

# HDC33-028B

## Electronic Control Unit (ECU) for Scissor Lifts

### Applications

- Scissor Lifts

### Special Features

- Ergonomic design
- USB-interface for field-updates
- Compact and robust design
- In compliance with EN 280:2013+A1:2015
- Optionally integrated horizontal tilt sensor



HDC33-028B Electronic Control Unit

### Description

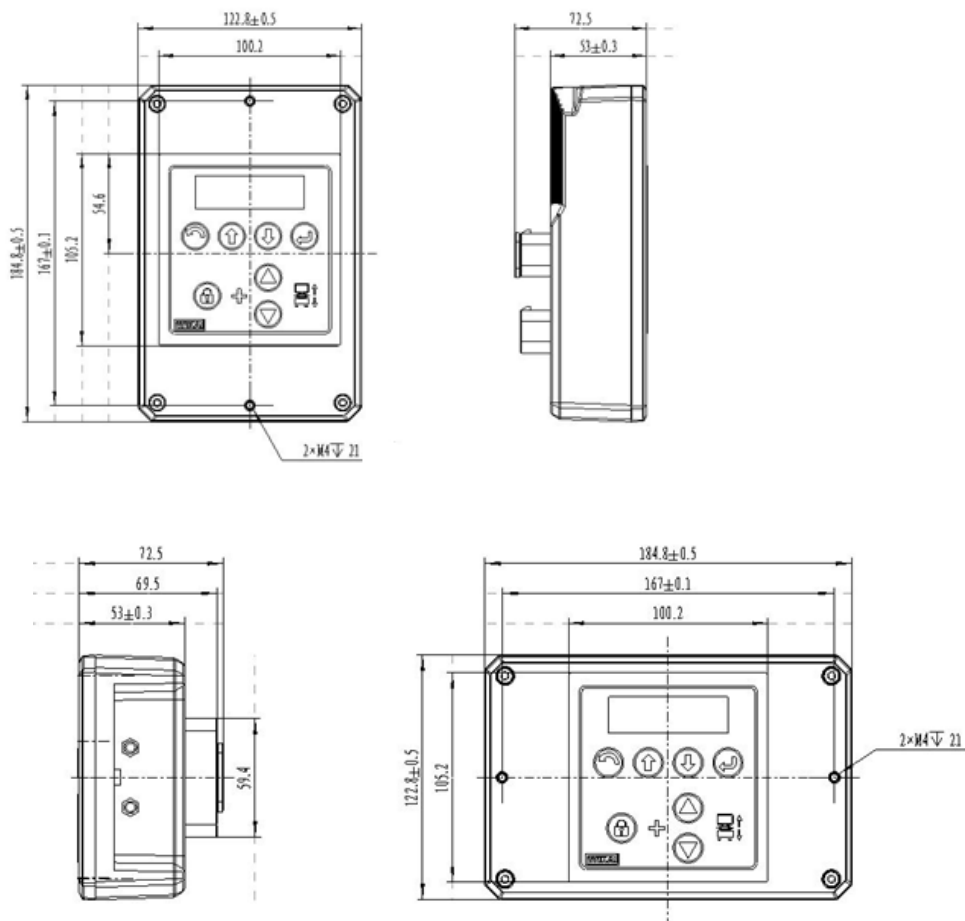
The HDC33-028B ECU is a powerful controller, which is designed and developed for the scissor lift industry. It is designed in compliance with the ISO 13849:2015 and EN 280:2013+A1:2015 standard. An optional GPS function meets the needs of the scissor lift rental market.

The HDC33-028B ECU also complies with the IEC 61000 standard. Its PA66 housing is made of flame retardant material and is highly shock- and vibration-resistant. The UL508-certified ECU boasts an IP65 protection rating and is suitable for the complex application environment of the scissor lift industry.

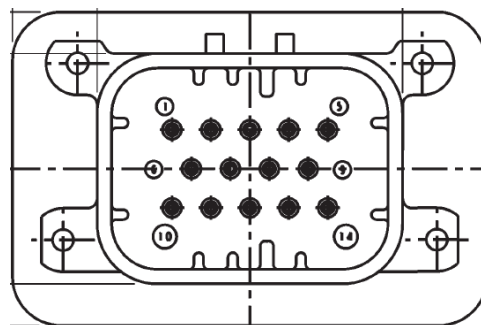
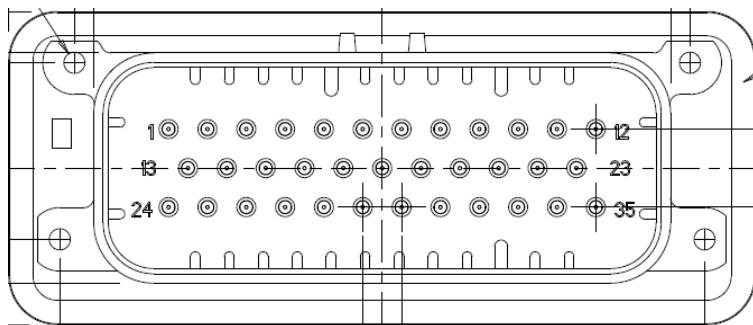
## Technical Specifications

<b>HDC33-028B</b>	
<b>Processor</b>	32-bit high-performance processor, clocked at 180 MHz, 32 MB SPIFlash, 2Mflash
<b>FRAM</b>	32KB FRAM ferroelectric memory
<b>Interfaces</b>	2x CAN, communication protocol CAN2.0B, baud rate range 50 Kbit/s...1 Mbit/s, protection function for power supply and ground 1x USB
<b>Digital inputs</b>	15×DI, 0...24V
<b>Analog inputs</b>	2×CI_VI current type analog input, 4...20mA, can be multiplexed as 0...5V analog voltage signal input VI, software can be set, resolution 12 bits; 2×CI current type analog input, 4...20mA; 2×VI voltage type analog input 0...5V
<b>Digital outputs</b>	12×DO switch output, drive current 2.5A, high-side output, with port diagnostic function; 3×PWM, 2.5A
<b>Analog outputs</b>	3×AO, 0...5V
<b>Operating voltage</b>	9...36 VDC
<b>Operating temperature</b>	-20...+70°C
<b>Storage temperature</b>	-40...+85°C
<b>Housing material</b>	ABS+PC, ROHS-compliant
<b>Operating humidity</b>	10%...90%RH
<b>Protection rating</b>	IP65
<b>Vibration-resistance</b>	EN 60068-2-6, IEC 60068-2-27
<b>Shock-resistance</b>	EN 60068-2-27
<b>Salt mist</b>	EN 60068-2-11
<b>EMC</b>	EN 61000-4-3:2010, EN 61000-4-2, EN 61000-4-4, EN 61000-4-5, EN 61000-4-6

## Dimensions



## Pin Assignment



### 35-pin port:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DI	DI	DO	UBP	UBP	DO	DO	DO	AO	DI	VI/CI	DI	CAN1H	DI
15	16	17	18	19	20	21	22	23	24	25	26	27	28
GND	CI	DI	DO	DO	DO	RO	DI	DI	CAN1L	UBS	VI/CI	DIL	DO
29	30	31	32	33	34	35							
DO	DO	DO	DO	DI	DI	DI							

### 14-pin port:

1	2	3	4	5	6	7	8	9	10	11	12	13	14
DO	VI	5V+	CAN2H	CAN2L	CI	CI	PWM	PWM	AO	DI	DI	DI	PWM