HAEHNE

Product Description

Profibus-Amplifier Busbox-P2

Special Features

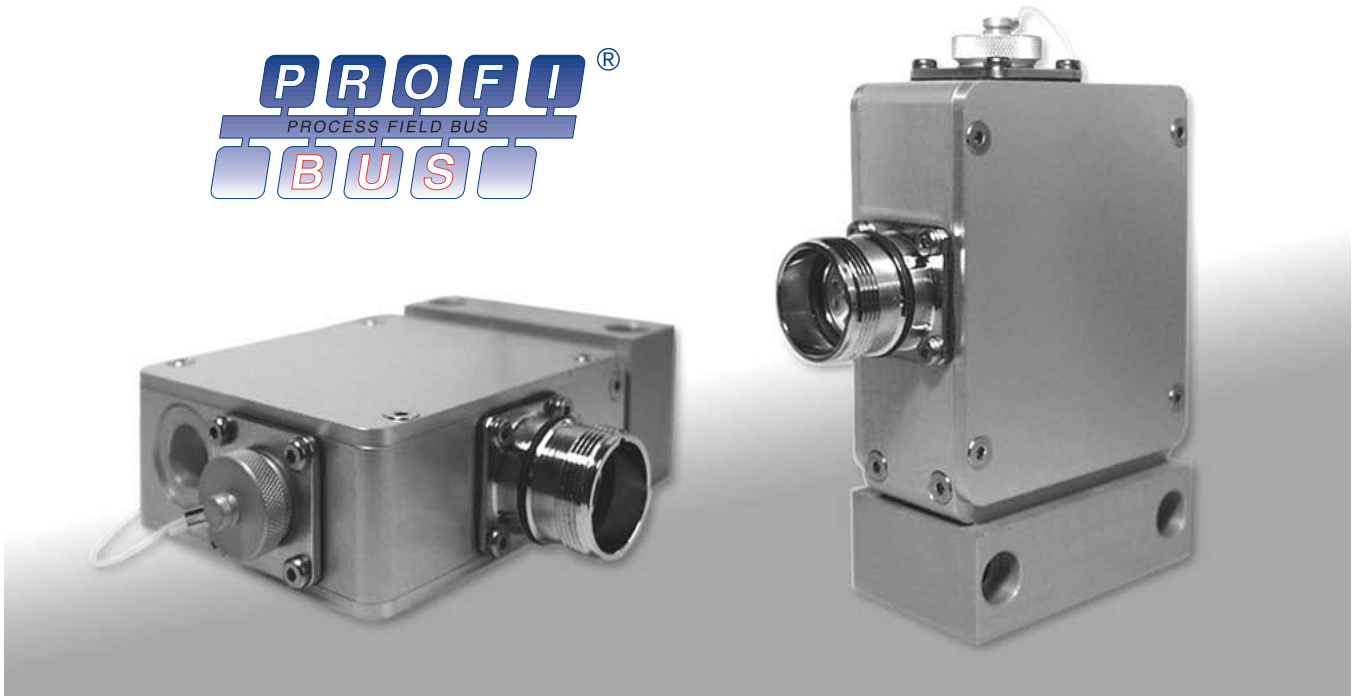
- ❒ Amplifier with Profibus Interface
- ❒ Designed for one or two strain gauge sensors
- ❒ User friendly comissioning via GSD file
- ❒ Transmission range up to 12 Mbit/s
- ❒ 16 bit resolution

Scope of Supply

- **Electronic unit** designed into an aluminium enclosure
- **GSD file on disk**
- **2 Sensor plugs (X3A, X3B)**
- **1 Protection cover (X3C)**

Available for Delivery

- **Cable socket** for external power supply (X1)
- **Bus T-connector** (X2)
- **Bus plug**
- **Terminate resistor**



Application

The Busbox-P is used whenever strain gauge sensors are to be connected to the Profibus-DP. The primary use is for web tension measurement. It is possible to connect either each sensor separately to one Busbox and transmit the measurement value of each sensor onto the Bus or connect two sensors to one Busbox. The first alternative can be used to determine the web tension difference, the second results in the average values being transmitted to the Bus.

The system can power two sensors and process the measuring signals. The measurement values are converted into digital signals averaged and transmitted to the interface module every 3 milliseconds. In the interface module they are converted to the appropiate data format for transmission to the Bus.

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Busbox-P2

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Technical Data

Power supply V_5:	20,5…30 V, max 150 mA
Supply voltage (sensor A + B):	4,5 V / 18 mA
Signal:	-10,8 mV…0 mV…+10,8 mV ≙ 8000…0000…7FFF
Standard protection:	IP 67
Nominal temperature range:	+10…+60 °C
Operational temperature range:	0…+60 °C

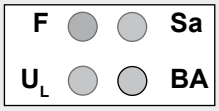
Profibus DP:

Participant-ID:	00E7 hex (data standardized in GSD-file HAEH00E7.GSD)
Data width:	1 word
Resolution:	16 bit
Weight:	175 g

Profibus DP Connection (receptacle)

lead color	pin no.	function
	1	GNDI
green	2	line A
	3	n.c.
red	4	line B
	5	n.c.
	6	VCCI
black	7	+24 V DC
blue	8	0 V
green/yel	9	PE
	10	n.c.
	11	n.c.
	12	RTS
	enclosure	PE

Operation display

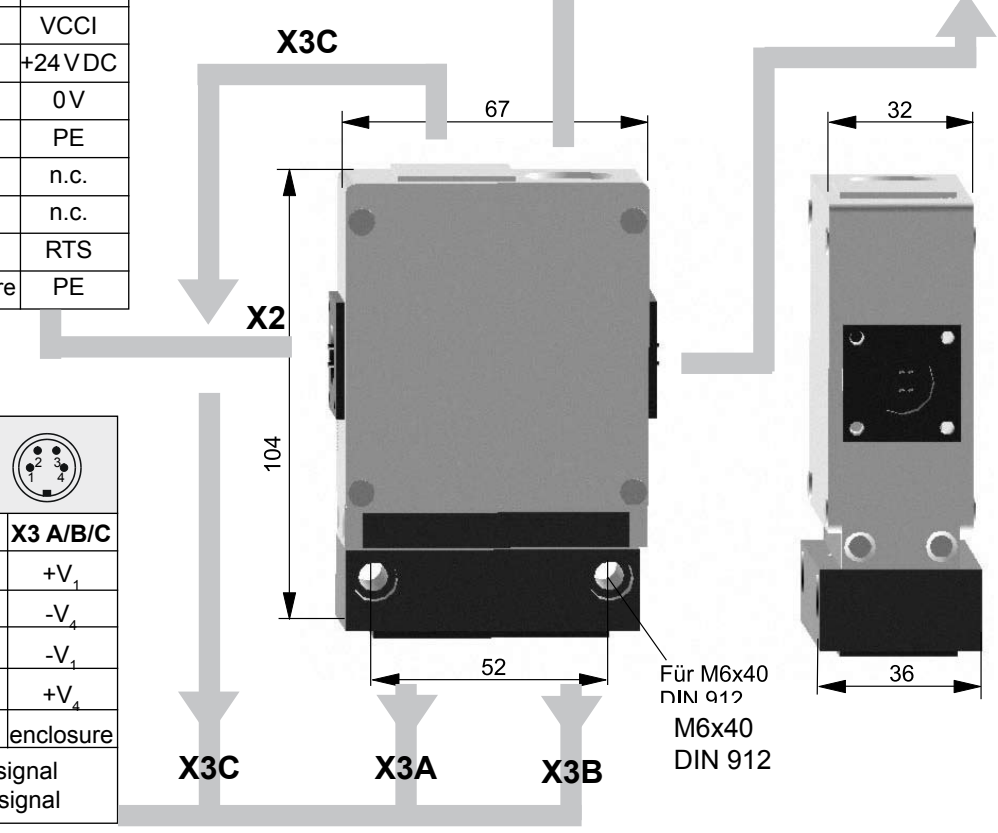


U_L	green	power supply is on
Sa	green	Slaveadress changed
BA	geen	profibus Data exchange
F	red	incorrect congfiguration

Amplifier Power Supply (plug)

lead color	pin no.	**X1**
white	1	+24 V (V_5+)
brown	2	GND (V_5-)
geen	3	PE
	field	enclosure

V_5: Amplifier supply 24 V



Sensor Connection (receptacle)

lead color	pin no.	**X3 A/B/C**
white	1	+V_1
brown	2	-V_4
green	3	-V_1
yellow	4	+V_4
	field	enclosure

V_1:bridge output signal
V_4:brigde supply signal

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
-P2-1,5	1,5 m V/V
-P2-1,0	1,0 m V/V
-P2-0,75	0,75 m V/V
-P2-0,5	0,5 m V/V

Ordering Example
Busbox-P2-1,5

Nominal Rating
Profibus
Type

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