

# Stick Reader ISO Compatible

## With Integral Battery Pack and LCD Readout

### RS320-60/RS320-45



#### General Description

The Allflex Model RS320 Stick Reader is an extremely rugged hand-held passive transponder reading device that provides cable-free operation through its internal rechargeable battery pack. Like its predecessor Model RS250, the RS320 is compatible with the technical specifications of ISO Standards 11784 and 11785, including both FDX-B and HDX technologies. The RS320 Stick Reader provides the basic RFID reader functions of reading, storing, displaying, and transmitting via RS232 serial data the identification code contained within passive transponder for real time and batch mode data logging. The user interface consists of (1) a large thumb-actuated Read button, (2) a Red "Exciter Active" visual indicator, (3) an audible beeper and Green "Good Read" visual indicator, and a two line by 16 character LCD readout that displays the tag number information, tag type, and tag counter. Power is provided to the RS320 through its internal 9.6 VDC rechargeable battery pack, which provides sufficient operating time to fill the Stick Reader's internal 3223 tag number memory. Serial data and battery charging are connected to the Stick Reader through a detachable one meter long coiled cable or a three meter long straight cable, which are terminated with a DB9(f) data connector containing an integral coaxial power jack. The Stick Reader is provided with a Windows® based PC utility *Configurator*®, which provides users an easy means of customizing the Stick Reader's serial data format and operating modes.



#### Construction

The Allflex 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 eartags when the axis of the transponder is coaxial to the axis of the enclosure tube. This antenna produces a read zone that extends 360° around the end of the tube in axial and radial planes, allowing transponders to be read in any relative orientation. The Allflex Stick Reader is available in 45cm and 60cm lengths, and weighs approximately 0.68 kg (24 ounces), including the battery pack. The Stick Reader is hermetically sealed to IP67 specifications for being dust tight and immersible in water.

#### Performance Capabilities

The Allflex Stick Reader is capable of reading the Allflex 30mm HDX/HP eartag transponder at a minimum distance of 35cm (13.77") (optimum orientation). FDX-B eartag transponders can be read at a minimum distance of 22cm (8.66").

#### Ordering Information

##### SKU

Allflex Model RS320-60  
Allflex Model RS320-45

##### Description

60cm Length  
45cm Length

#### Accessories

AK320 --Battery Pack Fast Charger  
PW320--Replacement battery pack 9.6VDC

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### SPECIFICATIONS

RFID Compatibility:	ISO 11784 & 11785 HDX and FDX-B
Form Factor:	Portable Handheld Fiberglass Tube Enclosure w/Rubber Handle Grip
User Interface:	Single "Press to Read" Activation Button Red LED "Exciter Active" Visual Indicator Audible Beeper and Green LED "Good Read" Visual Indicator 2 x 16 LCD Readout for tag number, tag type, and tag counter information RS232 Serial Data Port Software upgradeable via RS232 serial port
RS232 Serial Port:	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 up to 3,223 transponder codes in non-volatile memory for download
User Options:	Non-volatile mode control options selectable via RS232 serial port interface
Power/Data Interface:	Detachable 1 meter coiled cable (extends to 3 meters) or 3 meter straight cable w/DB9(f) connector & 2.5mm x 5.5mm coaxial power jack
Battery Power:	Internal 9.6 VDC Rechargeable NiMH Battery Pack
Agency Certifications: (PENDING)	Electromagnetic Compatibility - FCC Part 15 Class A, Industry Canada RSS-210, and CISPR 22 (EN55022), and EN50082-1 Product Safety - UL1950, IEC950 (CE Marked) ISPRA Certification

### PHYSICAL/ENVIRONMENTAL

Dimensions:	45cm L (RS320-45) or 60cm L (RS320-60) x 32mm diameter
Weight:	0.62 kg. (22 ounces)
Material:	UL94V0 Fiberglass and ABS UL94 HB Plastic
Color:	Yellow / Black
Operating Temperature	-10°C to +55°C (IEC68.2.1/.2)
Storage Temperature	-40°C to +85°C (IEC68.2.1/.2)
Humidity:	0 to 95% (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)
Vibration:	Per IEC 68-2-6 (10-55 Hz sinusoidal/0.75mm displ./1 oct/min./10 cycles)
Hermeticity:	IP-67 (dust-tight/immersible) per IEC 529

### RELIABILITY

MTBF:	50,000 hours
MTTR:	0.5 hours (not field serviceable)
Expected Life:	5 years, minimum

### PERFORMANCE

Read Distance: (@ 9.6 VDC)	35cm (13.77") (minimum - Allflex 30mm HDX/HP eartag) 22cm (8.66") (minimum - Allflex 31mm FDX-B eartag)
Reading Orientation:	0° to 45° with less than 10% range decrease
Read Zone:	360° 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 <sup>6</sup>
Exciter Signal Radiated Field Strength:	84 dBuV/m @ 10 meters with 9.6 VDC power input

