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Dinglead

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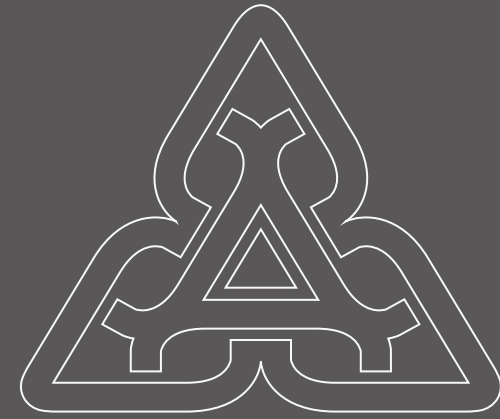


Product manual

Hunan Dingli Electrical Technology Co., Ltd.

Committed to being Global Partner for Smart Mobile Equipment

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- Construction machinery and equipment
- Agricultural equipment
- Sanitation equipment
- Logistics equipment
- Emergency equipment
- Mining equipment

01 COMPANY INTRODUCTION

COMPANY PROFILE

Founded in **2016**

Hunan Dingli Electrical Technology Co., Ltd.

Hunan Dingli Electrical Technology Co.,Ltd.[Registered Trademark:Dinglead]is a technology-driven, innovative, enterprise company specializing in the research and development (R&D), production, sales and service of electronic control products for engineering equipment and mobile vehicles. The company started business in 2016, and has set up multiple branches in Changsha,Jinan,Xuzhou,Anhui,Shenzhen,Zhengzhou,Chengdu and other cities across China.

Adhering to a strategy of concurrent development in self-research, production and customized system solutions, the company has launched five series of main products, including display, remote control, controller, sensor, driver and more than 100 product models, which can meet the diversified customization needs of customers, and formed a complete set of solutions for various application scenarios. At present, the series of products have been applied to construction machinery, sanitation equipment, agricultural equipment, emergency equipment, mining equipment, logistics equipment and other fields, serving more than 1 million units of equipment worldwide.

The company always adheres to the core value of creating value for customers, providing customers with excellent and efficient services with high cost-effectiveness and high-quality products, committed to promoting the progress of electrical control industry technology, becoming an innovative leader in the industry, continuously improving product quality and performance, and striving to become the industry benchmark for global top-class electrical components and system solutions.

Focus on mobile vehicle electronic control product development, production and sales

APPLICATION CUSTOMERS



HONOR AND QUALIFICATION



02

PRODUCT INTRODUCTION



Display series



Remote control series



Control series



Sensor series



Motor control Series



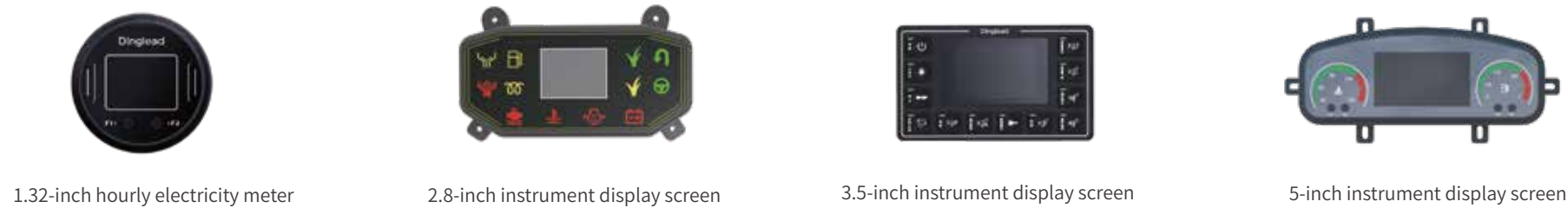
Control Joystick Series

DISPLAY SERIES



DISPLAY SERIES

Comprehensive instrument panel



DL-DIS13-HEM01

Communication protocol	CAN2.0B
Memory	128KB
RAM	20KB
Protocol	User-defined
Programming	C language
Operating system	FreeRTOS
Resolution	128*96
Hourly timing accuracy	0.1%
Display	1.32" monochrome display
Operating temperature	-40°C~70°C
Class of protection	IP67(front side)

DL-DIS28

Communication protocol	CAN2.0B
Memory	8MB
RAM	2MB
Protocol	User-defined
Programming	C language
Operating system	FreeRTOS
Resolution	320*240
Luminance	>550cd/m²
Display	2.8 "color display
Operating temperature	-20°C~70°C
Class of protection	IP67(front side)

DL-DIS35

Communication protocol	CAN2.0B
Memory	8MB
RAM	2MB
Protocol	User-defined
Programming	C language
Operating system	FreeRTOS
Resolution	320*240
Luminance	>550cd/m²
Display	3.5 "color display
Operating temperature	-20°C~70°C
Class of protection	IP67(front side)

DL-DIS50

Communication protocol	CAN2.0B
Memory	16MB
RAM	512KB+8MB
Protocol	User-defined
Programming	C language
Operating system	FreeRTOS
Resolution	854*480
Luminance	500cd/m²
Display	TFT-LCD+LED
Operating temperature	-30°C~80°C
Class of protection	IP67(front side)

DISPLAY SERIES

Economical



DL-DIS28

Communication protocol	CAN2.0B
Memory	8MB
RAM	2MB
Protocol	User-defined
Programming	C language
Operating system	FreeRTOS
Resolution	320*240
Luminance	>550cd/m²
Display	2.8 "color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	Optional
Class of protection	IP67(front side)

DL-DIS50/DIS50-L

Communication protocol	CAN2.0B
Memory	256MB
RAM	64MB
Protocol	User-defined
Programming	Keil/C language/ Codesys/Linux
Operating system	FreeRTOS
Resolution	800*480
Luminance	600cd/m²
Display	5 "color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	/
Class of protection	IP67(front side)

DL-DIS50-S

Communication protocol	CAN2.0B
Memory	256MB
RAM	64MB
Protocol	User-defined
Programming	Keil/C language/ Codesys
Operating system	FreeRTOS
Resolution	800*480
Luminance	600cd/m²
Display	5 "color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	/
Class of protection	IP67(front side)

DL-DIS55

Communication protocol	CAN2.0B
Memory	256MB
RAM	64MB
Protocol	User-defined
Programming	Keil/C language
Operating system	FreeRTOS
Resolution	960*480
Luminance	450cd/m²
Display	5.5"color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	Optional
Class of protection	IP67(front side)

DISPLAY SERIES

High performance type



7-inch display

DL-DIS70

Communication protocol	CAN2.0B/RS485
Memory	256MB
RAM	128MB
Protocol	User-defined
Programming	Ubuntu/C language/ Codesys
Operating system	Linux
Resolution	1024*600
Luminance	700cd/m²
Ethernet	Integrated ETH, customized WIFI
Display	7"color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	Optional
Class of protection	IP67(front side)



9-inch display

DL-DIS90

Communication protocol	CAN2.0B
Memory	256MB
RAM	128MB
Protocol	User-defined
Programming	Ubuntu/C language/ Codesys
Operating system	Linux
Resolution	1024*600
Luminance	600cd/m²
Ethernet	/
Display	9"color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	Optional
Class of protection	IP67(front side)



9-inch display

DL-DIS90-2R

Communication protocol	CAN2.0B
Memory	256MB
RAM	128MB
Protocol	User-defined
Programming	Ubuntu/C language/ Codesys
Operating system	Linux
Resolution	1024*600
Luminance	600cd/m²
Ethernet	/
Display	9"color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	Optional
Class of protection	IP67(front side)



10.1-inch display(Linux)

DL-DIS101-L

Communication protocol	CAN2.0B/RS485
Memory	256MB
RAM	128MB
Protocol	User-defined
Programming	Ubuntu/C language/ Codesys
Operating system	Linux
Resolution	1024*600
Luminance	600cd/m²
Ethernet	Integrated ETH, customized WIFI
Display	10.1"color display
Operating temperature	-20°C~70°C
I/O count	Optional
Touch	Optional
Class of protection	IP67(front side)

DISPLAY SERIES

Android Screen



8-inch display

DL-DIS80-A

Communication protocol	2*CAN2.0B/RS485
Memory	16G/32G/64G
RAM	4G
Protocol	User-defined
Programming	Android
Operating system	Java
Resolution	1280*800
Luminance	800cd/m²
Ethernet	10/100Mbps、WIFI
Diaplay	8"color display
Operating temperature	-20°C~70°C
Touch	Optional
Class of protection	IP65(front side)



10.1-inch display (Android)

DL-DIS101-A

Communication protocol	2*CAN2.0B/RS485
Memory	16G/32G/64G
RAM	4G
Protocol	User-defined
Programming	Android
Operating system	Java
Resolution	1280*800
Luminance	800cd/m²
Ethernet	10/100Mbps、WIFI
Diaplay	10.1"color display
Operating temperature	-20°C~70°C
Touch	Optional
Class of protection	IP65(front side)

High computing power screen



12.1-inch display

DL-DIS121-L

Communication protocol	2*CAN2.0B
Memory	32G
RAM	8G
Protocol	User-defined
Programming	ubuntu/C、C++
Operating system	Linux
Resolution	1024*768
Luminance	500cd/m²
Ethernet	10/100Mbps、WIFI
Diaplay	12.1"color display
Operating temperature	-20°C~70°C
Touch	Optional
Class of protection	IP67(front side)

REMOTE CONTROL SERIES



REMOTE CONTROL SERIES

Belt type



Strap large remote control

DL-RC01C-L

Dimension	330*227*202mm
Starting mode	Press and hold the key to start
Security protection	Boot self-test,forward error correction,CRC check
Communication distance	Open space≥200m
APO(Automatic Frequency Hopping)	Have
Operating temperature	-30°C~70°C
LED pilot lamp	Monochrome (green)
Battery type	4800mA lithium battery (Removable)
Continuous operating time	12h
Configuration display	Optional 5/7 inch display
Video format	Optional Network/AHD camera(2 channels)



Strap small remote control

DL-RC01C-M

Dimension	268*203*185mm
Starting mode	Press and hold the key to start
Security protection	Boot self-test,forward error correction,CRC check
communication distance	Open space≥200m
APO(Automatic Frequency Hopping)	Have
Operating temperature	-30°C~70°C
LED pilot lamp	Monochrome (green)
Battery type	4800mA lithium battery (Removable)
Continuous operating time	12h
Configuration display	Optional 5/7 inch display
Video format	Optional Network/AHD camera(2 channels)



Strap mini Remote Control

DL-RC01C-S

Dimension	282*166*148mm
Starting mode	Press and hold the key to start
Security protection	Boot self-test,forward error correction,CRC check
communication distance	Open space≥200m
APO(Automatic Frequency Hopping)	Have
Operating temperature	-30°C~70°C
LED pilot lamp	Monochrome (green)
Battery type	10000mA lithium battery (Built-in)
Continuous operating time	24h
Configuration display	Optional 2.8 inch display
Video format	/

REMOTE CONTROL SERIES

Handheld



Handheld mini remote control



Handheld wireless remote control



Handheld wired remote control



Handheld wireless screen-display remote control

DL-RC06C

Dimension	117*73*36mm
Starting mode	Press and hold the key to start
Security protection	Boot self-test,forward error correction,CRC check
communication distance	Open space≥100m
Automatic Frequency Hopping	Have
Operating temperature	-20°C~60°C
LED pilot lamp	Two colors:red and green
Battery type	2500mAh lithium battery
Continuous operating time	100h

DL-RC08C

Dimension	207*73*50mm
Starting mode	Press and hold the key to start
Security protection	Boot self-test,forward error correction,CRC check
communication distance	Open space≥150m
Automatic Frequency Hopping	Have
Operating temperature	-20°C~60°C
LED pilot lamp	Two colors:red and green
Battery type	2500mAh lithium battery
Continuous operating time	100h

DL-RC08C

Dimension	207*73*50mm
Starting mode	Power-on self-starting
Security protection	Boot self-test,forward error correction,CRC check
communication distance	/
Automatic Frequency Hopping	/
Operating temperature	-35°C~70°C
LED pilot lamp	Homochromy
Battery type	/
Continuous operating time	/

DL-RC12C

Dimension	212*76*49mm
Starting mode	Press and hold the key to start
Security protection	Boot self-test,forward error correction,CRC check
communication distance	Open space≥150m
Automatic Frequency Hopping	Have
Operating temperature	-20°C~60°C
LED pilot lamp	2500mAh lithium battery
Battery type	72h
Continuous operating time	1.54-inch display

REMOTE CONTROL SERIES

Remote control receiver



Receiver L



Receiver M



Receiver S



Receiver E



Receiver T

Receiver (L)

Dimension	242*135*83mm
Operating temperature	-40°C~85°C
Communication protocol	CAN2.0B/RS485
Total input and output	DI:16 DO:24
Housing material	PC+GF30
LED pilot lamp	Monochrome LED
Class of protection	IP67

Receiver (M)

Dimension	151*136*51mm
Operating temperature	-40°C~85°C
Communication protocol	CAN2.0B
Total input and output	DO:2
Housing material	Aluminium alloy
LED pilot lamp	Monochrome LED
Class of protection	IP67

Receiver (S)

Dimension	81*64*27mm
Operating temperature	-40°C~85°C
Communication protocol	CAN2.0B
Total input and output	DO:1
Housing material	PC+GF30
LED pilot lamp	Monochrome LED
Class of protection	IP67

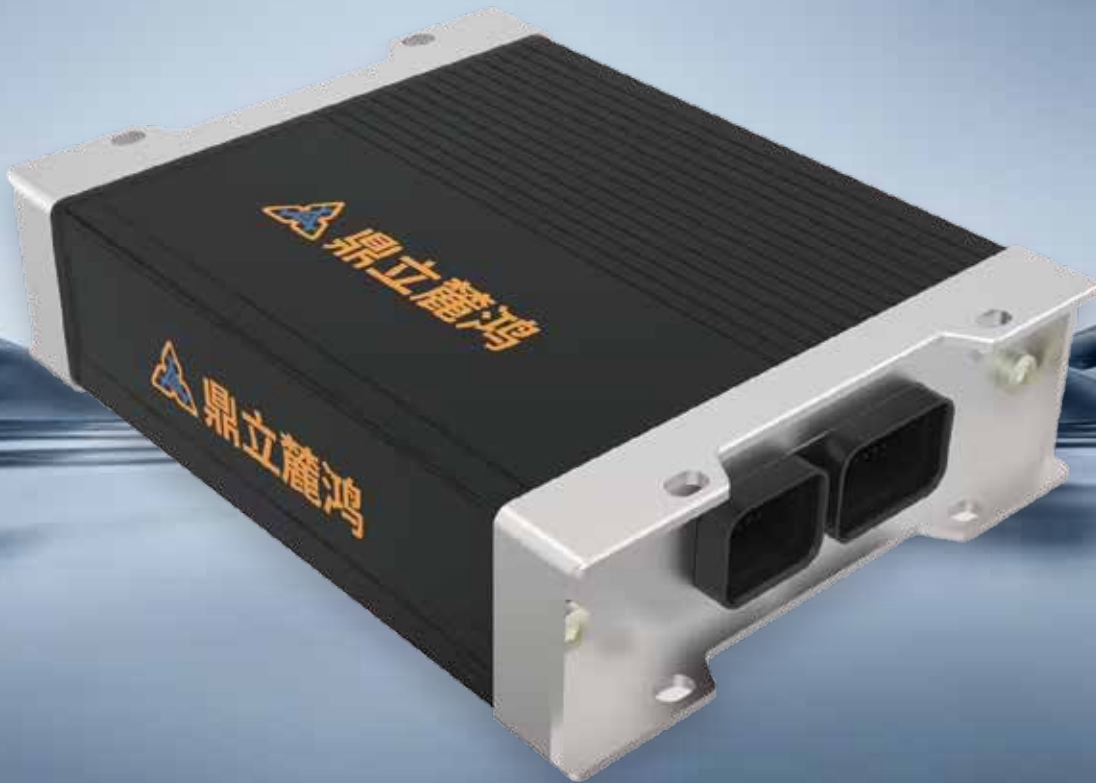
Receiver (E)

Dimension	120*132*43mm
Operating temperature	-40°C~85°C
Communication protocol	CAN2.0B
Total input and output	AI:8 PWM:16
Housing material	PC+GF30
LED pilot lamp	Monochrome LED
Class of protection	IP67

Receiver (T)

Dimension	120*132*43mm
Operating temperature	-40°C~85°C
Communication protocol	CAN2.0B
Total input and output	AI:8 PWM:16
Housing material	PC+GF30
LED pilot lamp	Monochrome LED
Class of protection	IP67

CONTROL SERIES



CONTROL SERIES Controller

This controller is engineered for the electrical control systems of mobile vehicles and construction machinery. It delivers exceptional mechanical shock resistance and electrical protection within a compact, rugged housing rated up to IP67, making it suitable for operation in the most demanding and harsh environments. Supporting the IEC 61131-3 standard, it streamlines application development for faster project deployment. Featuring rich multiplexed I/O channels with flexible port configuration, it enables highly adaptable, rapid, and precise control. This integrated design optimizes system flexibility while saving valuable installation space and reducing overall electrical costs.



26-point controller

DL-CR26P

Dimension	130*80*37.6mm
Processor	CortexM4/main frequency 168MHZ
Programming language	CodeSys3.5
Total input/output	26
Operating temperature	-40°C-85°C
Housing material	Aluminium alloy
Class of protection	IP67



56-point controller

DL-CR56P

Dimension	207*143*36mm
Processor	CortexM4/main frequency 180MHZ
Programming language	CodeSys3.5
Total input/output	56
Operating temperature	-40°C-85°C
Housing material	Aluminium alloy
Class of protection	IP67



40/80-point controller

DL-CR40P/80P

Dimension	196*151*51mm
Processor	CortexM4/main frequency 168MHZ
Programming language	CodeSys3.5/Gx works2
Total input/output	40/80
Operating temperature	-40°C-85°C
Housing material	Aluminium alloy
Class of protection	IP67

CONTROL SERIES

IO module

The IO series products are universal expansion modules designed for the electrical control systems of mobile vehicles and construction machinery. They feature extremely high mechanical shock resistance and electrical protection. The products have a compact and sturdy design with a protection rating of IP67. They are characterized by compact structure, flexible installation, and a wide range of models, making them suitable for various harsh and demanding working environments.



IO module

DL-IO16M-0808/1600

Dimension	145.8*59.6*29mm
Housing material	Aluminium alloy
Storage space	512KB FLASH, 128KB SRAM
Input	8/16
Output	8/0
Communication protocol	CAN2.0B
Operating temperature	-40°C-85°C
Operating voltage	9~36V DC
Class of protection	IP67



IO module

DL-IO0812S/1210S/1016S

Dimension	130*80*37mm
Housing material	Aluminium alloy
Storage space	512KB FLASH, 192KB SRAM
Input	8/12/10
Output	12/10/16
Communication protocol	CAN2.0B
Operating temperature	-40°C-85°C
Operating voltage	9~36V DC
Class of protection	IP67



IO module

DL-IO0832G/3708G

Dimension	157.6*115.6*47.8mm
Housing material	ABS+PC
Storage space	512KB FLASH, 128KB SRAM
Input	8/37
Output	32/8
Communication protocol	CAN2.0B
Operating temperature	-40°C-85°C
Operating voltage	9~36V DC
Class of protection	IP67

CONTROL SERIES

CAN bus panel

The CAN bus panel communicates with the vehicle controller and display through the CAN bus, and sends the user's operation instructions to the vehicle control system. The number of buttons and ICONS on the panel can be customized as required. The operation panel adopts solid adhesive overall package, beautiful appearance, good sealing, high protection grade, long service life and good operation feel.



8 keys CAN bus panel

DL-KB08Q

Dimension	105*62.5*35mm
Pilot lamp	Three color LEDlights
Key symbol	Support customization
Backlight	Highlight LED lights
Panel material	One-piece silicone
Key life	≥500,000 times
Operating temperature	-25°C-75°C
Communication protocol	CAN2.0B
Class of protection	IP67



16 keys CAN bus panel

DL-KB16Q

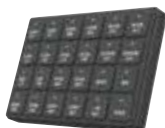
Dimension	116*110*33mm
Pilot lamp	Three color LEDlights
Key symbol	Support customization
Backlight	Highlight LED lights
Panel material	One-piece silicone
Key life	≥500,000 times
Operating temperature	-25°C-75°C
Communication protocol	CAN2.0B
Class of protection	IP67



20 keys CAN bus panel

DL-KB20Q

Dimension	116*141.5 28.6mm
Pilot lamp	Three color LEDlights
Key symbol	Support customization
Backlight	Highlight LED lights
Panel material	One-piece silicone
Key life	≥500,000 times
Operating temperature	-25°C-75°C
Communication protocol	CAN2.0B
Class of protection	IP67



24 keys CAN bus panel

DL-KB24Q

Dimension	170*115*39.69mm
Pilot lamp	Three color LEDlights
Key symbol	Support customization
Backlight	Highlight LED lights
Panel material	One-piece silicone
Key life	≥500,000 times
Operating temperature	-25°C-75°C
Communication protocol	CAN2.0B
Class of protection	IP67

CONTROL SERIES

Alarm light panel



14 key alarm light panel

DL-LD14G

Dimension	184.7*69.6*27.15mm
Number of LED lights	Support customization
LED color	Support customization
LED pattern	Support customization
Housing material	Panel:PVC/glass housing:Aluminum alloy
Operating temperature	-30°C-75°C
Communication protocol	CAN2.0B
Class of protection	Front side:IP67



21 key alarm light panel

DL-LD21G

Dimension	166*81*25mm
Number of LED lights	Support customization
LED color	Support customization
LED pattern	Support customization
Housing material	Panel:PVC/acrylic housing:Aluminum alloy
Operating temperature	-30°C-75°C
Communication protocol	CAN2.0B
Class of protection	Front side:IP67



24key alarm light panel

DL-LD24G

Dimension	154*69*25mm
Number of LED lights	Support customization
LED color	Support customization
LED pattern	Support customization
Housing material	Panel:Tempered glass housing:Aluminum alloy
Operating temperature	-30°C-75°C
Communication protocol	CAN2.0B
Class of protection	Front side:IP67

CONTROL SERIES

Control panel



7 Key control panel

DL-CB07C

Dimension	131*101*54.1mm
Power supply polarity protection	-36V
Communication protocol	CAN2.0B
Outlet mode	TE 23PIN plug
Input	DI:3 AI:2
Exportation	DO:8
Pilot lamp	Ten LED lights(7green、1yellow、2red)
Operating temperature	-20°C-70°C
Working voltage	10-32V DC
Installation mode	Screw hole:4xM5 hole distance:120*60
Housing material	Engineering plastics
Class of protection	IP65



12 Key control panel

DL-CB12C

Dimension	179.5*106*47mm
Average power consumption	<3W
Communication protocol	CAN2.0B
Outlet mode	AMP 23PIN plug
Exportation	DO:2(reserved)
Display type	LCD
Resolution	160*32
Buzzer	Built-in buzzer > 105 dB
Operating temperature	-40°C-85°C
Installation mode	Pedestal mounting
Housing material	Engineering plastics
Class of protection	IP65

Throttle controller



Throttle controller

DL-TCR01

Dimension	81*64*27mm
Baud rate	250K Bit/S
Communication protocol	CAN2.0B
Operating temperature	-40°C-85°C
Reverse protection	Have
Housing material	Engineering plastics
Class of protection	IP67

CONTROL SERIES

Voice-based products



CAN Voice controller

DL-A

Dimension	127*80*37.5mm
Play format	MP3
Loop play	Single/multi-track
Communication protocol	CAN2.0B
Voice storage capacity	256M
Voice alarm capacity	255 articles
Operating temperature	-40°C-65°C
Housing material	Aluminium alloy
Class of protection	IP20



CAN bus speaker

DL-YD

Dimension	100*85.5*88mm
Play format	MP3
Loop play	Single/multi-track
Communication protocol	CAN2.0B
Voice storage capacity	256M
Voice alarm capacity	User-defined
Operating temperature	-25°C-60°C
Housing material	plastic casing
Class of protection	IP65



Voice player

DL-KA08H

Dimension	130*65.8*35.5mm
Play format	MP3
Loop play	Single/multi-track
Communication protocol	CAN2.0B
Voice storage capacity	128M
Voice alarm capacity	Ten songs
Volume adjustment	10th Gear
Operating temperature	-25°C-70°C
Housing material	Aluminium alloy
Class of protection	IP20

SENSOR SERIES



SENSOR SERIES

Inclination type



Tilt sensor



Tilt sensor



Inclination switch sensor

DL-INC	DL-INC-D
Dimension	87.5*82*29.5mm
Number of measuring axes	Single axis/double axis/tripleaxis/multi-axis optional Number ofmeasuring axes
Angle alarm	DO(PNP)
Angular range	Horizontal installation: ±90"/±180; Vertical installation :0~360
Precision	0°~30': ≤±0.1°; 30°~60':≤±0.15°; 60~90°:±0.3°
Output signal	CAN;A0 supports customization
Coupler	M12L type: Straight elbow cable connector to the left M12R type: Straightelbow cable connectorto the right
Class of protection	IP67

DL-INS	DL-INS-D
Dimension	54*44*20mm
Number of measuring axes	Single axis/double axis
Angle alarm	DO(PNP)
Angular range	Horizontal installation: ±90"/±180; Vertical installation :0~360
Precision	0°~30': ≤±0.1°; 30°~60':≤±0.15°; 60~90°:±0.3°
Output signal	CAN;A0 supports customization
Coupler	M12L type: Straight elbow cable connector to the left M12R type: Straightelbow cable connectorto the right
Class of protection	IP67

DL-TIL01	
Dimension	100*57*29mm
Number of measuring axes	Double axis
Angle alarm	can set
Precision	≤±0.3°
Output	Continuous digital output
Housing material	ABS+PC
Class of protection	IP67

SENSOR SERIES

Rope sensor



1.5M Rope sensor



5M Rope sensor



8.3M Rope sensor



15M Rope sensor

DL-PRE015	
Dimension	92.6*72*47.8mm
Wire diameter	φ0.5mm
Wire length	1.5M
Communication protocol	CANope/CAN2.0B
Length accuracy	≤±0.25%FS
Working speed	2.0M/S
Operating temperature	-40°C~85°C
Working life	>250,000 times
Electrical interface	M12*5-pin plug
Output signal	CAN
Class of protection	Signaltransmission part:IP67 Cable box part:IP65

DL-PRE050	
Dimension	121*100*60.3mm
Wire diameter	φ0.8mm
Wire length	5M
Communication protocol	CANope/CAN2.0B
Length accuracy	≤±0.5%FS
Working speed	2.0M/S
Operating temperature	-40°C~85°C
Working life	>250,000 times
Electrical interface	M12*5-pin plug
Output signal	CAN;A0 supports customization
Class of protection	Signaltransmission part:IP67 Cable box part:IP65

DL-PRE083	
Dimension	135.26*106*73.9mm
Wire diameter	φ0.8mm;φ1.2mm
Wire length	8.3M
Communication protocol	CANope/CAN2.0B
Length accuracy	≤±0.5%FS
Working speed	2.0M/S
Operating temperature	-40°C~85°C
Working life	>250,000 times
Electrical interface	M12*5-pin plug
Output signal	CAN;A0 supports customization
Class of protection	Signaltransmission part:IP67 Cable box part:IP65

DL-PRE150	
Dimension	135.26*106*73.9mm
Wire diameter	φ0.8mm;φ1.2mm
Wire length	15M
Communication protocol	CANope/CAN2.0B
Length accuracy	≤±0.5%FS
Working speed	2.0M/S
Operating temperature	-40°C~85°C
Working life	>250,000 times
Electrical interface	M12*5-pin plug
Output signal	CAN;A0 supports customization
Class of protection	Signaltransmission part:IP67 Cable box part:IP65

SENSOR SERIES

Angle sensor



No axis Angle sensor

DL-ANG***

Housing material	PC+GF20
Direction of rotation	Clockwise/counterclockwise
Dimension	48*35*10mm
Angular range	90°/180°/0°~360°
Output	0.5~4.5V DC
Axial form	Shaftless
Interface mode	Direct outlet (0.5M/1M/2M)
Operating temperature	-40°C~85°C
Precision	≦±1.0%FS
Class of protection	IP67



Angle sensor with shaft (Type D)

DL-ANG***A

Housing material	PC+GF20
Direction of rotation	Clockwise/counterclockwise
Dimension	40.6*54.15*39.15mm
Angular range	50°/60°/90°/120°/180°/270°/0°~360°
Output	0.5~4.5V DC
Axial form	Type D (support handle)
Interface mode	AMP Sealed Connectors
Operating temperature	-40°C~125°C
Precision	≦±1.0%FS
Class of protection	IP67



Angle sensor with shaft (Type I)

DL-ANG***A1

Housing material	PC+GF20
Direction of rotation	Clockwise/counterclockwise
Dimension	40.6*54.15*39.15mm
Angular range	50°/60°/90°/120°/180°/270°/0°~360°
Output	0.5~4.5V DC
Axial form	Type I (with a detonator)
Interface mode	AMP Sealed Connectors
Operating temperature	-40°C~125°C
Precision	≦±1.0%FS
Class of protection	IP67

SENSOR SERIES



Encoder

DL-ENC36/50/58

Dimension	36mm/50mm/58mm
Number of turns	Multi-turn absolute value 4096 turns 12Bit
Communication protocol	CAN2.0B
Operating voltage	9~36V DC
Precision	≦±0.08°
Operating temperature	-40°C~85°C
Resolution	8192 steps /13Bit
Class of protection	IP67



Millimeter-wave radar sensor

DL-RAD01

Dimension	63*98*21mm
Measuring range	0.1~5m, 0.2~40m
Precision	0.1~5m: ±0.05m; 0.2~40m: ±0.1m;
Response speed	50ms
Number of measurement objects	20
Communication protocol	CAN2.0B
Radar transmission frequency	76~80Ghz
Modulation system	FMCW
Way to install	Stent installation
Housing material	ABS+PC
Class of protection	IP67



High voltage near current alarm

DL-HPPA-01

Applicable line	10KV-350KV
Operating voltage	DC12V-24V
Rated frequency	50Hz
Detection mode	High voltage magnetic induction
Alarm mode	Buzzer alarm
Communication mode	2.4G
Communication distance	200M
Host power consumption	0.6-0.8W
Operating temperature	-40°C—80°C
Ambient humidity	0-95% (no condensation)
Class of protection	IP65



Strain sensor

DL-STR01

Dimension	60*45*20.3mm
Measuring range	120μm/m~2000μm/m
Rrange	Customized measurement range
Overload	50.000μm/m
Precision	25 °C : ±1.0 %FS -10 ~ 50 °C: ±1.5 %FS -40 ~ -10 °C : ±2.5 %FS 50 ~85 °C: ±2.0 %FS
Operating temperature	-40°C~85°C
Housing material	Aluminium alloy
Class of protection	IP67

MOTOR CONTROL SERIES



MOTOR CONTROL SERIES

Dc motor driver is suitable for series excited DC motor speed and torque control, can meet the extremely harsh working environment temperature, support direct outdoor installation IP67 protection class, low heat loss, high output efficiency, high power density, can be widely used in shear fork aerial work platform, electric loading truck and a variety of series excited pump motor equipment applications.



DC motor driver

DL-DMC01

Dimension	149*146*61mm
Communication protocol	CAN2.0B
Housing material	Aluminium alloy
Operating temperature	-40°C~55°C
PWM efficiency	15KHZ
Accelerator type	Voltage accelerator
Class of protection	IP67



AC motor drive

DL-AMC01

Dimension	180*138*63mm
Communication protocol	CAN2.0B
Battery voltage	24V
Maximum output frequency	200Hz
Operating temperature	-40°C~50°C
Type of cooling	Self cooling
Class of protection	IP65



Three DC motor controller

DL-MC03

Dimension	180*138*63mm
Communication protocol	CAN2.0B
Battery voltage	24V
PWM frequency	10Khz
Operating temperature	-30°C~80°C
Class of protection	IP65



Motor reverse turn

DL-DMC02

Dimension	92*70*30mm
Rated power	800W
Maximum power	1300W
Motor speed regulation	0~5V DC
Operating temperature	-40°C~55°C
Storage temperature	-40°C~85°C
Class of protection	500V DC
Housing material	Aluminium alloy
Class of protection	IP67



Dc motor controller

DL-DMC03

Dimension	81*64*27mm
Rated voltage	24V DC
Maximum power	500W
Operating temperature	-40°C~55°C
Storage temperature	-40°C~85°C
Class of protection	500V DC
Housing material	Engineering plastics
Class of protection	IP67

MOTOR CONTROL SERIES

The PCU control panel has multiple buttons/buttons and associated indicators. There are two LED digital tube display power, real-time display fault code; The indicator shows the working status to avoid misoperation. ECU is a universal step down controller designed for self-propelled shear fork type aerial work platform, which has simple appearance and high strength electrical protection characteristics. The power supply has over-voltage and under-voltage protection functions, all digital output outlets (DO) have short-circuit break detection functions, and all digital input (DI) has over-voltage protection functions, motor drive, valve group control, fault alarm and other functions.



Platform control unit



Electronic control unit



Electronic control unit

DL-PCS01-PCU

Dimension	222*231*114mm
Operating voltage	10-36V DC
Analog input	Analog current and analog voltage multiplexing inputs are supported
Electrical interface	6-core cable + 5-core connector (SIBASHQ-005-M)
Communication protocol	CAN2.0B
Life span	Button >1 million cycles joystick > 5 million cycles
Operating temperature	-20°C~70°C
Housing material	ABS+PC
Class of protection	IP65

DL-ECU-T500

Dimension	186*123*61mm
Operating voltage	10-36V DC
Analog input	Current or voltage input is optional
Electrical interface	1 x 35-pin, AMP776231-1, 1 x 14-pin, AMP776262-1
Communication protocol	CAN2.0B
Life span	Button >1 million cycles
Operating temperature	-20°C~70°C
Housing material	ABS+PC
Class of protection	IP65

DL-ECU-T300

Dimension	131.7*113.8*51.1mm
Operating voltage	10-36V DC
Analog input	Current or voltage input is optional
Electrical interface	1x 36-pin, 344108-1
Communication protocol	CAN/4G/GPS
Operating temperature	-40°C~85°C
Housing material	engineering plastics
Class of protection	IP65

CONTROL JOYSTICK SERIES



Universal joystick



Single-axis joystick



Single-axis joystick



Single-axis grip type joystick

DL-HS01

Dimension	48.5*48.5*88.5mm
Sensor	Hall sensor
Antenna	XY-axis: ±28 degrees
Communication	Circular stop
Wireless communication	Spring self-resetting
Life span	> 5 million cycles
Operating temperature	-30°C~70°C
Class of protection	The upper part of the panel is IP67-rated

DL-HS02

Dimension	45.8*24*80.5mm
Sensor	Hall sensor
Antenna	Y-axis: ±30 degrees
Communication	single-line stop
Wireless communication	Spring self-resetting
Life span	> 5 million cycles
Operating temperature	-30°C~70°C
Class of protection	The upper part of the panel is IP67-rated

DL-HS03

Dimension	50*30.6*66.5mm
Sensor	Hall sensor
Antenna	Y-axis: ±30 degrees
Communication	single-line stop
Wireless communication	Spring self-resetting
Life span	> 2million cycles
Operating temperature	-30°C~70°C
Class of protection	The upper part of the panel is IP67-rated

DL-HM01

Dimension	212*83.5*77.5mm
Sensor	Hall sensor
Antenna	±20 degrees
Communication	single-line stop
Wireless communication	Spring self-resetting
Life span	> 1million cycles
Operating temperature	-30°C~70°C
Class of protection	The upper part of the panel is IP67-rated

WIRELESS SERIES



Wireless transparent transmission

DL-CA01

Dimension	124*110*47mm
Housing material	ABS、6063-T5
Antenna	Rod antenna
Communication	CAN2.0B
Wireless communication	LORA
Standby power consumption	≤20mA
Standby time	120h
Radio frequency	433MHZ
Data collision prevention	Automatic frequency hopping
Wireless distance	200m
Operating temperature	-20°C~60°C
Class of protection	IP67



Wireless calling system

DL-RC400

Dimension	150*126*55mm
Housing material	Nylon, aluminum alloy
Antenna	Rod antenna
Communication	CAN2.0B
Wireless communication	LORA
Standby power consumption	140mW
Standby time	120 days
Radio frequency	2460MHZ
Wireless distance	1600m
Operating temperature	-30°C~70°C
Class of protection	IP67



Anti-collision communication module of tower crane

DL-ANT001

Dimension	151*135*51mm
Housing material	Aluminum alloy
Antenna	Rod antenna
Communication	CAN2.0B
Wireless communication	LORA
Standby power consumption	280mW
Radio frequency	433MHZ&900MHZ dual frequency
Data collision prevention	Automatic frequency hopping
Wireless distance	400m
Operating temperature	-40°C~85°C
Class of protection	IP67



PWM signal converter

DL-PWM

PWM frequency input	100Hz-50KHz
Analog voltage output	0~5V DC
Operating temperature	-40°C~85°C
Electrical interface	0.3m 4*0.5mm ² 24-core PUR cable + AMP 282106-01 (Terminal: 282109-1)
Housing material	PC+ABS
Class of protection	IP67

MONITORING SERIES

10-Inch All-in-One 360°Panoramic Multimedia System



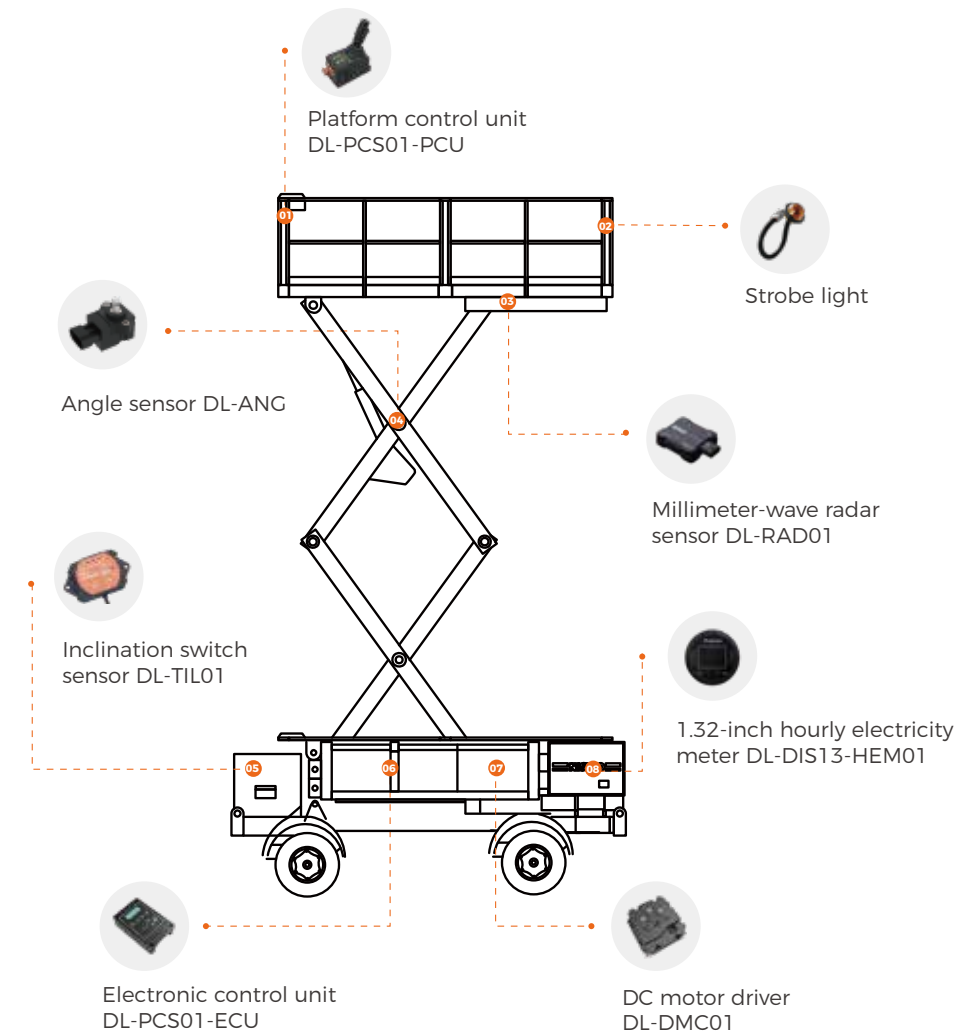
Serial number	Product highlights	Serial number	Product highlights
01	Special design for industrial machinery models	04	4 HD video surveillance
02	10.1 inch Android HD IPS screen	05	2 BSD blind area pedestrian and vehicle voice reminder
03	Voice control CAN	06	Astern radar

03 APPLICATION CASE

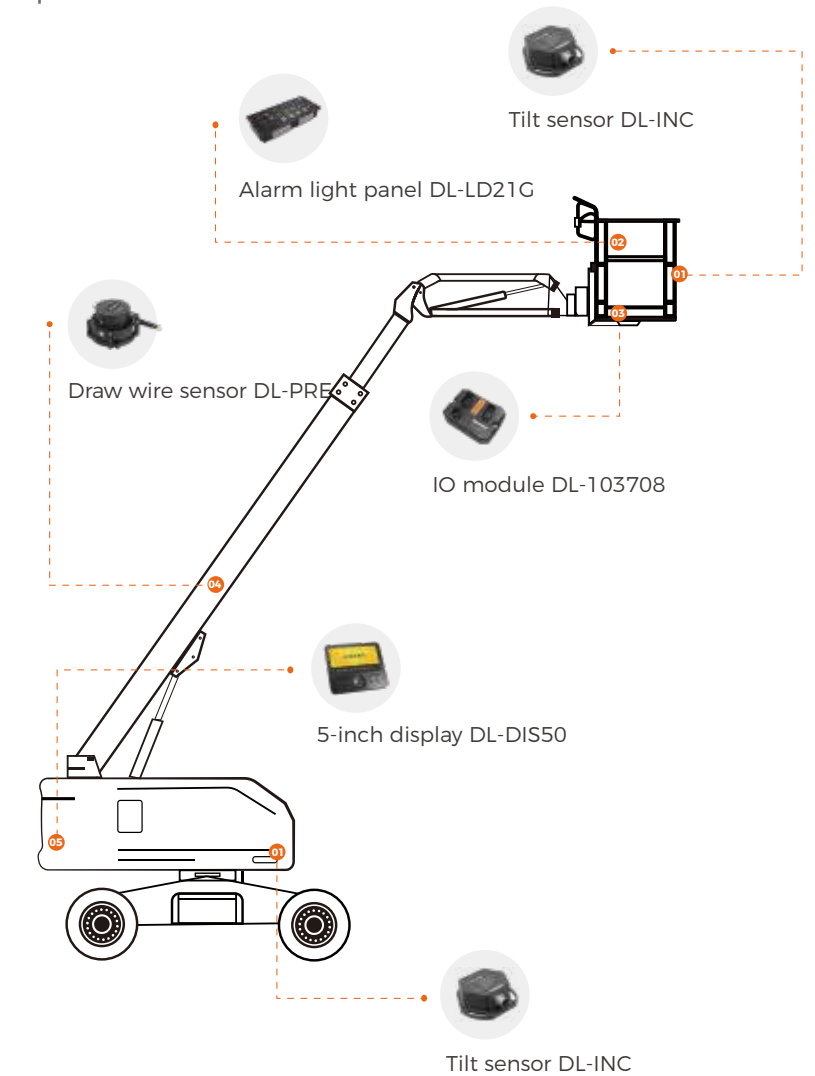


Construction machinery and equipment

Electronic control system of Scissor Lift Platform

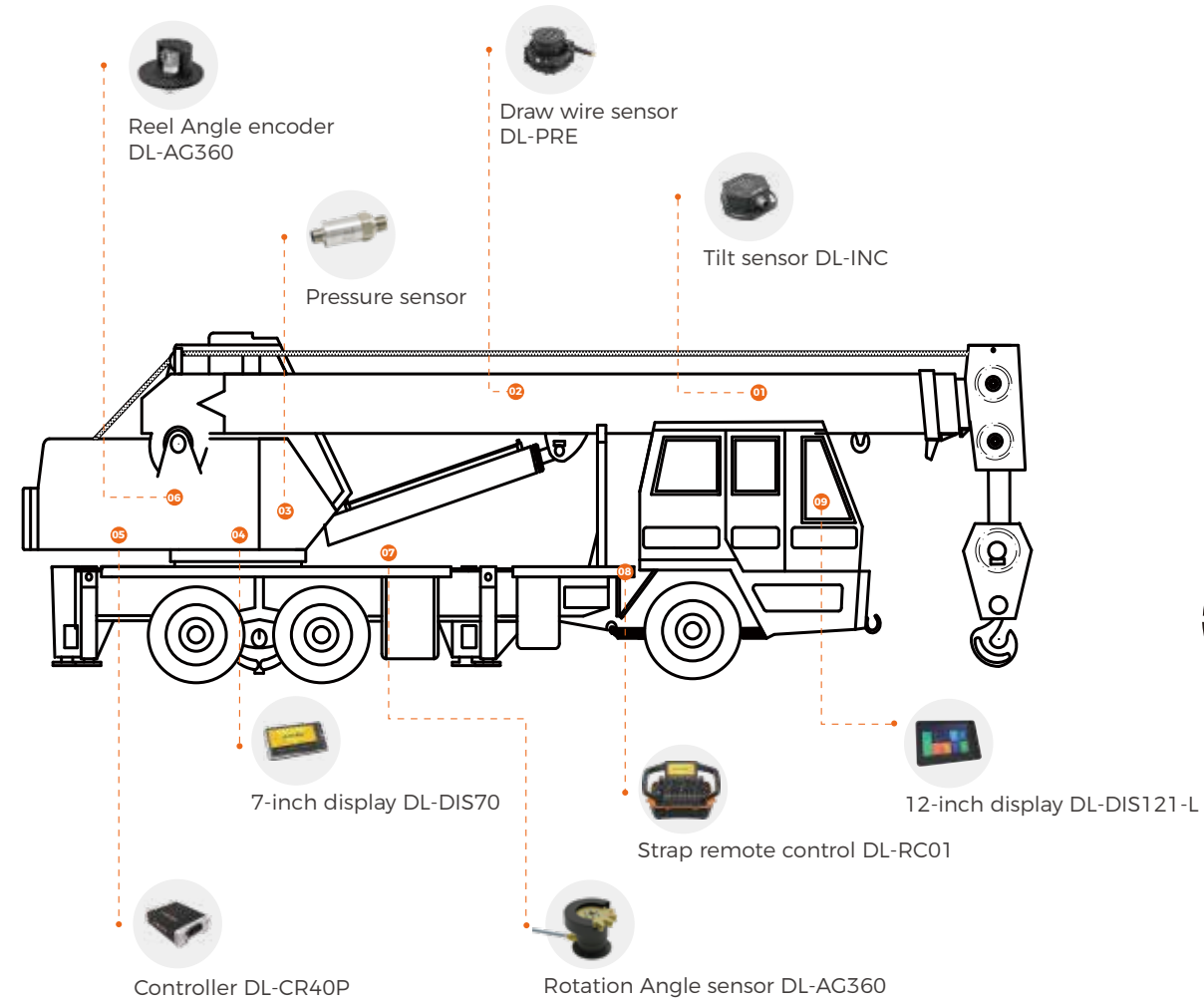


Electric control system of telescopic boom lift

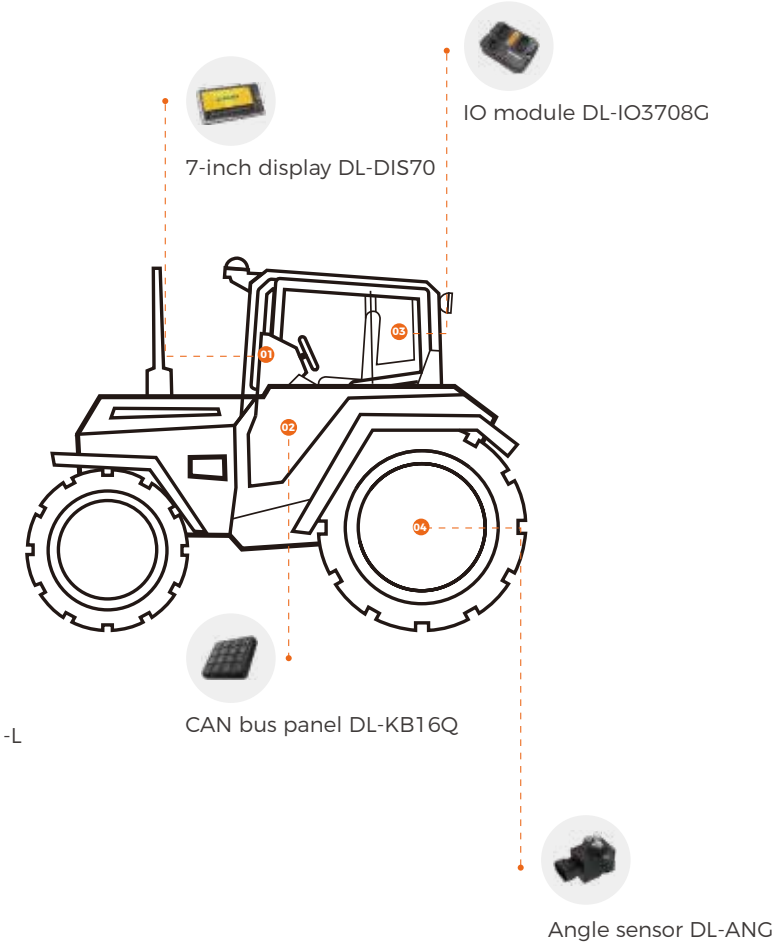


Agricultural equipment

Electric control system of truck crane

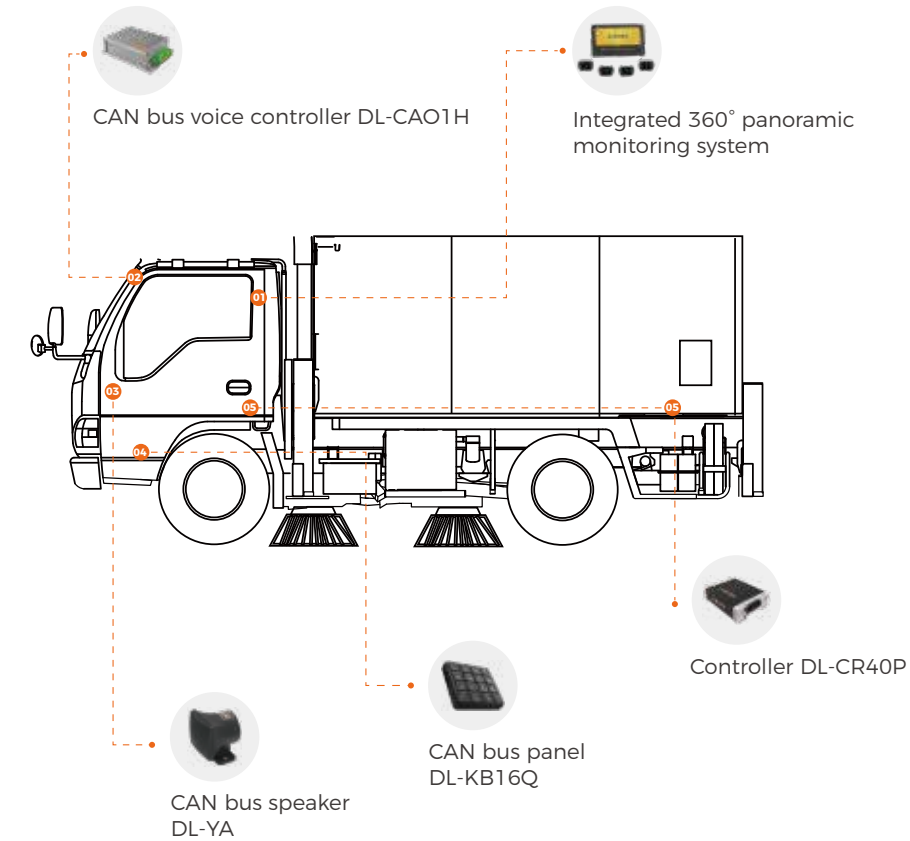


Tractor electronic control system

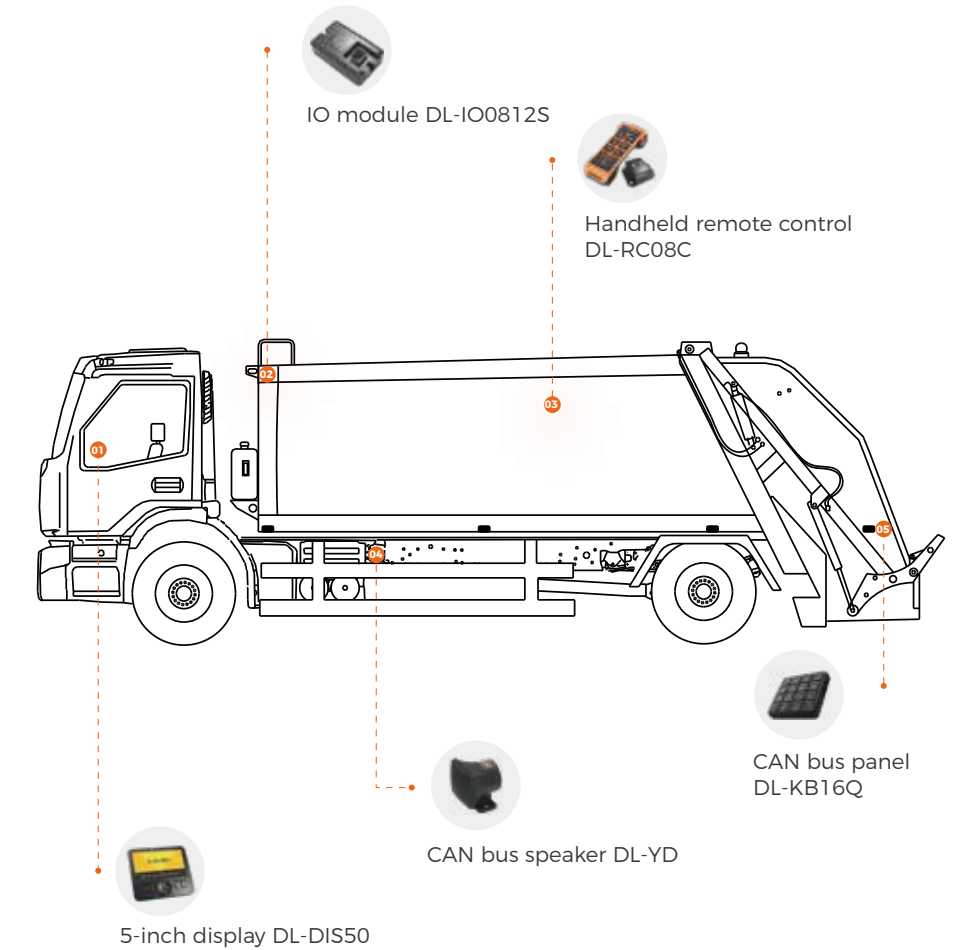


Sanitation equipment

Sweeper electric control system



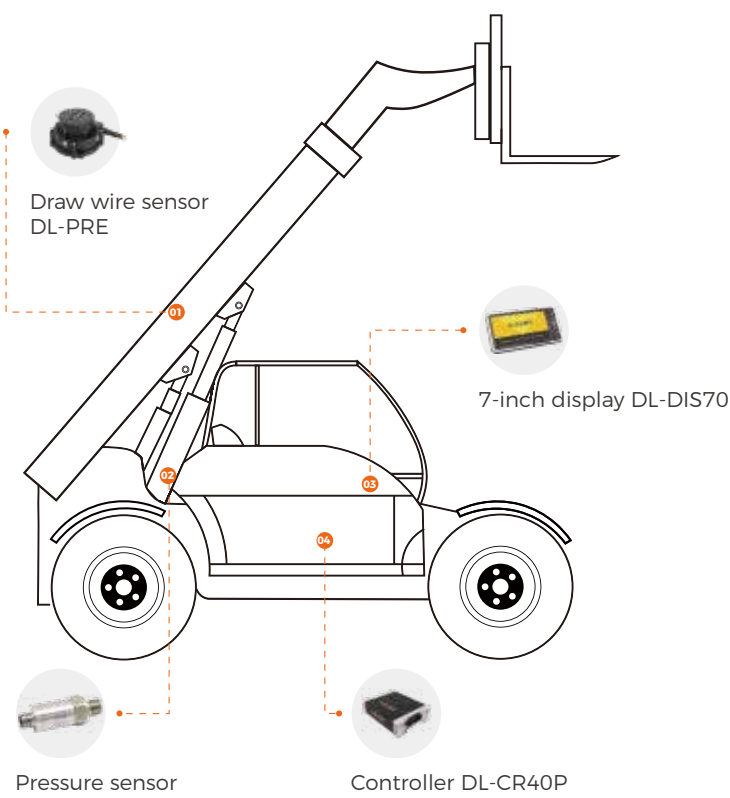
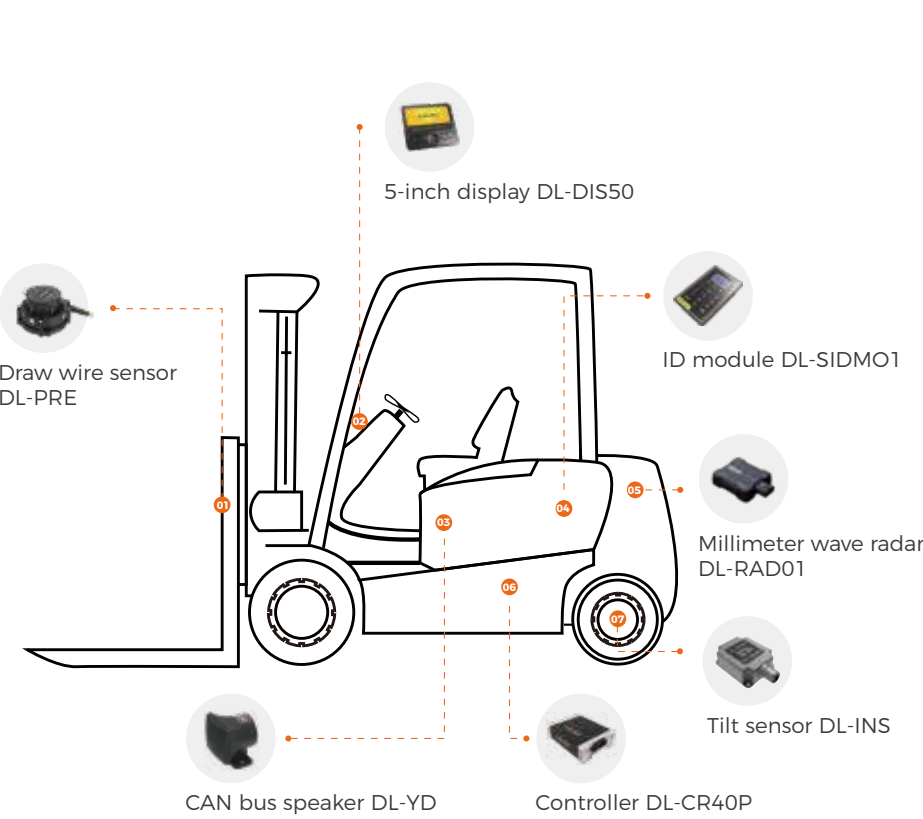
Compressed garbage trucks electric control system



Logistics equipment

Forklift electric control system

Forklift truck electric control system

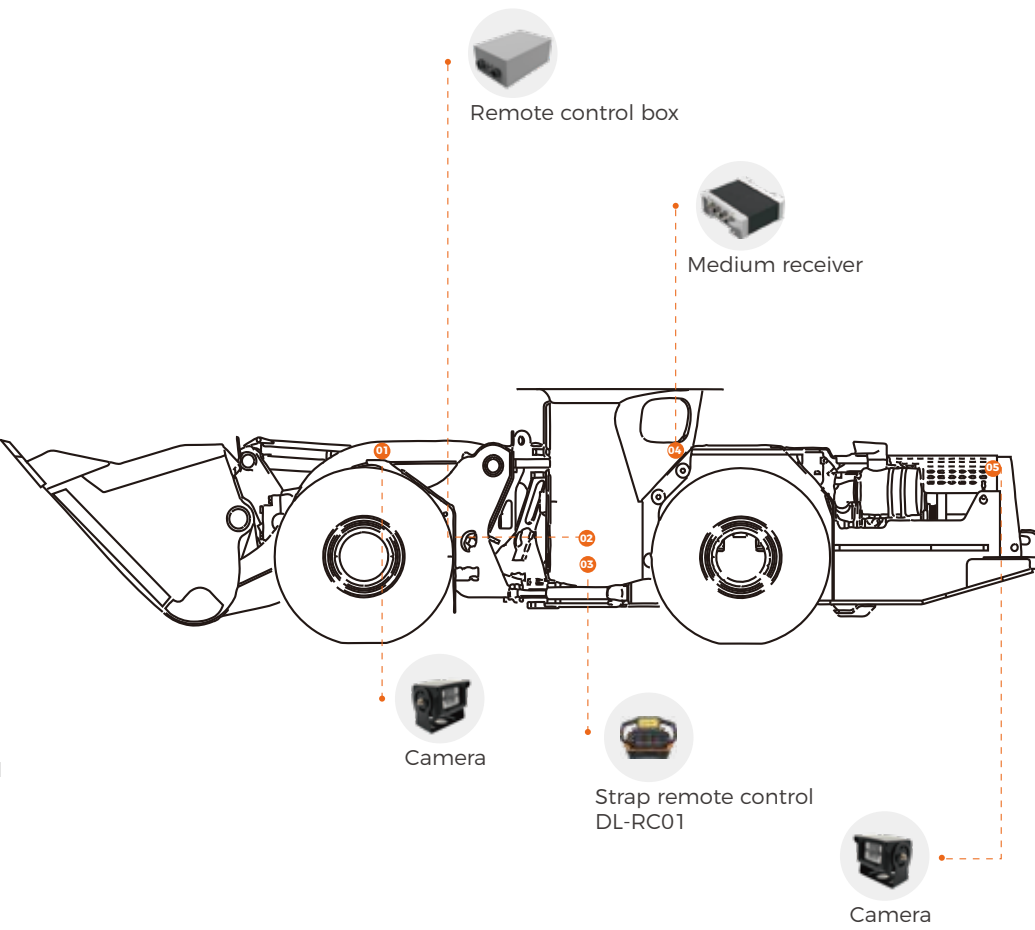
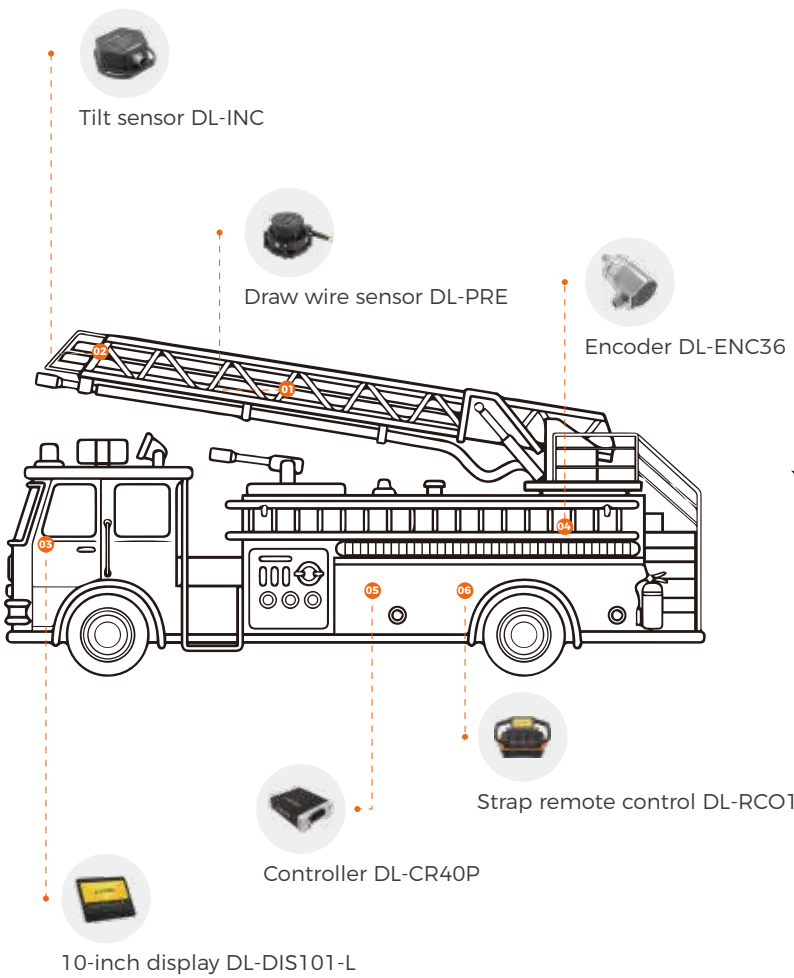


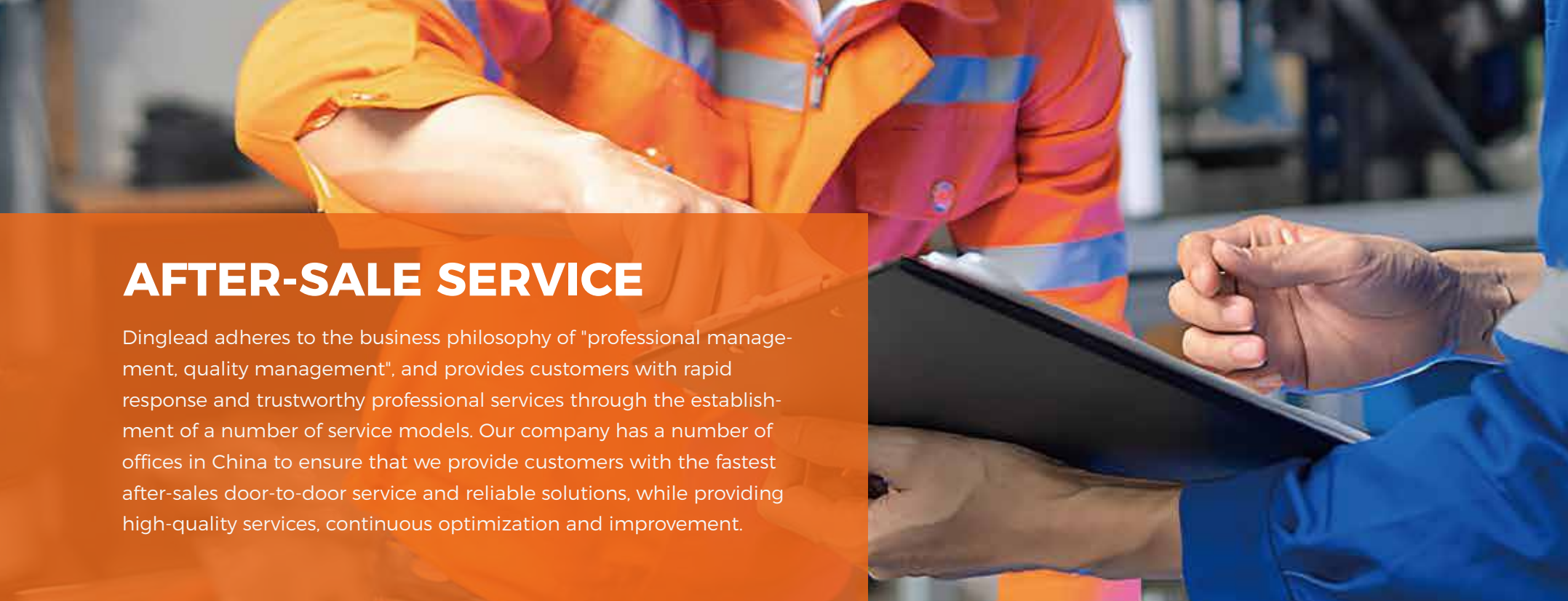
Emergency equipment

Aerial ladder fire truck electronic control system

Mining equipment

Scooptram electronic control system





AFTER-SALE SERVICE

Dinglead adheres to the business philosophy of "professional management, quality management", and provides customers with rapid response and trustworthy professional services through the establishment of a number of service models. Our company has a number of offices in China to ensure that we provide customers with the fastest after-sales door-to-door service and reliable solutions, while providing high-quality services, continuous optimization and improvement.



Sample service

Sample service can provide samples in the shortest possible time according to the customer's special requirements or customized parameters.



Functional safety service

Adaptive service packages and personalized solutions are available.



Customized solution

Solutions for custom products and construction machinery can be developed together with customers, integrating the overall drive to ensure the integrity of the system.



Timely response

After-sales staff 7*24H no holiday response, anytime and anywhere for customers to answer questions, to provide accurate service.



Operation training

Can provide customers with "accompanying" product operation, maintenance and other training services.



Technical support

We can provide customers with timely technical support through telephone support, online guidance, on-site maintenance and other ways.

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