RS420 Series Stick Reader ISO Compatible

With Integral Battery Pack and LCD Readout

Models RS420-45CM/RS420-60CM

General Description

The Allflex Model RS420 Series Stick Reader is an extremely rugged, portable hand-held RFID scanning device that provides cable-free operation through its rechargeable 7.4VDC Li-Ion battery pack and wireless communication via its integrated Bluetooth® module. The RS420 Series readers conform to the technical specifications of ISO Standards 11784 and 11785, including built in wireless synchronization. With built in wireless synchronization you can operate multiple RS420 readers in the same vicinity without causing interference between readers. The RS420 Series Stick Reader provides exceptional scanning functionality for HDX or FDX-B RFID tags. The RS420 is designed with a larger display and high contrast LCD display screen that includes a battery level indicator, connection status indicator, and clock. The large "Green" thumb-actuated Power On/Read button activates the reader. A Red "Exciter Active" visual indicator alerts the user that the reader is "looking" for a tag within range. Once a tag is detected, an audible beeper and vibrating handle, along with a Green visual indicator that alerts the user that the tag was successfully scanned and stored to memory. The "Black" thumb-actuated button allows the user to access the reader menu. The LCD readout also displays the RFID tag number, tag type, session and total tag count. Power is provided to the RS420 Series through its removable 7.4VDC Li-Ion rechargeable battery pack which provides optimum operating time for scanning your livestock. The Li-Ion battery is recharged by using the detachable one meter long coiled cable, with a DB9(f) data connector containing an integral coaxial power jack, and provided power supply. The Stick Reader comes with a Windows® based PC utility program called "*EID Tag Manager"* which can be used to configure or download tag data into useful formats (Xcel, Word, etc.) The Stick Reader's internal memory holds 100,000 (10,000 animals per session) RFID tag numbers.

Construction

The Allflex Series Stick Reader is assembled in a rugged fiberglass tube enclosure that has been designed to be easy to hold and operate with either hand, and is convenient to position in the vicinity of the transponder being scanned. The scanning antenna coil is internally mounted in the forward end of the tube and is oriented for optimal read distance with ear tags when the axis of the transponder is coaxial to the axis of the enclosure tube. This antenna produces a read zone that extends 360º around the end of the tube in axial and radial planes, allowing transponders to be read in any relative orientation. The Allflex RS420 Series Stick Reader is available in 45cm and 60cm lengths, and weighs approximately 830g (29.4 ounces), including the battery pack. The Stick Reader is sealed to IP67 specifications for being dust tight and water immersible for brief periods.

Performance Capabilities

The Allflex RS420 Series Stick Reader is capable of reading the Allflex 30mm HDX RFID ear tag transponder at a maximum distance of 42cm (16.5") (optimum orientation). FDX-B eartag transponders can be read at a maximum distance of 36cm (15.5"). The RS420 will also read HDX & FDX-B Implants of various sizes.

Ordering Information

SKU	Description
Allflex Model RS420-60	60cm Length
Allflex Model RS420-45	45cm Length

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SPECIFICATIONS

GENERAL

Form Factor:	Portable Handheld Fiberglass Tube Enclosure, ABS plastic w/Rubber Handle Grip
User Interface:	Single "Press to Read" Green Activation Button Red LED "Exciter Active" Visual Indicator Vibrating Handle, Audible Beeper and Green LED "Good Read" Visual Indicator Hi Contrast LCD Readout for tag number, tag type, and tag counters RS232 Serial Data Port, USB Software upgradeable via RS232 serial port or USB
Bluetooth® Interface:	Internal Class 1 (up to 100m) Serial Port Profile (SPP) and iPod Accessory Protocol (iAP)
RS232 Serial Port & USB:	1200 BPS to 57.6 KBPS (9600N81 default setting)
Serial Data ID Code Format	Decimal or Hexadecimal Mfr/Country Code + National ID Code
Memory:	Stores 100,000 (10,000 per session) transponder codes in non-volatile memory for download
User Menu:	Accessed by holding the "Black" button down for 3 seconds
Power/Data Interface:	Detachable 1 meter coiled cable (extends to 3 meters) or 3 meter straight cable w/DB9 female connector & 2.5mm x 5.5mm coaxial power jack
Battery Power: Battery charge Duration:	7.4VDC-2600mAh rechargeable Li-Ion Battery 3 hours
Agency Certifications:	Electromagnetic Compatibility - FCC Part 15 Class B (FCC NQY-30002), Industry Canada RSS-210 (IC 4246A-3002), and CISPR 22 (EN55022), and EN50082-1 Product Safety - UL1950, IEC950 (CE Marked) ISPRA Certification ISO 11784 & 11785 ISO 24631-2 (Approval code 2013001) CCIA Approval

PHYSICAL/ENVIRONMENTAL

Dimensions:	45cm L (RS420-45) or 60cm L (RS420-60) x 32mm diameter
Weight:	45cm 810g (28.6 oz) 60cm 830g (29.3 oz)
Material:	UL94V0 Fiberglass and ABS UL94 HB Plastic
Color:	Black/ Green
Operating Temperature	-20ºC to +55ºC (+4°F to +131°F) (IEC68.2.1/.2)
Storage Temperature	-30ºC to +70ºC -22°F to +158°F) (IEC68.2.1/.2)
Humidity:	0 to 85% (IEC68.2.56)
Altitude:	-100 to +3,000 meters
Mechanical Shock:	Per IEC 68-2-27 (15g/11mS sawtooth) & 1 meter free-fall drop onto concrete/6 cycles)
Vibration:	Per IEC 68-2-6 (10-55 Hz sinusoidal/0.75mm displ./1 oct/min./10 cycles)
Hermeticity:	IP-67 (dust-tight/water immersible) per IEC 529

PERFORMANCE

Read Distance: (@ 7.4VDC) (Best Orientation)	42cm (16.5") (Allflex 30mm HDX eartag) 36cm (15.5")(Allflex 30mm FDX-B eartag)
Reading Orientation:	0º to 45º with less than 10% range decrease
Read Zone:	360º in radial and axial planes with respect to end of reader enclosure
Interrogation Rate:	~ 9 times/second
Read Error Rate:	Less than 1 in 10^6
Exciter Signal Radiated Field Strength:	84 dBuV/m @ 10 meters with 9.6 VDC power input