



AUTEC
Safety
Industrial
Radio Remote Control

Catalogue ENG 003_09/06



THE COMPANY

Autec, founded in 1986, was the first Italian manufacturer of safety remote controls for industry. Today, the company is active in many countries around the globe.

An ongoing pursuit of excellence has yielded a team of professionals whose energy and innovation, together with a strong investment in research and development, has brought to market world-leading products and services.

SAFETY AND RELIABILITY

Autec designs and manufactures radio remote control systems for the safe operation of machines, including those in the industrial, construction and mobile machinery sectors. The safety classification of Autec's remote controls meets, or in many cases exceeds, that required by the most stringent European and international regulations. As well as undertaking exhaustive internal analysis, Autec seeks and obtains independent certification of its products. The safety levels of most models have been independently tested and certified by TÜV Süddeutschland.



REGULATIONS

European regulations

- R&TTE Directive 99/05/CE
- EC Low Voltage Directive 73/23/EEC
- EC Directive on Electromagnetic compatibility 89/336/EEC
- EC Directive for Machinery 98/37/EEC as applicable

Norms

- EN 300 220 -3
- EN 301 489 -3
- EN 60950
- EN 61000 -6-2, -6-3
- EN 50371
- EN 60204 -32
- EN 50178
- EN 954 -1
- EN 13557
- EN 60529
- EN 60204 -1
- EN 60068 -2-1, -2-2

APPLICABLE SECTORS

Building

- tower cranes
- concrete vibrators and mixers
- dumper cars
- grinders

Industry

- EOHTC
- hoists and winches
- harbour and marine cranes, container lifters
- lifting magnets
- NC machine tools
- automation/industrial sliding-folding doors
- freight ropeways

Mobile

- various hydraulic loader cranes
- concrete pumps
- crane truck
- elevated working platforms (EWP)
- excavators
- forestry vehicles/machines

Light

The housings of all Autec transmitters are moulded from a nylon-fibreglass composite material, with high strength and resistance to impact, lubricants, and other chemicals.

The hand-held LK remotes are the lightest and most compact of the range, and are designed for long life in arduous applications.

The pushbuttons are of large diameter, with long travel and tactile feedback, even when wearing heavy gloves. Supplied with a protective pouch and strap, the LK is lightweight and ergonomically designed for operator comfort, even after long periods of intensive use.

Weight: 420 g (with battery)

Dimensions: 80x185x43 mm



Modular

The Modular series is available in both push-button (MK) and joystick (MJ) styles.

The award-winning design of the MJ controller places the joysticks at the optimum operating position, and its strong and lightweight construction makes it the perfect choice when accurate control, and long operation times without operator fatigue are required.

The Modular series is fail-safe to Category 3 (EN954-1) for both the STOP function, and in its protection against unexpected motion.

Both the hand-held and joystick transmitters are available with a Data-Feedback option - LCD or LED displays on the transmitter can show status or alarm information from the controlled machine.



E16

The E16 series has proven reliability and performance in a variety of industries over many years.

A variety of joysticks, switches and other controls are available to customise the controllers to a special application.

The tough, full colour labels allow for logos, diagrams, or other special requirements.

The specialised KTC model has no pushbuttons, joysticks, or other operator controls – its DIN-rail mounting transmitter instead provides inputs that may be connected to external controls, or other devices such as PLCs.



C26PRO






The C26PRO series remote controls are designed for applications with complex interfaces, and those with the highest safety requirements. The transmitters can be fully-customised, and the versatile receivers have a modular construction with a wide variety of plug-in cards available for various functions. The STOP function is protected against faults to Category 4 of EN954-1, and there is protection to Category 3 against faults causing unexpected motion. The PRO-M variant is purpose-designed for mobile machines, with a rugged and compact receiver that will operate over a large range of voltages.


































Modular



Version	Description	Max number of commands	Safety category Motion commands / Stop	Receiving unit power supply	Operating time (@20°C in continuous use)	Radio 433 MHz ¹	Radio 870 MHz ²	Radio 915 MHz ³	Radio 450 MHz ⁴	Radio 472 MHz ⁵	Applicable sector
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MK 10-14	10 pushbuttons (4 double step)	12	2	3	AC	15	X	X	X		  
MK 10-16	 10 double step pushbuttons	14	3	3	AC	15	X	X	X		  
MK 10-22	 10 double step pushbuttons	20	3	3	AC	15	X	X	X		  
MK 12-22	 12 double step pushbuttons	28	3	3	AC	15	X	X	X		 
MK 10-DF	 10 double step pushbuttons	20	3	3	AC/DC	8	X				  















MJ 01 TÜV	 2 multistep joysticks and 2 toggle switches	14	3	3	AC	15	X	X	X		
MJ 01	2 multistep joysticks and 2 toggle switches	14	2	3	AC	15	X	X	X		
MJ 01-14	2 multistep joysticks and 1 toggle switch	12	2	3	AC	15	X	X	X		
MJ 02 TÜV	 2 multistep joysticks and 2 toggle switches	20	3	3	AC	15	X	X	X		
MJ 02	2 multistep joysticks and 2 toggle switches	20	2	3	AC or DC	15	X	X	X		
MJ 03 TÜV	 2 multistep joysticks and 2 toggle switches	20	3	3	AC	15	X	X	X		  
MJ 03	2 multistep joysticks and 2 toggle switches	20	2	3	AC or DC	15	X	X	X		  
MJ 03-14	2 multistep joysticks and 2 toggle switches	12	2	3	AC	15	X	X	X		  
MJ 04	max 10 toggle switches	20	2	3	AC or DC	15	X	X	X		  
MJ 05	3 joysticks and max 4 toggle switches	20	2	3	DC or AC	15	X	X	X		  
MJ 01-DF TÜV	 2 multistep joysticks and 2 toggle switches	14	3	3	AC/DC	8	X				
MJ 01-DF	2 multistep joysticks and 2 toggle switches	14	2	3	AC/DC	8	X				
MJ 02-DF TÜV	 2 multistep joysticks and 2 toggle switches	20	3	3	AC/DC	8	X				
MJ 02-DF	2 multistep joysticks and 2 toggle switches	20	2	3	AC/DC	8	X				
MJ 03-DF TÜV	 2 multistep joysticks and 2 toggle switches	20	3	3	AC/DC	8	X				 
MJ 03-DF	2 multistep joysticks and 2 toggle switches	20	2	3	AC/DC	8	X				 
MJ 04-DF	max 10 toggle switches	20	2	3	AC/DC	8	X				



Version	Description	Max number of commands	Safety category Motion commands / Stop		Receiving unit power supply	Operating time (@20°C in continuous use)	Radio 433 MHz ¹	Radio 870 MHz ²	Radio 915 MHz ³	Radio 450 MHz ⁴	Radio 472 MHz ⁵	Applicable sector
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Light



LK 4-1	4 single step pushbuttons	4	2	3	AC or DC	12	X	X	X			  
LK 4-2	4 double step pushbuttons	6	2	3	AC	12	X	X	X			  
LK 6-1	6 single step pushbuttons	6	2	3	AC or DC	12	X	X	X			  
LK 6-2	6 double step pushbuttons	9	2	3	AC or DC	12	X	X	X			 
LK 8-2	8 double step pushbuttons	12	2	3	AC or DC	12	X	X	X			  

E16



SIRIO T22	2 multistep joysticks and 2 toggle switches	19	2	3	AC or DC	15	X	X				
SIRIO C22	2 multistep joysticks and 2 toggle switches	20	2	3	AC or DC	15	X	X				  
SIRIO 42-30	2 joysticks and up to 3 toggle switches; up to 13 toggle switches	28	2	3	AC or DC	15	X	X				  
SIRIO 42-42	3 joysticks and up to 6 toggle switches	40	2	3	AC/DC	15	X	X				  
KTC01	data transmission kit	20	2	3	AC/DC	/	X	X	X			



CAPTION:



TOWER CRANE



EOHTC



HYDRAULIC CRANE



INDUSTRY



CONCRETE PUMP



CONCRETE MIXER



GANTRY CRANE



FORESTRY



TELEHANDLER



SEWER CLEANER



CONCRETE PUMP/MIXER



PRODUCT CERTIFICATION

Version	Description	Max number of commands	Safety category Motion commands / Step			Receiving unit power supply	Operating time (@20°C in continuous use)	Radio 433 MHz ¹	Radio 870 MHz ²	Radio 915 MHz ³	Radio 450 MHz ⁴	Radio 472 MHz ⁵	Applicable sector
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C26PRO



KD10 A1		9 single step pushbuttons	9	3	4	AC or DC	12	X	X		X	X	
KD10 A2		8 double step pushbuttons+1 single step	13	3	4	AC or DC	12	X	X		X	X	
KD10 B1		10 single step pushbuttons	10	3	4	AC or DC	12	X	X		X	X	
KD10 B2		10 double step pushbuttons	15	3	4	AC or DC	12	X	X		X	X	



MD 18		max 3 multistep joysticks	18	3	4	AC or DC	12	X	X		X	X	
MD 24		max 3 multistep joysticks	24	3	4	AC or DC	12	X	X		X	X	
MD 31		max 3 multistep joysticks	31	3	4	AC or DC	12	X	X		X	X	



MA 22		2 proportional two-axis joysticks	4+ 12	3	4	AC or DC	10	X	X		X	X	
MA 32		3 proportional two-axis joysticks	6+ 12	3	4	AC or DC	10	X	X		X	X	
MA 41		4 proportional mono-axis joysticks	4+ 12	2	4	AC or DC	10	X	X		X	X	
MA 61		6 proportional mono-axis joysticks	6+ 12	2	4	AC or DC	10	X	X		X	X	



PRO-M 02		2 proportional two-axis joysticks	4+ 12	3	4	DC	10	X	X	X	X	X	
PRO-M 03		3 proportional two-axis joysticks	6+ 12	3	4	DC	10	X	X	X	X	X	
PRO-M 04		4 proportional mono-axis joysticks	4+ 12	2	4	DC	10	X	X	X	X	X	
PRO-M 06		6 proportional mono-axis joysticks	6+ 12	2	4	DC	10	X	X	X	X	X	

¹ Radio equipment frequency 433 MHz R&TTE

² Radio equipment frequency 870 MHz R&TTE

³ Radio equipment frequency 915 MHz FCC (USA) - part 15

⁴ Radio equipment frequency 450 MHz FCC (USA) - part 90

⁵ Radio equipment frequency 472 MHz AS (AUS)

Transmitting units series Light

Each system includes

- Handheld transmitting unit
- Belt pouch
- Panel serigraph kit
- Receiving unit
- Receiving antenna
- 2 rechargeable NiMH batteries
- Battery charger
- User manual
- CE Declaration of conformity
- Warranty certificate



LK4



LK6

LK8



LK transmitter/receiver matching table

Transmitter	Main motion pushbuttons	Receiver
LK 4-1	4 single speed	Type A, C, D
LK 4-2	4 double speed	Type C, D
LK 6-1	6 single speed	Type A, C, D
LK 6-2	6 double speed	Type B, C, D
LK 8-2	8 double speed	Type B, C, D

Technical data

Operating time (@ 20°C)	12 hours
Dimensions	80x185x43 mm
Weight	420 g (with battery)
Low battery warning	ca. 3,5 minutes
Protection degree	IP65
Operating temperature	(-20°C) - (+55°C)

Transmitting units series Modular

Each system includes

- Transmitting unit (MK pushbutton handset or MJ joystick controller)
- Shoulder harness
- Panel serigraph
- Receiving unit
- 2 rechargeable NiMH batteries
- Battery charger
- User manual
- CE Declaration of conformity
- Warranty certificate

Data Feedback version

- Transceiver unit (MK pushbutton handset or MJ joystick controller) with LCD display and/or LED
- Shoulder harness
- Customized panel serigraph
- Panel mounting transceiver (IP20)
- Antenna with 2,5 m cable
- 2 rechargeable NiMH batteries
- Battery charger
- User manual
- CE Declaration of conformity
- Warranty certificate

MK transmitter/receiver matching table

Transmitter	Main motion pushbuttons	Receiver
MK 10-14	4 double speed + 4 single speed	Type D
MK 10-16	8 double speed + 2 single speed	Type B, C
MK 10-22	10 double speed	Type B, C
MK 12-22	12 double speed	Type B, C
MK 10-DF	10 double speed	Type C

MJ transmitter/receiver matching table

Transmitter	Joystick / toggle switch	Receiver
MJ 01 TÜV / MJ 01	2 multistep / 2	Type B, C
MJ 01-14	2 multistep / 1	Type D
MJ 02 TÜV / MJ 02	2 multistep / 2	Type B, C
MJ 03 TÜV / MJ 03	2 multistep / 2	Type B, C
MJ 03-14	2 multistep / 2	Type D
MJ-04	10 toggle switches	Type B, C, D
MJ-05	3 monostep / 4	Type B
MJ 01-DF TÜV / MJ 01-DF	2 multistep / 2	Type C
MJ 02-DF TÜV / MJ 02-DF	2 multistep / 2	Type C
MJ 03-DF TÜV / MJ 03-DF	2 multistep / 2	Type C
MJ 04-DF	10 toggle switches	Type C

MK, MJ technical data

Operating time (@ 20°C)	15 hours (MK and MJ); 8 hours (MK DF and MJ DF)
Dimensions	85x260x56 mm (MK); 255x170x126 mm (MJ)
Weight	700 g (MK and MK DF); 1,3 Kg (MJ); 1,4 Kg (MJ DF)
Low battery warning	ca. 3,5 minutes
Protection degree	IP65
Operating temperature	(-20°C) - (+55°C)



MK 10



MK 10DF



MK 12



MJ



MJ DF



Unità Trasmettenti Serie E16

Ogni impianto comprende

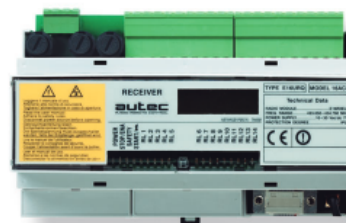
- Unità trasmittente a marsupio
- Cinghia a tracolla + cintura
- Pannello comandi
- Unità ricevente
- Nr 2 batterie NiMH ricaricabili
- Caricabatterie
- Manuale d'uso
- Dichiarazione di conformità CE
- Certificato di garanzia



SIRIO

KTC - Kit Trasmissione Comandi

- Unità di trasmissione
- Unità di ricezione
- Antenna trasmittente
- Antenna ricevente
- Manuale d'uso e installazione
- Manuale di assistenza
- Dichiarazione di conformità CE
- Certificato di garanzia



KTC

SIRIO Unità Riceventi combinabili

Trasmittente	Joystick / selettori	Ricevente
SIRIO T22	2 multistep / 2 selettori	Tipo B
SIRIO C22	2 multistep / 2 selettori	Tipo B
SIRIO 42-30	on demand	Tipo B
SIRIO 42-42	on demand	Tipo C
SIRIO DF	2 multistep / 5 selettori	Tipo C

KTC Unità Riceventi combinabili

Trasmittente	Comandi	Ricevente
KTC01	14 (10 contemporanei) + 6 opzionali	Tipo C

Dati tecnici

Autonomia (20°C)	15 ore (SIRIO e SIRIO 42); 12 ore (SIRIO DF)
Dimensioni SIRIO	236x173x160 mm
Dimensioni KTC	160x110x75 mm
Peso	1,4 Kg (SIRIO); 400 g (KTC)
Preavviso batteria scarica	circa 3,5 minuti
Grado di protezione	IP65 (SIRIO); IP20 (KTC)
Temperatura di lavoro	[(-20°C) - (+55°C)] per SIRIO; [(-20°C) - (+70°C)] per KTC

Transmitting units series C26PRO

Each system includes

- Handheld transmitting unit (KD10) or waist control unit (MD, MA and PRO-M)
- Shoulder harness (KD10) + belt harness (MA, MD, PRO-M)
- Customized panel serigraph
- Receiving unit
- Receiving antenna (PRO-M)
- 2 rechargeable NiMH batteries
- Battery charger
- User manual
- CE Declaration of conformity
- Warranty certificate



KD10

KD10 transmitter/receiver matching table

Transmitter	Main motion pushbuttons	Receiver
KD10 A1	9 single speed	C26PRO
KD10 A2	8 double speed + 1 single speed	C26PRO
KD10 B1	10 single speed	C26PRO
KD10 B2	10 double speed	C26PRO



MD

MD, MA, PRO-M transmitter/receiver matching table

Transmitter	Joystick / Toggle switch	Receiver
MD 18	up to 3 / up to 6	C26PRO
MD 24	up to 3 / up to 6	C26PRO
MD 31	up to 3 / up to 6	C26PRO
MA 22	2 proportionals / up to 6	C26PRO
MA 32	3 proportionals / up to 6	C26PRO
MA 41	4 linear / up to 6	C26PRO
MA 61	6 linear / up to 6	C26PRO
PRO-M 02	2 proportionals / up to 6	PRO-M
PRO-M 03	3 proportionals / up to 6	PRO-M
PRO-M 04	4 linear / up to 5	PRO-M
PRO-M 06	6 linear / up to 5	PRO-M



PRO-M

Technical data

Operating time (@ 20°C)	12 hours (KD10 and MD); 10 hours (MA and PRO-M)
Dimensions	94x305x51 mm (KD10); 236x173x160 mm (MD, MA, PRO-M)
Weight	1 Kg (KD10); 1,9 Kg (MD, MA, PRO-M)
Protection degree	IP65
Operating temperature	(-20°C) - (+70°C)

Receiving units series Light, Modular, E16

There are four types of receiver for the different applications; models A, B and D are external with protection degree IP65, whereas C is hooked up to the DIN cable of the control panel of the machine (IP20).



Type A



Type B



**Type C
(DIN cable)**



Type D

Receiving units Light

	Number of functions	Power supply	Protection degree	Dimensions	Stop contact rating	Motion contacts rating
Type A (DC)	8	8 - 30V	IP65	120x200x90 mm	10A - 30Vdc	6A - 30Vdc
Type B (DC)	20	12V or 24V	IP65	202x381x91 mm	10A - 30Vdc	10A - 30Vdc
Type C (AC/DC)	14 + 6 opt.	10 - 30V	IP20	160x110x75 mm for 20 functions version 232,5x110x75 mm	4A - 250Vac 4A - 250Vdc	4A - 250Vac 4A - 250Vdc
Type D (AC)	12 + 8 opt.	25/35/50/110/230V	IP65	180X275X95 mm	4A - 250Vac	6A - 250Vac

Receiving units Modular

	Number of functions	Power supply	Protection degree	Dimensions	Stop contact rating	Motion contacts rating
Type B (AC)	14	24/48/55/110/230V	IP65	202x381x91 mm	4A - 250Vac	10A - 250Vac
Type B (AC)	20	24/48/55/110/230V	IP65	202x381x91 mm	4A - 250Vac	10A - 250Vac
Type B (DC)	20	12V or 24V	IP65	202x381x91 mm	10A - 30Vdc	10A - 30Vdc
Type C (AC/DC)	14 + 6 opt.	10 - 30V	IP20	160x110x75 mm for 20 functions version 232,5x110x75 mm	4A - 250Vac 4A - 250Vdc	4A - 250Vac 4A - 250Vdc
Type D (AC)	12 + 8 opt.	25/35/50/110/230V	IP65	180X275X95 mm	4A - 250Vac	6A - 250Vac

Receiving units E16

	Number of functions	Power supply	Protection degree	Dimensions	Stop contact rating	Motion contacts rating
Type B (AC)	20	24/48/55/110/230V	IP65	202x381x91 mm	4A - 250Vac	10A - 250Vac
Type B (DC)	20	12V or 24V	IP65	202x381x91 mm	10A - 30Vdc	10A - 30Vdc
Type C (AC/DC)	14 + 6 opt.	10 - 30V	IP20	160x110x75 mm for 20 functions version 232,5x110x75	4A - 250Vac 4A - 250Vdc	4A - 250Vac 4A - 250Vdc

Receiving units series C26PRO

The C26PRO series utilises a receiver with a modular bus construction, for which a wide variety of plug-in modules are available. This design allows the simple configuration of custom systems, including those with multiple receivers (Tandem) and multiple transmitters (Take/Release, Pitch&Catch). Also available is a Master/Slave configuration, where two systems may be used independently, or together in tandem. The PRO-M variant of the receiver has been purpose-designed for mobile applications, where its compact dimensions, rugged enclosure, and wide power supply tolerance are especially advantageous. Teamed with a proportional joystick transmitter, the PRO-M is the perfect solution for truck cranes, work platforms, and other hydraulic machines.



Receiving unit C26PRO

Receiving unit C26PRO

Functions	18, 24 or 31 (MD); max 6 prop. + 12 on/off (MA)
Power supply AC	24/48/55/110/130/220/240V \pm 20%, 50/60 Hz
Power supply DC	12V or 24V (opt. 8 - 30V)
Dimensions	250x338x150 mm
Protection degree	IP65
Stop contacts rating	10A - 250Vac
Motion contacts rating	10A - 250Vac
Operating temperature	(-20°C) - (+70°C)

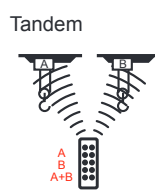
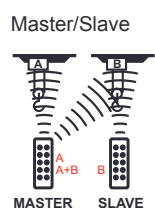
Receiving unit PRO-M

Functions	max 6 prop. + 12 on/off
Power supply DC	8 - 30V
Dimensions	180x275x95 mm
Protection degree	IP65
Stop contacts rating	10A (30V)
Motion contacts rating	4A (30V)
Operating temperature	(-20°C) - (+70°C)

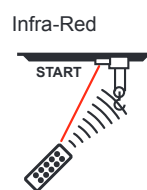


Receiving unit PRO-M

Multiple systems



Extra safety



Our experience at your service

Safety remote controls are our business - we have experts to assist you at all stages of your project, from the design stage through to commissioning and after-sales support. We can assist you in choosing the best type of

controller for your task, and adapt the layout and labelling to suit your needs. Our authorised sales, installation, and support network is extensive, so expert assistance is always at hand.



CAPTION
○ AUTECH s.r.l.
● service centre



CAPTION
● branch
● partner

Applicable sectors







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