Sesam 800

Robust radio remote control for industrial and mobile applications











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Åkerströms' robust solutions for industrial and mobile radio remote control are reference for professional users worldwide. The experience and expertise we have developed for more than a century is in reality the difference between uptime and downtime and between incidents and accidents.

Furthermore, we know that collaborations in all their forms are the key to breakthrough innovations. We offer this to every customer, regardless of size, industry or area of use, and are a bridge to long and loyal relationships.

This brochure contains information about our radio remote control for industrial and mobile applications: Sesam

Sesam 800 is our product family for radio remote control of industrial applications such as opening systems for doors, booms and gates, switching on and off fans and floodlights. The Sesam 800 series is developed to provide flexibility, reliability, ruggedness and ease-of-use required for applications in demanding industrial environments.

Robust and durable

Sesam 800 is a complete family of transmitters and receivers. The transmitters are very easy to use. Their robust and durable design is equipped with a rubber edge guard that provides shock resistance. They are class IP67, and can be exposed to dust, humidity, and water without interruption. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses.

Feedback indicator and unique codes

The Sesam 800 system uses the 869 MHz frequency band. Communication between the transmitter and receiver is two-way, which allows a feedback indicator on the transmitter to show when a relay is active. The system uses 16.7 million unique codes. Checksums ensure error-free message transmission. For applications with even higher security requirements, the system can be configured for encrypted transmissions.

Receiver with PIN code

The receiver is available in several models: a wall-mounted unit with display, a wall-mounted unit without display, and two smaller units for DIN mounting.

The display unit makes it easy to add or remove new transmitters and system users. It also has a removable memory card for operationally critical systems, which allows each receiver to be used with a large number of transmitters. Settings in the receiver may be passwordprotected with a four-digit code, restricting its functionality to authorised users. Settings and access are controlled easily using the keypad on the display receiver.

Limited or extended range

The range of the system can be limited to avoid undesirable long distance operation. For desired function at long distances i.e. to open, close booms/gates, switch on/off lighting or other function the range can be extended up to double using the Sesam 800 Range Extender.

Configuration tools

The Sesam MC manager is a configuration tool that assists in administration of PIN codes and simplifies installation, configuration, testing and maintenance of large-scale Sesam 800 door installations.

Sesam 800 – Transmitters

The Sesam 800 transmitters are highly robust and easy to use. They are available in six models. Sesam 800 Large 99 is our most advanced transmitter. With the capability to control up to 1,000 receivers, this system is perfect for large installations. The Large 99 transmitter supports group ID coding and can be used with Sesam MC Manager, our proprietary configuration tool that simplifies the installation, configuration, testing and maintenance of large-scale installations. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses. They come equipped with a shock-protective frame.

SESAM 800

Sesam 800 is our product family for radio remote control of industrial applications.



SESAM 800 Large

SESAM 800 Keyring

Number of functions/buttons:

3

Supply voltage CR2025 X2, 6V (2x3V)

Temperature range: -25°C to +55°C

869,8 MHz GMSK

Response time:

50 ms (typ.)

Art. No. Sesam 800 Keyring: 940332-000

Output power: 5 mW

Current consumption: 15 mA during transmission

Protection class:

IP65

67 x 44 x 13 mm

Weight: 30 g



SESAM 800 Small 3

Number of functions/buttons:

3

Supply voltage: 3V (2xAAA)

Temperature range: -25°C to +55°C

869,8 MHz GMSK

Response time:

50 ms (typ.)

Art. No. Sesam 800 Small 3:

940334-000



Current consumption:

15 mA during transmission

IP67

75 x 46 x 22 mm

80 g (incl. batteries)



SESAM 800 Small 6

Number of functions/buttons:

Supply voltage: 3V (2xAAA)

Temperature range:

-25°C to +55°C

Frequency: 869,8 MHz GMSK

Response time: 50 ms (typ.)

Art. No. Sesam 800 Small 6: 944574-000

Output power:

5 mW

Current consumption: 15 mA during transmission

Protection class:

IP67

Size:

75 x 46 x 22 mm

80 g (incl. batteries)



SESAM 800 Medium

Number of functions/buttons:

Supply voltage: 3V (2xAAA)

Temperature range: -25°C to +55°C

Frequency:

869,8 MHz GMSK

Response time:

50 ms (typ.)

Art. No. Sesam 800 Medium 6:

940338-000

Output power:

5 mW

Current consumption:

15 mA during transmission

Protection class: IP67

Size:

100 x 60 x 25 mm

130 g (incl. batteries)



SESAM 800 Large 15

Number of functions/buttons:

Supply voltage:

3V (2xAA)

Temperature range:

-25°C to +55°C

Frequency:

869,8 MHz GMSK

Response time: 50 ms (typ.)

Sesam 800 Large 15:

940340-000

Output power:

5 mW

Current consumption:

15 mA during transmission

Protection class: IP67

120 x 75 x 30 mm

200 g (incl. batteries)



SESAM 800 Large 99

Number of functions:

3

Number of controlled units:

1000

Supply voltage:

3V (2xAA)

Temperature range:

-25°C to +55°C

Frequency:

869,8 MHz GMSK

Response time: 50 ms (typ.)

Art. No. Sesam 800 Large 99:

940341-000

Output power:

5 mW

Current consumption:

30 mA during transmission

Protection class:

IP67

Size:

120 x 75 x 30 mm

Weiaht

200 g (incl. batteries)

Display type:

LCD, 1 row 3 characters





Sesam 800 – Receivers

The Sesam 800 receivers are available in four models: wall-mounted unit with LCD display, wall-mounted unit without LCD display, and two smaller units for DIN mounting. The LCD character display makes it easy to add or remove new transmitters and system users. It also has a removable memory card for operationally critical systems, which allows each receiver to be used with a large number of transmitters. Settings in the receiver may be passwordprotected with a four-digit code, restricting its functionality to authorised users. Settings and access are controlled easily using the keypad on the display receiver.

SESAM 800 RX

Number of relays: 3 (SPDT)

Memory capacity Max 100 transmitters

869,8 MHz GMSK

Supply voltage:

12-24 V AC/DC eller 230 V AC

Current consumption: 60mA (+30mA when the relay is active) at 12V DC

Relay contact rating NO/NC 8A/3A 230V AC (resistive load)

Output power: Max 5mW

Art. No. Sesam 800 RX 230 V: Sesam 800 RX 12-24 V AC/DC:

SESAM 800 RXD

500 transmitters or groups of

transmitters (with L99) max.

12-24 V AC/DC eller 230 V AC

60mA (+30mA when the relay is

Current consumption:

NO/NC 8A/3A 230V AC

Number of relays:

Memory capacity:

3 (SPDT)

Frequency

869,8 MHz GMSK

Supply voltage:

active) at 12V DC

Response time:

50 ms (typ.) Temperature range:

-25°C to +70°C

Protection class: IP65

Size: 120 x 90 x 51 mm

Weight 450 g

16.7 million unique codes, CRC-16 hashcheck, configurable security mode with encrypted authentication

Output power: Max 5mW

(resistive load)

Art. No. Sesam 800 RXD 230 V: Sesam 800 RXD 12-24 V AC/DC:

940224-000 941243-000

Response time: 50 ms (typ.)

Temperature range: -25°C to +70°C

Protection class: IP65

Size:

120 x 90 x 51 mm

450 g

Other

16.7 million unique codes, CRC-16 hashcheck, configurable security mode with encrypted authentication

940156-000 941244-000





SESAM 800 RX DIN

Number of relays:

1 alt 3

Memory capacity Max 100 transmitters

869.8 MHz GMSK

12-24 V AC/DC

Current consumption:

60mA (+30mA when the relay is active) at 12V DC

NO/NC 8 A/3 A 230 V AC (resistive load)

Max 5mW

S800 RX DIN 1 RELAY (incl wire antenna): S800 RX DIN 3 RELAYS (incl antenna BNC socket):

Response time: 50 ms (typ.)

Temperature range: -25°C to +70°C

85 x 75 x 30 mm

180 g

16.7 million unique codes, CRC-16 hashcheck. configurable security

mode with encrypted authentication



SESAM 800 – Range Extender

Extend the range up to double (depending on placement and surroundings). Example of usage areas: opening/closing booms/gates in airfields, major industries, irrigation facilities, on/off heat/electricity in holiday villages. Easy installation and compatible with all units within the Sesam 800 industrial range.

953603-000

942216-000

SESAM 800 Range Extender

Sesam 800 Range Extender(230V): 955935-000

SESAM 800 — Configuration tool

The Large 99 transmitter has support for group ID coding. Transmitters using the same group ID are considered identical. The RXD receiver can store up to 500 different IDs. This capability and our MC Manager software simplify installation, testing and maintenance of large-scale installations. Through the software, all receiver configurations can be centrally managed and easily copied to the receivers through their memory cards. This allows for full control of Sesam receivers and transmitters in a single system. Changes are also easily made through the software.



SESAM 800 MC Manager

The Sesam MC manager is a configuration tool that assists in administration of PIN codes. The software simplifies the installation, configuration, testing and maintenance of large-scale Sesam 800 door installations. Through the software, all receiver configurations can be centrally managed and easily copied to the receivers through their memory cards. This allows for full control of Sesam receivers and transmitters in a single system. Changes are easily done through the software.



Art No.

Sesam 800 MC Manager: 946422-000 Sesam 800 Mobile is our product family for radio remote control of mobile applications such as winches for ATVs and forest equipment as well as tail lifts. The Sesam 800 Mobile product family is designed to provide the most flexible, reliable and straightforward management needed for equipment in demanding environments.

Robust and rugged

The Sesam 800 Mobile product family has four transmitter models and one receiver. The transmitters are very easy to use. Their robust and durable design is equipped with a rubber edge guard that provides shock resistance. The transmitters and receiver are of class IP67, and can be exposed to dust, humidity, and water without interruption. The transmitters have separate, easyto-push buttons of high quality that can manage more than 1 million button presses.

Confirmation of completed relay

The Sesam 800 Mobile system utilizes the 869 MHz frequency band with 12-channel automatic frequency selection. The system has an excellent response time, so the system immediately halts the selected function when the stop button is released. Communication between the transmitter and receiver is two-way, which allows a feedback indicator on the transmitter to show when a relay is active. The system uses 16.7 million unique codes. Checksums ensure error-free message transmission. For applications with even

higher security requirements, the system can be configured for encrypted transmissions.

Receiver with six high-side solidstate relays

The receiver is equipped with six highside solid-state relays, which provide five motion functions through the main relay switch and one additional function. It comes with a fiber-glass reinforced enclosure, equipped with a diaphragm vent, and designed to be used in extreme environments that have high requirements on tolerances for shock, vibration and more.



Sesam 800 Mobile is our product family for radio remote control of non-safety critical mobile applications.

Sesam 800 – Transmitters

The transmitters in the Sesam 800 Mobile product family are highly robust and designed to be user-friendly. The transmitters are available in four models, designed for tail lifts and winches for ATVs and forestry equipment. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses. The transmitters are sturdily designed, with a shock-resistant edge guard. Each transmitter is class IP67, and can be exposed to extreme environments with dust, humidity and water without interruption.

SESAM 800 Mobile Winch 4

Number of functions/buttons:

Supply voltage: 3V (2xAA)

Temperature range:

-25°C to +70°C

869.700-870.000 MHz, 12 channels, GMSK

Output power: Max 5 mW

Sesam 800 Mobile Winch 4:

946858-000

Current consumption: 15mA during transmission

Protection class:

IP67

100 x 60 x 25 mm

Weight:

130 g (incl. batteries)



SESAM 800 Mobile Winch 6

Number of functions/buttons:

Supply voltage: 3V (2xAA)

Temperature range:

-25°C to +70°C

869.700-870.000 MHz, 12 channels, GMSK

Output power: Max 5 mW

Sesam 800 Mobile Winch 6:

940339-000

Current consumption: 15mA during transmission

Protection class:

IP67

100 x 60 x 25 mm

130 g (incl. batteries)



SESAM 800 Mobile Tail Lift 4

Number of functions/buttons:

Supply voltage:

3V (2xAA)

Temperature range: -25°C to +70°C

869.700-870.000 MHz, 12 channels, GMSK

Output power:

Max 5 mW

Art. No.

Sesam 800 Mobile Tail Lift 4:

942412-000

Current consumption:

15mA during transmission

Protection class:

IP67

Size: 100 x 60 x 25 mm

130 g (incl. batteries)



SESAM 800 Mobile Tail Lift 6

Number of functions/buttons:

Supply voltage: 3V (2xAA)

Temperature range:

-25°C to +70°C

Frequency:

869.700-870.000 MHz, 12 channels, GMSK

Output power:

Max 5 mW

Art. No.

Sesam 800 Mobile Tail Lift 6:

942413-000

Current consumption:

15mA during transmission

Protection class:

IP67

Size:

100 x 60 x 25 mm

Weight:

130 g (incl. batteries)



Sesam 800 Mobile – Receiver

The Sesam 800 Mobile receiver is equipped with six high-side solid-state relays, which provide five motion functions through the main relay switch and one additional function. It comes with a fiber-glass reinforced enclosure, equipped with a diaphragm vent, and designed to be used in extreme environments that have high requirements on tolerances for shock, vibration and more. The receiver has a built-in antenna and uses two-way (duplex) communication. The receiver is adapted for forest and ATV winches and tail lifts.

SESAM 800 Mobile RX

Number of relays:

Six intelligent 10-24V DC highside solid-state relays 3A continuous (4A peak) with short-circuit protection and current-limited.

869,700-870,000 MHz, 12 channels, GMSK

Supply voltage:

10-24 V DC

Current consumption: 25 mA at 12 V DC

Output power: Max 5 mW

Temperature range:

-25°C to +70°C

Protection class: IP67

120 x 90 x 50 mm

Weight: 350 g

Antenna: Internal

IP67 EN 60529, Vibration EN 60068-2-6. Shock FN 60068-2-27

Radio compliance

R&TTE Directive 99/5EC





Art. No. Sesam 800 RX for winch: Sesam 800 RX for tail lift:

941501-100 942407-000

SESAM 800 CONFIGURABLE

Sesam 800 Configurable is a robust, configurable radio control system for industrial and mobile applications. The system is suitable for an infinite range of applications. Some common usage areas include conveyor belts, water pumps, anchor gears and various on and off functions for lighting, fans, etc.

Robust and durable

Sesam 800 Configurable consists of four transmitter models, whereof one with a customizable layout, and one receiver. The transmitters are very easy to use. Their robust and durable design is equipped with a rubber edge guard that provides shock resistance. The transmitters and receiver are of class IP67, and can be exposed to dust, humidity, and water without interruption. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses.

Automatic frequency selection and six configurable buttons

Sesam 800 Configurable utilizes the 869 MHz frequency band with 12-channel automatic frequency selection. The system has six configurable functions that can be programmed for immediate/persistent functions. It is very easy to use and incorporates modern digital technology.

Rapid response time

Response time in the system is very quick due to duplex communication between the transmitter and receiver. This twoway technology enables a relay feedback indicator on the transmitter that turns green during active communication with the application. Checksums ensure errorfree message transmission.

Receiver with six high-side solidstate relays

The receiver is equipped with six highside solid-state relay switches, a fiberglass reinforced enclosure, and a diaphragm vent, that enables it to be used in extreme environments that put high requirements on tolerances for shock, vibration and more.

Optional RS232 serial interface card

The Sesam RXM OEM configurable receiver can be fitted with an optional RS232 serial interface card. When enabled, the current transmitter unique ID, button status and display value (Sesam 800 L99 only) will be output on the serial interface each time any button status changes. This expansion card can be used to connect to external equipment such as a PLC or PC for further processing of the user input from the transmitter.

SESAM 800 CONFIGURABLE

Sesam 800 Configurable is a robust, configurable radio control system for industrial and mobile applications.



Sesam 800 Configurable – Transmitters

The transmitters are highly robust, easy to use, and available in two models: one with a 1-6 layout, and one with a blank layout where it is possible to customize the symbols on the button frame. A frame label with standard symbols is always included. The transmitters have separate, easy-to-push buttons of high quality that can manage more than 1 million button presses. They are sturdily designed, with a shock-resistant edge guard. Each transmitter is class IP67, and can be exposed to extreme environments with dust, humidity and water without interruption.

SESAM 800 Configurable S3

Number of functions/buttons:

Supply voltage: 3V (2xAAA)

Temperature range: -25°C to +70°C

869.700-870.000 MHz, 12 channels, GMSK

Output power:

Max 5 mW

Sesam 800 Configurable S3:

955805-000



IP67

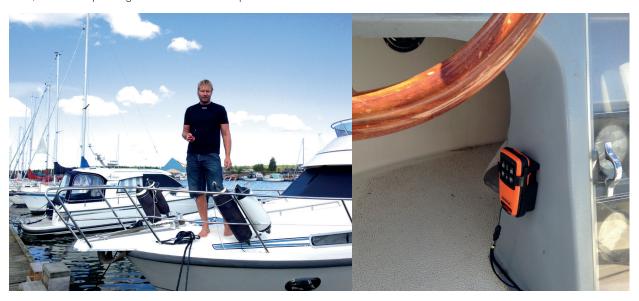
75 x 46 x 22 mm

80 g (incl. batteries)



CUSTOMER TESTIMONIAL:

"It is a great advantage to use radio remote control when you move in to the quay or pier to make a stop. By using radio remote control you'll get a soft and precise stop at the quay. When you are winching down the bow anchor and stern anchor you can easily overview the boats position by moving yourself from bow to stern with the Sesam transmitter in your hand, instead of operating the winch from a fixed position in the boat's cabin."



SESAM 800 Configurable 1-6

Number of functions/buttons:

Current consumption: 15mA during transmission

Protection class:

100 x 60 x 25 mm

130 g (incl. batteries)

Size:

3V (2xAA)

Temperature range:

-25°C to +70°C

869.700-870.000 MHz, 12 channels, GMSK

Output power:

Max 5 mW

Art. No. Sesam 800 Configurable 1-6: 947046-000



SESAM 800 Configurable (custom frame layout)

Number of functions/buttons:

Supply voltage: 3V (2xAA)

Temperature range:

-25°C to +70°C

Frequency:

869.700-870.000 MHz, 12 channels, GMSK

Output power:

Max 5 mW

Art. No. Sesam 800 Config, blank layout: (Delivered with a standard

layout label)

Sesam 800 Config, custom

layout:

Current consumption:

15mA during transmission

Protection class:

100 x 60 x 25 mm

Weight:

130 g (incl. batteries)

947040-001

947040-002



Sesam 800 Configurable – Receiver

The Sesam 800 Configurable receiver is equipped with six high-side solid-state relays, which provide five motion functions through the main relay switch and one additional function. The receiver can be fitted with an optional RS232 serial interface card. The receiver comes with a fiber-glass reinforced enclosure, equipped with a diaphragm vent, and designed to be used in extreme environments that have high requirements on tolerances for shock, vibration and more. The receiver has a built-in antenna and uses two-way (duplex) communication. For extra long range we offer a model including mounted external antenna.

SESAM 800 Configurable RX

Number of relays:

Six high-side solid-state switches. 12-24V DC max 4A with current-limit and short-circuit protection.

Frequency

869.7-870.0 MHz, 12 channels, GMSK. TDMA

Supply voltage:

25mA at 12V DC (SELV), must be fused with 3A fuse (SAE J1284)

Current consumption: 25 mA at 12 V DC

Output power

Max 5 mW

Temperature range: -25°C to +70°C

Art No

Sesam 800 Config RX: Sesam 800 Config RX, incl external antenna for extra long range: Relay box for 230 V incl relys:

Protection class:

IP67

Size:

120 x 90 x 50 mm

Weight

350 g

Antenna

Internal (External optional)

Compliance

IP67 EN 60529, Vibration EN 60068-2-6, Shock EN 60068-2-27

Radio compliance

R&TTE Directive 99/5EC

947051-000

949278-000 947394-000



Sesam 6000 Sesam 6000 is a robust radio control system for mobile applications. The system can be used for radio control in warehouse storage systems and for applications in which display values are transmitted from one or more transmitters. The Sesam 6000 consists of one transmitter and two receivers.

10 mW, TDMA

Weight:

175 g

142 x 68 x 26 mm

SESAM 6099

Number of functions:

4 (optional 6)

Supply voltage:

9V battery or 12-24V DC via vehicle cassette

Temperature range:

-25°C to +55°C

Frequency:

434.050-434.775 MHz FSK 30 channels

Art. No. Sesam 6099:

939340-000





CUSTOMER TESTIMONIAL:

"Radioshuttle™ is EAB's patented system for efficient volume management of high-density pallet racking. The system is wireless and controlled by Åkerströms' radio transmitter, which is installed in the forklift and is a custom variant of Åkerströms' Sesam 6000 system. Several machines can be controlled with the same transmitter so the forklift does not have to stand idle and wait for the machine. It is free to work elsewhere, which makes for efficient forklift utilization."

Sesam 6000 – Receiver

The Sesam 6000 system includes two receiver models. The first has 13 relay outputs with selectable applications. These are pre-programmed with applications, which are selected using a dial for each usage area. The second model is a compact unit that operates under 12-24V DC. This unit has one serial port (RS-232) for connecting to an external PLC/PC, and four half-side solid-state relay switches with shortcircuit protection for control of simple systems. The serial port makes it possible to connect the unit to a host system for further processing of information from the transmitter, such as display values, serial numbers and function values. The receiver contains an event log and a blacklist for lost transmitters.

SESAM 6000 RX

Number of relays:

13 relay outputs, variable function

434.050-434.775 MHz FSK 30 channels

Maximum load:

4A/250V AC resistive load

Power consumption: max 12 VA

Art. No. Sesam 6000 RX: 937772-000

Temperature range:

-25°C to +55°C

285 x 180 x 75 mm

1.4 kg

115/230 V AC or 12-35 V DC



SESAM 6000c

Number of relays:

1 serial port (RS-232) and 4 highside solid-state relays

Frequency

434.050-434.775 MHz FSK 30 channels

Maximum load

1 A 12-24 V DC

Current consumption: max 50 mA w/o load

Art. No. Sesam 6000c: 938683-000

Temperature range:

-25°C to +55°C

110 x 114 x 38 mm

270 g

Supply voltage: 12-24 V DC



Sesam – Accessories

We offer various accessories such as lanyards and wall and vehicle mounting units. Cassette holders for vehicle mounting are available for the Sesam 800 Large and Sesam 6099 transmitters. The cassette holders have an external power input of 12-24V and an antenna connector (FME) for poor transmission conditions. For special conditions, external antenna kits including cable are available for the receivers.



Cassette holder

CASSETTE HOLDER INCL. ELECTRONICS Sesam 800 Large 15/99 Art. No.: 943015-000

CASSETTE HOLDER EXCL. ELECTRONICS Sesam 800 Large 15/99 Art. No.: 943015-003



Kassett

KASSETT INKL. ELEKTRONIK Sesam 6099 Art. No.: 924325-000



Holder for vehicle or wall

HOLDER MEDIUM Sesam 800 Medium Art. No.: 947219-001



Holder for vehicle or wall

HOLDER SMALL Sesam 800 Small 3/6 Art. No.: 947220-001

HOLDER KEYRING Sesam 800 Keyring Art. No.: 947568-00



Lanyard

LANYARD WITH SNAP-HOOK AND QUICK CLIP, 100 CM

Art. No.: 941258-000



Wall mount

WALL MOUNT LARGE Sesam 800 Large 15/99

Art. No.: 947147-000



SESAM 800 CASSETTE HOLDER

The cassette for vehicle installation has an external power input of 12-24V and an antenna connector (FME) for an optional antenna during poor transmission conditions. The cassette holder is also available without electronic components.

ÅKERSTRÖMS

→ Welcome to the remote future



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