Concept & Features The story of JACK Components & Functions JACK in detail Technical Specification & Further Information Technical data





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# **01** CONCEPT & FEATURES

With JACK, AFS MEDICAL is now taking the first step towards "smart surgery". JACK is a Multichannel Superior Access Port that offers entirely new and smart features that go beyond existing products.

#### Story

AFS MEDICAL develops instruments for modern surgery - ready to change perspectives and head in new directions. Since the company was established it has focused on future developments such as minimally invasive surgery. As a manufacturer, AFS MEDICAL creates sustainable trends, which allows to take surgery to the next level. Even with the first generation of the ACCESS platform, unprecedented features are now leading the way into operating theatres around the globe. The second generation of intelligent port systems will open up completely new options for modern surgery.

#### Features

JACK breathes new life into analog medical devices by providing intra abdominal LED light. In addition, JACK introduces a completely new way of gas insufflation and smoke evacuation.



#### Working Channels

The universal sealing allows surgical instruments from 5 to 15 mm.

#### **Optional Insufflation Valve**

Recommended for robotic surgery.

#### **Rotating Ring**

Ensures a tight and fully 360° rotation in both directions for ideal instrument position.

#### **Retractor Ring**

The blue ring is used for atraumatic fixation of JACK on the abdominal wall and expands the incision site. Through rolling up the retractor ring the wound protection film adapts to the individual abdominal wall thickness.

#### **Wound Protection Film**

Protects the wound edges and allows secure access to the abdomen.

#### **Ambient Light**

The Samsung LED lamps integrated in the inner ring allow a wider illumination of the abdominal area and thus provide a better visualization of the surgical field for 90 minutes. - -0

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#### **Detachable Port Valves**

The port valves can be detached for easy specimen retrieval.

#### **Control Light**

Blue LED lights confirm the secure and gas-tight connection between port head and wound protector after locking.

#### **Smart Tubing**

The patented system introduces  $CO_2$  directly into the abdomen and simultaneously evacuates smoke if needed.

for ambient light.

#### **Controller Unit**

Manages the power supply of the ambient light and provides the connection valve for CO<sub>2</sub> insufflation and smoke evacuation.

#### **Safety Sensor**

Smoke

Gas

A safety sensor turns off the ambient light, if the temperature of the LED light rises above 40° C.



## **02** COMPONENTS & FUNCTIONS

Jack consists of three parts: the port head, the wound protector and the controller unit. Port head and wound protector can be easily put together or set apart. The wound protector can be used on its own without the port head. In addition, the inner ring on the bottom of the wound protector is connected to the controller unit, allowing various functions to be performed.





Port Head



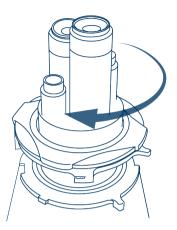
Wound Protector



**Controller Unit** 



Optional Insufflation Valve - for CO<sub>2</sub> insufflation directly on the port head.

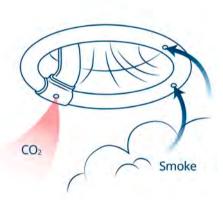


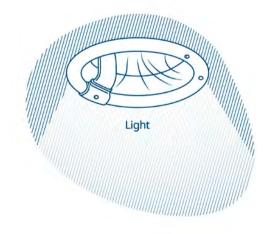
### **Freedom of Movement**

",Smart Sealing" allows the surgeon to rotate the port head without gas loss and thus optimally position the laparascopic instruments.

### **Gas Flow Management**

CO<sub>2</sub> gas insufflation and smoke evacuation are integrated in JACK's inner ring, which ensures much better visability and saves a great deal of space.





# Ambient Light

JACK solves a long-standing problem - with LED lamps integrated directly in the inner ring, the abdominal area can be illuminated indirectly but effectively. This provides more depth and improved visibility in areas that are less covered by scope light. A sensor regulates the temperature of the LED lamps.



## **03** TECHNICAL SPECIFICATION & FURTHER INFORMATION

JACK can be used in general surgery, gynaecology and urology for all kinds of advanced & minimal invasive laparoscopic surgery.

#### **Order Information**

Product Code	Size	Incision Size	Retractor Ring Diameter	Inner Ring Diameter	Valve Configuration	Quantity
J551212S	small	2 cm to 5 cm	12 cm	8 cm	2 x 5-8 mm 2 x 5-15 mm	4 units per box
J551212M	medium	2 cm to 7 cm	15 cm	12 cm		

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### WE ARE REDEFINING THE WORLD OF SURGICAL ACCESS

Our thorough understanding of surgical techniques and challenges allows for smart engineering, superior product functionality and noble design combined with artificial intelligence – innovation beyond imagination.

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