

## ● Characteristics

0620 - LOAD MEASURING - FORCE - OVERLOAD



- Input:	1x or 2x strain gauge full bridge (350 Ω)
- Strain gauge sensitivity:	up to 4 mV/V
- Sensor supply:	5 VDC
- Analogue output:	2x 4...20 mA each input
- Voltage supply:	24 VDC ±10%
- Accuracy:	see technical data
- Ingress protection:	IP 65
- Vibration protection:	without
- Diagnostic input:	Pulse of 24 VDC, ≤250 Hz
- Enclosure:	U-CASE 2 (162,2 x 92,2 (101,1) x 60,2 mm)
- Certificates:	SIL3 and Performance level „e“

## ● Technical data

### Input

Strain gauge full bridge:	Input 1:	1x full bridge 350 Ω
	Input 2:	1x full bridge 350 Ω
Strain gauge sensitivity:	up to 4 mV/V	

### Output

Output for strain gauge input 1

Analog output A:	Nominal operation range:	8...16 mA
	Valid current range:	4...20 mA
Zero point:	8 mA (tension load) or 12 mA (tension and compression load)	
	Load resistance:	maximum 500 Ω
Other:	galvanical isolation from supply voltage and output B	
	Nominal operation range:	8...16 mA
Analog output B:	Valid current range:	4...20 mA
	Zero point:	8 mA (tension load) or 12 mA (tension and compression load)
Load resistance:	maximum 500 Ω	

Output for strain gauge input 2:

Analog output A:	Rating just as strain gauge input 1
Analog output B:	Rating just as strain gauge input 1

### Interface

I2C bus:	Use:	Calibration by manufacturer
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### Performance measuring amplifier

Accuracy:	Balance of current:	±5% deviation of current (0,8 mA)
Temperature coefficient.:	<50 ppm/K	
Diagnostic input:	current output channel B increases by 1 mA, ≤250 Hz	

## ● Applications

The safety measuring amplifier with optional 1 or 2 sensor inputs is for applications where a bridge signal has to be observed because of reasons of safety, e.g. for stage technology. The evaluation of the load cell has to be done with a control system which is approved for SIL3 / Performance Level „e“.

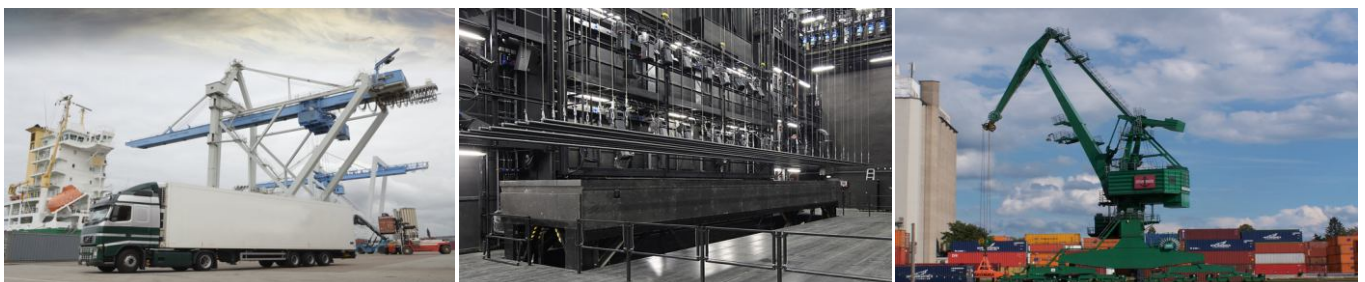


photo: www.pixelquelle.de

## ● Technical data (continued)

### Power supply

Voltage:	24 VDC, $\pm 10\%$
Current consumption:	Maximum 100 mA
Sensor supply:	5 VDC, maximum 20 mA
Test pulse:	24 VDC $\pm 20\%$

### Ambient conditions

Operating temperature:	-10...+60°C
Storing temperature:	-20...+70°C
Air humidity:	96% rH without condensation

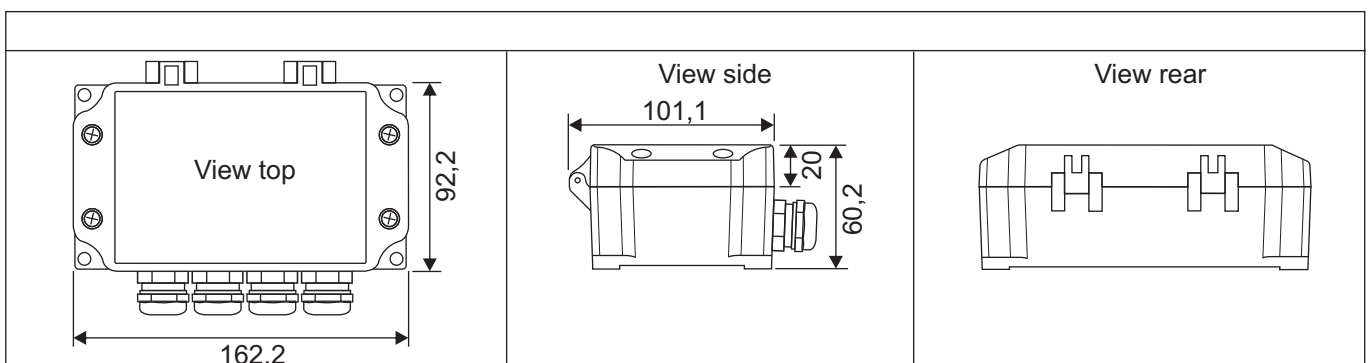
### Mechanics

Enclosure:	Type:	U-CASE 2
	Dimensions:	162,2 x 92,2 (101,1) x 60,2 mm
	Material:	ASA 757G Luran S
	Flammability:	UL94 HB
	Mounting:	4 mounting holes
	Colour:	black
	Cable entry:	With 1 measuring amplifier: 3 screwed cable glands M16x1,5 With 2 measuring amplifiers: 6 screwed cable glands M16x1,5
Protection:	IP 54	
Weight:	approx. 450 / 590 g	
Vibrating protection:	without	
Electrical connection:	Strain gauge 1: Plug-in terminal strips: 1x 10-pole, 1x 6-pole, 1x 4-pole Strain gauge 2: Plug-in terminal strips: 1x 10-pole, 1x 6-pole, 1x 4-pole	

### Safety specifications

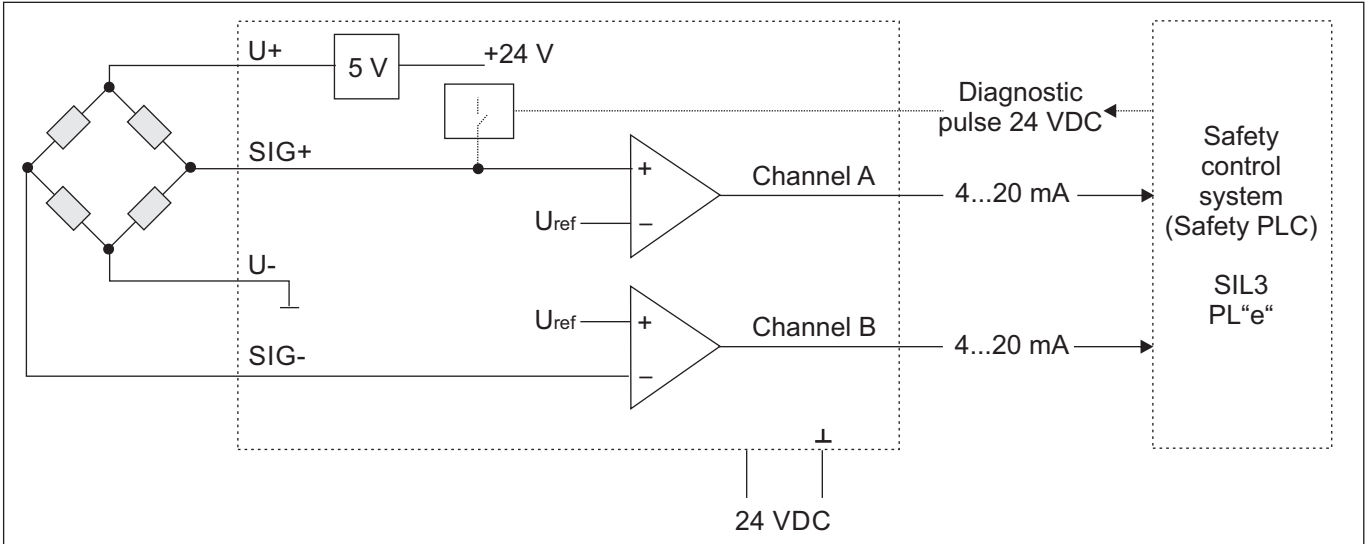
Certificates:	SIL3 (EN 61508, EN 62061) Performance level „e“, category 3 (EN13849-1)
Evaluation:	The evaluation of both analog signals has to be done with a safety control system. The rules for the evaluation are specified. The program concept for the safety control system (Safety PLC) is specified by the manufacturer.

## ● Dimensions (in mm)



**Electrical connection**

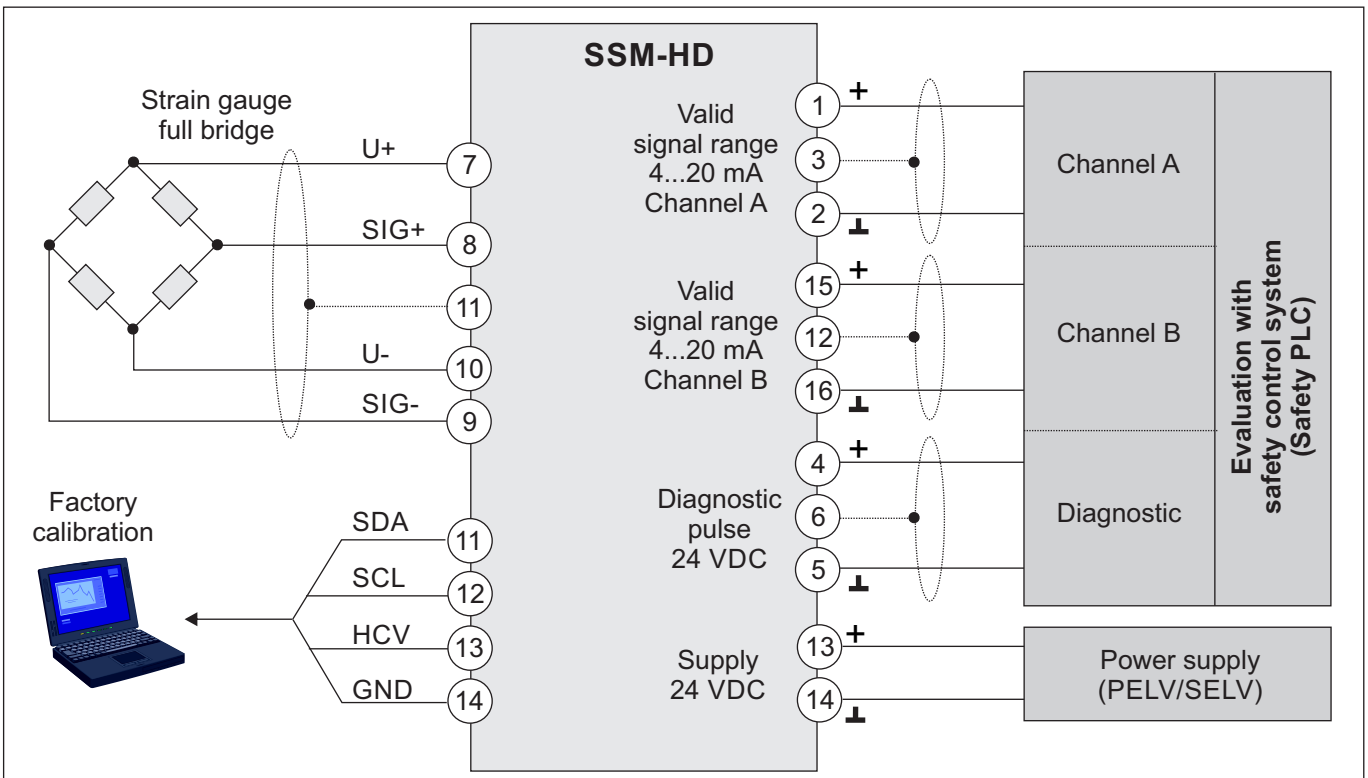
**General principle**



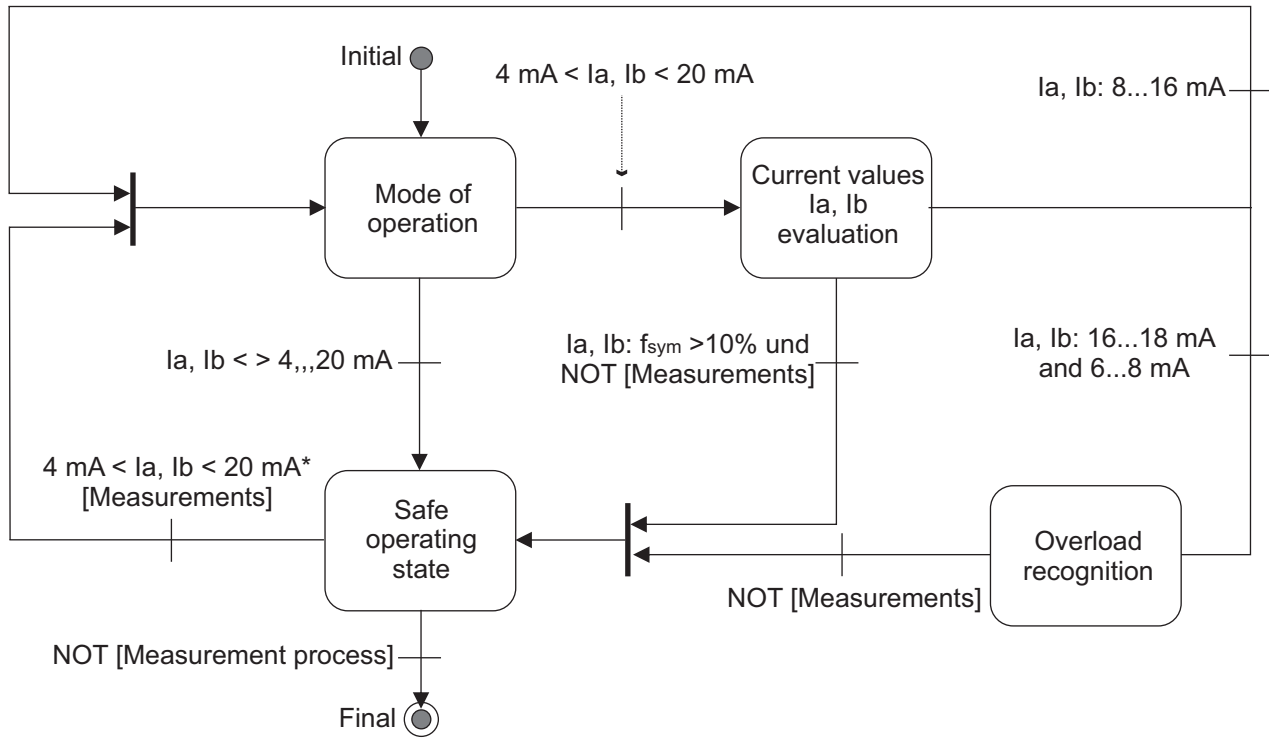
**Output signal A and B**



**Principle of connection (example)**



● **Evaluation concept PLC (finite state machine (FSM))**



● **Ordering information**

**Bridge measuring amplifier SIL3 und PL „e“:**

1 bridge input and 2 analog outputs

**Order No.: 0600-00493**

**Bridge measuring amplifier SIL3 und PL „e“:**

2 bridge input and 2 analog outputs each

**Order No.: 0600-00494**