



# AIRCOM



# / LISTENING

In an age of technical and content networking, nothing is more important than reliable communication: Communication is only as good as the quality and completeness of the information transmitted and actually received.

The choice of the optimal communication channel to ensure reliability, speed and security is therefore absolutely essential. With Aircom™ we offer a transmission technology that can operate over a distance of 40 km with military encryption, completely independent of GSM and without power supply at the measuring point.



Thus Aircom™ can also be used in hazardous areas and is scalable and expandable as a communication system without creating license dependencies.

This makes Aircom™ an absolute novelty and our answer to the requirements of our customers in today's world.



# / THIS IS ASHCROFT

## DEVELOPMENT FROM TRADITION

When Edward Ashcroft founded our company in 1852, his mission was to protect the steam-powered industry and its workers by using more sophisticated and reliable instruments. Times have changed, but not our attitude. With a history of more than 165 years, of which more than 40 years with our own production in Europe, we have experienced and learned a lot. Together with our customers, we have mastered three industrial revolutions, survived global and regional conflicts and crisis's. We look forward to accompanying our customers with our products in the fourth industrial revolution as well.

## GLOBAL - REGIONAL - LOCAL

Globally positioned - regionally represented and locally available for you. With local contacts who speak your language and are ready to solve your challenges.

## OUR GREATEST STRENGTH

All of Ashcroft's products and services are the result of our exceptional people. We are all passionate about our common goal, the best customer satisfaction. Ashcroft is inspired of a common commitment to our work and to each other. Combining the talents of our diverse workforce makes us more competitive, resilient and better able to respond to the ever-changing needs of our customers and markets.

## OUR MOTIVATION

As a customer and partner, you are the focus of our attention. We are passionate about designing and producing the most innovative, high quality pressure and temperature measuring instruments on our planet.

## OUR VALUES

Our five corporate values are not abstract, but are lived by us, and every Ashcroft employee bases his or her daily actions on them.



## THINK CUSTOMER FIRST

Every measure, every plan and every project is aimed first and foremost at you, our customer. We see the world through your eyes.

## NEVER SETTLE / CHALLENGE THE STATUS QUO

What was true yesterday is not necessarily true today. At Ashcroft, we challenge each other to never be indifferent, to keep improving ourselves and the company.

## RESPECT EACH OTHER

We celebrate our diversity, share our ideas and intensify our collective thinking. We act and discuss in mutual respect and thus find better solutions.

## THINK BEYOND BORDERS

Across geographical borders. Beyond the factory. Beyond your own area of responsibility. Beyond the personal comfort zone.

## WIN AS A TEAM

The common goal is more important to us than our own.

ADVANCED  
INTRINSICALLY SAFE  
**/ ASHCROFT AIRCOM**  
RADIO  
COMMUNICATIONS

AIRCOM

## / ASHCROFT AIRCOM

Aircom™ is a stand-alone, battery-operated communication system capable of collecting data from various measuring instruments and transmitting this information wireless via LoRaWAN.

With its powerful microprocessor it can act as a data logger, remote terminal (RTU) or control unit to fulfil the role of any monitoring and control application. Ashcroft Aircom™ is designed to withstand the harshest environments and is capable of securely transmitting data from the plant to any control center worldwide.

With a Bluetooth app, Ashcroft Aircom™ is easy to install and configure and can be operated without human involvement.

Data encryption is done according to military standards.

The device gives users in the process industry confidence that all critical data is monitored securely and accurately, ensuring successful manufacturing operations.

**THE SYSTEM CONFIGURATION OF THE ASHCROFT AIRCOM™ IS COMPLETELY MANUFACTURER INDEPENDENT.**

Therefore, measuring instruments of all types and manufacturers can be connected.

This maximizes flexibility when redesigning or revitalizing existing processes and applications.

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## / CONNECTION OPTIONS

WITH UP TO 8 DIFFERENT CONNECTIONS ASHCROFT AIRCOM™ GIVES THE USER THE FULL SPECTRUM FOR WIRELESS TRANSMISSION OF MEASURED VALUES.

### Digital inputs

4 digital inputs, standard configured options

-  Digital contact
-  Impulse
-  Inductive contacts according to NAMUR

### Analogue inputs

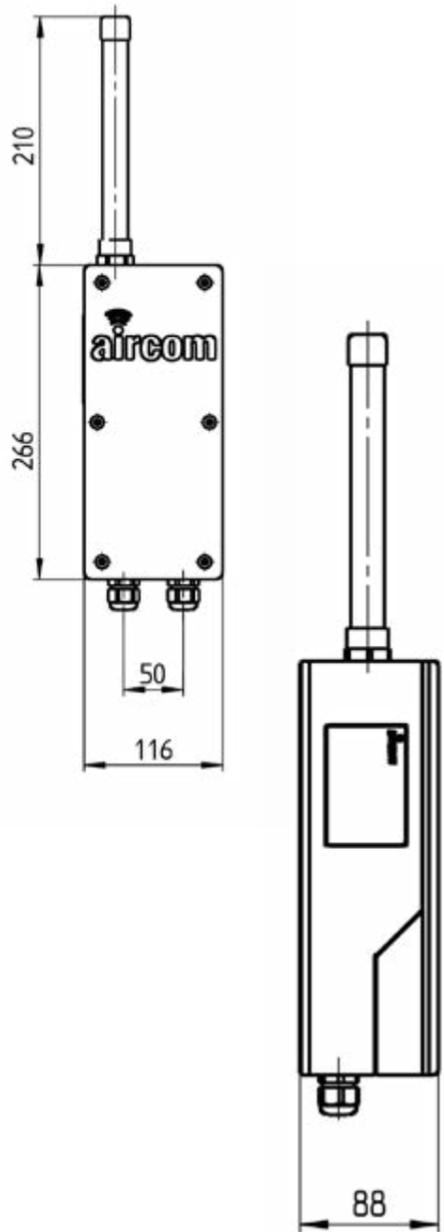
2 analogue inputs, standard configuration includes

-  4-20 mA (HART capable)
-  0-5 VDC
-  0-10 VDC
-  Resistance thermometer (RTD) / resistance characteristics stored in Aircom™
-  Thermocouples (TC) / voltage characteristics stored in Aircom™

### Serial inputs

2 serial inputs, standard configuration includes

-  RS232
-  RS485
-  Full or half duplex



AIRCOM

## / MONITORS ALMOST EVERY INSTRUMENT



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THE ASHCROFT AIRCOM™ TRANSMISSION CHANNELS CAN BE CONFIGURED BY THE MOBILE BLUETOOTH APPLICATION AND ASSIGNED TO A DIGITAL, ANALOGUE OR SERIAL CONNECTION.

The ranges and parameters of the connected measuring device can also be set intuitively via the app. By means of complex calculations in the background, the integrated microcontroller makes smart and simple monitoring of critical process and application data possible for the user.

The software application is available for iOS and Android.

In addition to intuitive control, the focus here is also on the security of transmission and data: the Bluetooth chip built into the device is activated by a magnetic switch and enables the Ashcroft Aircom™ to connect to the mobile device through an adjustable activation sequence. Access within the app is via user name and password.

ASHCROFT AIRCOM™ IS II 1G EX IA IIC T4 GA APPROVED AND CAN THEREFORE BE INSTALLED IN THE MOST DEMANDING ENVIRONMENTS.

Using the original military and encrypted LoRaWAN technology, the Ashcroft Aircom™ has a range of up to 40 km. With the optional Ashcroft Aircom Server-Tool™, data can be transmitted to any global location.

The integrated battery supplies both Aircom™ and the connected measuring instruments with energy with a service life of over 10 years. On request, further external battery packs or an external power supply can be added.



## / PRODUCT FEATURES

- Free communication infrastructure via LoRaWAN
- 40+ km transmission range (urban areas reduce range)
- Ability to communicate globally with the 'Internet of Things' (IoT)
- ATEX Zone 0 applications
- Protection class IP65 (higher protection class on request)
- 4 digital inputs, 2 analogue inputs and 2 serial inputs
- Supplies the connected measuring instruments with energy
- Integrated I.S. barriers for each channel
- Up to 10+ years battery life (depending on protocol / transmission rate)
- Battery can be changed in hazardous areas
- Device setup and configuration via mobile Bluetooth application (iOS and Android)
- ARM microcontroller offers a wide range of intelligent monitoring options
- Encrypted data protocol ensures secure transmission

## / TECHNICAL SPECIFICATIONS

<b>DIGITAL INPUTS</b>	/ 4 digital inputs / standard configured options include digital contact / pulse / inductive contacts according to NAMUR		
<b>ANALOGUE INPUTS</b>	/ 2 analogue inputs / standard configuration includes 4-20 mA (HART), 0-5 VDC, 0-10 VDC, resistance thermometer (RTD) / resistance curves stored in Aircom™, thermocouple (TC) / voltage curves stored in Aircom™		
<b>SERIAL INPUTS</b>	/ 2 serial inputs / standard configuration includes RS232, RS485 full or half duplex		
<b>DATA TRANSMISSION</b>	/ LoRaWAN (other technologies on request)		
<b>CONFIGURATION</b>	/ The device is configured via mobile Bluetooth app (iOS and Android) / Standard configuration includes battery usage and expected replacement date / Process parameters, ranges and setpoints are customizable / Other intelligent monitoring options are available on request		
<b>PROCESSOR</b>	/ ARM microcontroller	<b>APPROVAL FOR POTENTIALLY EXPLOSIVE ATMOSPHERES</b>	/ II 1G Ex ia IIC T4 Ga
<b>TYPE OF PROTECTION</b>	/ IP65, IP68 on request		
<b>OPERATING TEMPERATURES</b>	/ -20°C to +60°C	<b>WEIGHT</b>	/ 1,54 kg
<b>DIMENSIONS</b>	/ see drawing / M20 antenna connection at the top of the housing / 2 pcs M20 cable gland connections at the bottom of the housing		
<b>ASSEMBLY</b>	/ Mounting kits for pipe mounting and wall mounting available		
<b>BATTERY LIFE</b>	/ 10+ years, depending on the data transmission rate		



**ASHCROFT**<sup>®</sup>  
Trust the shield.<sup>®</sup>



[www.ashcroft.eu](http://www.ashcroft.eu)

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