

DATA SHEET

PANTILT4020LW

2 – axis Azimuth (PAN)
and Altitude (TILT) control
with absolute encoder



Pictures may differ from reality

**FEATURES**

- 2-axis movement (Azimuth and Altitude)
- Angle output resolution 0.01°
- Low backlash $\leq 0.07^\circ$
- Lock when power failure
- 24V...55V supply voltage
- RS-485 interface
- Monolithic aluminum CNC, hard anode
- Light weight body below
- Electromagnetic Brake: Save and lock positions when power down (*both Pan and Tilt*)

APPLICATIONS

PANTILT4020LW is targeted at applications demanding high stability and accuracy with tough environmental requirements.

Typical applications include:

Antenna
alignment

Camera
Pan Tilt mount

Positioning and
guidance systems

1. INTRODUCTION

This document contains essential technical information about the PANTILT4020LW including specifications, electrical properties and outline drawing

2. SPECIFICATIONS

2.1 General Specifications.

SPECIFICATIONS FOR PANTILT4020LW

Pan angle range	400° (-200° – 200°)
Tilt angle range	30° (-15° – 15°). 0° position is Home position and Tilt' Jig is horizontal.
Pan max speed	5°/s - <i>may be customized</i>
Tilt max speed	5°/s - <i>may be customized</i>
Position resolution	0.01° (<i>both Pan and Tilt</i>)
Position accuracy	0.15° (<i>both Pan and Tilt</i>)
Backlash	0.07° (<i>both Pan and Tilt</i>)
Maximum Moment	30N.m (<i>both Pan and Tilt</i>)
Lock moment	75N.m (<i>both Pan and Tilt when positioning completed</i>)
Load capacity	Top mount up to 20 kg
Voltage Supply	24 ... 55 VDC
Power consumption	Max load 80W (40W per one axis)
Interface	RS-485
Software control	Als control ver2.0.exe (<i>only Windows</i>)
Protocol	Provide API control
Material	Aluminum
Size	H250.5 x D177 x W120 mm (± 5%)
Weight	6.3±0.5 kg (Not include pole mount and accessory)
Operating temperature	-10°C - 70°C
IP rating	IP66 (IP67 option)
Humidity	Up to 98%
Support	Salt fog (MIL-STD 810 G), Vibration (IEC 60068-2-6) and Shock testing (IEC 60068-2-27)

2.2 Flow chart working

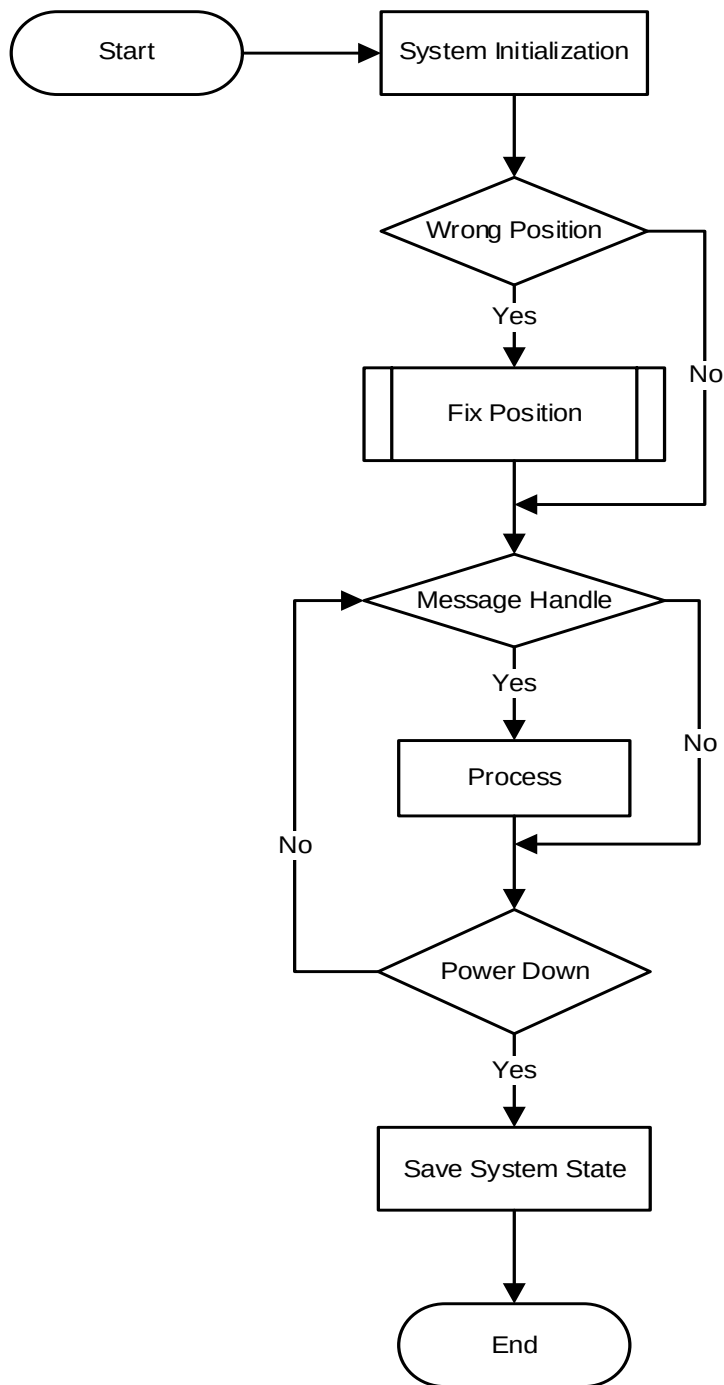
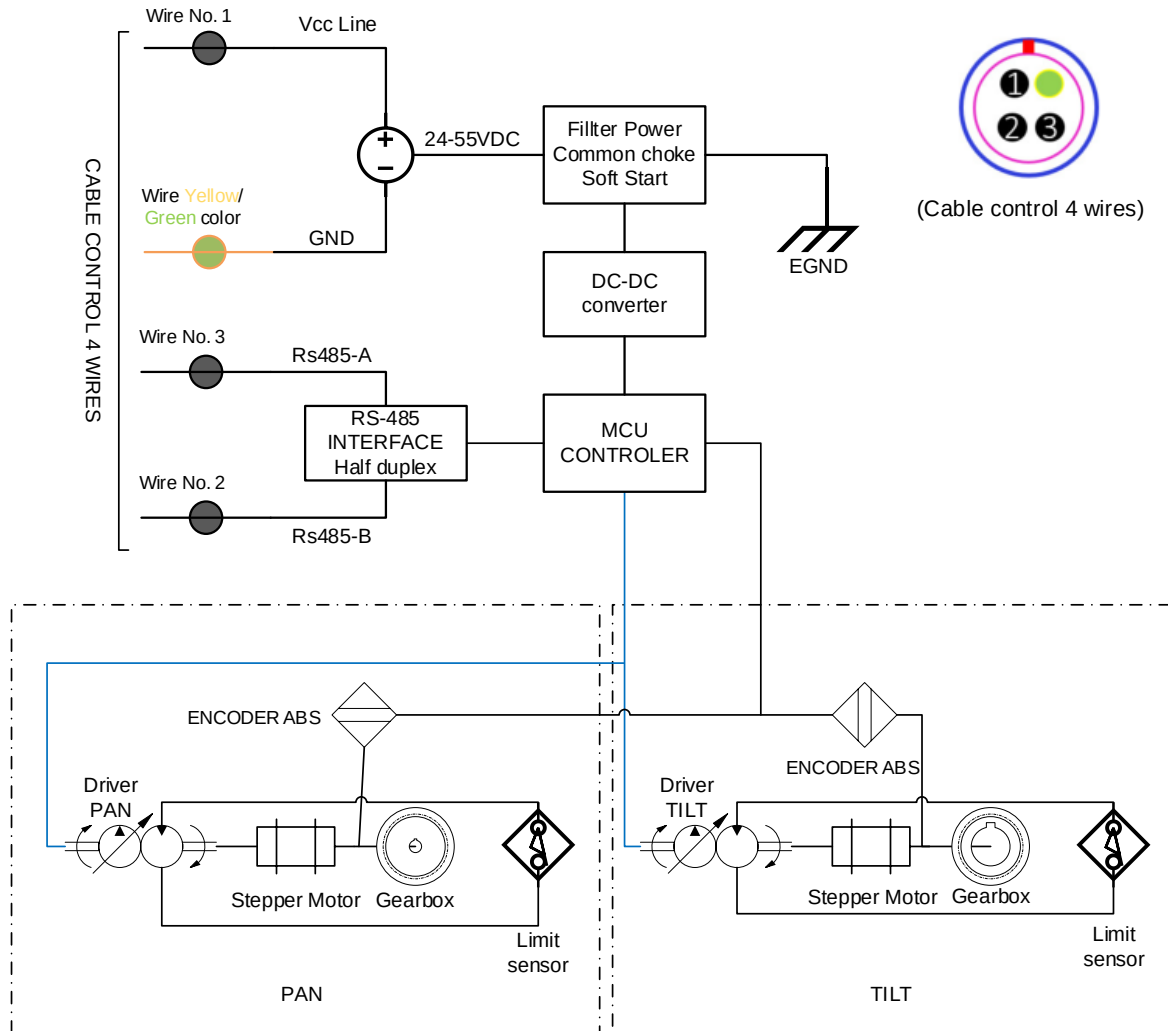


Figure 2: Process flow diagram

2.3 Electrical scheme diagram



2.4 Product Outline Drawing

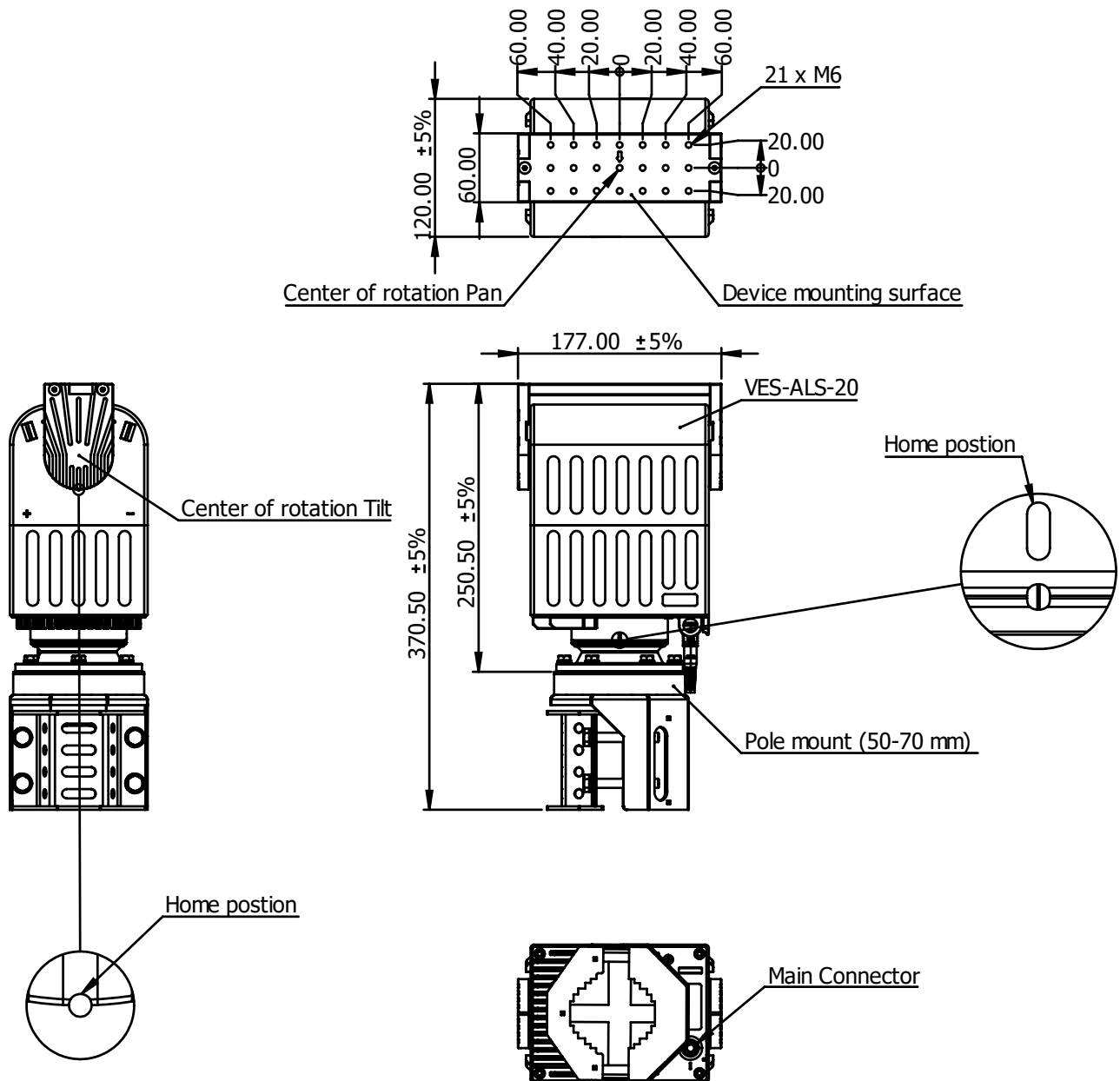


Figure 3: PANTILT4020LW outline Drawing (Tilt and Pan positions are 0°)

2.5 Accessory

No.	Name	Quantity
1	Cable control connect Device to other system control (ex. Auto alignment ...)	1 pcs
2	Pole mount (inox – 304)	1 pcs
3	Screws and tool	1 set
4	Quick start paper	1 pcs

3. EDITING HISTORY

Date	Version No.	Content changes
28/04/2021	Ver 2.0	Creat new datasheet
07/01/2021	Ver 2.1	Update the drawing
02/03/2022	Ver 2.2	Edit Specifications
07/04/2022	Ver 2.3	Edit Specifications
06/10/2022	Ver 2.4	Update 2.3 Electrical scheme diagram

4. CONTACT US

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