

# Techwell remote control From china to the world



Safe • Reliable • Convenient • Intelligent

上海技景自动化科技有限公司



## Industrial remote control / system



中国遥控

服务世界



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## 中国遥控

Techwell remote control

## 服务世界

From china to the world

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## ENTERPRISE INTRODUCTION



Shanghai Techwell Automation Technology Co., Ltd. (hereinafter referred to as "Techwell") and Shanghai Craftmeter Control Technology Co., Ltd. founded in 2005, is a high-tech enterprise with a dedicated R&D focus on industrial wireless communication and control. Over the years, Techwell has emerged as a leader in the field of intelligent remote control within China, specializing in independent R&D, technical consulting and system integration to facilitate equipment remotization and intelligence.

The R&D team, primarily composed of professionals with extensive experience in radio and circuit design, mainly includes individuals with doctoral, master's, and undergraduate degrees. Additionally, the R&D personnel comprises over 30% of the workforce. Through strategic industry-university-research collaboration with the University of Shanghai for Science and Technology, Techwell continues to delve into the field of intelligent remote control, striving to assist the industry in achieving a more intelligent, efficient, and secure control system.

With complete intelligent remote control equipment and high-quality after-sales service system, Techwell has successfully provided various specialized intelligent unmanned remote control technology solutions and services to over a hundred large domestic well-known group enterprises, including XCMG, Zoomlion, Sany, China Railway Construction, and China Railway Equipment Group and others.



# CORPORATE CULTURE

## Vision:

Techwell remote control, from China to the world

## Mission:

Make technology smarter and make people freer

Safe Reliable Convenient Intelligent

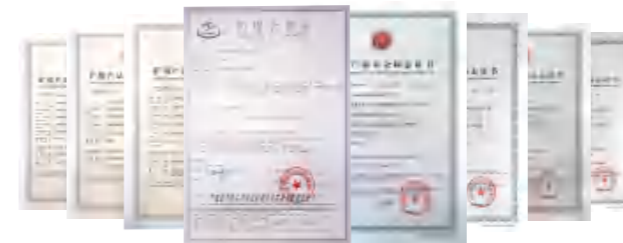
# CORPORATE HONOR



Over 30 design patents



Over 30 utility models



Over 20 coal-mine product safety marks



Over 20 explosion-safety certificates



Self-developed core technology

The finest craftsmanship

Excellence above the industry

## Techwell R&D Center

In line with industry trends, Techwell heavily invests in scientific research and development annually. We have forged long-standing strategic partnerships with the University of Shanghai for Science and Technology, which efficiently fosters collaborative development among multiple parties and expedites the commercialization of R&D outcomes. The collaboration aims to achieve synergistic development, mutual benefit, and win-win situations. This cooperative approach has consistently enhanced our innovation capabilities, facilitating scientific and technological advancement and talent acquisition, thereby contributing to the advancement of intelligent manufacturing in China.



Design



Testing



Lab



## Electromagnetic Compatibility Testing

Electromagnetic compatibility testing is a critical quality indicator for products, as it impacts not only the product's reliability and safety but also the normal operation of other equipment and systems. It is crucial for EMC certification and the protection of the electromagnetic environment.



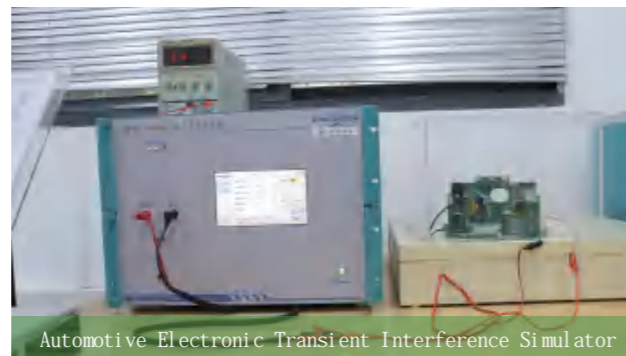
Fast Transient Burst Simulator



Electrostatic Discharge Generator



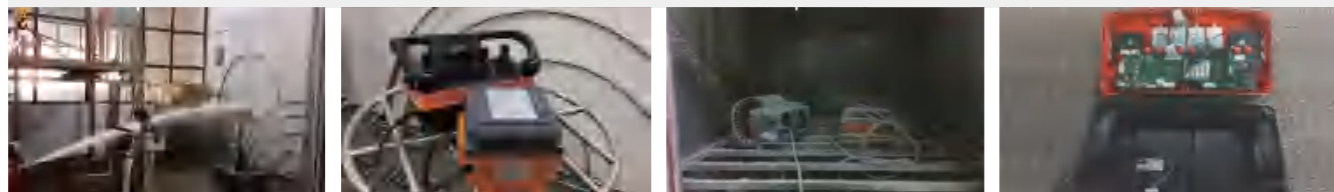
Lightning Surge Generator



Automotive Electronic Transient Interference Simulator

## Environmental Testing

This test ensures that products can withstand violent wave impact and strong water spray without harmful water intake; Our testing entails subjecting products to negative pressure, placing them in a sand and dust box, and subsequently opening the lid to verify dust-tightness and complete prevention of external intrusion, which ensures that the products are shielded from the entry of dust and external interference.



## Production and Warehousing

At Techwell, we introduce mature production technology to constantly optimize our equipment, strengthen production processes, and integrate research and design processes to make ourselves move towards semi-automatic and automated production. Our production line follows standardized and visual management procedures, ensuring the quality of each product. We regularly train our personnel, and over 50% of our staff possess intermediate or advanced skills, giving our customers confidence in our offerings.



Production Area: 5000 + (m<sup>2</sup>)



Annual Capacity: 50000 +

(sets) equipment

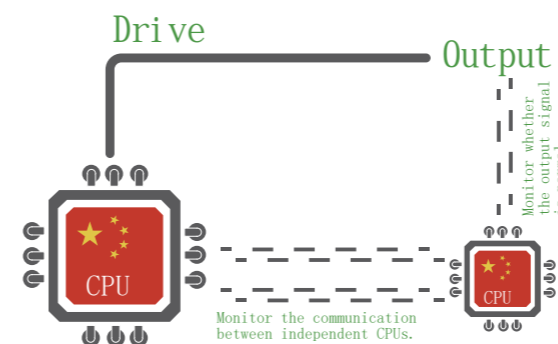


# Industrial Remote Controls / Systems

## Product Description

Techwell's industrial remote control is a multifunctional intelligent device developed in-house, capable of fulfilling various operational requirements through independent programming. It seamlessly integrates with a wide range of electro-hydraulic proportional valves available in the market for remote operations. Over the course of nearly 20 years, the "Techwell" brand has developed a product line comprising 9 series and 45 models, totaling over 1,000 variants. This extensive range of products has garnered widespread recognition within industries such as construction machinery, military, coal, lifting, offshore, and logistics. Moreover, it has acquired industry licenses and been exported to numerous countries worldwide.

Safer | More Reliable |  
More convenient | Smarter



### Safety

Dual CPUs feature a unique closed-loop control system that enables comprehensive fault monitoring, which truly achieves closed-loop control and effectively ensures the safety of on-site use. Unlike foreign products, ours truly monitors the output status, and we are the truly exclusive inventor of patented technology in China.



High and low temperature test chamber

salt spray tester

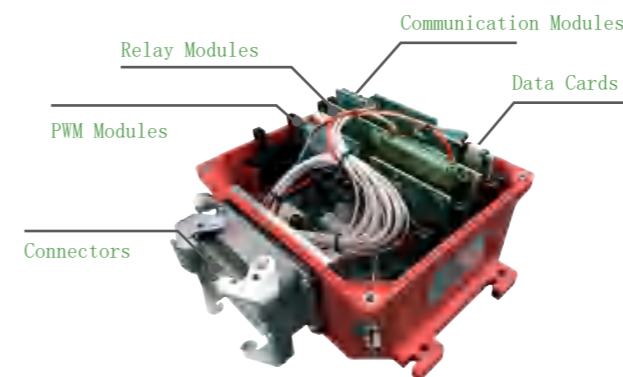


electrostatic discharge generator

electronic transient interference simulator

### Reliable

After rigorous testing in high and low temperature test chambers, salt spray testers, electrostatic discharge generators, electronic transient interference simulators and other experimental equipment, our products are adaptable to diverse and challenging operational environments.



### Convenient

Our internationally accepted modular function board is equipped with testing and diagnostics, standard accessories, and quick replacement features, ensures expedited service. The simplified replacement of data cards enables the swift receiving and transmitting pairing.



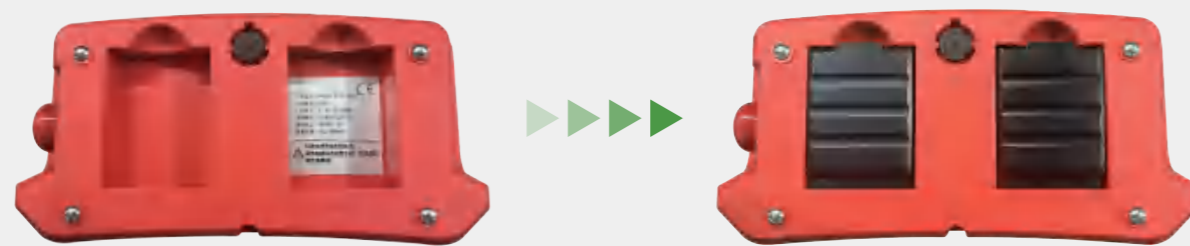
### Smart

our intelligent man-machine visual interface allows for seamless parameter setting without the need for professional training, which makes operation simpler. The interface can be loaded with password settings, memory storage, personalized fixed calls, and other functions. Our industrial remote control is matched with the valve, which is easy and convenient to debug. And the remote control is equipped with an external device for adjusting receiver parameters.

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## Enhanced Battery Management for Extended Range With Dual Battery

The transmitter system features dual battery compartments, ensuring continuous power supply during battery replacement without compromising the ultra-long range capability. Operators can promptly replace batteries requiring recharging based on LED power level indicators, making it ideal for prolonged, uninterrupted usage while maintaining the device's ultra-long range.

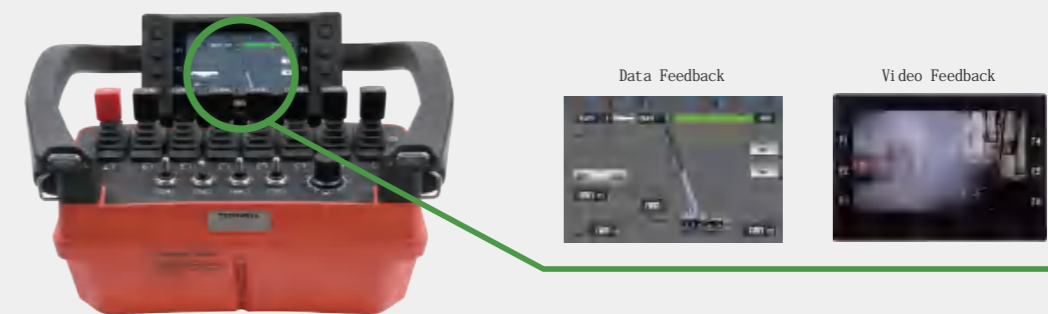


## Intelligent Identification System

Our system allows for seamless remote control replacement to facilitate user repair and maintenance without disrupting normal operations. Each transmitter and receiver is equipped with an identity information card, enabling remote control replacement through simple plug-in card pairing.

## Frequency and Power Management System

Our system enables seamless remote control usage in complex wireless interference environments by facilitating FM communication through manual FM button operation or automatic free channel search. The power management system provides intuitive can visually estimate the battery usage of the transmitter.



## Human-Computer Interface System

Our transmitter can be equipped with a 4.3-inch display, providing real-time equipment status feedback and supporting the CODESYS 3.5 programming platform. The system features remote video feedback, enabling operators to easily implement remote control and minimize personnel injury in high-risk environments.



# TECHWELL BULL Series





Suitable for voltage valves:  
PLC analog control

## T-A SERIES

### Technical Data

Frequency range	433MHz wave band: 427.000~436.300MHz;470MHz wave band: 472.350~485.775MHz
Output power	≤10mW
Receiver's sensitivity	-115dbm
Remote control distance	≥150 m; Other distances optional
Working environment	Temperature: -25℃~70℃; Humidity: 0%-97%rh; anti-condensation*Other temperatures optional
Protection grade	IP66
Form of transmitter's operation	Combined with a rocker, toggle switch, key switch
Transmitter's power supply	7.4VDC 3000mAh
Transmitter's failure alarm	Display or LED indicator (acousto-optic combination)
Form of transmitter's antenna	Built-in
Receiver's power supply	12V-30VDC
Receiver's rated power	< 10W
Receiver's fault alarm	Indicated by LED status
Form of receiver antenna	External suction cup antenna
Relay contact rating	8A/250VAC
Number of simulator output	8 channels: 10V-0V+10V (0V+10V, 0V+5V), 5 channels: 25%-50%-75%Us (Danfoss solenoid valve), 4 channels: 4-20mA signal; customizable upon request
Receiver's output interface	*Optional with heavy load HAN 32 (incl. matched plug) M12*7 core
Safety control mode	Dual CPU' s real-time closed-loop control to monitor real output data; active emergency power-off control and passive power-off control
Safety standard	EN ISO 13849-1:2015 PL d
Export certification	CE, FCC



Suitable for  
all kinds of bus control

## T-B series

Technical Data	
Frequency range	433MHz wave band: 427.000~436.300MHz; 470MHz wave band: 472.350~485.775MHz
Output power	≤10mW
Receiver's sensitivity	-115dbm
Remote control distance	≥150 m; Other distances optional
Working environment	Temperature: -25°C~70°C; Humidity: 0%~97%rh; anti-condensation*Other temperatures optional
Protection grade	IP66
Form of transmitter's operation	Combined with a rocker, toggle switch, key switch
Transmitter's power supply	7.4VDC 3000mAh
Transmitter's failure alarm	Display or LED indicator (acousto-optic combination)
Form of transmitter's antenna	Built-in
Receiver's power supply	12V-30VDC
Receiver's rated power	< 10W
Receiver's fault alarm	Indicated by LED status
Form of receiver antenna	External suction cup antenna
Relay contact rating	8A/250VAC
Number of simulator output	RS232, RS485, CANOpen, Profibus-DP, ProfiNet, Device Net, Modbus-RTU, Modbus-TCP
Receiver's output interface	HAN4 or RJ45
Safety control mode	Dual CPU's real-time control
Safety standard	EN ISO 13849-1:2015 PL d
Export certification	CE, FCC

# T-K series



Suitable for various I/O control fields

Technical Data	
Frequency range	433MHz 波段:427.000~436.300MHz ; 470MHz 波段:472.350~485.775MHz
Output power	≤10mW
Transmitting power	9600bit/s
Receiver's sensitivity	-115dbm
Remote control distance	≥150 m; Other distances optional
Working environment	Temperature: -25°C~70°C; Humidity: 0%-97%rh; anti-condensation*Other temperatures optional
Protection grade	IP66
Form of transmitter's operation	Combined with a rocker, toggle switch, key switch
Transmitter's power supply	7.4VDC 3000mAh
Transmitter's failure alarm	Display or LED indicator (acousto-optic combination)
Form of transmitter's antenna	Built-in as standard; *Optional external in special cases
Receiver's power supply	12V-30VDC (other power sources optional)
Receiver's rated power	< 10W
Receiver's fault alarm	Indicated by LED status
Form of receiver antenna	External suction cup antenna
Relay contact rating	8A/250VAC
I/O number of output	35-channel switching outputs, 60-channel switching outputs, 17-channel switching outputs + 18-channel switching inputs; customizable upon request
Receiver's output interface	HAN32 or HAN64
Safety control mode	Dual CPU' s real-time control
Safety standard	EN ISO 13849-1:2015 PL d
Export certification	CE、FCC



Suitable for  
load sensing proportioning valves

## T-P Series

### Technical Data

Frequency range	433MHz wave band: 427.000~436.300MHz; 470MHz wave band: 472.350~485.775MHz
Output power	≤10mW
Receiver's sensitivity	-115dbm
Remote control distance	≥150 m; other distances optional
Working environment	Temperature: -25℃~70℃; humidity: 0%-97%rh; anti-condensation
Protection grade	IP66
Form of transmitter's operation	Combined with a rocker, toggle switch, key switch
Transmitter's power supply	7.4VDC 3000mAh
Transmitter's failure alarm	Display or LED indicator (acousto-optic combination)
Form of transmitter's antenna	Built-in
Receiver's power supply	12V-30VDC
Receiver's rated power	< 10W
Receiver's fault alarm	Indicated by LED status
Form of receiver antenna	External suction cup antenna
Relay contact rating	8A/250VAC
Number of PWM outputs	12-channel PWM, 60-channel PWM in; customizable upon request
Receiver's output interface	HAN32
Safety control mode	Dual CPU' s real-time control
Safety standard	EN ISO 13849-1:2015PL d
Export certification	CE, FCC

# JP defense series



Technical Data	
Frequency range	433MHz wave band: 427.000~436.300MHz; 470MHz wave band: 472.350~485.775MHz
Output power	≤10mW
Receiver's sensitivity	-115dbm
Working environment	Temperature: -25°C~70°C; Humidity: 0%-97%rh; anti-condensation
Protection grade	IP66
Transmitter's operation form	Combined with a rocker, toggle switch, key switch
Transmitter's power supply	7.4VDC 3000mAh
Transmitter's failure alarm	Display or LED indicator (acousto-optic combination)
Transmitter's antenna form	Built-in
Transmitter's display	Cryogenic display (working at the temperature of -41° C)
Receiver's power supply	12V-30VDC
Receiver's rated power	< 10W
Receiver's fault alarm	LED status indicator
Receiver's antenna form	External suction cup antenna
Relay contact rating	8A/250VAC
Output form	PWM, Switching, CAN
Receiver's output interface	HAN32 or M12
Safety control mode	Dual CPU's real-time control
Components	China-made components
Standard of implementation	GJB151B-2013 Electromagnetic emission and susceptibility requirements and measurements for military equipment and subsystems GJB150A-2009 Laboratory environmental test methods for military materiel
Safety standard	EN ISO 13849-1:2015 PL d

Suitable for  
all kinds of defense cases

# A Series Handheld



Feature:

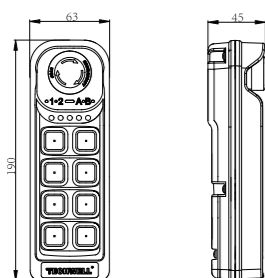
- Long battery life, high protection grade, ergonomic design.
- Oil-resistant buttons, highly customizable.

# B Series Handheld

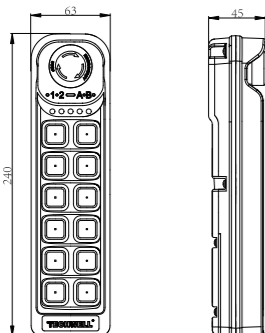


Feature:

- High-definition display, high protection grade, ergonomic design.
- Oil-resistant buttons, smart key, customizable button.



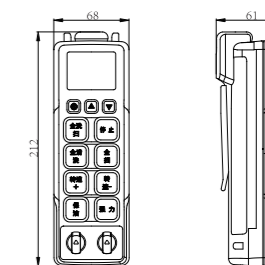
BEA size



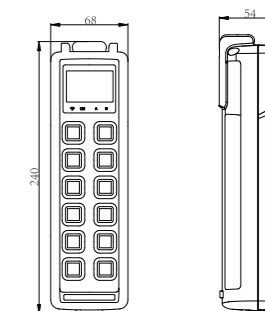
BTA size

Model	BEA	BTA
Size	190×63×45 mm	240×63×45 mm
Weight (without battery)	0.2kg	0.28kg
Number of button	8	12
Materials	Engineering plastics	
Protection grade	IP66	
Method of button	Self-resetting	
Power supply	Two batteries, size 5, 3V	
Remote control distance	≥150m	
Current	Current during standby: 5uA; average operating current: 10mA	
Output power	10mW	
Frequency range	429MHz~459MHz	
Form of antenna	Built-in	
Operating temperature range	Temperature: -25°C~70°C; humidity: 0%~97%rh; anti-condensation	
Additional functions	Indicator	

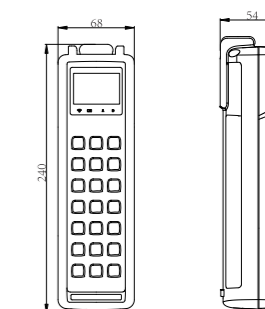
Model	BEB	BTB	BXB
Size	212×68×61 mm	240×68×54 mm	240×68×54 mm
Weight (without battery)	0.36kg	0.33kg	0.35kg
Number of button	8	12	21
Materials	Engineering plastics		
Protection grade	IP66		
Method of button	Self-resetting + selector switch	Self-resetting	
Power supply	6VDC/2000m Ah	7.4VDC/1850m Ah	
Remote control distance	≥150m		
Current	30mA	80mA	
Output power	≤10mW		
Frequency range	433MHz wave band: 427.000~436.300MHz; 470MHz wave band: 472.350~485.775MHz		
Form of antenna	Built-in		
Operating temperature range	Temperature: -25°C~70°C; humidity: 0%~97%rh; anti-condensation		
Additional functions	Selector Switch, Potentiometer, Display	Display	



BEB size



BTB size



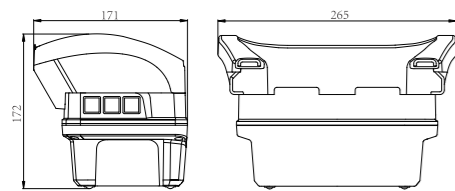
BXB size

# B Series Shoulder- Mounted

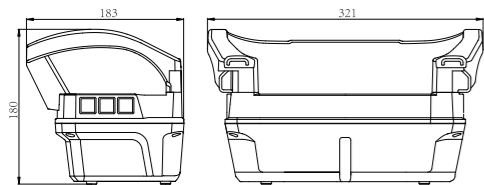


Feature:

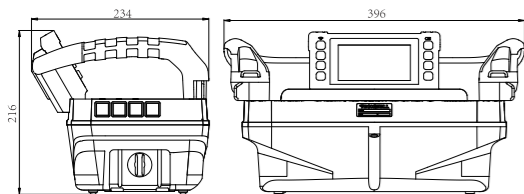
- High-definition display; high protection grade; ergonomic design;
- Rocker which can work 2 million times smart key, panel customization;
- Assembled with a variety of switch combinations;
- Built-in frequency management.



BS Series size



BM Series size



BL Series size

Model	BS Series	BM Series	BL Series
Size	265×171×172 mm	321×183×180 mm	396×234 x216 mm
Weight (without battery)	1.2kg	1.6kg	3.2kg
Material	Engineering plastics		
Protection grade	IP66		
Power supply	7.4VDC/3000m Ah		7.4VDC/5000m Ah
Remote control distance	≥150m		
Operating current	130mA	100mA	150mA
Output power	≤10mW		
Frequency range	433MHz wave band: 427.000~436.300MHz 470MHz wave band: 472.350~485.775MHz		
Form of antenna	Built-in		
Operating temperature	Temperature: -25℃~70℃; Humidity: 0%~97%rh; anti-condensation		
Optional display	2.5/2.8"	3.5/4.3"	4.3/7"
Optional functions	Identity card, three-axis sensor	Identity card, three-axis sensor, video feedback	

# F Series Flame Proof for Factory Use

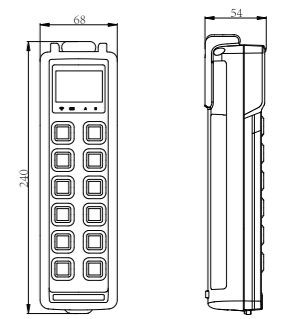


Feature:

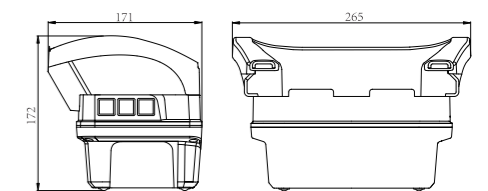
- High-definition display; high protection grade; ergonomic design;
- Rocker which can work 2 million times flame proof design;
- Meets the needs of intrinsic safety



Model	T-F3 Series	T-F4 Series
Size	240×68×54 mm	265×171×172 mm
Weight (without battery)	0.35kg	1.2kg
Material	Fireproof conductive engineering plastics	
Protection grade	IP66	
Power supply	7.4VDC/1850m Ah	7.4VDC/2000m Ah
Remote control distance	≥150m	
Operating current	80mA	130mA
Output power	≤10mW	
Frequency range	433MHz wave band: 427.000~436.300MHz 470MHz wave band: 472.350~485.775MHz	
Form of antenna	Built-in	
Operation form of transmitter	Button	Combined with a rocker, toggle switch, key switch
Operating temperature	Temperature: -25℃~70℃; Humidity: 0%~97%rh; anti-condensation	
Flame proof mark	Ex ia IIC T6 Ga	Ex ia IIC T4 Ga
Display	2.5"	3"
Optional functions	Identity card, three-axis sensor	
Standard of implementation	*GBT3836.1-2021 Explosive atmospheres— Part 1:Equipment—General requirements ; GB/T383642021 Explosive atmospheres— Part 4:Equipment protection by intrinsic safety "i".	



T-F3 Series size

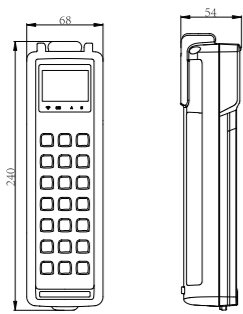


T-F4 Series size

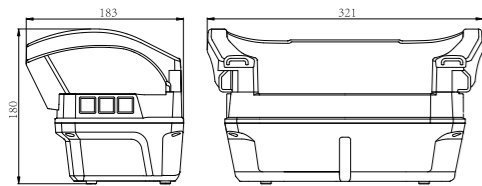
# FYF Series Flame Proof for Mining



# Flame Proof Receiver Series for Mining



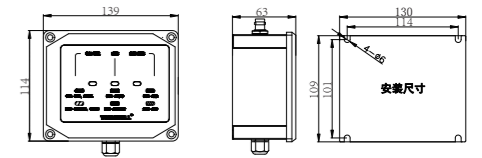
FYF20B size



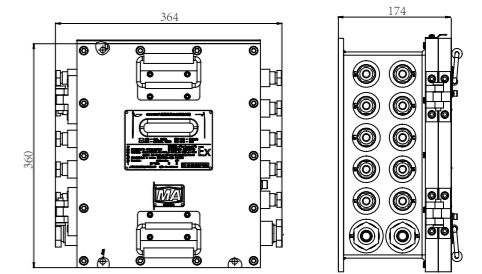
FYF20C, FYF100A size

Model	FYF20B Series	FYF20C Series	FYF100A Series
Size	240×68×54 mm	321×183×180 mm	
Weight (without battery)	0.35kg	2.0kg	2.5kg
Material	Fireproof conductive engineering plastics		
Protection grade	IP66		
Power supply	7.4VDC/1850m Ah	7.4VDC/3000m Ah	
Remote control distance	≥20m		≥150m
Operating current	80mA	100mA	
Output power	≤10mW		
Frequency range	433MHz wave band: 427.000~436.300MHz 470MHz wave band: 472.350~485.775MHz		
Form of antenna	Built-in		
Operating temperature	Temperature: -25℃~70℃; Humidity: 0%~97%rh; anti-condensation		
Flame proof mark (Ex)	Ex ia I Ma		
Form of flame proof	Intrinsic safety		
Safety mark no. (MA)	MFH220058	MFA200336	MFA200333
Display	2.5"	3.5"	
Optional functions	Identity card, three-axis sensor	Identity card, three-axis sensor, video feedback	
Standard of implementation	*GBT3836.1-2021 Explosive atmospheres—Part 1:Equipment—General requirements ; *GB/T3836.2-2021 Explosive atmospheres—Part 2:Equipment protection by flameproof enclosures "d"; *MT/T1137-2011 Coal mine infrared remote control general technical specifications.		

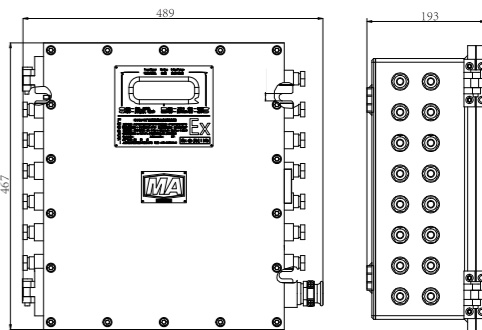
Model	FYS20C Series	KXJ127 Series	KXJ1140 Series
Size	139×114×63mm	364×360×174 mm	489×467×193 mm
Weight	1.0kg	35kg	60kg
Material	Stainless steel	Q235B steel	
Protection grade	IP65		
Power supply	12V/18V	DC24V/AC127V	AC1140/660/127V
Operating current	100mA	350mA	
Rated power	<10W		
Form of antenna	External		
Operation form of transmitter	emperature: -25℃~70℃		
Flame proof mark (Ex)	Ex ib I Mb	Ex db[ib Mb] I Mb	Ex d [ib] I Mb
Form of flame proof	Intrinsic safety	Flame proof and intrinsic safety	
Safety mark no. (MA)	MFA200334	MFE220758	MAB210217
Bell mouth	None	24	32
Interface configuration	None	A 0: 20个; A 2: 4个	A 0: 31个; A 1: 1个
Optional functions	Feedback detection, acoustooptical alarm, data card		
Standard of implementation	*GBT3836.1-2021 Explosive atmospheres—Part 1:Equipment—General requirements; *GB/T3836.2-2021 Explosive atmospheres—Part 2:Equipment protection by flameproof enclosures "d"; *GB/T3836.4-2021 Explosive atmospheres—Part 4:Equipment protection by intrinsic safety "i"; *MT209-1990 General technical requirements for electrical and electronic products for communication detection and control in coal mines.		



FYS20C size



KXJ127 size



KXJ1140 size

# Receiver M Series

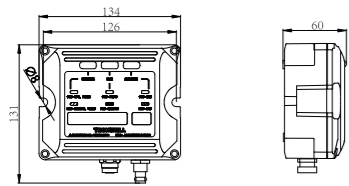


- Feature:
- Security design with dual CPU, high protection grade, smart key;
  - Feedback detection, acoustooptical alarm.

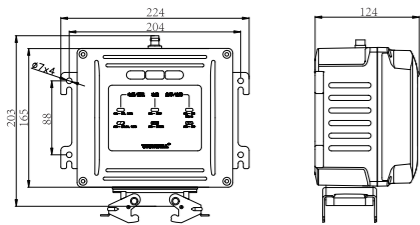
# Display Series



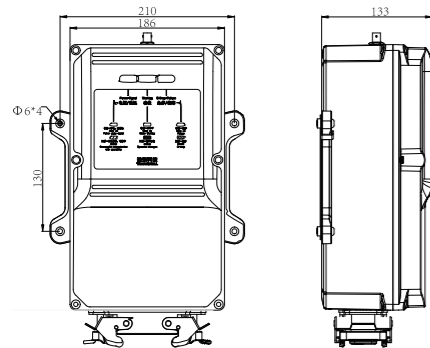
- Feature:
- High brightness display which is up to international standards, and is clearly visible under strong light.
  - High protection level and high resolution; suitable for various working conditions; partially equipped with a camera.



MPN Series Size



MN Series Size



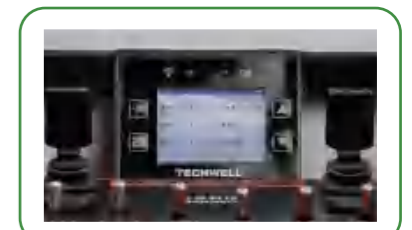
MLN Series Size

Model	MPN Series	MN Series	MLN Series
Size	134×131×60 mm	204×165×124 mm	320×210×133 mm
Weight	0.45kg	1.7kg	3.2kg
Material	Engineering plastics		
Protection grade	IP65		
Power supply	12~30VDC	12~30VDC	12~30VDC 42~250VAC 380VAC
Operating current	100mA	140mA	150mA
Rated power	<10W		
Contact rating	8A/250VAC		
Form of antenna	External		
Operating temperature	Temperature: -25℃~70℃;		
Output method	CANOPEN	CANOPEN, PWM signals, analog signals, switching signals	
Output interface	M12	HAN32	HAN32 or HAN64
Optional functions	Feedback detection, acoustooptical alarms, data card		
Safety standards	EN ISO 13849-1:2015 PL d		

Size	2.5"	2.8"	3.5"	4.3"
Resolution	128×64	240×320	320×480	480×272
Brightness	500nit	180nit	600nit	700nit
Programming platform	Keil MDK	USART HMI		
Functional button	Five-way button	Flat button	Five-way button	Individual button
Operating temperature	-20~70℃			
Video	Not applicable			Applicable
Applicable Series	BSC BTB BxB FYF20B T-F3	BSC	BMC	BMC



2.5" display



2.8" display



3.5" display



4.3" display



Feature:

- High brightness display which is up to international standard;
- Clearly visible under strong light;
- High protection level and high resolution;
- Suitable for various working conditions;
- Partially equipped with a camera.

## Technical Data & Parameters

Display		
Size	4.3"	7"
Installation	Built-in	Combined
Display Resolution	800x 480	1024x 3 (RGB) x600
Content display	Text and video are consecutively displayed on the same screen	Text and video are simultaneously displayed on a separate screen
Video resolution	720×576 (CVBS)	720P
Brightness	600cd/m <sup>2</sup>	
Remote control distance	100m	
Screen display	Single screen	1-4 screens
Wireless frequency	2400MHZ~2483.5MHZ (波段)	
Protection grade	IP65	
Working temperature	-30~+70°C, RH90%Max	
Signal channel	AFC	
Temperature for storage	-30~+70°C, RH90% Max.	
HDTV Camera		
Pixel	720*576 (CVBS)	1920 x 1080 (1080P)
Latency	170ms	
Video decoding	H.264	
Operating voltage	DC10-32V	
Power consumption	1.8W-2.5W during daytime 3.6W-4.3W at night	
Viewing angle	130°	
Spread spectrum	FHSS	
Protection grade	IP69K	
Applicable series	BMN、BMC、BLN、BLC	



### Battery

Appearance				
Model	BL2S	BL3F	BL4	BL5
Characteristics	Lithium polymer battery (*low temperature version is optional)		Lithium polymer battery (flame proof)	
Capacity	3000mAh	2000mAh	2000mAh	5000mAh
Voltage	7.4V DC	7.4V DC	7.4V DC	7.4V DC
Maximum fill time	4 hours	3 hours	4 hours	4 hours
Transmitter applicable	BBSN series, BMN series, BLN series	F-F series, FYF series	BEB series, BTB series	BMN series, BLN series
Charger applicable	CL2S	CL2S-F	CL4	HM-40
Weight	200g	150g	150g	280g

Tips  
 \*Avoid connecting the positive and negative terminals; Avoid strong hits; Avoid heating; Keep it away from fire.  
 \*Please charge it with the matched adapter at the temperature of 5°C~35°C.

### Charger

Appearance		
Model	CL2S	CL4
Size	200x103.5x47.5 mm	129x65x40 mm
Weight	500g	300g
Application	Rechargeable lithium	
Output voltage	8.4V DC	8.4V DC
Output current	800mA	800mA
Input connector	A, B, C	A, B, C
Battery type/model	BL2S	BL4




Description of charger model

Form of input connector:




- A. Cigarette lighter to DC005 connector output, 12-30V DC input;
- B. National standard 3-pins plug to DC005 connector output, 100-240VAC input;
- C. European standard 3-pins plug to DC005 connector output, 100-240VAC input.

Example: CL2SA- which need a CL2S charger, with an A-type input connector, cigarette lighter, and with an input voltage of 12-30V DC.

### Input Plug

Plug form			
Model	BP1		
Characteristic	Cigarette lighter	National standard 3-pin plug	European standard 3-pin plug
Voltage	12-30V DC	100-240V AC 50Hz	100-240V AC 50Hz

### Antenna Model

Appearance			
Model	ATS-69	AF2	AS1
Size	160x12mm	50x12 mm	185x90 mm
Weight	10g		600g
Name	Fixed Long-rod Antenna	Fixed Thumb Antenna	Suction Cup Antenna
Interface	SMA		BNC
Cord length	160mm	50mm	5m
Fixed form	Fixed by the interface		Connected with the interface; fixed by magnetic suction cup

Note: 1) The table includes optional items, whose cost is calculated separately.

2) Customizable upon request.

### Safety Belt

Product	Model	Appearance
Shoulder strap	BB1-H	

\*For more product information, please contact us.



## TSPB boom pump vehicle control system

- Full proportion wireless load sensitive intelligent feedback boom pump, vehicle system (with final motion).



### System Feature:

- Bus technology: Electrical fault diagnosis, data backhaul, display, attitude calculation, intelligent control, automatic alarm.
- Wireless control conforms to European standards. It can realize real-time communication and monitoring, and automatically enter the emergency stop safety mode when interrupted.
- Ensure effective communication in any environment: Wireless + wired (optional), 100-meter remote control (more optional distance).
- Long-life components to ensure maximum reliability.
- Strong comfort of operation, man-machine interaction system, optional parameters (various working currents, frequencies, etc.), and final motion.
- Accurate positioning, full proportion and efficient operation in safety protection, high linearity and good action consistency.
- Efficient, energy-saving and sensitive hydraulic system load.

### System application:

The system has been maturely applied to the fine and intelligent control of concrete boom pumps, which significantly saves labor and fuel consumption, improves work efficiency, and effectively guarantees the safety of equipment and operators; A complete system or only an electronic control system can be provided for client specific requirements.

Function Name	Model	TSCB08	TSCB10	TSCB12	TSCB14	TSCB16
Emergency Stop		*	*	*	*	*
Left Swing		*	*	*	*	*
Right Swing		*	*	*	*	*
No. 1 Boom Up		*	*	*	*	*
No. 1 Boom Down		*	*	*	*	*
No. 2 Boom Up		*	*	*	*	*
No. 2 Boom Down		*	*	*	*	*
No. 3 Boom Up		*	*	*	*	*
No. 3 Boom Down		*	*	*	*	*
No. 4 Boom Up			*	*	*	*
No. 4 Boom Down			*	*	*	*
No. 5 Boom Up				*	*	*
No. 5 Boom Down				*	*	*
No. 6 Boom Up					*	*
No. 6 Boom Down					*	*
No. 7 Boom Up						*
No. 7 Boom Down						*
Horn		*	*	*	*	*
Micromotion		*	*	*	*	*
Throttle + / throttle		*	*	*	*	*
Positive/reverse pump		*	*	*	*	*
Engine start/stop		*	*	*	*	*
Displacement (simulation)		*	*	*	*	*
*Left tilt cylinder/right tilt cylinder	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*Master cylinder ahead/astern	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*High pressure/low pressure	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*Outrigger/boom	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*Other functions	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*Wired communication	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
Remote control LCD		*	*	*	*	*
*Gesture display	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*One button to withdraw boom	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	
*Local LCD operation	Add-on feature	Add-on feature	Add-on feature	Add-on feature	Add-on feature	

Note: 1) \* in the table is an optional item whose cost is calculated separately.  
2) Customizable upon special request.  
3) The function name will be changed as it might be.

Item	Model	TSCB08	TSCB10	TSCB12	TSCB14	TSCB16
Number of remote-operated rockers		4	5	6	7	8
Number of load-sensitive proportional valves		4+0+2	5+0+2	6+0+2	7+0+2	8+0+2

Note: 1) \* in the table is an optional item whose cost is calculated separately.  
2) Customizable upon special request.  
Example: 4+0+2 (4 proportional valves + 0 switching valve + 2 front and rear valves).  
Please consult the manufacturer for the model number and details of each part.



## Vehicle control system of SCB truck-mounted crane

- Full proportion wireless load sensitive intelligent feedback boom pump, vehicle system (with final motion).



01: Transmitter (remote control)    02: Receiver    03: Angle sensor  
 04: Length\angle sensor    05: Hydraulic Sensor    06: Hydraulic valve

### System Feature:

- Bus technology: Electrical fault diagnosis, data backhaul, display, attitude calculation, intelligent control, automatic alarm.
- Wireless control conforms to European standards. It can realize real-time communication and monitoring, and automatically enter the emergency stop safety mode when interrupted.
- Ensure effective communication in any environment: Wireless + wired (optional), 100-meter remote control (more optional distance).
- Long-life components to ensure maximum reliability.
- Strong comfort of operation, man-machine interaction system, optional parameters (various working currents, frequencies, etc.), and final motion.
- Accurate positioning, full proportion and efficient operation in safety protection, high linearity and good action consistency.
- Efficient, energy-saving and sensitive hydraulic system load.

### System application:

Wide application in fine intelligent control of various brands of truck-mounted cranes; It significantly saves labor and fuel consumption, and improves work efficiency; and it effectively guarantees the safety of equipment and operators.

Function Name	Model	TSCB08	TSCB10	TSCB12
Emergency Stop		*	*	*
Left Swing		*	*	*
Right Swing		*	*	*
No. 1 Luff up		*	*	*
No. 1 Luff down		*	*	*
No. 2 Luff up			*	*
No. 2 Luff down			*	*
Extend the main boom		*	*	*
Withdraw main boom		*	*	*
Windlass up (turn fixture left)		*	*	*
Windlass down (turn fixture right)		*	*	*
Clamp the fixture				*
Release the fixture				*
Micro motion		*	*	*
*Horn		Add-on feature	Add-on feature	Add-on feature
*Throttle+		Add-on feature	Add-on feature	Add-on feature
*Throttle		Add-on feature	Add-on feature	Add-on feature
*Engine start		Add-on feature	Add-on feature	Add-on feature
*Engine stop		Add-on feature	Add-on feature	Add-on feature
*Other operating functions				
*Wireless communication		Add-on feature	Add-on feature	Add-on feature
*Remote control LCD		Add-on feature	Add-on feature	Add-on feature
*Stopper alarm		Add-on feature	Add-on feature	Add-on feature
*Torque display		Add-on feature	Add-on feature	Add-on feature
*Torque alarm; rollover prevention		Add-on feature	Add-on feature	Add-on feature
*Local LCD operation		Add-on feature	Add-on feature	Add-on feature

Note: 1) \* in the table is an optional item whose cost is calculated separately.  
 2) Customizable upon special request.  
 3) The function name will be changed as it might be.

Item	Model	TSCB08	TSCB10	TSCB12
Number of remote-operated rockers		4	5	6
Number of load-sensitive proportional valves		4+0+2	5+0+2	6+0+2

Note: 1) \* in the table is an optional item whose cost is calculated separately.  
 2) Customizable upon special request  
 Example: 4+0+2 (4 proportional valves + 0 switching valve + 2 front and rear valves)  
 Please consult the manufacturer for the model number and details of each part.

# Our Business Presence

● Headquarters ● Office



- 01 Office in Xuzhou
- 02 Office in Changsha
- 03 Office in Henan
- 04 Office in Shandong
- 05 Office in Shanxi
- 06 Office in Southwest China
- 07 Office in Northwest China

With 19 years of experience since our establishment in 2005, we have navigated through challenging business landscapes, external economic fluctuations, and market compliance transitions. Through perseverance and dedication, we have emerged as an industry leader, achieving our goal of independent manufacturing. Our success reaffirms that triumph is inevitable with the right direction and unwavering commitment. The world will see our reliability and trustworthiness through our practical actions. We will earn the respect of the world with our customer-centric professional attitude and our accumulated experience. We express our gratitude to our loyal customers and friends for their enduring support and extend special thanks to those who have stood by us through our expansion.

Founder and Chairman: Xianghui Yu

## Our Clients



Remarks: listed in no particular order

With the service concept of "Quality Service, Professional guarantee," Techwell has established a comprehensive set of after-sales service standards to ensure customers' efficient utilization of our intelligent industrial control equipment. Techwell is committed to delivering outstanding service dedicated to offering customers professional and efficient after-sales support.



### Timely Response

Our customer service personnel are available around the clock, 24/7, to provide technical support and assistance to customers, ensuring they receive accurate and timely service.



### Upgrade and Remodeling

We offer customized upgrading and transformation plans tailored to the specific development or operational needs of enterprises and related equipment.



### Operation Training

We provide comprehensive "accompanying" training services, including intelligent remote control operation and maintenance, for the customers.



### Technical Support

Our support extends through various channels, such as telephone, online diagnosis, remote monitoring, and on-site maintenance, to ensure customers receive prompt assistance at all times.

