

## Product Description

### Profibus Amplifier Busbox-PS2

#### Special Features

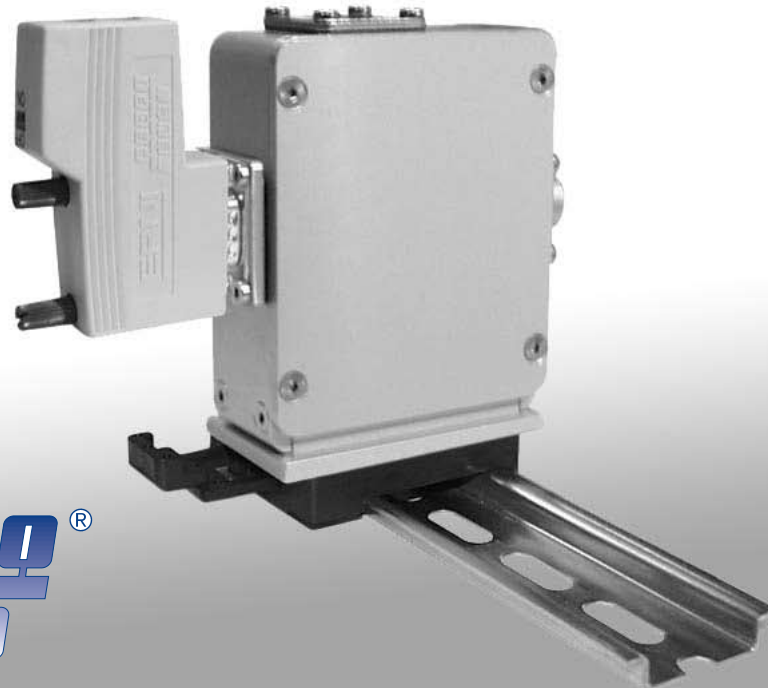
- Amplifier with Profibus interface as DIN railmount version
- Designed for strain gauge sensors
- User friendly commissioning via GSD file
- Transmission range up to 12 Mbit/s
- 16 bit resolution

#### Scope of Supply

- **Electronic unit** designed into an aluminium enclosure
- **GSD-file on disk**
- **1 Sensor plug**
- **Cable socket** for external power supply (X1)

#### Also Available

- **Profibus Sub D-plug**
- **Option F:**  
(potentially explosive atmospheres):  
Use with safety barriers



Pic. similar design

## Application

The Busbox-PS is used whenever strain gauge sensors are to be connected to the Profibus DP. The primary application field is the web tension measurement.

A bus box is assigned to each sensor, the addresses are assigned accordingly and the appropriate value is transferred to the bus.

The „S“ version is intended for switch cabinet mounting on common DIN mounting rails.

The electronic module consists of an analogue and a digital PCB. It can power one sensor and process the measuring signals.

The measurement values are converted into digital signals, averaged and transmitted to the interface module every 3 ms.

The interface module converts the signal to the appropriate data format for transmission to the bus.

## Technical Data

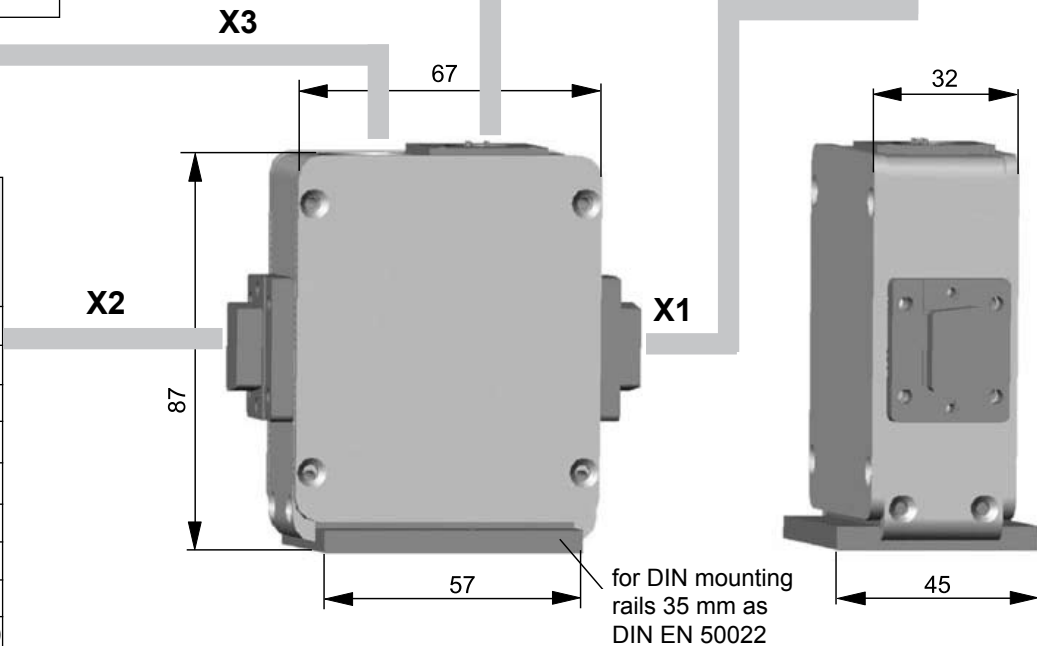
Power supply $V_5$	20,5...30 V, max 150 mA	<b>Profibus DP</b>	Participant-ID	00E7 hex (Data standardized in GSD-file "HAEH00E7.GSD")
Supply voltage	4,5 V / 18 mA			
Signal	-10,8 mV...0 mV...+10,8 mV $\Delta$ 8000...0000...7FFF	Data width	1 word	
Standard protection	IP20	Resolution	16 bit	
Nominal temperature range	+10...+60 °C	Weight	175 g	
Operational temperature range	0...+60 °C			

Sensor Connection (receptacle)		
lead color	pin-no.	<b>X3</b>
white	1	+ $V_1$
brown	2	- $V_4$
green	3	- $V_1$
yellow	4	+ $V_4$
	field	enclosure
$V_1$ : output s. $V_4$ : supply s.		

Operation display		
<b>F</b>	● ●	<b>Sa</b>
<b>U<sub>L</sub></b>	● ●	<b>BA</b>
<b>U<sub>L</sub></b>	green	power supply is on
<b>Sa</b>	green	Slave adress will be changed
<b>BA</b>	green	Profibus Data exchange
<b>F</b>	red	Configuration error

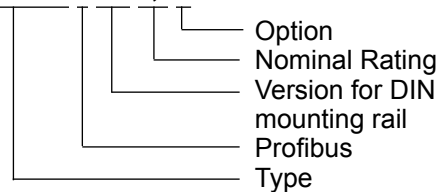
Amplifier Power Supply (pin)		
lead color	pin-no.	<b>X1</b>
white	1	+24 V ( $V_5$ +) )
brown	2	GND ( $V_5$ -)
green	3	PE
	field	enclosure
$V_5$ : amplifier supply 24 V		

Profibus DP Connection (Sub D-plug)	
pin-no.	function
1	n. c.
2	n. c.
3	line B (red)
4	RTS
5	DGND
6	VP / VCCI
7	n. c.
8	line A (green)
9	n. c.



### Ordering data:

#### Busbox-PS2-1,5F



### Ordering example for Option F:

Indicate the total resistance from measuring chain for option F (e. g. 350 Ohm):

**Busbox-PS2-1,5F350**

### Please consider with the order:

The amplification of the Busbox is presetted and in particular correlation with the nominal rating of the HAEHNE sensor.

Version Busbox	Nominal Rating HAEHNE-Sensor
-PS2-1,5	1,5 mV/V
-PS2-1,0	1,0 mV/V
-PS2-0,75	0,75 mV/V
-PS2-0,5	0,5 mV/V