



# Universal PROFIBUS Power Hub, Gateway Motherboard

## MB-FB-GT

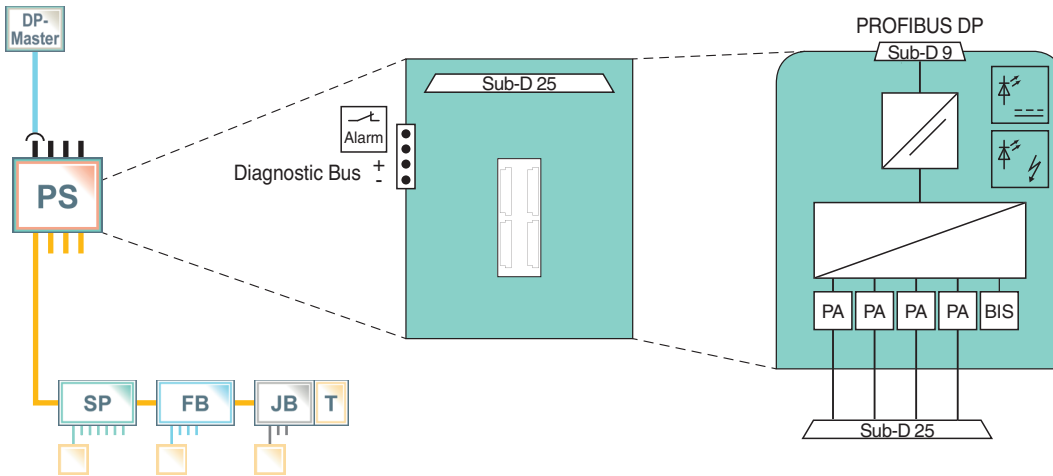
- For one PROFIBUS Gateway Module
- Part of Segment Coupler 3



### Function

The PROFIBUS gateway motherboard is a system component of the FieldConnex® PROFIBUS universal Power Hub system. The combination of gateway, power supply, and respective motherboards form the PROFIBUS Segment Coupler 3 (SK3). The motherboard is the mounting base and wiring interface for 1 PROFIBUS Power Hub gateway module. Communication is transparent between DP and PA. The gateway of the Segment Coupler makes each PA device appear as if it was connected to DP: This relates to addressing, cyclic/acyclic data exchange, and the transfer rate. Segment design is clear and easy to understand without subnetworks. The gateway itself is configuration-free. All in all, these features significantly reduce engineering work. The gateway provides a PA master for each segment and thus enables short bus cycle times.

### Connection



### Technical Data

General specifications	
Design / Mounting	Motherboard based
<b>Supply</b>	
Rated voltage	$U_r$ 19.2 ... 35 V SELV/PELV
Rated current	$I_r$ 2 ... 3 A
<b>Indicators/operating means</b>	
Fault signal	VFC alarm output via connectors
DIP switch	address 0 ... 125
<b>Directive conformity</b>	
Electromagnetic compatibility	

Release date: 2022-07-04 Date of issue: 2022-07-04 Filename: 183285\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0002  
pa-info@us.pepperl-fuchs.com

Germany: +49 621 776 2222  
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
pa-info@sg.pepperl-fuchs.com

PEPPERL+FUCHS

## Technical Data

Directive 2014/30/EU	EN 61326-1:2013
<b>Standard conformity</b>	
Galvanic isolation	IEC 62103
Electromagnetic compatibility	NE 21:2011
Degree of protection	IEC 60529
Fieldbus standard	IEC 61158-2
Shock resistance	EN 60068-2-27
Vibration resistance	EN 60068-2-6
Corrosion resistance	acc. to ISA-S71.04-1985, severity level G3
<b>Ambient conditions</b>	
Ambient temperature	-40 ... 60 °C (-40 ... 140 °F)
Storage temperature	-40 ... 85 °C (-40 ... 185 °F)
Relative humidity	< 95 % non-condensing
Shock resistance	15 g 11 ms
Vibration resistance	1 g , 10 ... 150 Hz
Pollution degree	max. 2, according to IEC 60664
Corrosion resistance	acc. to ISA-S71.04-1985, severity level G3
<b>Mechanical specifications</b>	
Housing material	Polycarbonate
Housing width	50 mm
Housing height	220 mm
Housing depth	65 mm
Degree of protection	IP20
Mass	approx. 150 g
Mounting	DIN mounting rail
Coating	conformal coated
<b>Data for application in connection with hazardous areas</b>	
Certificate	TÜV 04 ATEX 2500 X
Marking	Ⓔ II 3 G Ex nA IIC T4 Gc
Directive conformity	
Directive 2014/34/EU	EN 60079-0:2012 , EN 60079-11:2012 , EN 60079-15:2010
<b>International approvals</b>	
FM approval	CoC 3024816, CoC 3024816C
Approved for	Class I, Division 2, Groups A, B, C, D, T4 / Class I, Zone 2, AEx/Ex nA IIC T4
IECEx approval	IECEx TUN 13.0038X
Approved for	Ex nA IIC T4 Gc
<b>Certificates and approvals</b>	
Marine approval	DNV A-14038
<b>General information</b>	
Supplementary information	Statement of Conformity, Declaration of Conformity, Attestation of Conformity and instructions have to be observed where applicable. For information see <a href="http://www.pepperl-fuchs.com">www.pepperl-fuchs.com</a> .

Release date: 2022-07-04 Date of issue: 2022-07-04 Filename: 183285\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".




Pepperl+Fuchs Group  
[www.pepperl-fuchs.com](http://www.pepperl-fuchs.com)USA: +1 330 486 0002  
pa-info@us.pepperl-fuchs.comGermany: +49 621 776 2222  
pa-info@de.pepperl-fuchs.comSingapore: +65 6779 9091  
pa-info@sg.pepperl-fuchs.com

**PEPPERL+FUCHS**

## Assembly



## Matching System Components

	<b>HD2-GTR-4PA</b>	PROFIBUS Power Hub, Gateway Module
	<b>MBHC-FB-4.HSC*</b>	Compact Fieldbus Power Hub Motherboard with Host System Connectors
	<b>MBHC-FB-4R.HSC*</b>	Compact Fieldbus Power Hub Motherboard with Host System Connectors

## Accessories

<b>ACC-MB-HDC</b>	Diagnostic cordset for linking the diagnostic bus of 2 motherboards, length 6 cm
-------------------	--

Release date: 2022-07-04 Date of issue: 2022-07-04 Filename: 183285\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Pepperl+Fuchs Group  
www.pepperl-fuchs.com

USA: +1 330 486 0002  
pa-info@us.pepperl-fuchs.com

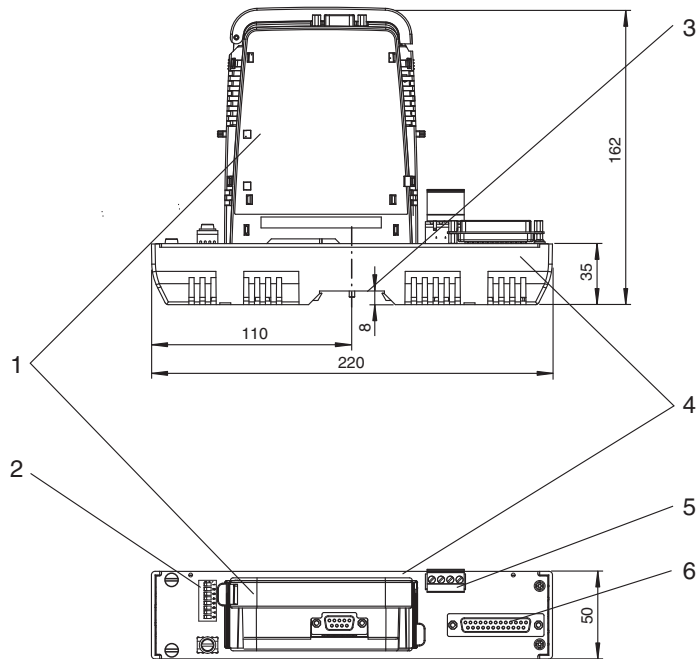
Germany: +49 621 776 2222  
pa-info@de.pepperl-fuchs.com

Singapore: +65 6779 9091  
pa-info@sg.pepperl-fuchs.com

 **PEPPERL+FUCHS**

**Additional Information**

**Dimensions**



**Description:**

- 1 Gateway HD2-GTR-4PA, see separate data sheets
- 2 DIP-Switch for BIS address
- 3 Mounting slot for DIN rail
- 4 Motherboard MB-FB-GT
- 5 Connections for alarm voltage free contact and diagnostics bus  
Diagnostics link cable, optional accessory
- 6 SUB-D interface for the connection of Power Hub motherboards

**Available PROFIBUS and PROFINET Power Hub System Components**

The following list describes all available PROFIBUS and PROFINET Power Hub system components as an overview and quick reference beyond the component described in this datasheet.

Type Code	Description
HD2-GTR-4PA	PROFIBUS DP to PROFIBUS PA gateway module, 4 PROFIBUS PA segments.
HD2-GTR-4PA.PN	PROFINET to PROFIBUS PA gateway module, 4 PROFIBUS PA segments.
HCD2-FBPS-1.500	Power supply module 30 V/500 mA.
HCD2-FBPS-1.23.500	Power supply module 23 V/500 mA.
HD2-DM-A*	Advanced physical layer diagnostic module.
HD2-DM-B	Basic diagnostic module.
MB-FB-GTR1	Motherboard for gateway redundancy, slots for 2 gateway modules.
MBHC-FB-4.GT*	Compact Power Hub motherboard for 4 segments, slots for 4 power supply modules, 1 diagnostic module, and 1 gateway module. Connector options: Removable screw terminals or spring terminals.
MBHC-FB-4.HSC*	Compact Power Hub motherboard for 4 segments, slots for 4 power supply modules and 1 diagnostic module. Connector options: Removable screw terminals or spring terminals.
MBHC-FB-4R.HSC*	Compact Power Hub motherboard for 4 redundant segments, slots for 8 power supply modules and 1 diagnostic module. Connector options: Removable screw terminals or spring terminals.
KT-MB-FB-D-4R.GEN	DART high-density Power Hub with generic interface for 4 redundant segments, slots for 8 power supply modules with 1 diagnostic module.

Release date: 2022-07-04 Date of issue: 2022-07-04 Filename: 183285\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

**Applicable Combinations of Gateway Motherboards, System Modules with Motherboards**

		GW MBs	GW Modules		Power Supplies		Diagnostic Modules	
		MB-FB-GTR1	HD2-GTR-4PA	HD2-GTR-4PA.PN	HCD2-FBPS-1.23.500	HCD2-FBPS-1.500	HD2-DM-A*	HD2-DM-B
MBs or Power Hub Kits	MBHC-FB-4.HSC*	x			x	x	x	x
	MBHC-FB-4R.HSC*	x			x	x	x	x
	KT-MB-FB-D-4R.GEN	x					x	x
GW MBs	MB-FB-GTR1		x	x				
	MBHC-FB-4.GT		x	x	x	x	x	x

For more details on the components see respective datasheets.

Release date: 2022-07-04 Date of issue: 2022-07-04 Filename: 183285\_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".