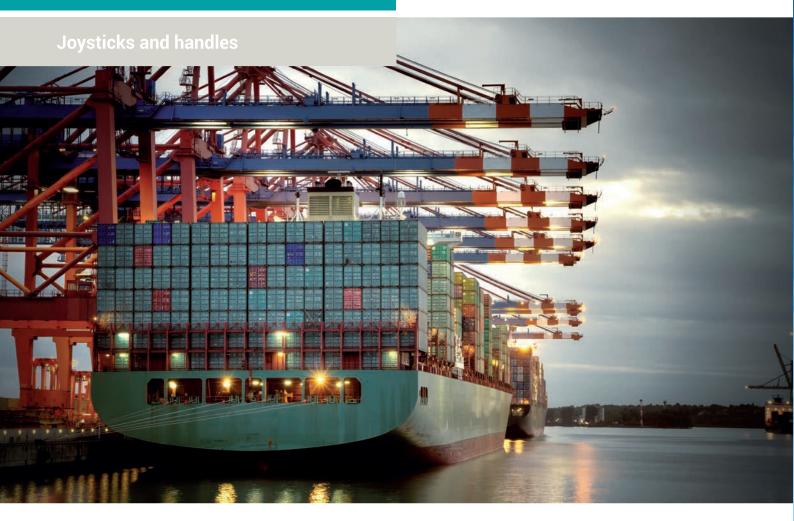
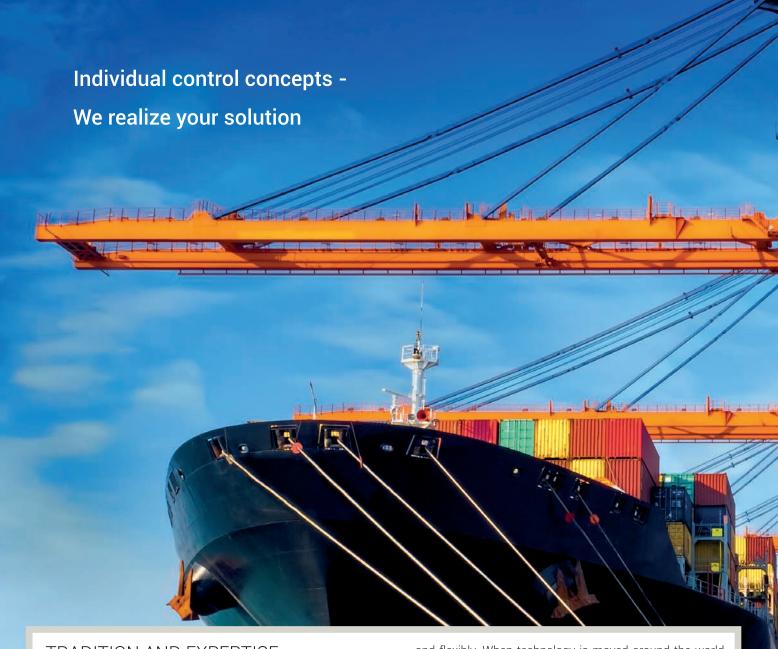


## Ship and harbour





#### TRADITION AND EXPERTISE

The company was founded in Blaubeuren by Karl Spohn and David Burkhardt in 1920 and is still 100 percent family-owned.

Today, with 200 employees, we manufacture a broad production program of joysticks, control stands and resistors of recognized quality at two locations.

With engineering knowledge and decades of experience, we solve your problems together with you and accompany you from start to finish. That is our strength and at the same time the basis of our success.

As a Swabian medium-sized company, our strength lies in the unbeatable advantage of being able to react quickly

and flexibly. When technology is moved around the world, Spohn + Burkhardt is usually the trigger.

#### FACTS AND FIGURES

- Founded in 1920 by Karl Spohn and David Burkhardt
- · Headquarters Blaubeuren
- · Plant Schelklingen
- About 65 representatives in 45 countries
- · About 200 employees









· Metal drive mechanism

Maximum 5-0-5 stages

life of up to 6 million

switching cycles

· Long mechanical service

Long-lasting lightweight

plastic potentiometer or

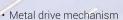
Friction brake or spring-

· Optional mechanical

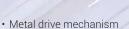
neutral position lock

non-contact Hall sensors



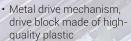


- Chrome-plated cast aluminum housing with high front-side IP protection rating for extreme environmental requirements
- Long-lasting lightweight plastic potentiometer or non-contact Hall sensors
- · Friction brake or springreturn
- Optional mechanical neutral position lock



- Sealed high-quality plastic housing prevents entry of water from above, even
- if the rubber sheath is damaged High mechanical service
- life of up to 6 million switching cycles
- Long-lasting lightweight plastic potentiometer or non-contact Hall sensors
- · Friction brake or springreturn
- Optional mechanical neutral position lock with Reed contact





- Long mechanical service life of up to 10 million switching cycles
- Optional retrofitting of potentiometers, optoelectronic encoders
- Maximum 6-0-6 stages with standard or custom switching mechanisms
- · Weight-optimized design,
- · Friction brake, springreturn or indexed
- · Combinable with several SPOBU handles

- Very robust drive mechanism and metal drive block drive mecha
- Long mechanical service life of up to 20 million switching cycles
- Maximum 7-0-7 stages
- Optional retrofitting of potentiometers, optoelectronic encoders
- · Versions for Ex-zone available
- Version with double lever available
- Combinable with several SPOBU handles

- Extremely re
- · Long mech life of up to switching c
- Maximum 6
- · Optional ret potentiome tronic enco
- Versions for available
- Optionally v interfaces for SAEJ1939, ProfiNet
- Combinable SPOBU han









bust metal

anical service

25 million

-0-6 stages

ters, optoelec-

or CANopen,

with several dles

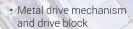
Profibus,

rofitting of

anism

ycles

ders Ex-zone



- Long mechanical service life of up to 20 million switching cycles
- Non-contact HALL sensors and/or lightweight plastic potentiometers
- Microswitches for hardware wiring
- vith integrated Optionally integrated interfaces for CANopen, CANopenSafety, Profibus, ProfiNet, ProfiNet with ProfiSafe protocol
  - Combinable with several SPOBU handles



- Metal drive and housing
- Long mechanical service life of up to 10 million switching cycles
- Non-contact 3D Hall sensors
- Redundant analogue exit
- Optional integrated interfaces for CANopen, SAEJ1939, Profibus, ProfiNet
- Combinable with several SPOBU handles



- · Extremely sensitive, zeroplay metal mechanism
- For smooth and precise control, optionally with oil damping
- Mechanical service life of up to 4 million switching cycles
- Non-contact HALL sensors or lightweight plastic potentiometers
- Low-profile rubber sheath for low handle height
- · Combinable with various electronic interfaces



- · Robust control switch with · metal drive mechanics
- · Long mechanical service life
- · Optional retrofitting of potentiometers, optoelectronic encoders
- · Optionally available with interfaces for CANopen, SAEJ1939, Profibus, ProfiNet
- Versions for Ex-zone available



- Extremely sensitive, zeroplay metal mechanics
- Optionally with oil damping for smooth and precise control
- · Long mechanical service life
- · Sensors with HALL sensors or lightweight plastic potentiometers
- Combinable with various electronic interfaces

### Handles

#### Standard handles





- Standard plastic handle for CS1, VCS0 and VNS0 joysticks G48
- · Optionally with recessed or protruding button with various protection ratings
- Available with integrated capacitive hand recognition
- Version G41-Z for mechanically locking joystick

G22



- · Plastic handle Ø 40 mm
- A maximum of 1 pushbutton can be integrated
- Recessed or protruding pushbutton installation
- Version G22Z for mechanically locking joystick
- · Combinable with several SPOBU joysticks



G21

- · Standard plastic handle for NNS0 joysticks
- · Optionally with recessed or protruding button with various protection ratings
- · Available with integrated capacitive hand recognition
- Version G46-Z for mechanically locking joystick
- Plastic handle Ø 45 mm
  - · A maximum of 2 pushbuttons can be integrated
  - Recessed or protruding pushbutton installation
  - Version G21Z for mechanically locking joystick
  - Combinable with several SPOBU joysticks

#### Palm handles

G40

G9



- Ball handle with several installation options
- Push buttons on the side and/or on top
- · Alternatively with toggle switch on top
- · Optionally with hand rest
- · Combinable with several SPOBU joysticks





Compact ball handle with/without pushbuttons

· Finger operation for extremely precise control

- · Optionally with capacitive hand recognition sensor
- · Operable with 2 fingers or whole hand

· Standard handle for joystick JMS3

· Combinable with several SPOBU joysticks



G25

G4T



- · Forward-tilting ball handle
- · Lever switch on front
- · Optionally with toggle switch, pushbutton or rotary potentiometer on top
- · Combinable with several SPOBU joysticks
- · Compact plastic handle
  - · Operable with 2 fingers or whole hand
  - · Up to 6 pushbuttons can be integrated
  - Combinable with several SPOBU joysticks

#### **Ball handles**

#### KG40/50



· Solid ball handle

· Slim design

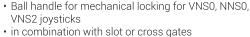
- · Versions with 40 and 50 mm diameter
- Combinable with several SPOBU joysticks





- · Robust ball handle
- With capacitive hand recognition sensor
- · Combinable with several SPOBU joysticks





- · Optionally with contact

#### T-handles

G1



- T-handle with/without pushbuttons
- Optional mechanical pivoting for individual adjustment
- Version G1Z for mechanically locking joysticks
- · Optionally with dead man's function by pressing down
- Optionally integrated capacitive hand recognition
- · Combinable with several SPOBU joysticks



- T-handle with/without pushbutton
- Stationary or rotating with a maximum of 2-0-2
- Version G13Z for mechanically locking joystick
- · Optionally with capacitive hand recognition sensor
- · Combinable with several SPOBU joysticks

#### **Rotary handles**

G50



- · Handle with integrated rotating function
- · Sensors with lightweight plastic potentiometers with direction recognition
- Combinable with several SPOBU joysticks

## **Universal handles**

#### **G56**



- · Ergonomically shaped for left or right hand
- Integrated hand rest for work without fatigue
- Modular design with standard or custom equipment of insert panels
- Optionally integrated capacitive hand recognition sensor
- Optionally rotating
- · Combinable with several SPOBU joysticks

#### **G58**





- · Compact, symmetrical, can be used for left or right hand
- Ergonomically shaped for work without fatigue
- Modular design with standard or custom insert panels
- · Catch on the rear
- Optionally integrated capacitive hand recognition sensor
- · Combinable with several SPOBU joysticks

#### **UGA**





- Can be used for left or right hand
- Modular design with optional combination of wide and narrow handle halves
- High variability with installation of command devices on top, front or side
- · Lever switch on the rear
- · Optionally with hand rest, can also be updated
- Optionally rotating
- Optionally integrated capacitive hand recognition sensor
- · Combinable with several SPOBU joysticks

#### UGN





- Compact handle can be used for left or right hand
- Ergonomically shaped for work without fatigue
- High variability with installation of command devices on top, front or side
- Integrated surrounding hand rest
- · Optionally integrated capacitive hand recognition sensor
- · Combinable with several SPOBU joysticks



# Representatives of Spohn + Burkhardt National and international



More than 65 representatives in 45 countries Find out more on our website **www.spobu.com** 

#### Spohn & Burkhardt GmbH & Co. KG

Mauergasse 5 89143 Blaubeuren/Germany Postfach 1163 89135 Blaubeuren/Germany

Tel.: +49 7344 171-0

E-mail: info@spobu.de Internet: www.spobu.com