



This additional manual is a supplement to the short manual J4C.
It only describes deviating functions and properties, which are accompanied by the BSR.
 Information on operating an actuator with DPS and BSR can be found at the end of this manual.
 The J4C Manual must be observed! To open the drive, follow the description under the item „Cam system adjustment instructions“ in the J4C Manual.



The manual must be read carefully and completely before installation !



When operating electrical devices, certain parts of these devices are inevitably under dangerous voltage. Not noticing the general electrical safety regulations may result in serious personal injury or property damage. Only qualified personnel may work on or near these devices. The staff must be familiar with all safety instructions and maintenance according with this operating instruction.

Description

With the BSR, the actuator moves into its default safety position in the event of a power failure. The safety position can be configured as open (NO) or closed (NC) (see configuration).
This safety function is realized by a battery in the actuator, therefore the actuator must always be permanently supplied with voltage.
 The battery is pre-charged, to ensure the safety function, but the actuator must be charged before commissioning for the duration of the „charging time for 100% battery charge“ (see technical data). While the actuator travels by the battery, the internal heater and the torque protection are not active.
 After turning via BSR, the drive indicates with its flashing LED for approx. 3 minutes that it has moved to its safety position due to a lack of supply voltage (see status light). As soon as the actuator gets power again it is immediately ready for use.

Electric connection

For the electric connection and wiring, follow the instruction of the manual J4C.

Operation

Status LED:

Operation status	LED
Actuator without power supply, BSR NO active	Green LED on
Actuator without power supply, BSR NC active	Red LED on
Battery protection! It needs to be recharged.	Yellow LED on

Function test:

A regular function test according to the safety requirements needs to be done.
To avoid unintentional opening or closing, it may be necessary to disassemble the actuator from the valve during the test!
 The function test is done as following:

1. With your control or the manual mode of the actuator, move it in the opposite position of the safety position.
 (BSR NO: Turn the actuator in closed position / BSR NC: Turn the actuator in opened position)
2. Turn off the power and simulate power failure (if necessary, switch the actuator to automatic mode again)
3. Actuator moves to its safety position via BSR, after which it flashes for about 3 minutes to indicate the activated BSR
4. After this time, the LED should be permanently off and the actuator should remain in its safety position
5. Test completed, the actuator can be put back into operation by applying the supply voltage

Overview

Description	20-35-55-85	140-300
A BSR circuit board B Battery C battery holder D Jumper „seldir“		

Configuration NC / NO

To open the actuator, follow the description under the topic „Adjustment of the cam system“ in the J4C manual. The configuration has to be made without any power supplied.

For this the jumper „seldir“ (D) is removed or put on:

Jumper removed: NO (Actuator turns to opened position in case of a power failure)
 Jumper put on: NC (Actuator turns to opened position in case of a power failure)

Now the actuator can be closed again (pay attention to J4C manual). After that, the function is tested as described under „function test“ in this manual.

Technical data

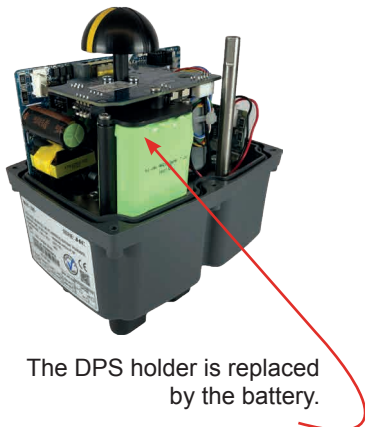
Model	20	35	55	85	140	300
Charging time for 100% charge	28 h				54 h	
Maximum turns with full battery charge	5				4	
Reload time per BSR activation	15 min	21 min	48 min	58 min	30 min	50 min
Power consumption at BSR activation	2,2 W	3,0 W	6,8 W	8,3 W	23 W	
Current consumption at BSR activation	10,1 mA	14,0 mA	31,6 mA	38,6 mA	15,1 mA	25,7 mA
Battery load ±10%	2200 mAh				4400 mAh	
Charging current	40 mA					
Weight	0,27 kg				0,38 kg	

Combinations

Combination with DPS or Potentiometer

DPS: The position of the actuator can be controlled, it gives out its actual position and turn to the safety position (NC, NO) in case of a power failure.

Potentiometer: The actuator drives open/close, gives its actual position as an ohmic value and turns to the safety position (NC, NO) in case of a power failure.



3 Positions

The actuator has the possibility to drive to a middle position, but this cannot be chosen as the BSR safety position.

