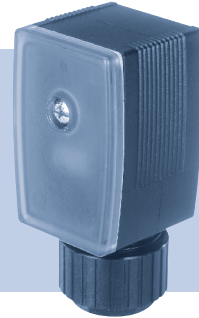


Type 2510, 2511

AS interface device socket
AS-Interface Gerätesteckdose
Prise d'appareil AS-Interface



Operating Instructions

Bedienungsanleitung
Manuel d'utilisation

1 OPERATING INSTRUCTIONS

The operating instructions contain important information.

- ▶ Read the operating instructions carefully and follow the safety instructions in particular, and also observe the operating conditions.
- ▶ Operating instructions must be available to each user.
- ▶ The liability and warranty for the product / device are void if the operating instructions are not followed.

1.1 Symbols

- ▶ Designates an instruction to prevent risks.
- designates a procedure which you must carry out.

Warning of injuries:



DANGER!

Imminent danger. Serious or fatal injuries.



WARNING!

Potential danger. Serious or fatal injuries.



CAUTION!

Danger. Minor or moderately severe injuries.

Warns of damage to property:

NOTE!

2 INTENDED USE

If the AS interface device socket Type 2510 and 2511 is not used as intended, this may be hazardous to persons, equipment in the vicinity and the environment.

- ▶ Use according to the permitted data, operating conditions and conditions of use specified in the contract documents and operating instructions.
- ▶ The cable plug is used exclusively for the actuation of direct current coils.
- ▶ If the AS interface device socket Type 2510 and 2511 is not used as intended, this may be hazardous to persons, equipment in the vicinity and the environment.
- ▶ Correct transportation, correct storage and installation and careful use and maintenance are essential for reliable and problem-free operation.
- ▶ Use the device only as intended.

2.1 Definition of term

In these operating instructions, the term "device" always refers to the Type 2510 and 2511.

3 BASIC SAFETY INSTRUCTIONS

These safety instructions do not make allowance for any contingencies and events which may arise during installation, operation and maintenance.



Risk of electric shock.

- ▶ Before opening the device, switch off the power supply and secure to prevent reactivation. The power supply may be switched on again as soon as the device has been correctly installed and connected and the cover has been attached with the screw.
- ▶ Do not touch PCB or components. Even when the power supply has been switched off, components may still have a hazardous charge.
- ▶ Observe applicable accident prevention and safety regulations for electrical equipment.

Risk of injury from unintentional activation.

- ▶ Take appropriate measures to prevent unintentional activation.

General hazardous situations.

To prevent injury, ensure that:

- ▶ The cable plug must not be used in potentially explosive areas.
- ▶ Do not make any external modifications to the device and do not put any loads on the device.
- ▶ Installation and repair work may be carried out by authorized technicians only.
- ▶ After an interruption in the power supply or pneumatic supply, ensure that the process is restarted in a defined or controlled manner.
- ▶ The general rules of technology apply to application planning and operation of the device.

NOTE!

Electrostatic sensitive components/modules.

The device contains electronic components which react sensitively to electrostatic discharge (ESD). Contact with electrostatically charged persons or objects is hazardous to these components. In the worst case scenario they will be destroyed immediately or will fail after start-up.

- Observe the requirements in accordance with EN 100015-1 to minimise or avoid the possibility of damage caused by sudden electrostatic discharge.
- Also ensure that electronic components do not come into contact with a nearby power supply.

3.1 Warranty

The warranty is only valid if the device is used as intended in accordance with the specified application conditions.

3.2 Information on the internet

The operating instructions and data sheets for type 2511 can be found on the internet at: www.buerkert.com → Type 2511

4 SYSTEM DESCRIPTION

4.1 General description

The AS interface device socket Type 2510 and 2511 consists of a polyamide housing with integrated Slave electronics and a connector diagram according to DIN EN 175301-803 (Form C and A).



The cable plug is used exclusively to control DC coils. The built-in rectifier makes it possible to operate with DC or alternating current.

4.2 Function

The AS interface device socket Type 2510 and 2511 is used to actuate direct current coils.

4.3 Conformity

In accordance with the EC Declaration of conformity, the AS interface device socket Type 2510 and 2511 is compliant with the EC Directives (if applicable).

4.4 Standards

The applied standards, which verify conformity with the EC Directives, can be found on the EC Type Examination Certificate and / or the EC Declaration of Conformity (if applicable).

5 TECHNICAL DATA

5.1 Operating conditions

Device socket Type 2510 for plug pins (DIN 43650 Form C)

Device socket Type 2511 for plug pins (DIN 43650 Form A)

Housing

Insulation IP 65

Material PA (Polyamide)

Dimensions 32x32x65 mm

Fixation Cheesehead screw

2510 M2,5x35

2511 M3x35

Operational temperature 0 .. +50°C

5.2 Electrical data

Bus connection

Operating voltage according to specification 29,5 ... 31,6 V DC

Current consumption without valve and sensors 10 mA

Current consumption total 300 mA

Connection AS interface M12

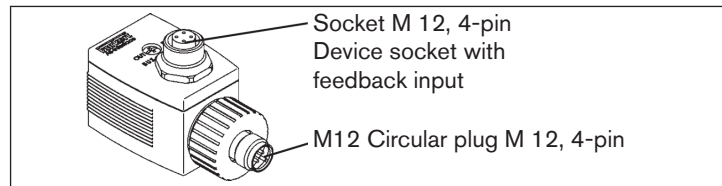
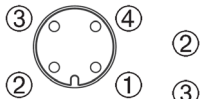
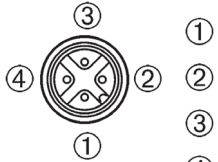


Fig. 1: Electrical connection

5.3 Connection of socket and plug

Socket M 12, 4-pin	PIN	Assignment
	1	+ 24 V Sensor supply
	2	Sensor input 2
	3	GND
	4	Sensor input 1

Circular plug M 12, 4-pin	PIN	Assignment
	1	AS interface bus+
	2	n.c.
	3	AS interface bus-
	4	n.c.

Tab. 1: Connection of socket and plug

! The nominal power of the valve does not correspond to the rated power. This may turn out to be significantly higher.

Output

Switching capacity	3 W (with inputs) 5 W (without inputs)
Voltage	24 V \pm 10 %
Current	max. 205 mA, short-circuit proof
Watchdog function	integrated



If no data traffic takes place, the output will be reset after 50 - 100 ms.

Inputs

Input switching	PNP
Sensor supply	via AS Interface
Sensor supply voltage	24 V \pm 20 %
Current loading capacity	max. 60 mA, short-circuit resistant
Switching level 1 signal	\geq 10 V
Limitation of the input current	\leq 6,5 mA
Input current 0 signal	\leq 1,5 mA
Programming data I/O configuration	B hex (1 output, 2 inputs)
ID code	F hex (for configuration, see below)
Preset address	0
Profile	B.F

Configuration of the data bits

D3	D2	D1	D0
IN 1 ¹⁾	IN 2 ¹⁾	-	OUT

Tab. 2: Parameter bits without a function

Ordering data

Type	with feedback inputs	without feedback inputs
2510	142 692	142 693
2511	142 694	142 695

Tab. 3: Ordering data

¹⁾ Device sockets with feedback inputs

5.4 LED display for device status

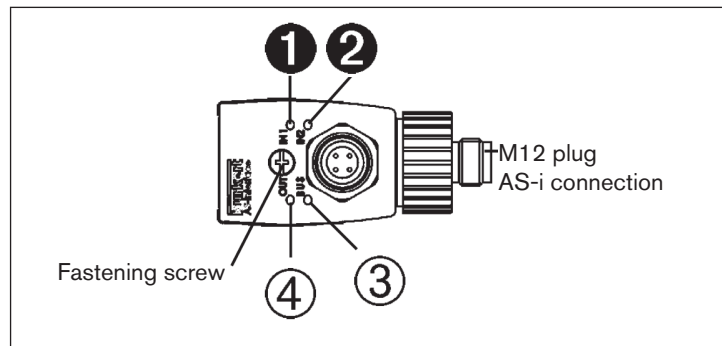


Fig. 2: LED display for device status

LED	Color	On	Off	Flashing
① Input 1	yellow	Valve is switched	Valve is switched	-
② Input 2	yellow	Valve is switched	Valve is switched	-
③ BUS	green	OK	Power off	Slav adress 0
④ Status display	yellow	Valve is switched	Valve is switched	-

Tab. 4: Status display

6 INSTALLATION

6.1 SAFETY INSTRUCTIONS



WARNING!

Risk of injury from improper installation.

- ▶ Installation may be carried out by authorized technicians only and with the appropriate tools.
- ▶ Following maintenance, ensure a controlled restart.

6.2 Installing the device socket

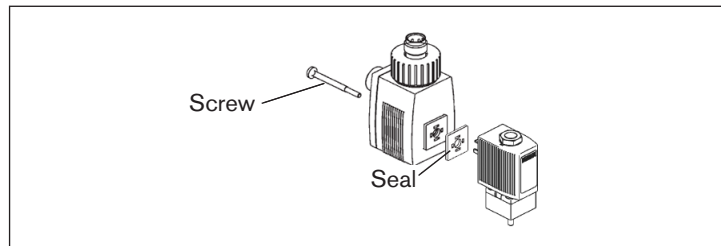


Fig. 3: Installing the device socket

→ Attach seal and guide screw through opening

→ Place coil on seal and screw on with min. 50 Ncm and max. 80 Ncm tightening torque.



When screwing on the socket, ensure that the seal is correctly positioned.



WARNING!

Risk of short circuit if the screw connection is not sealed.

- ▶ Ensure that the seal is seated correctly.
- ▶ Attach the cable plug carefully.

7 MAINTENANCE, MALFUNCTIONS

7.1 Maintenance

The cable plug is maintenance-free under normal operating conditions.

7.2 Malfunctions

If malfunctions occur, check:

- Check power supply,
- Check that seal is correctly positioned.

If the device still does not function, please contact your Bürkert-Service.

8 TRANSPORT, STORAGE, DISPOSAL

NOTE!

Transport damages.

Inadequately protected equipment may be damaged during transport.

- During transportation protect the device against wet and dirt in shock-resistant packaging.
- Avoid exceeding or dropping below the allowable storage temperature.

Incorrect storage may damage the device.

- Store the device in a dry and dust-free location.
- Storage temperature: -20 °C ... +70 °C.

Damage to the environment caused by device components contaminated with media.

- Dispose of the device and packaging in an environmentally friendly manner.
- Observe applicable regulations on disposal and the environment.

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