

Digital Amplifier ProfiBus DA-PB

Scope of Supply

Amplifier in DIN Rail Mount enclosure

Standard: 1 channel ProfiBus

Device description file on disk

Variant

2PB: 2 channel ProfiBus
in DIN Rail Mount enclosure

Additional Options

GK: Enclosure (IP67) with terminals

M: Potted version only with option GK

F: (Potentially explosive atmospheres):
Use with safety barriers



Pic. similar

ProfiBus Strain Gauge Amplifier

Special Features

- 24 bit Σ - Δ -AD converter for highest precision
- Very fast cycle time for time-critical applications
- Simple integration of the interface in ProfiBus networks
- Bus and application are galvanically isolated up to 1.5 kV
- ProfiBus DPV0 / DPV1

The amplifier DA-PB is used whenever full bridge strain gauge sensors (e.g. force sensors) are to be connected with ProfiBus networks. The primary field of application is web tension and force measurement.

The sensor signals are converted into digital signals with a cycle time of 0.5 ms. They are averaged and provided to the interface circuit at a distance of approx. 6 ms. From there, they are then switched in the corresponding data format.



Other interfaces on request:

ProfiNet
(DA-PN)



EtherNet
(DA-EN)

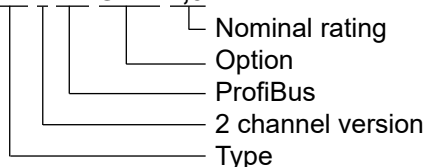


EtherCAT
(DA-EC)



Ordering Example

DA-2PB-GKM-1,5



Please consider with the order:

The amplification of the DA-PB is preset and in particular correlation with the nominal rating of the HAEHNE sensor.

Version DA-PB	Nominal rating of the sensor
-1,5	1.5 mV/V
-1,0	1.0 mV/V
-0,75	0.75 mV/V
-0,5	0.5 mV/V

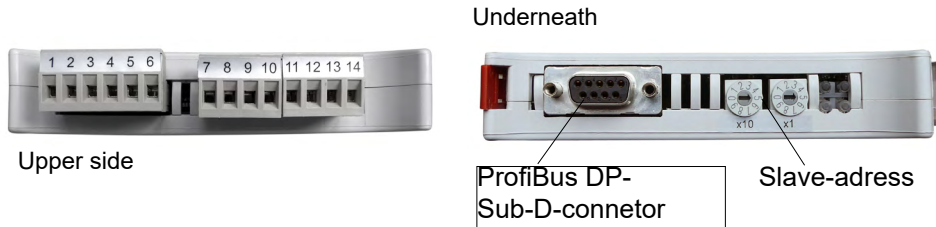
Ordering example for option F:

Indicate the total resistance from measuring chain for option F (e. g. 1000 Ohm):

DA-PB-F1000-1,5

Technical Data

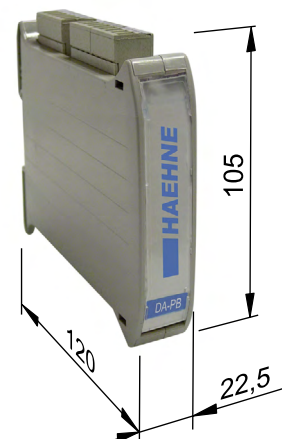
Power supply Attention: The auxiliary power must be grounded!	Power supply	24 V DC (9 ... 36 V)
	Typical current requirements with standard wiring	approx. 150 mA
Strain gauge excitation supply	Voltage (V_4)	10 V DC
	Option J	5 V DC
	Current max.	160 mA
Signal	-160 % ... 0 ... +160 % $\hat{=}$ 8000...0000...7FFF	
Data width	1 word	
Resolution	16 bit	
Enclosure protection	Standard: P20	Variant GK: IP67
Nominal temperature range	0...+60° C	
Terminal cross-section	AWG 24-12	



Terminal Assignment DIN Rail enclosure

Power Supply					Reference potential for Ex protection	Sensor A				Sensor B			
1	2	3	4	5	6	7	8	9	10	11	12	13	14
+24 V	+24 V*	0 V	0 V*	PE	GND	V_4^+	V_4^-	V_1^+	V_1^-	V_4^+	V_4^-	V_1^+	V_1^-

V_1 : Signal voltage V_4 : Supply voltage



* Power supply for other devices
The maximum current of 1 Ampere must not be exceeded.

Terminal Assignment option GK

Power Supply					Reference potential for Ex protection	Profibus DP Connection				Sensor A				Sensor B			
1	2	3	4	5	6	IN		OUT									
						A	B	A	B								
+24 V	+24 V*	0 V	0 V*	PE	GND	Green	Red	Green	Red	V_4^+ / U_{Br}^+	V_4^- / U_{Br}^-	V_1^+ / U_{Sig}^+	V_1^- / U_{Sig}^-	V_4^+ / U_{Br}^+	V_4^- / U_{Br}^-	V_1^+ / U_{Sig}^+	V_1^- / U_{Sig}^-

V_1 : Signal voltage V_4 : Supply voltage



Option GK
Width x depth x height
170 x 123 x 67 mm