kgf×m
Energy recovery during braking	present
Braking mode when power is off	none
Nominal supply voltage	24 VDC
Power consumption	no more than 450 W
Control interface	Ethernet, (RS-485 opt.)
Payload channels	1×Ethernet; 1×RS-485
Exchange rate	Ethernet 10...1000 Mbps RS-485 1200...115200 bps
IP rating	IP54
Weight	no more than 28 kg
Overall dimensions	360×360×258 mm
Operating temperature	-40...+50 °C



PAN POSITIONER ▲ TL.0020

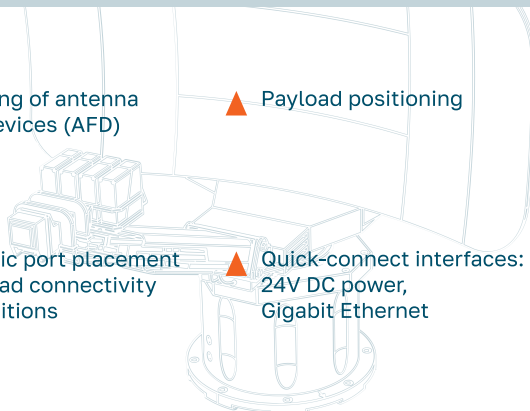
High-maneuverable pan platform is designed for heavy, high-speed radar systems. The design includes a rotating transition that allows for power and Ethernet or fiber-optic communication for the payload

DESIGNED AND ENGINEERED FOR:

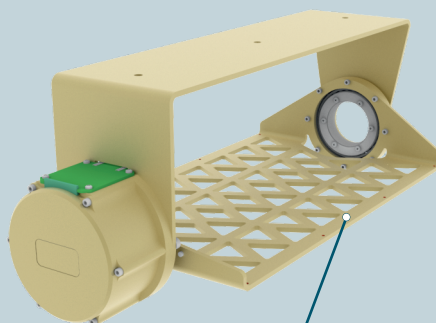
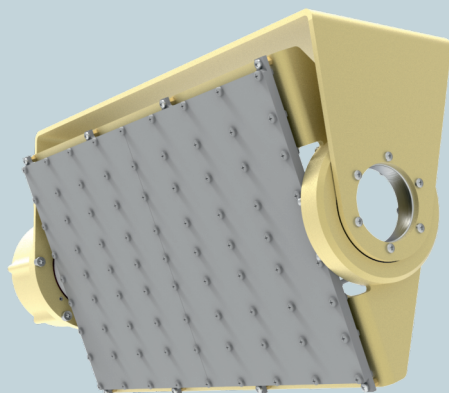
- ▲ Radar systems construction
- ▲ Positioning of antenna feeder devices (AFD)
- ▲ Payload positioning

KEY FEATURES:

- ▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions
- ▲ Ergonomic port placement for payload connectivity in all positions
- ▲ Quick-connect interfaces: 24V DC power, Gigabit Ethernet



▲ TL.0254



ONBOARD TILT DEVICE

Up to **3 kg**
(max load)



Maximum axial payload
capacity: 3 kg



High positioning
accuracy



Easy connection:
48V power supply,
Ethernet



Vibration and shock
resistance



Rotation speed:
up to 720°/s.
Acceleration:
up to 3000°/s²



180° tilt range



Device weight: 3,7 kg

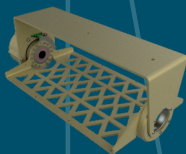
COMPLIES WITH THE FOLLOWING REQUIREMENTS:

- ▲ TR CU 004/2011 "On safety of low-voltage equipment"
- ▲ TR CU 020/2011 "Electromagnetic compatibility of technical equipment"

ONBOARD TILT DEVICE

▲ TL.0254

The onboard tilt mechanism is designed to position mounted equipment within specified elevation limits at controlled speeds. Suitable for communication antennas, radar systems, and jamming equipment

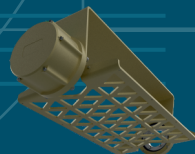


SPECIFICATIONS

▲ TL.0254

TL.0254

Angular Range	-90 ... +90 °
Angular Speed	0,01 ... 720 °/s
Angular acceleration	1...3000 °/s ²
Discreteness of return of the actual position of the rotary platform	0,01 °
Positioning accuracy	0,12 °
Maximum axial load	up to 3 kg
Forbidden zone setting capability	supported
Maximum torque	2,4 kgf×m
GUI for control and settings	WEB interface
Control protocol	TechLaser-protocol
Nominal supply voltage	48 VDC
Power consumption	no more than 350 W
Control interface	Ethernet
Ethernet standard	10/100BASE-T/TX
IP rating	IP20
Weight	3,7 kg
Overall dimensions	148×204×288 mm
Operating temperature	-40...+50 °C



TILT DEVICE ▲ TL.0254

The maneuverable tilt platform is designed to move the equipment installed on it within specified limits in azimuth at specified speeds. Suitable for communication antennas, radar systems, and electronic warfare payloads

DESIGNED AND ENGINEERED FOR:

▲ Construction of on-board monitoring systems based on antenna arrays

▲ Positioning of antenna feeder devices (AFD)

KEY FEATURES:

▲ Manufactured using high-strength alloys and adapted for harsh climatic conditions

▲ Ergonomic port placement for payload connectivity in all positions

▲ Quick-connect interfaces: 48V power outputs (100Mbps) Ethernet ports

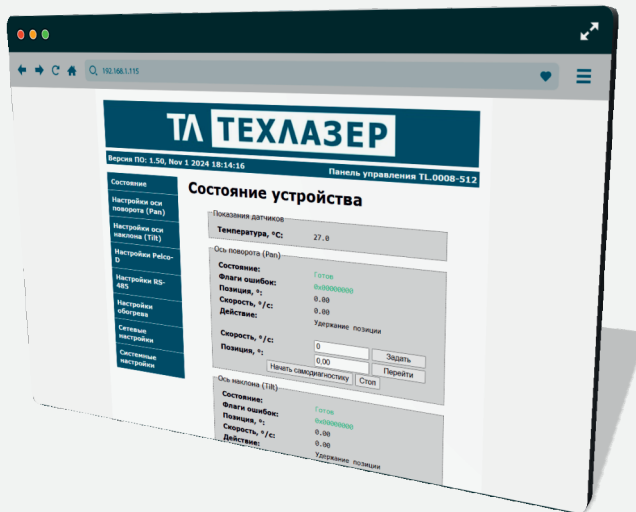
Key Features of Each Pan-Tilt Positioner

▲ Instant Activation

No complex initialization – units are ready for motion

▲ Built-In Web Interface

Direct control via browser without proprietary software or drivers



▲ User-Friendly Firmware Updates

Remote updates with no need to interrupt operation or dismount the positioner



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