

PRODUCT CATALOGUE



DCH RADIO LIMITED COMPANY
RELIABLE RADIO CONTROLS LIMITED

» COMPANY PROFILE

DCH was founded in 2016 by several professional engineers, who originated from meeting international customers radio remote control requirement. Until nowadays, DCH serves thousands of users include standard industries such as overhead cranes, material handling, lifting machinery, construction machinery, mobile vehicles, municipal vehicles, agricultural & forestry and special industries such as firefighting machinery, mine mining, tunnel machinery, port marine and oil mining fields.

DCH range of transmitters include hand-held A&H&C series and shoulder belt S&M&D&V series. Our professional teams will find a solution for any application from simple to complex, who are working for designing and producing remote controls on the highest levels of safety, dependability and efficiency.

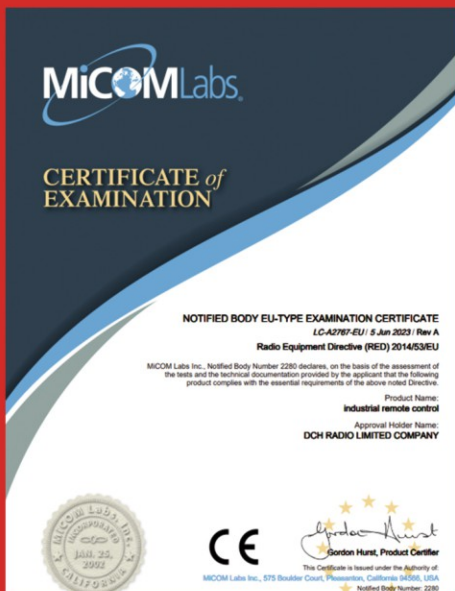


DCH has become expert at personalizing remote control to specifically suit the diverse needs of international customers. DCH transmitter can be customized with button, rotary switch, toggle switch, potentiometer, single-axis analogue levers and joysticks. Also our D&V series transmitter can have a data feedback option that shows the information received from the machine on a colour graphic display.

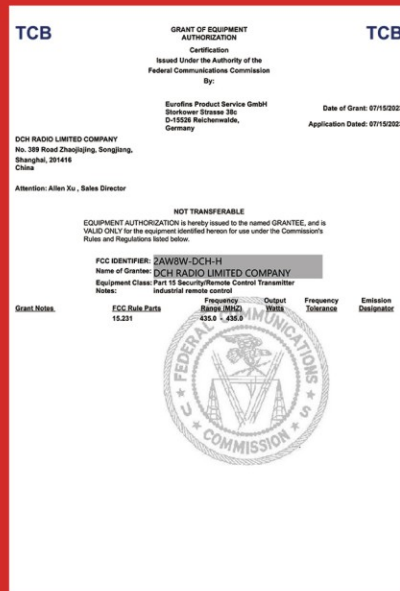
Working continuously with our customers, we obtain a comprehensive experience and understanding on application and requirements, which helps us to design a flexible and customized remote control. We always desire to discuss the application and requirement with our respectable customers.

DCH products have been certificated by CE and FCC (Conformite Europeene and Federal Communications Commission) and currently DCH products are serving more than 30 countries and regions users around the world.

CE CERTIFICATE



FCC (Conformite Europeene and Federal Communications Commission) CERTIFICATE



ISO9001 QUALITY SYSTEM CERTIFICATE



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Transmitter-Handheld H Series

Standard Features:

- Lightweight & Sturdy
- Competitively Priced
- Easily Operate
- Intelligence DCH iKey
- Single or Dual Speed

Typical applications:

- Overhead Cranes
- Chain Hoist
- Mobile Hydraulic
- Grinder / Shredders
- Winches
- Conveyor Systems
- Hook loaders
- Concrete mixers
- Tow trucks
- Other similar applications



Model	Push button Configuration
H21	4 SIMPLE SPEED BUTTON ,Toggle function options
H22	4 DOUBLE SPEED BUTTON ,Toggle or a/b/a+b functions options
H31	8 SIMPLE SPEED BUTTON ,Toggle function options
H32	8 DOUBLE SPEED BUTTON ,Toggle or a/b/a+b functions options
H41	10 SIMPLE SPEED BUTTON ,Toggle function options
H42	10 DOUBLE SPEED BUTTON ,Toggle or a/b/a+b functions options
H51	12 SIMPLE SPEED BUTTON ,Toggle function options
H52	12 DOUBLE SPEED BUTTON ,Toggle or a/b/a+b functions options
H52B	12 DOUBLE SPEED BUTTON ,Toggle or a/b/a+b functions options, Equipped with rechargeable lithium batteries

Transmitter-Handheld H Series

Technical specifications:

Dimensions	120*60*35mm(4 buttons) 180*60*35mm(8 buttons) 210*60*35mm(10 buttons) 240*60*35mm (12buttons)	Power supply	2 pieces AA battery Or lithium-ion rechargeable batteries
Weight	250-380g	Buttons life	More than 5 million times
Current consumption	operating on average 3.75ma	Approximately operating range	100m(328ft)
		Temperature range	-25°C~+70°C (-13F to +158F)
Continue working time	400h or 50days	Humidity range	0-97% maximum non-condensing
		Center frequency range	433-434mhz
Start	press start button for 2s	Response time	Less than 100ms
		Safety	Active and passive Stop function,Parity & Checksum
Antenna	internal	Button text	options of arrow,English text, symbol or customized
Emergency stop	Conforms to EN13849-1 standard	Power (RF Output)	10mW(e.r.p)
Enclosure material	PA66+30%GF with rubber cover	Baud rate	19200Kbps
Protection degree	IP65(Enclosure type 4)		



Transmitter-Handheld EH Series

Standard Features:

- Lightweight & Sturdy
- Competitively Priced
- Easily Operate
- Intelligence DCH iKey
- Big Size LED Display
- Customized to Application



Typical applications:

- Crawler Crane
- Grinder
- AGV
- Sanitation Vehicle
- Fire Truck
- Construction Vehicle
- Train Locomotive
- Drilling Machinery
- Mining Equipment
- Other Equipment

Model	Push button Configuration
DCH-EH00	Total 20 DO options
DCH-EH01	Total 20 DO and 1 AO options(potentiometer)
DCH-EH02	Total 20 DO and 2 AO options(potentiometer)
DCH-EH03	Total 20 DO and 3 AO options(potentiometer)
DCH-EH04	Total 20 DO and 4 AO options(potentiometer)

Transmitter-Handheld EH Series



Technical specifications:

Dimensions	200mm × 80mm × 40mm	Baud rate	9600Kbps/19200kbps
Weight	500g-800g (Depends on configuration of buttons, switches or joysticks)	Control options	up to 20 digital outputs (buttons, toggle switches, rotary switches, etc.) + up to 2 analog outputs (potentiometer)
Antenna	internal	Colour TFT screen	optional 2.4-inch 1024*600 pixels LED screen, be used to feedback battery power / signal strength and equipment operation status, such as speed, pressure, temperature, speed, oil temperature, etc
Start mode	press the start button or customized according to customer needs	Power supply	8.4vdc 1000mah rechargeable Li-iron battery internal
Emergency stop	Mushroom, complying with EN13849-1 standard	Operating time	10 hours after fully charged
Enclosure material	PA66+30%GF	Battery charging time	3-4 hours
Protection degree	IP65(Enclosure type 4)	LED indicator	operation indication / fault status battery power status
Temperature range	-25°C~+70°C (-13F to +158F)	Apo (automatic shutdown)	standard 30 minutes (adjustable)
Approximately operating range	100m(328ft)	Safety	Active and passive Stop function, Parity & Checksum
Humidity range	0 - 97% maximum non-condensing	Response time	less than 100ms
Center frequency range	433-434mhz	Power (RF Output)	10mW(e.r.p), higher power available subject to country legislation

Transmitter-Shoulder Belt DCH-EA Series

Standard Features:

- Lightweight & Sturdy
- Competitively Priced
- Easily Operate
- Intelligence DCH iKey
- Compact&Robust
- Customized to Application

Typical applications:

- Industrial Cranes
- Truck Mounted Crane
- Aerial Work Platforms
- Crawler Cranes
- Tunneling Machinery
- Construction Machinery
- Tower Crane
- Mobile AGV
- Concrete Pump Truck
- Crawler Crane
- Excavator
- Drilling Machinery
- Agricultural Machinery
- Robot



Transmitter-Shoulder Belt DCH-EA Series

Technical specifications:

Dimensions	250mm*100mm*150mm	Baud rate	9600kbps or 19200kbps
Weight	1200g-1800g (Depends on configuration of buttons, switches or joysticks)	Control options	up to 32 digital outputs (buttons, toggle switches, rotary switches, etc.) + up to 8 analog outputs (dual axis joysticks (4 max.), single axis lever joystick (max.8) or potentiometer(max.8)
Antenna	internal or external	Response time	less than 100ms
Start mode	press the start button or customized according to customer needs	Power supply	8.4vdc 2500mah rechargeable Li-iron battery internal
Emergency stop	Mushroom, complying with EN13849-1 standard	Operating time	24 hours after fully charged
Enclosure material	PA66+30%GF	Battery charging time	3-4 hours
Protection degree	IP65(Enclosure type 4)	Accessories	neck belt+customer logo option+custom housing colour optional
Temperature range	-25°C~+70°C (-13F to +158F)	Apo (automatic shutdown)	standard 30 minutes (adjustable)
Approximately operating range	100m(328ft)	LED indicator	operation indication / fault status battery power status
Humidity range	0 - 97% maximum non-condensing	Safety	Active and passive Stop function, Parity & Checksum
Center frequency range	433-434mhz	Power (RF Output)	10mW(e.r.p),higher power available subject to country legislation



DCH-EA SERIES PRODUCT FUNCTION CONFIGURATION:

Model	Function Configuration
DCH-EA00	Total 32 D0 options
DCH-EA01	Total 32 D0 and 1 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EA02	Total 32 D0 and 2 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EA03	Total 32 D0 and 2 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EA04	Total 32 D0 and 4 A0 options(level joystick, cross joystick or potentiometer, etc.)

Transmitter-Shoulder Belt DCH-EB Series

Standard Features:

- Lightweight & Sturdy
- Competitively Priced
- Easily Operate
- Intelligence DCH iKey
- Compact&Robust
- Customized to Application

3.5 inch
display option



Typical applications:

- Industrial Cranes
- Truck Mounted Crane
- Crawler Cranes
- Tunneling Machinery
- Construction Machinery
- Tower Crane
- Mobile AGV
- Concrete Pump Truck
- Crawler Crane
- Excavator
- Drilling Machinery
- Agricultural Machinery
- Robot



Transmitter-Shoulder Belt DCH-EB Series

Technical specifications:

Dimensions	280mm*160mm*160mm	Baud rate	9600kpbs or 19200kpbs
Weight	1500g-2500g (Depends on configuration of buttons, switches or joysticks)	Control options	up to 48 digital outputs (buttons, toggle switches, rotary switches, etc.) + up to 8 analog outputs (dual axis joysticks (4 Max.); single axis lever joystick (max.8) or potentiometer(max.8)
Antenna	internal or external	Response time	less than 100ms
Start mode	press the start button or customized according to customer needs	Power supply	8.4vdc 2500mah rechargeable Li-iron battery
Emergency stop	Mushroom, complying with EN13849-1 standard	Operating time	24 hours after fully charged
Enclosure material	PA66+30%GF	Battery charging time	3-4 hours
Protection degree	IP65(Enclosure type 4)	Accessories	neck belt+customer logo option+custom housing colour optional
Temperature range	-25°C~+70°C (-13F to +158F)	Apo (automatic shutdown)	standard 30 minutes (adjustable)
Approximately operating range	100m(328ft)	LED indicator	operation indication / fault status battery power status
Humidity range	0 - 97% maximum non-condensing	Safety	Active and passive Stop function, Parity & Checksum
Center frequency range	433-434mhz	Colour TFT screen	optional 3.5-inch or 4.3-inch 1024*600 pixels LED screen, be used to feedback battery power / signal strength and equipment operation status, such as speed, pressure, temperature, speed, oil temperature, etc
Power (RF Output)	10mW(e.r.p), higher power available subject to country legislation		



DCH-EB SERIES PRODUCT FUNCTION CONFIGURATION:

Model	Function Configuration
DCH-EB00	Total 48 D0 options
DCH-EB02	Total 48 D0 and 2 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EB04	Total 48 D0 and 4 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EB06	Total 48 D0 and 6 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EB08	Total 48 D0 and 8 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EBD02	Total 48 D0 and 2 A0 options+3.5 INCH DISPLAY
DCH-EBD04	Total 48 D0 and 4 A0 options+3.5 INCH DISPLAY
DCH-EBD06	Total 48 D0 and 6 A0 options+3.5 INCH DISPLAY
DCH-EBD08	Total 48 D0 and 8 A0 options+3.5 INCH DISPLAY

Transmitter-Shoulder Belt DCH-EC Series

Standard Features:

- Lightweight & Sturdy
- Competitively Priced
- Easily Operate
- Intelligence DCH iKey
- Compact&Robust
- Customized to Application

4.3 inch
display option



Typical applications:

- Industrial Cranes
- Truck Mounted Crane
- Crawler Cranes
- Tunneling Machinery
- Construction Machinery
- Tower Crane
- Mobile AGV
- Concrete Pump Truck
- Crawler Crane
- Excavator
- Drilling Machinery
- Agricultural Machinery
- Robot



Transmitter-Shoulder Belt DCH-EC Series

Technical specifications:

Dimensions	350mm*190mm*160mm	Baud rate	9600kpbs or 19200kpbs
Weight	1800g-3500g(Depends on configuration of buttons, switches or joysticks)	Control options	up to 72 digital outputs (buttons, toggle switches, rotary switches, etc.) + up to 8 analog outputs (dual axis joysticks (4 Max.); single axis lever joystick (max.8) or potentiometer(max.8)
Antenna	internal or external	Response time	less than 100ms
Start mode	press the start button or customize according to customer needs	Power supply	8.4vdc 3500mah rechargeable Li-iron battery
Emergency stop	Mushroom, complying with EN13849-1 standard	Operating time	24 hours after fully charged
Enclosure material	PA66+30%GF	Battery charging time	3-4 hours
Protection degree	IP65(Enclosure type 4)	Accessories	neck belt+customer logo option+custom housing colour optional
Temperature range	-25°C~+70°C (-13F to +158F)	Apo (automatic shutdown)	standard 30 minutes (adjustable)
Approximately operating range	100m(328ft)	LED indicator	operation indication / fault status battery power status
Humidity range	0 - 97% maximum non-condensing	Safety	Active and passive Stop function, Parity & Checksum
Center frequency range	433-434mhz	Colour TFT screen	optional 4.3-inch or 5-inch 1024*600 pixels LED screen,be used to feedback battery power / signal strength and equipment operation status, such as speed, pressure, temperature, speed, oil temperature, etc
Power (RF Output)	10mW(e.r.p), higher power available subject to country legislation		



DCH-EC SERIES PRODUCT FUNCTION CONFIGURATION:

Model	Function Configuration
DCH-EC00	Total 72 D0 options
DCH-EC02	Total 72 D0 and 2 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EC04	Total 72 D0 and 4 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EC06	Total 72 D0 and 6 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-EC08	Total 72 D0 and 8 A0 options(level joystick, cross joystick or potentiometer, etc.)
DCH-ECD02	Total 72 D0 and 2 A0 options+4.3 INCH DISPLAY
DCH-ECD04	Total 72 D0 and 4 A0 options+4.3 INCH DISPLAY
DCH-ECD06	Total 72 D0 and 6 A0 options+4.3 INCH DISPLAY
DCH-ECD08	Total 72 D0 and 8 A0 options+4.3 INCH DISPLAY

Transmitter-Shoulder Belt V48 Series

Technical specifications:

Dimensions	260mm × 160mm × 100mm	Battery charging time	3-4hours
Weight	3000g-3800g	Digital camera monitoring system	720p high-definition image acquisition, advanced point-to-point encryption protocol wireless transmission, built-in XR independent private transmission protocol, safe and reliable, 5dB high gain antenna, ultra-high stability. 2.4G wireless transmission, advanced point-to-point transmission, long transmission distance, strong anti-interference ability,
Antenna	internal or external		
Start mode	press the start button		
Emergency stop	Mushroom, complying with en13849-1		
Enclosure material	PA66+30%GF		
Protection degree	IP65	Power supply	8.4vdc 3500mah rechargeable Li-iron battery
Temperature range	-25°C~+70°C (-13F to +158F)	Transmission distance	200m+
Approximately operating range	100m(328ft)	Safety	Active and passive Stop function, Parity & Checksum
Center frequency range	433-434mhz	Response time	less than 100ms
Colour TFT screen	optional 2.8-inch,3.5-inch or 7-inch 1024*600 pixels LED screen	LED indicator	operation indication / fault status battery power status
Power (RF Output)	10mW(e.r.p)	Image millisecond delay Excellent overall performance, clear image quality and good color restoration Up to four (4) cameras can be hooked up	
Baud rate	9600Kbps/19200KbP		
Operating time	24hours after fully charged		



Typical applications:

Industrial Cranes, Truck Mounted Crane, Tunneling Machinery, Construction Machinery, Tower Crane, Mobile AGV, Concrete Pump Truck, Crawler Crane, Excavator, Drilling Machinery, Firefighting Machinery, Robot.

Function Configuration:

TYPE	FUNCTION
DCH-V4802	Total 48 DO and 2 AO options(level joystick, cross joystick or potentiometer, etc.)
DCH-V4804	Total 48 DO and 4 AO options(level joystick, cross joystick or potentiometer, etc.)
DCH-V4806	Total 48 DO and 6 AO options(level joystick, cross joystick or potentiometer, etc.)
DCH-V4808	Total 48 DO and 8 AO options(level joystick, cross joystick or potentiometer, etc.)

Receiver-Relay R Series

Technical specifications:

Relay capacity	10A / 250VAC or 4A/24VDC	Output options	connector, cable optional
Temperature range	-25°C~+70°C (-13F to +158F)	Antenna	3 meter cable antenna with TNC
Humidity range	0-97% maximum non-condensing	Safety	Active and passive Stop function, Parity & Checksum
Center frequency range	433-434mhz	Response time	less than 100ms
Rubber vibration	4 shock pads	Antenna	external (standard 3m TNC antenna)
Relay life	5 million times of HF&TE relays	Housing material / protection grade	PA6+30%GF / IP65 30%GF or ABS/IP65
LED indicator	operation status indication / RF signal	Power supply	30-420vac; 9-36VDC

DCH-R15 (15 relay outputs)

Size	250*140*70mm
Weight	1200g
Working relay	15 relay outputs are available (including 2 emergency stop relays)



DCH-R20 (20 relay outputs)

Size	265*215*75mm
Weight	1200g
Working relay	20 relay outputs are available (including 2 emergency stop relays)

DCH-R40 (40 relay outputs)

Size	295*215*90mm
Weight	1800g
Working relay	40 relayoutputs available+ 2 emergency stop relays

DCH-R30 (30 relay outputs)

Size	265*215*75mm
Weight	1500g
Working relay	30 relay outputs are available (including 2 emergency stop relays)

DCH-R50 (50 relay outputs)

Size	295*215*90mm
Weight	2000g
Working relay	50 relayoutputs available+ 2 emergency stop relays

Receiver-Field BUS B Series



DCH-BM(Modbus RTU 485):

Size	140 × 80 × 65mm
Weight	200g (excluding antenna and cable)
Antenna	external (standard 3M TNC antenna)
Housing material / protection grade	PA66+30%GF / IP65 or ABS/IP65

DCH-BC(CAN2.0BUS):

Size	140 × 80 × 65mm
Weight	200g (excluding antenna and cable)
Antenna	external (standard 3M TNC antenna)
Housing material / protection grade	PA66+30%GF / IP65 or ABS/IP65
Temperature range	-25°C~+70°C (-13F to +158F)
Humidity range	0-97% maximum non-condensing
Center frequency range	433-434mhz
Rubber vibration	4 shock pads

Temperature range	-25°C~+70°C (-13F to +158F)
Humidity range	0-97% maximum non-condensing
Center frequency range	433-434mhz
Rubber vibration	4 shock pads
Protocol output	Modbus RTU 485
Standard emergency stop	bus emergency stop signal output + physical emergency stop output
LED indicator	operation status indication / RF signal indication / power supply indication
Output options	connector, cable optional
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac

CAN bus communication protocol	can2.0a standard bus ,CAN2.0B extended bus and SAE J1939
Standard emergency stop	bus emergency stop signal output + physical emergency stop output
LED indicator	operation status indication / RF signal indication / power supply indication
Output options	connector, cable optional
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac

Receiver-Field BUS B Series



DCH-BO(CANOPEN BUS):

Size	230*160*90mm
Weight	1000-1200g (depending on the accessories, this is the approximate weight)
Antenna	external (standard 3M TNC antenna)
Housing material / protection grade	PA66+30%GF / IP65 or ABS/IP65
Temperature range	-25°C~+70°C (-13F to +158F)
Humidity range	0-97% maximum non-condensing

Center frequency range	433-434mhz
Rubber vibration	4 shock pads
Output protocol	CANopen bus protocol
Standard emergency stop	bus emergency stop signal output + physical emergency stop output
LED indicator	operation status indication / RF signal indication / power supply indication
Output options	connector, cable optional
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac
Support	CANopen CiA DS301 V4.02 / CANopen CiA DS303 V1.0 / 4*TxPDO and 4*RxPDO
Baud rate	10kbps, 20kbps,50kbps,125kbps, 250kbps,500kbps,800kbps

DCH-BP(PROFIBUS-DP BUS):

Size	230*160*90mm
Weight	1000-1200g (depending on the accessories, this is the approximate weight)
Antenna	external (standard 3M TNC antenna)
Housing material / protection grade	PA66+30%GF / IP65 or ABS/IP65
Temperature range	-25°C~+70°C (-13F to +158F)
Humidity range	0-97% maximum non-condensing
Center frequency range	433-434mhz
Rubber vibration	4 shock pads

Output protocol	PROFIBUS DP bus
Standard emergency stop	bus emergency stop signal output + physical emergency stop output
LED indicator	operation status indication / RF signal indication / power supply indication
Output options	9 pin connector
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac

Receiver-Field BUS B Series



DCH-BD(DeviceNet Bus)

Size	230*160*90mm
Weight	1000-1200g (depending on the accessories, this is the approximate weight)
Antenna	external (standard 3M TNC antenna)
Housing material / protection grade	PA66+30%GF / IP65 or ABS/IP65

Temperature range	-25°C~+70°C (-13F to +158F)
Humidity range	0-97% maximum non-condensing
Center frequency range	433-434mhz
Rubber vibration	4 shock pads
Output protocol	DeviceNet Bus Protocol
Standard emergency stop	bus emergency stop signal output + physical emergency stop output
LED indicator	operation status indication / RF signal indication / power supply indication
Output	RJ-45
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac

DCH-BN(PROFINET bus)

Size	230*160*90mm
Weight	1000-1200g (depending on the accessories, this is the approximate weight)
Antenna	external (standard 3M TNC antenna)
Housing material / protection grade	PA66+30%GF / IP65 or ABS/IP65
Temperature range	-25°C~+70°C (-13F to +158F)
Humidity range	0-97% maximum non-condensing
Center frequency range	433-434mhz
Rubber vibration	4 shock pads

Output protocol	PROFINET bus
Standard emergency stop	bus emergency stop signal output + physical emergency stop output
LED indicator	operation status indication / RF signal indication / power supply indication
Output	RJ-45
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac

Receiver-P Series

Typical Applications:

- Construction Equipment
- Concrete Pumps
- Truck mounted crane
- Elevated Work Platforms
- Hydraulic equipment
- Other applications

Standard Features:

- Fully programmable via H-Link
- Built-in Quick Disconnect Connector
- Quick Set Programming of proportional outputs via buttons on receiver
- Half and Full Duplex feedback
- Multiple input and output configurations available
- Easily setting on climbing time



Technical specifications:

Size	230*160*90mm(P14);Size: 265*215*75mm(P28)
Weight	1200-1800g (depending on the accessories, this is the approximate weight)
Antenna	external (standard 3m TNC external antenna)
Housing material	PA66+30%GF or ABS/IP65
Protection grade	IP65
Temperature range	-25℃~+70℃ (-13F to +158F)
Humidity range	0-97% maximum non-condensing
Center frequency range	433-434mhz
Baud Rate	9600kbps/19200kbps
Rubber vibration	4 shock pads
Output	P14: up to 8 PWM outputs (or AO outputs) + 14 DO + 2 emergency stop relay outputs P28: up to 8 PWM outputs (or AO outputs) + 28 DO + 2 emergency stop relay outputs PWM duty cycle adjustment: adjust the output current by receiver top housing switch and indicator light on the panel, which is convenient and reliable
LED indicator	operation status indication / RF signal indication / power supply indication
Output options	connector, cable optional
Safety	Active and passive Stop function, Parity & Checksum
Response time	less than 100ms
Adaptable transmitter	all series shoulder belt transmitters
Power supply options	9-36vdc or 30-420vac;
PWM max current	2000ma
Adjust range	0-100% Proportional output
AO output options	0-5v;0-10v;0-20v;4-20ma
Danfoss PVG valve control	25%-50%-75% Proportional output

Industrial Cranes/Material Handling Solution

DCH remote controllers are designed to meet challenging usage conditions in many cranes. When customer requires wireless requirements, simple or complex multi-function, fast response time, accuracy and ready operational capability, DCH always has better solution. With rich cranes experience and applications, we are working closely with global crane manufacturers.

Cranes typical applications:

- Overhead cranes
- Jib cranes
- Hoists
- Winches
- Conveyor belts
- AGV
- Stacker



Construction Machinery Solution

Most of construction machinery have remote control nowadays, especially in dangerous conditions. DCH is producing remote control for a wide range of machines in the fields of construction. Our radio remote transmitter-receiver systems can control and operate virtually every type of construction equipment. With our rich application experience, our customized remote control systems provide the safety, rugged reliability and productivity for all construction workers.

Construction machinery typical applications:

- Aerial work platforms
- Concrete pumps
- Tower cranes
- Loader cranes
- Rock crushers
- Excavators
- Scissors lifts
- Tampers & compactors
- Tunnel machinery
- Pipeline
- Drilling machines



Coal&Mining Tunnel Machinery Solution



DCH remote control presents a number of advantages in the demanding and dangerous environment of the coal, mining tunnel industry. Whether it's S, M, D or V series system, DCH has the ideal radio remote control solution for mining and tunneling applications. Our engineers understand the potential hazards and issues when using radio remote controls below ground with dust, high vibration, temperature fluctuations and noise conditions.

Construction machinery typical applications:

- Continuous miners
- Strip miners
- Drills
- Shuttles
- Shotcrete machines
- Lifts
- Scalars
- Raiseboring machines



Municipal&Fire Fighting Vehicles Solution

DCH remote controllers are used in many municipal vehicles&fire fighting vehicles. The transmitters and receivers are perfectly designed by our expert engineers to meet your specific requirements for operational safety and performance in municipal&fire fighting vehicles. DCH has integrated thousands of radio remote control systems in a wide range of municipal&fire fighting vehicle applications around the world.



Municipal&Fire fighting vehicles typical applications:

- Fire fighting vehicles
- Fire fighting vehicles robots
- Non-destructive excavation vehicles
- Sewage absorption vehicles
- Environmental sanitation vehicles
- Municipal maintenance vehicles
- Demolition robots
- Garbage transfer vehicles



Port and Marine Machinery Solution



DCH is providing the ideal radio remote control for practically port and marine application. Our solutions are being used to operate a wide range of port and marine machinery on board ships. Applying DCH remote control can improve efficiencies on port and marine applications. These include deck cranes, container AGV, boat & ship-building hoists, provision cranes, mobile boat haulers, port cranes, hydraulic ship cranes, ladders, container lifters and oil drilling platform.

Port and marine machinery typical applications:

- Deck cranes
- Container AGV
- Boat & ship-building hoists
- Provision cranes
- Mobile boat haulers
- Port cranes
- Hydraulic ship cranes
- Ladders
- Container lifters
- Oil drilling platform



Industrial Automation Solution

DCH customized solutions for industrial automation on AGV robot, forklift, conveyor belt, modular vehicle, shuttle board, hydraulic replica, tow vehicles, trailers, automatic warehouses, tracked vehicles and forklifts, which can easily be installed. We understand your business and will provide the ideal radio remote controls for your application in our A, C and S transmitters.

Industrial automation typical applications:

- AGV robot
- Forklift
- Conveyor belt
- Modular vehicle
- Shuttle board
- Hydraulic replica



Agriculture&Forestry Machinery Solution

DCH radio remote control solutions provide the latest in user interface technology for improved efficiency and long-term reliability in agriculture&forestry applications. DCH transmitters also provide agriculture equipment operators with the ability to move freely at a safe distance up to 300m from the equipment in operation.



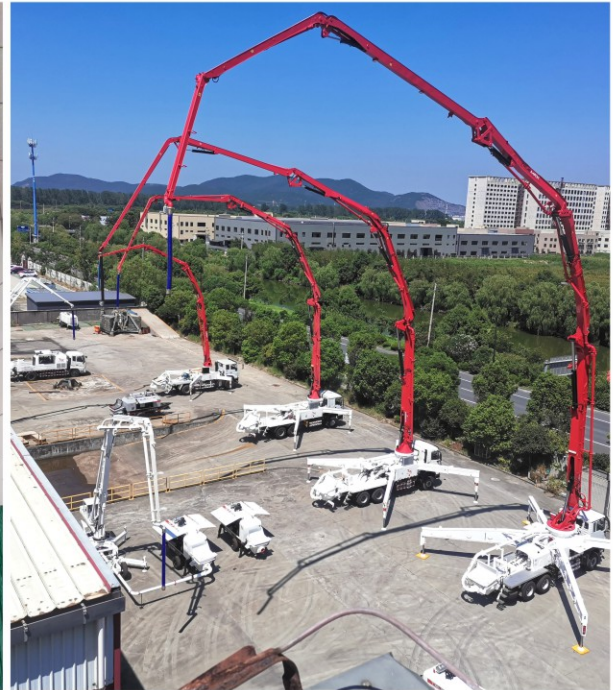
Agriculture& forestry machinery typical applications:

- Forestry winches
- Bush cutters
- Loader cranes
- Chippers
- Awn mower
- Seeder
- Micro tiller
- Tractor
- Picker
- Rotary tiller
- Tree digger
- Wood chopper



Hydraulic Machinery Solution

DCH remote controllers are used in many hydraulic machinery. We always offer solutions for proportional PWM and Danfoss PVG valve control. We understand your business and will provide the ideal radio remote controls for your application with our S&M series transmitters.



Hydraulic machinery typical applications:

- Mobile cranes
- Concrete pump truck
- Truck mounted crane
- Aerial work vehicle
- Drilling rig
- Other Hydraulic machinery



Spare Parts

Rechargeable Li-iron battery

Model: BA270277 2500mah
BA270278 3500mah
Capacity: 2500mah and 3500mah
Charge times: 500
Voltage: 8.4vdc



Charger:DCH-BA-01

Input voltage:220vac
Charge current: 1A



Charger:DCH-BA-02

Input voltage:24vdc
Charge current: 1A



Transmitter Antenna

Frequency:433mhz-434mhz
dBi: 5



Receiver Antenna

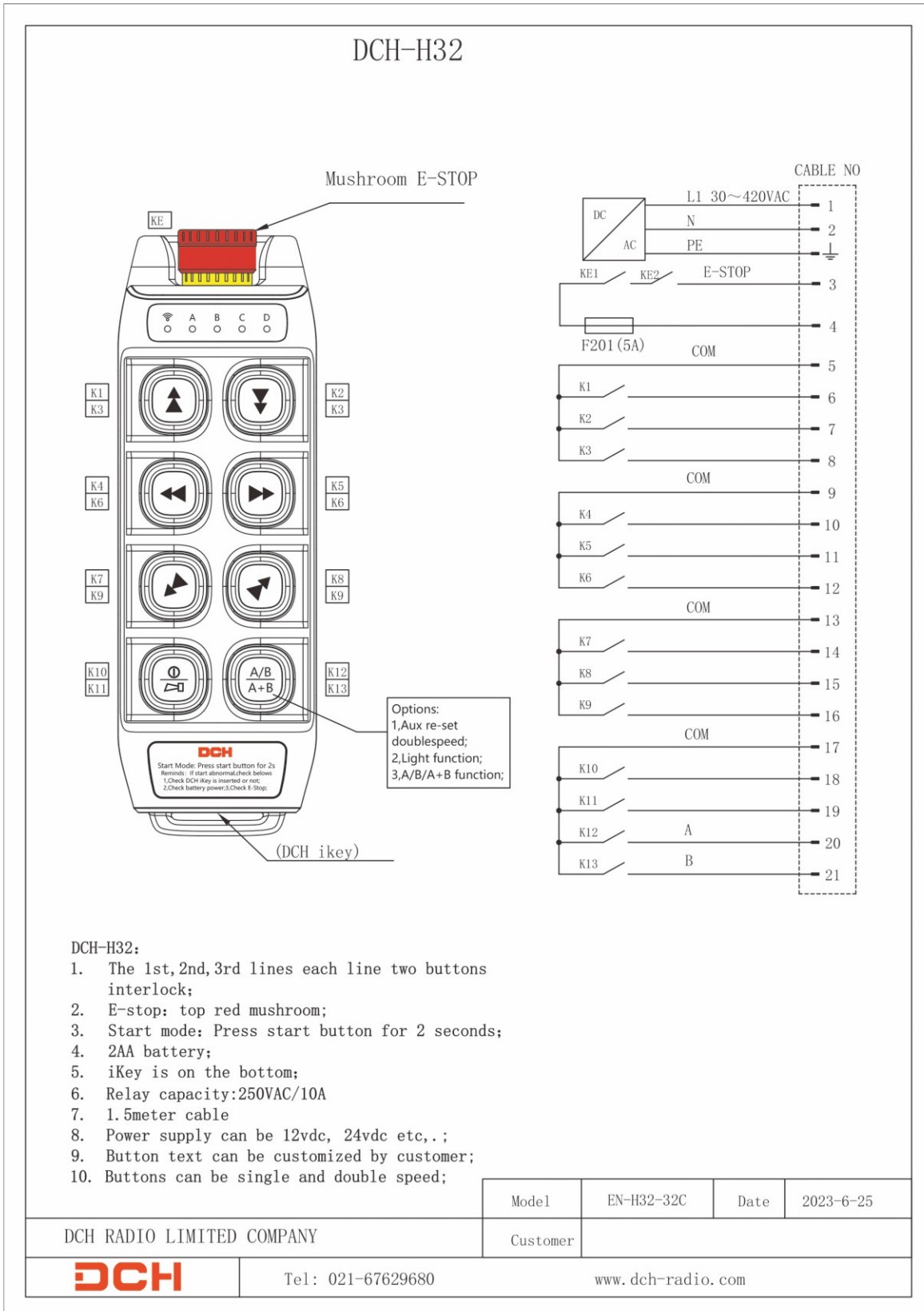
Frequency:433mhz-434mhz
dBi: 5



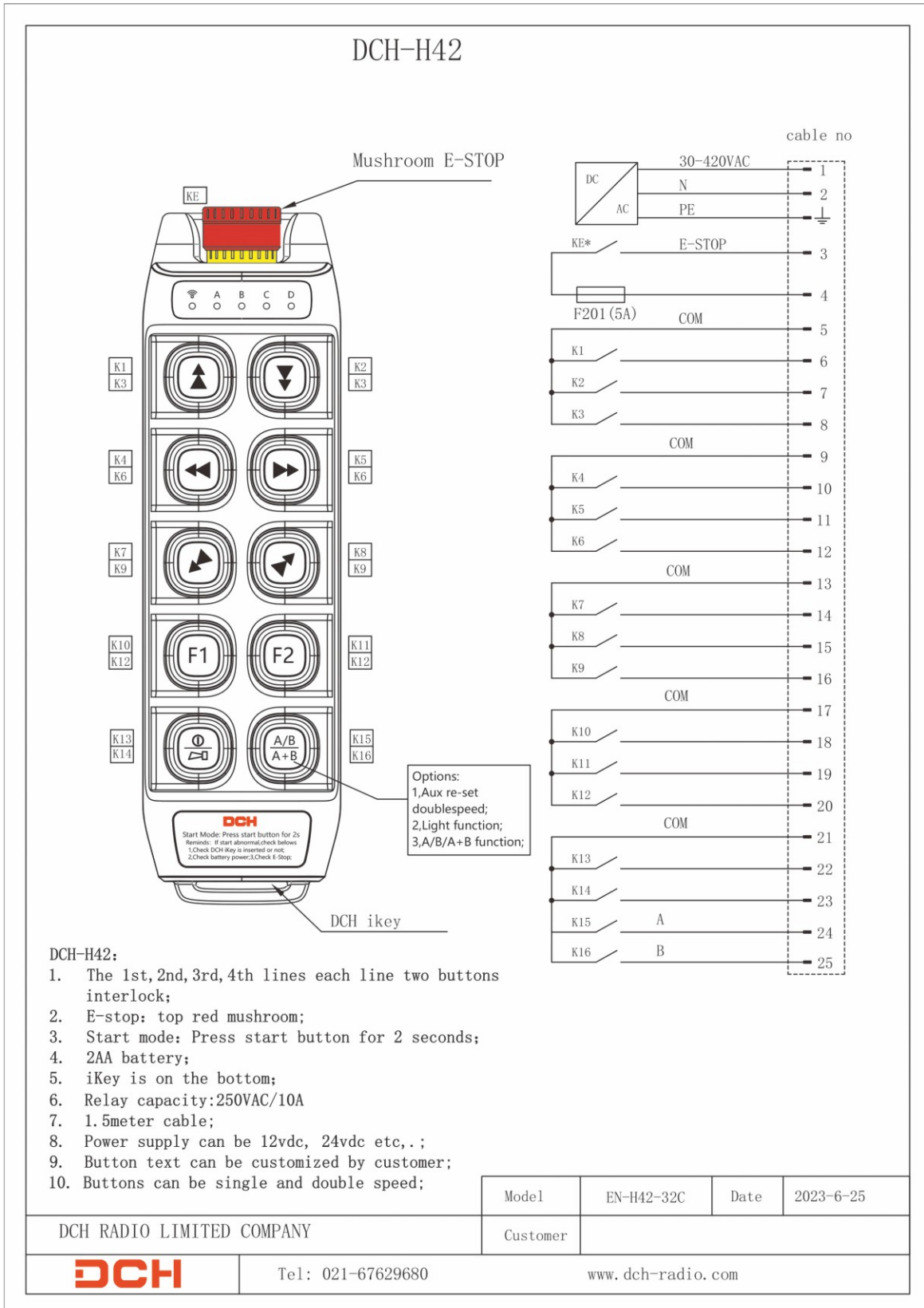
Belt



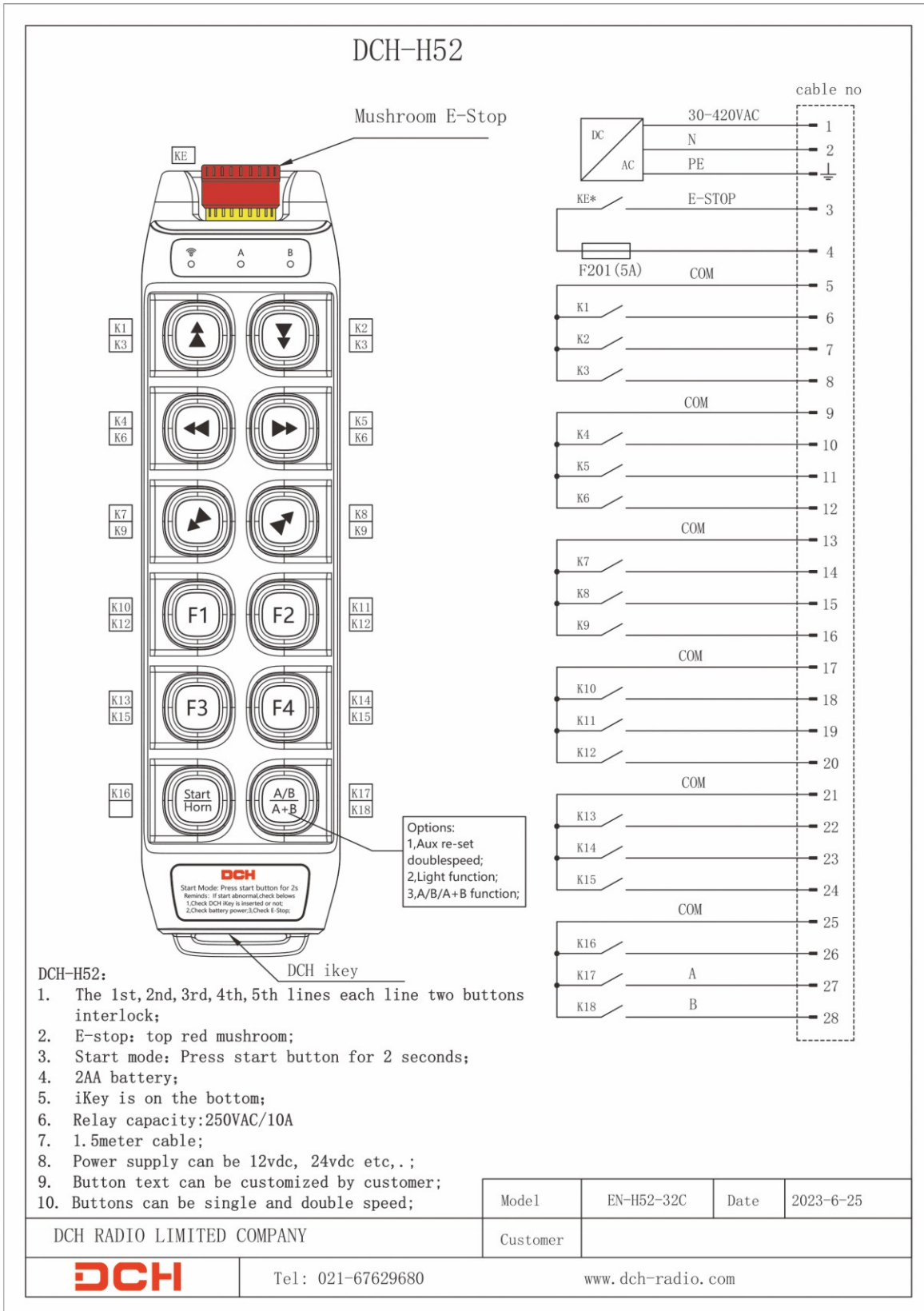
Typical Drawing For H32(8 Double Speed Buttons)



Typical Drawing For H42(10 Double Speed Buttons)

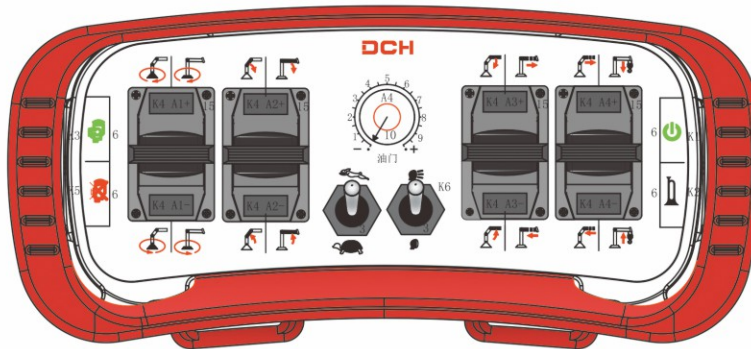


Typical Drawing For H52(12 Double Speed Buttons)

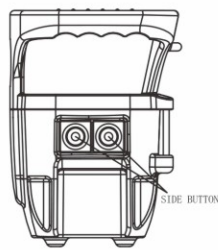


Transmitter- Shoulder Belt Typical Model DCH-EA04-L

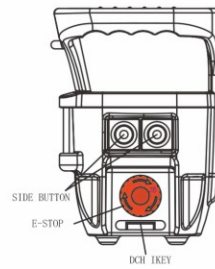
Transmitter: DCH-EA04-L
(4 lever joysticks, 1 potentiometer and switches)



LEFT SIDE BUTTON



RIGHT SIDE BUTTON



启动方式	拨起急停然后按开机	
尺寸	长	250mm
	宽	100mm
	高	150mm
自动关机	<input checked="" type="checkbox"/> 30分钟	<input type="checkbox"/> 无
关机方式	<input checked="" type="checkbox"/> 按急停	<input type="checkbox"/> 断电源
控制距离	100米	
电量	<input checked="" type="checkbox"/> 0%以上 <input type="checkbox"/> 0%以下	
信号	<input checked="" type="checkbox"/> 红	<input type="checkbox"/> 无连接
	<input type="checkbox"/> 绿	<input checked="" type="checkbox"/> 连接中
显示屏		
开关名称		

physical image



Receiver- Shoulder Belt Typical Model

Receiver option 1: DCH-P14(4 PWM+1 potentiometer +14 relays output)

DC
DC

PWM and relays output

9-36VDC
GND
PE

cable no

1
2
3
4
5
6
7
8
9
10
11
12
13
14
15
16
17
18
19

PWM: (all valves are adjustable)
(max current supports to 2000ma)
Fast: 250-750ms
Slow: 250-600ms
also support damfoss valve(25%-50%-75%)

Remark:
1. Relay capacity: 250VAC/5A;
2. E-STOP relays
KJ1, KJ2 (250VAC/10A);
5. cable with receiver:

Receiver option 2: DCH-BM(MODBUS RTU 485)
default baud rate:19200, slave ID: 03, Function code:04
standard protocol is as below,for more details, please contact us freely.

Receiver to machinery controlled

Slave ID:0X03	default baud rate: 19200 8 N 1
Function Code:04	Description H SByte(8 Bits) Description L SByte(8 Bits)
Address	Bit7 Bit6 Bit5 Bit4 Bit3 Bit2 Bit1 Bit0
Word30001	A1+ A1- (255-0-255) Direction is set by switch I0
Word2	A2+ A2- (255-0-255) Direction is set by switch I0
Word3	A3+ A3- (255-0-255) Direction is set by switch I0
Word4	A4+ A4- (255-0-255) Direction is set by switch I0
Word5	A5 (0-255)
Word6	K6 K5 K4 K3 K2 K1 A4+ A4- A3+ A3- A2+ A2- A1+ A1- status E-stop
Word7	K14 K13 K12 K11 K10 K9 K8 K7
Word8	
Word9	

485 CABLE OUTPUT
3, 4 CABLE IS PHYSICAL E-STOP CABLE

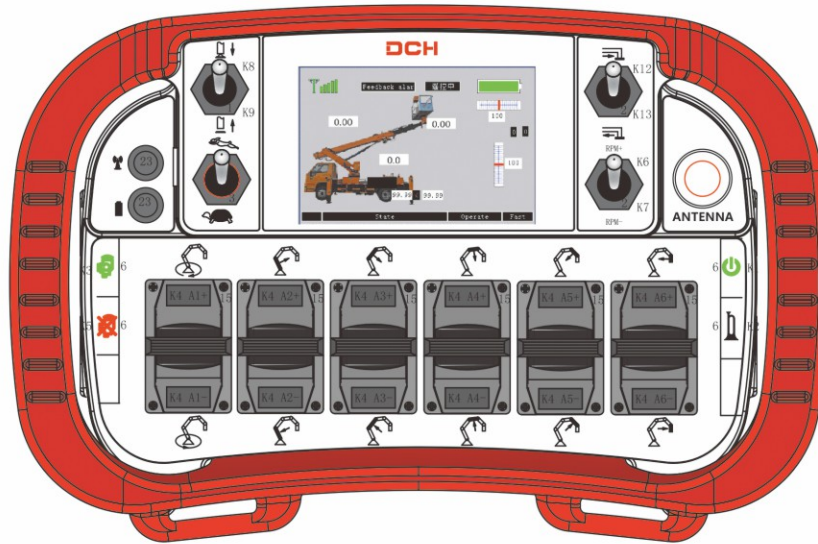
Receiver option 3: DCH-BC(CAN2.0 or CAN2.0B)
default baud rate:250K, slave ID: 0X64,
standard protocol is as below, for more details, please contact us freely.

TXPDO	Byte (0-7)	Bit (0-7)	TX Cmd	TX Cmd
0X180+ Node ID= 0X1E4	0	0	K8	BD SLOT8
		1	K9	BD SLOT9
		2	K10	BD SLOT10
		3	K11	BD SLOT11
		4	K12	BD SLOT12
		5	K13	BD SLOT13
1	1	0	A5	0-255
		1	E-STOP	BD SLOT0
		2	K1	BD SLOT1
		3	K2	BD SLOT2
		4	K3	BD SLOT3
		5	K4	BD SLOT4
		6	K5	BD SLOT5
2	2	6	heart beat (0, 1)	
		7	radio status	

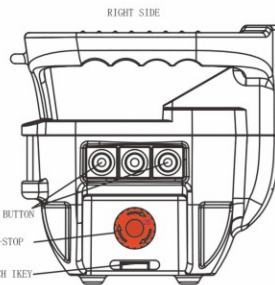
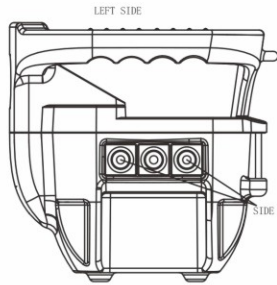
CAN2.0 CABLE OUTPUT
YELLOW, GREEN CABLE IS PHYSICAL E-STOP CABLE

Transmitter- Shoulder Belt Typical Model DCH-EB06-L

Transmitter: DCH-EB06-L
(6 lever joysticks, 1 potentiometer and switches)



启动方式	拨起急停然后按开机
尺寸	长 280mm
	宽 160mm
	高 160mm
自动关机	<input checked="" type="checkbox"/> 30分钟 <input type="checkbox"/> 无
关机方式	<input checked="" type="checkbox"/> 按急停 <input type="checkbox"/> 断电源
控制距离	100米
电量	0%以上 0%以下
信号	红 无连接 绿 连接中
显示屏	可选3.5寸彩色显示屏
开关名称	

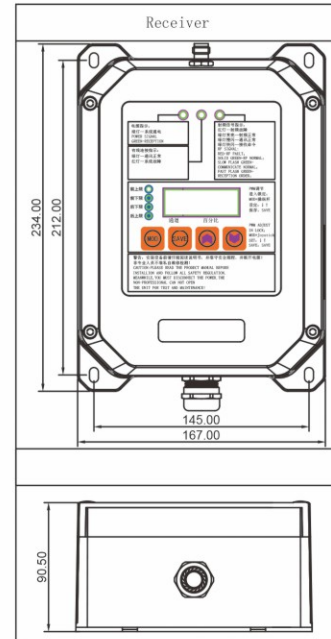
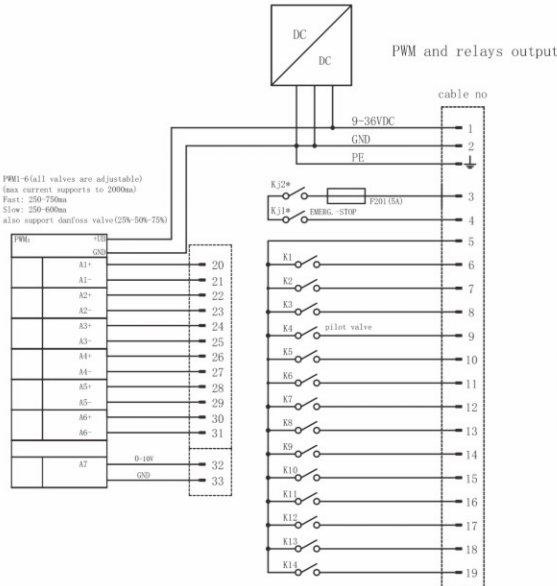


physical image



Receiver- Shoulder Belt Typical Model

Receiver option 1: DCH-P14(6 PWM+1 potentiometer +14 relays output)

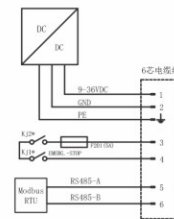


Receiver option 2:DCH-BM(MODBUS RTU 485)
 default baud rate:19200, slave ID: 03, Function code:04
 standard protocol is as below,for more details, please contact us freely.

Receiver to machinery controlled

Slave ID:0X03	default baud rate: 19200 8 N 1															
Function Code:04	Description H SByte(8 Bits)								Description L SByte(8 Bits)							
Address	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0	Bit7	Bit6	Bit5	Bit4	Bit3	Bit2	Bit1	Bit0
Word30001	A1+	Dir	A1-	(255-0-255)	Direction is set by switch I0											
Word2	A2+	Dir	A2-	(255-0-255)	Direction is set by switch I0											
Word3	A3+	Dir	A3-	(255-0-255)	Direction is set by switch I0											
Word4	A4+	Dir	A4-	(255-0-255)	Direction is set by switch I0											
Word5	A5+	Dir	A5-	(255-0-255)	Direction is set by switch I0											
Word6	A6+	Dir	A6-	(255-0-255)	Direction is set by switch I0											
Word7	A7 (0-255)															
Word8	K2	K1	A6-	A6+	A5-	A5+	A4-	A4+	A3-	A3+	A2-	A2+	A1-	A1+	STATUS	E-STOP
Word9					K14	K13	K12	K11	K10	K9	K8	K7	K6	K5	K4	K3

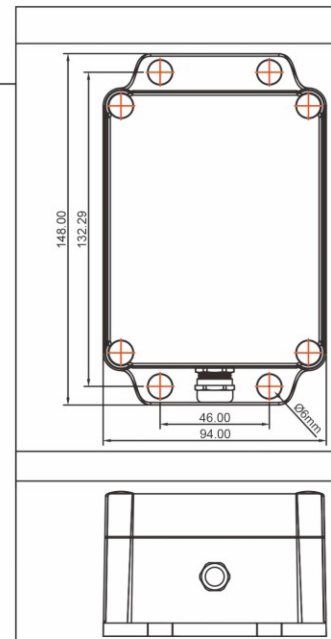
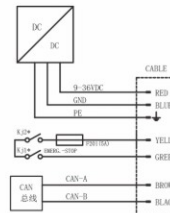
485 CABLE OUTPUT
 3, 4 CABLE IS PHYSICAL E-STOP CABLE



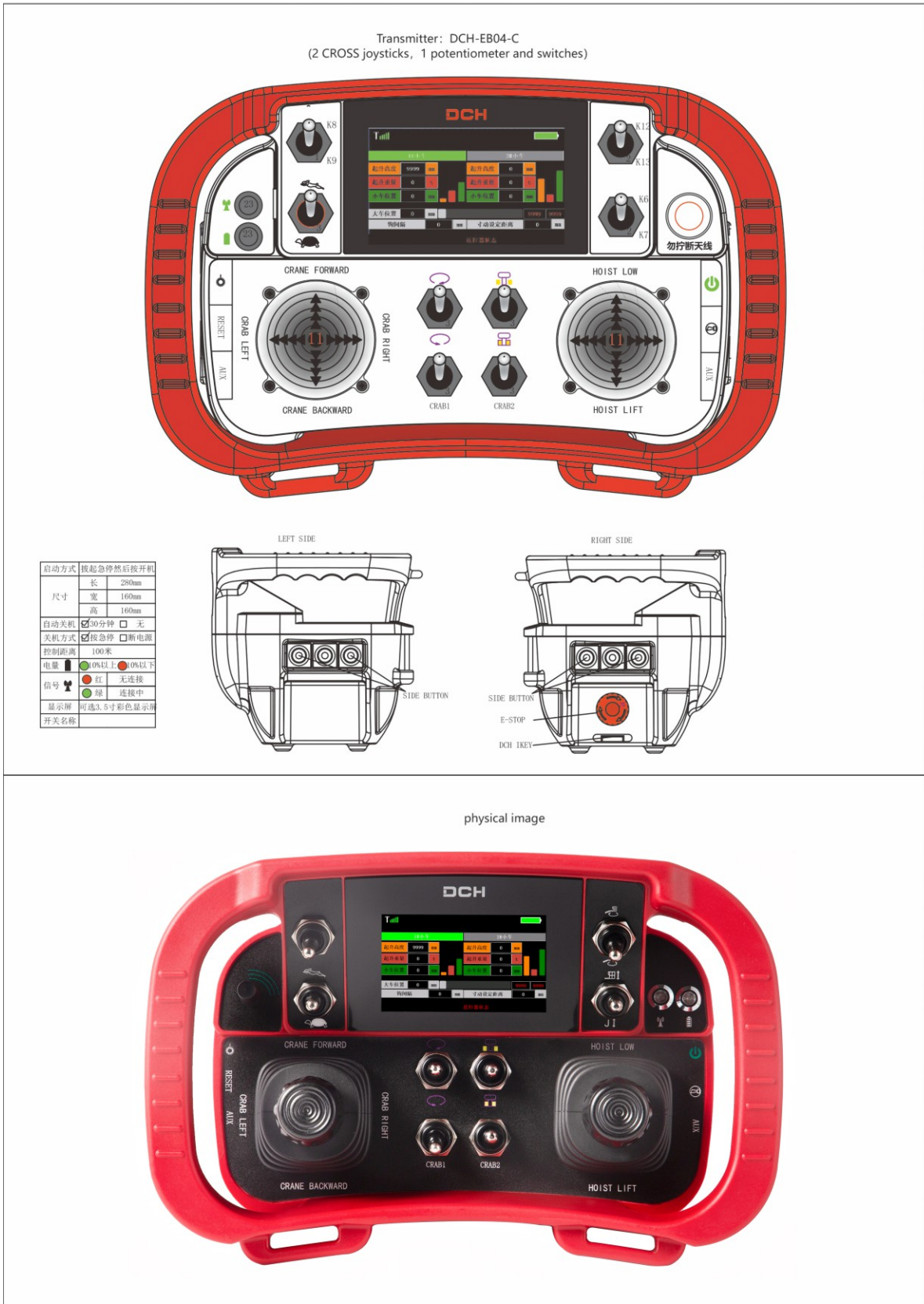
Receiver option 3: DCH-BC(CAN2.0 or CAN2.0B)
 default baud rate:250K, slave ID: 0X64,
 standard protocol is as below,for more details, please contact us freely.

TXPDO	Byte (0-7)	Bit (0-7)	TX Cmd	TX Cmd
0X180+ Node_ID= 0X1E4	0		A1+ Dir A1-	0-7F-FF
	1		A2+ Dir A2-	0-7F-FF
	2		A3+ Dir A3-	0-7F-FF
	3		A4+ Dir A4-	0-7F-FF
	4		A5+ Dir A5-	0-7F-FF
	5		A6+ Dir A6-	0-7F-FF
	6		A7	0-255
0X180+ Node_ID= 0X2E4	0		急停	BD SLOT0
	1		K1	BD SLOT1
	2		K2	BD SLOT2
	3		K3	BD SLOT3
	4		K4	BD SLOT4
	5		K5	BD SLOT5
	6		K6	BD SLOT6
7		K7	BD SLOT7	

CAN2.0 CABLE OUTPUT
 YELLOW, GREEN CABLE IS
 PHYSICAL E-STOP CABLE



Transmitter- Shoulder Belt Typical Model DCH-EB04-C



Receiver- Shoulder Belt Typical Model

Receiver option 1: DCH-P14(4 PWM+1 potentiometer +14 relays output)

PWM and relays output

PWM-4(all valves are adjustable)
max current supports to 2000ma
Fast: 250-750ms
Slow: 250-600ms
also support danfoss valve(250-500-750)

Remarks:
1. Relay capacity: 250VAC/5A;
2. E-STOP relays
K31, K32 (250VAC/10A) ;
5. cable with receiver;

Receiver option 2: DCH-BM(MODBUS RTU 485)
default baud rate:19200, slave ID: 03, Function code:04
standard protocol is as below,for more details, please contact us freely.

Receiver to machinery controlled

Function Code-04	Description H SByte(8 Bits)	Description L SByte(8 Bits)
Address	Bit7 Bit6 Bit5 Bit4 Bit3 Bit2 Bit1 Bit0	Bit7 Bit6 Bit5 Bit4 Bit3 Bit2 Bit1 Bit0
Word30001	A1+ A1- (255-0-255) Direction is set by switch I0	
Word2	A2+ A2- (255-0-255) Direction is set by switch I0	
Word3	A3+ A3- (255-0-255) Direction is set by switch I0	
Word4	A4+ A4- (255-0-255) Direction is set by switch I0	
Word5	A5 (0-255)	
Word6	K6 K5 K4 K3 K2 K1 A4+ A4- A3+ A3- A2+ A2- A1+ A1-	status E stop
Word7	K14 K13 K12 K11 K10 K9 K8 K7	
Word8		
Word9		

485 CABLE OUTPUT
3, 4 CABLE IS PHYSICAL E-STOP CABLE

Receiver option 3: DCH-BC (CAN2.0 or CAN2.0B)
default baud rate:250K, slave ID: 0X64,
standard protocol is as below,for more details, please contact us freely.

TXPDO	Byte (0-7)	Bit (0-7)	TX Cmd	TX Cmd
0X180+ Node_ID= 0X1E4	0		A1+ A1- 0-7F-FF	BD SLOT8
	1		A2+ A2- 0-7F-FF	BD SLOT9
	2		A3+ A3- 0-7F-FF	BD SLOT10
	3		A4+ A4- 0-7F-FF	BD SLOT11
	4		A5 0-255	BD SLOT12
	5		急停	BD SLOT13
0X180+ Node_ID= 0X1E4	0		K1	BD SLOT14
	1		K2	
	2		K3	
	3		K4	
	4		K5	
	5		K6	
	6		K7	

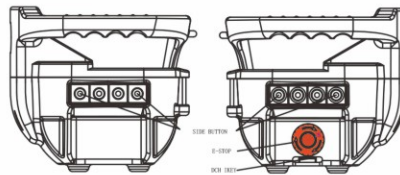
CAN2.0 CABLE OUTPUT
YELLOW, GREEN CABLE IS PHYSICAL E-STOP CABLE

Transmitter- Shoulder Belt Typical Model DCH-EC06-C

Transmitter: DCH-EC06-C
(3 cross joysticks, 1 potentiometer and switches)



启动方式	拨起急停然后按开机	
尺寸	长	350mm
	宽	190mm
	高	160mm
自动关机	<input checked="" type="checkbox"/> 30分钟	<input type="checkbox"/> 无
关机方式	<input checked="" type="checkbox"/> 按急停	<input type="checkbox"/> 断电源
控制距离	100米	
电量	<input checked="" type="checkbox"/> 0%以上	<input type="checkbox"/> 0%以下
信号	<input checked="" type="checkbox"/> 红	<input type="checkbox"/> 无连接
	<input checked="" type="checkbox"/> 绿	<input type="checkbox"/> 连接中
显示屏	可选4.3寸彩色显示屏	
开关名称		

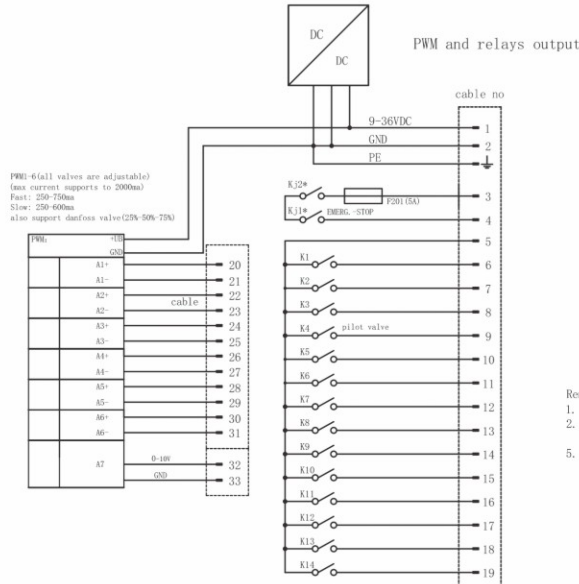


physical image

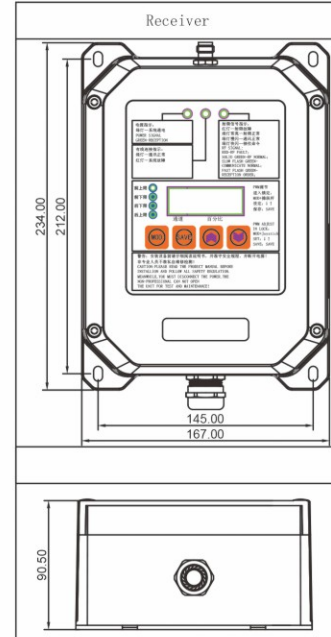


Receiver- Shoulder Belt Typical Model

Receiver option 1: DCH-P14(4 PWM+1 potentiometer +14 relays output)



- Remark:
1. Relay capacity: 250VAC/5A;
 2. E-STOP relays KJ1, KJ2 (250VAC/10A);
 5. cable with receiver:

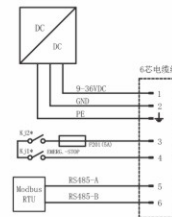


Receiver option 2: DCH-EM(MODBUS RTU 485)
Default baud rate:19200, slave ID: 03, Function code:04
Standard protocol is as below,for more details, please contact us freely.

Receiver to machinery controlled

Slave ID:0X03	default baud rate: 19200 8 N 1	
Function Code:04	Description H_SByte(8 Bits)	Description L_SByte(8 Bits)
Address	Bit7 Bit6 Bit5 Bit4 Bit3 Bit2 Bit1 Bit0	Bit7 Bit6 Bit5 Bit4 Bit3 Bit2 Bit1 Bit0
Word30001	A1+ A1- (255-0-255)	Direction is set by switch I0
Word2	A2+ A2- (255-0-255)	Direction is set by switch I0
Word3	A3+ A3- (255-0-255)	Direction is set by switch I0
Word4	A4+ A4- (255-0-255)	Direction is set by switch I0
Word5	A5+ A5- (255-0-255)	Direction is set by switch I0
Word6	A6+ A6- (255-0-255)	Direction is set by switch I0
Word7	A7 (0-255)	
Word8	K2 K1 A6+ A6- A5+ A5- A4+ A4- A3+ A3- A2+ A2- A1+ A1-	STATUS E STOP
Word9	K14 K13 K12 K11 K10 K9 K8 K7 K6 K5 K4 K3	

485 CABLE OUTPUT
3,4 CABLE IS PHYSICAL E-STOP CABLE



Receiver option 3: DCH-BC(CAN2.0 or CAN2.0B)
default baud rate:250K, slave ID: 0X64,
standard protocol is as below,for more details, please contact us freely.

BAUD RATE: 250kbps	COB-ID 0X000			
Node ID: 0x64	DATA0 0X01			
	DATA1 0X00			
115200				
TXPDO	Byte (0-7)	Bit (0-7)	TX Cmd	TX Cmd
0X180+ Node_ID= 0X1E4	0	A1+ A1-	0-7F-FF	
	1	A2+ A2-	0-7F-FF	
	2	A3+ A3-	0-7F-FF	
	3	A4+ A4-	0-7F-FF	
	4	A5+ A5-	0-7F-FF	
	5	A6+ A6-	0-7F-FF	
	6	A7	0-255	
0X180+ Node_ID= 0X2E4	0	急停	BD_SLOT0	
	1	K1	BD_SLOT1	
	2	K2	BD_SLOT2	
	3	K3	BD_SLOT3	
	4	K4	BD_SLOT4	
	5	K5	BD_SLOT5	
	6	K6	BD_SLOT6	
7	K7	BD_SLOT7		
TXPDO	Byte (0-7)	Bit (0-7)	TX Cmd	TX Cmd
0	0			
	1			
	2			
	3			
	4			
	5			
	6			
7				
0			heart beat (0, 1)	
1			radio status	

CAN2.0 CABLE OUTPUT
YELLOW, GREEN CABLE IS
PHYSICAL E-STOP CABLE

