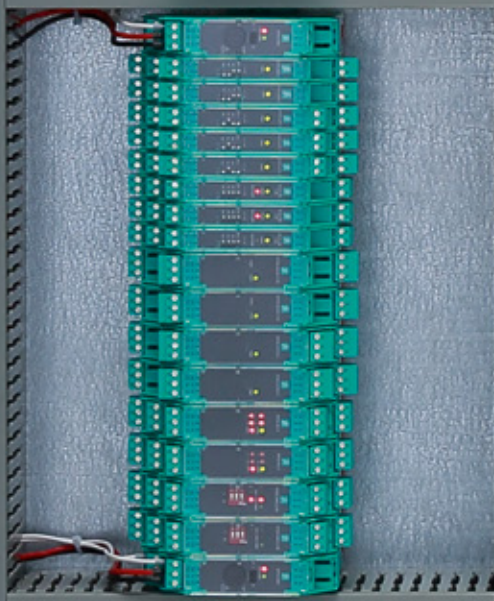
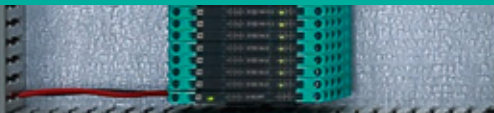
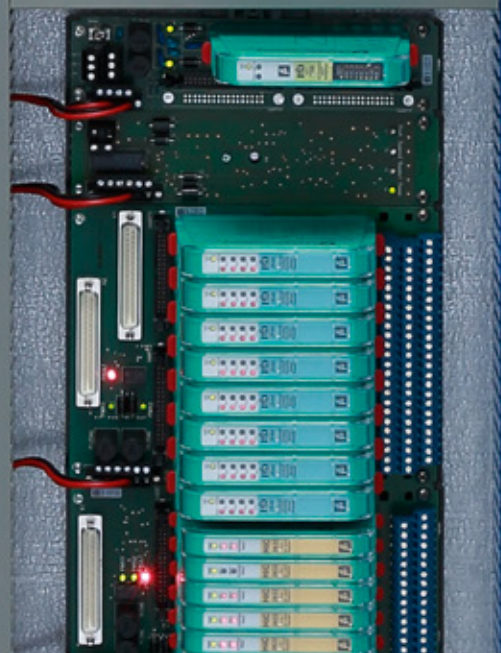
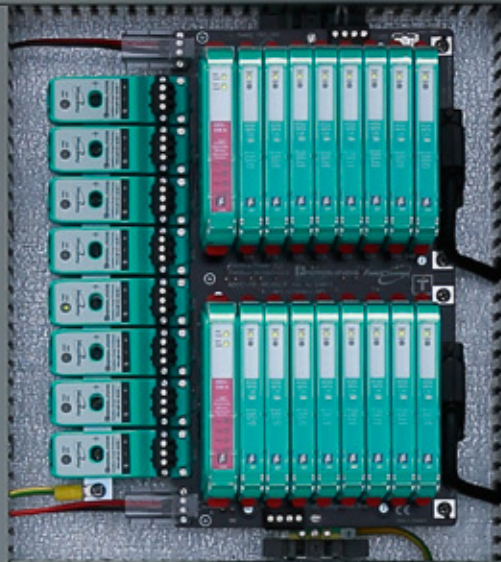


Quick Select Product Guide Process Interfaces

Interface Technology
Remote I/O Systems
Fieldbus Infrastructure

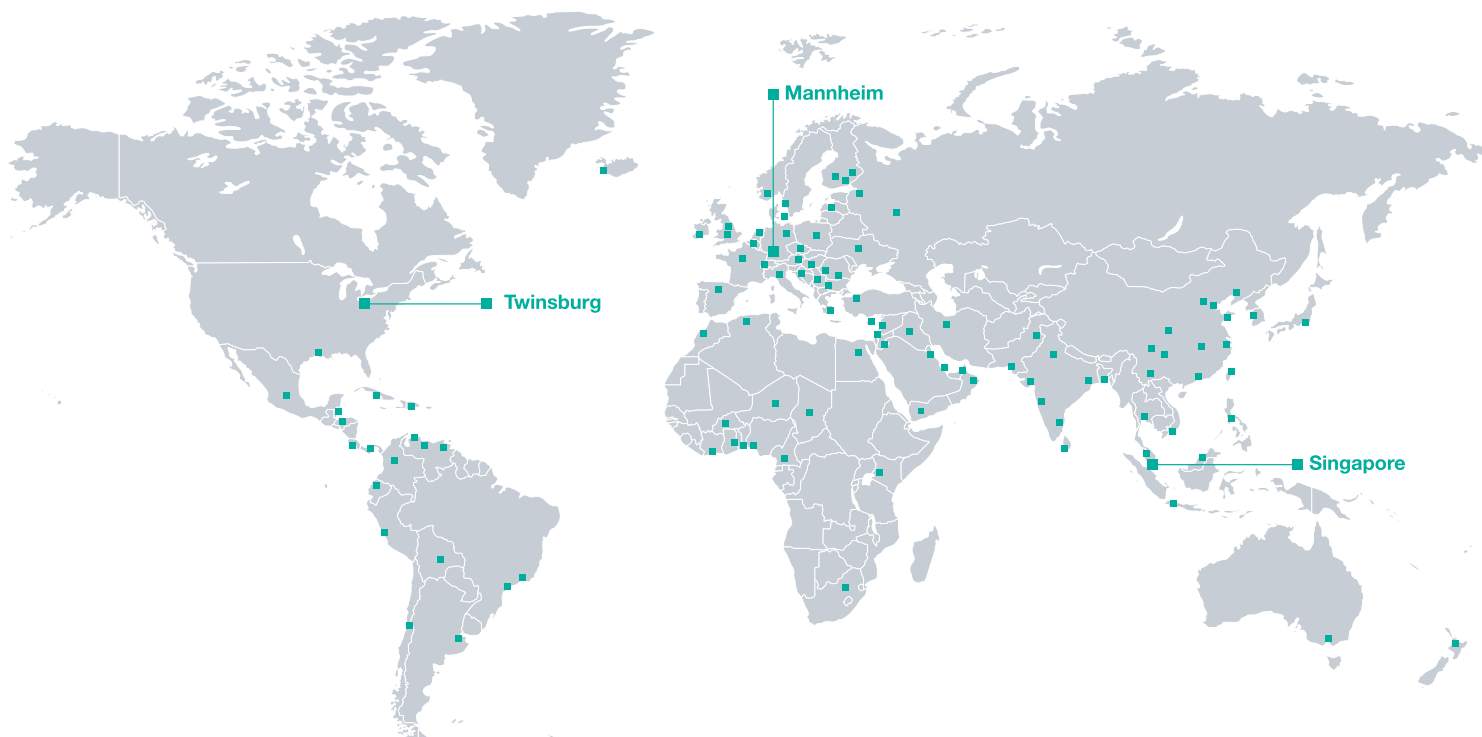


Quick Select Product Guide: Use, Purpose, and Target Group

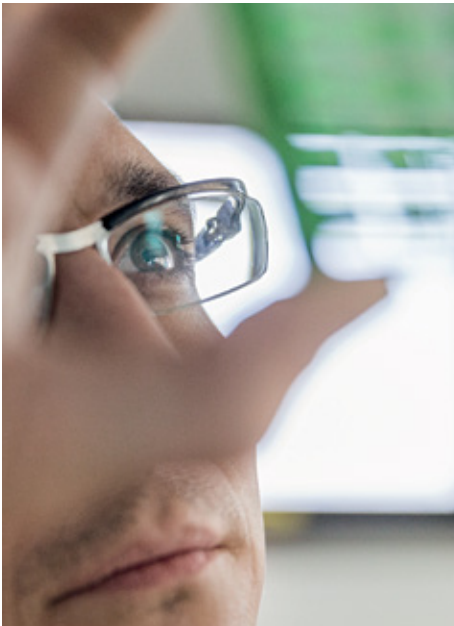
The Quick Select Product Guide for interface technology, FieldConnex[®], and remote I/O connection technologies is designed for experienced users such as technicians and engineers. This guide will help you select the right technology and systems when designing plants.

Selection tables with specific product features will help you find the right solution or component quickly and reliably. You can find more detailed system descriptions as well as a basic explanation of explosion protection and the different technologies available (signal transmission, fieldbus technology, surge protection, etc.) on the individual product pages.

Particularly in the area of interface technology, specialist terms can vary from provider to provider. The terms required for product selection are explained on pages 9 and 47. You can always find our up-to-date product portfolio at www.pepperl-fuchs.com.



Innovative Solutions. Perfect Applications.



The courage to take commercial risks, an inquiring mind, and the belief in one's own abilities – these are the assets on which Walter Pepperl and Ludwig Fuchs established a small radio workshop in the German city of Mannheim back in 1945. A few years later, they demonstrated their credentials by inventing the proximity sensor. This marked the start of a success story that has been shaped as much by close customer relationships as by pioneering technology and automation technology processes.

Then as now, our focus is directed squarely on the individual requirements of each customer. Whether as a pioneer in electrical explosion protection or as a leading innovator of high-performance sensors, close communication with our customers is what has allowed us to become a leader in automation technology. Our main objective is combining state-of-the-art technologies and comprehensive services to optimize our customers' processes and applications.

For more information, visit our website:
www.pepperl-fuchs.com

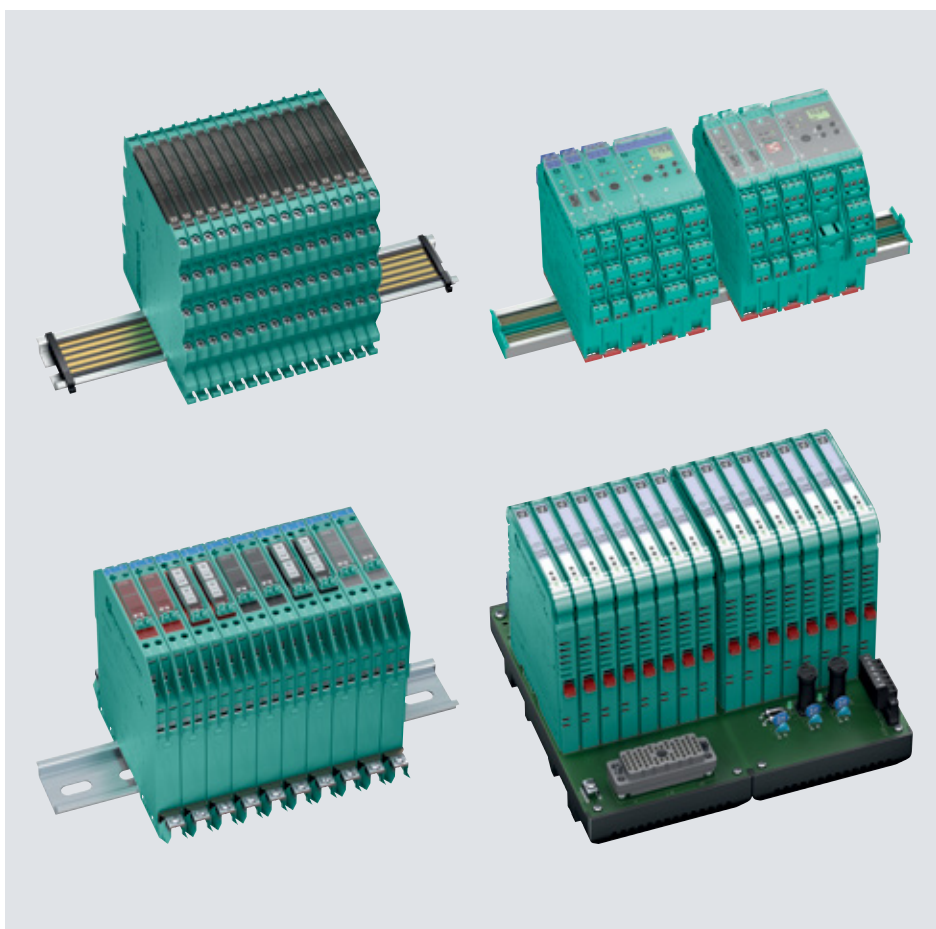
Contents

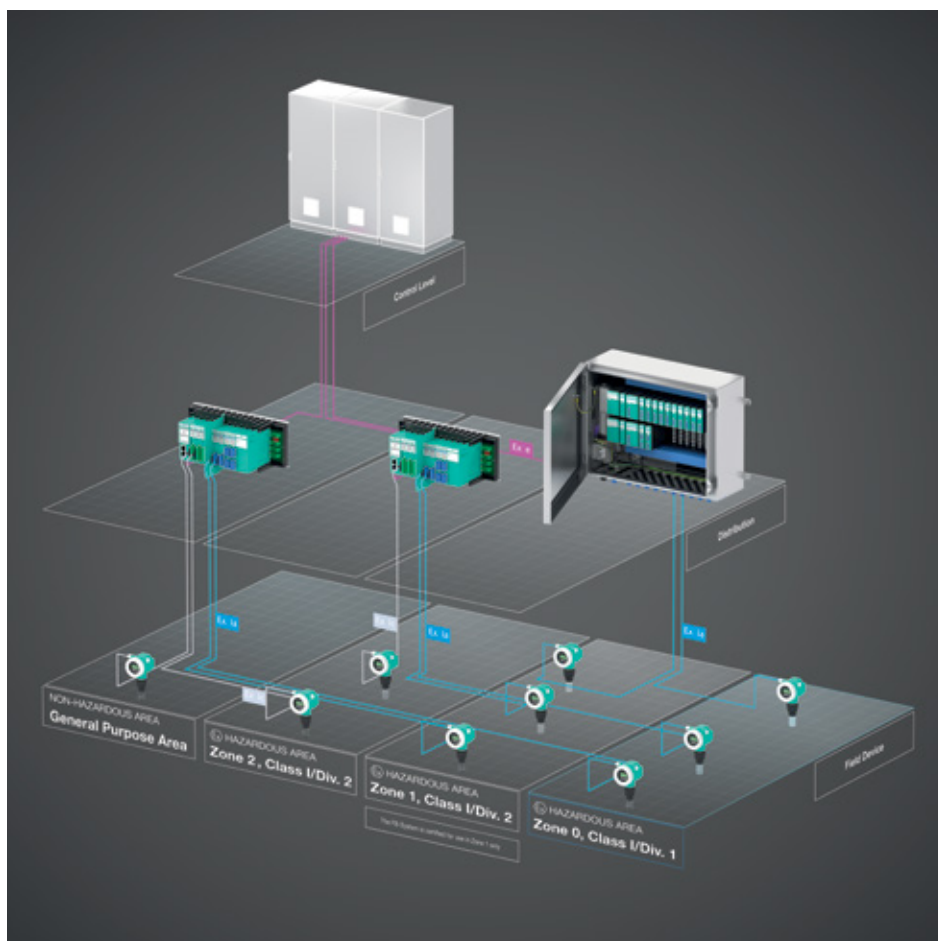
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The Right Technology for Every Requirement

Choosing the right connection technology is a fundamental part of plant design.

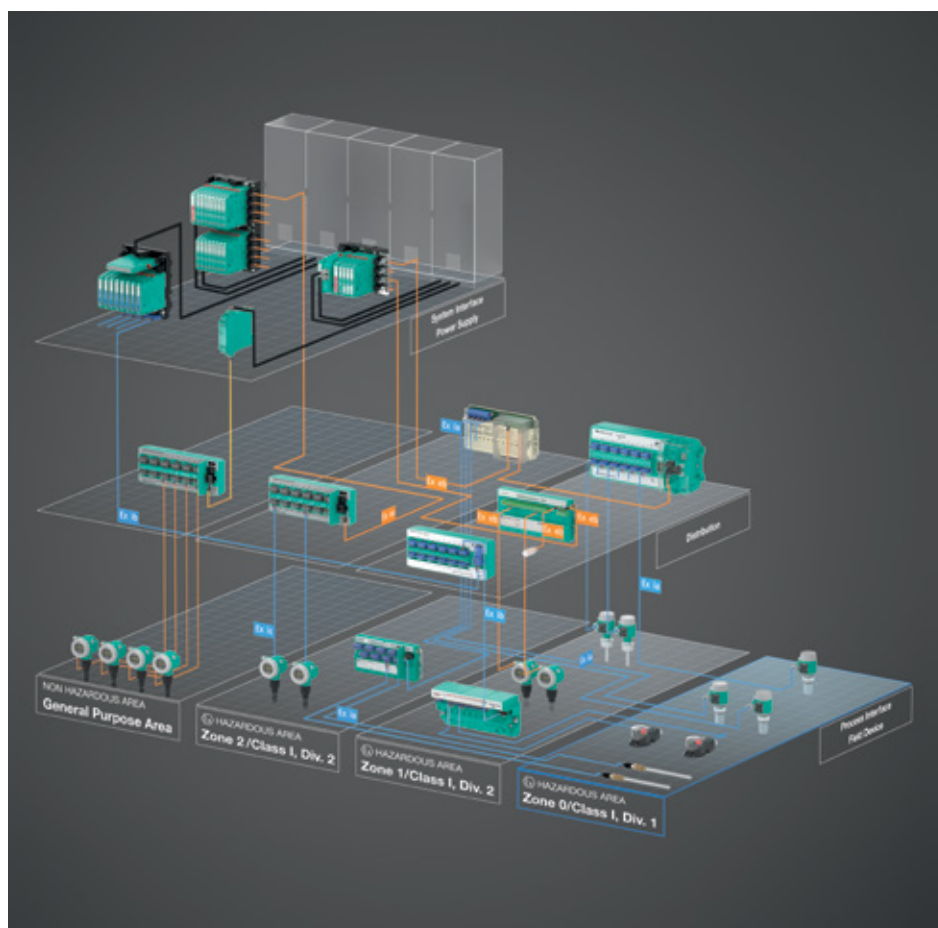
Interface technology is a proven, easy-to-manage method of assigning each signal to a terminal. Point-to-point wiring allows the device to be connected directly to the I/O card and used in the control cabinet. A wide range of modules and systems offers the right solution for every application.

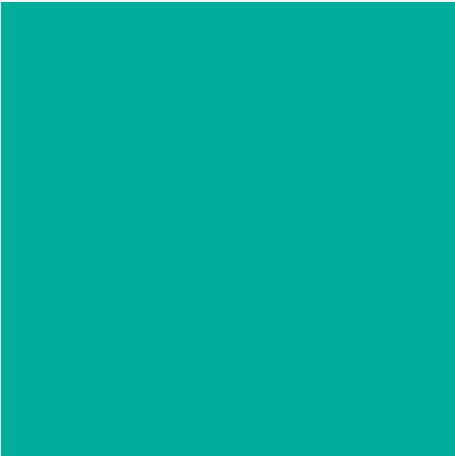




Remote I/O systems combine conventional field technology with modern bus technology. This means that when modernizing and expanding plants, the existing field technology can be connected with the control system over the remote I/O system via a fieldbus.

FieldConnex[®] facilitates the connection of high-level bus systems to digital communication in the field. Wherever processes require high performance and maximum transparency, digital communication enables sophisticated, intelligent diagnostics and remote configuration. Deviations in the quality of the data and the installation itself will be detected before these changes can have an impact. This makes processes secure, efficient, and highly available.





Enclosure Solutions

Interface Technology

The entire range of interface products from Pepperl+Fuchs can be integrated into customer-specific cabinet and enclosure solutions. This reduces commissioning time and improves return on investment.

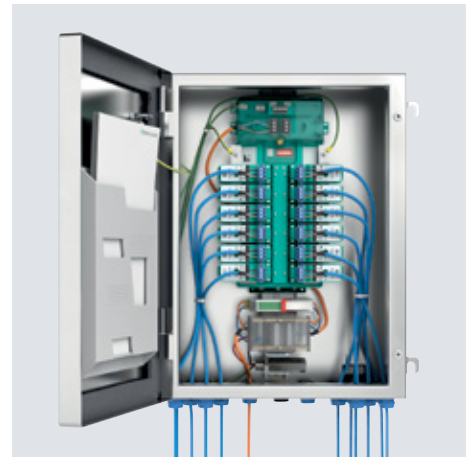
Remote I/O Systems

Pepperl+Fuchs offers standard enclosure solutions for remote I/O that are designed for the most demanding applications in explosion-hazardous areas. The surrounding enclosures are already equipped with backplanes with simple connections to I/O modules. These solutions are available in corrosion- and impact-resistant stainless steel. Pre-configured solutions with a GRP enclosure are also available. The glass fiber reinforced polyester offers a high degree of corrosion protection for both onshore and offshore installations, while the proper surface resistance prevents electrostatic charge.

FieldConnex® Fieldbus Infrastructure

Pre-installed, complete fieldbus solutions from Pepperl+Fuchs offer easy and convenient operation. FieldConnex® junction boxes come with a variety of options and can be selected using a configurator. Enclosure size, electronics, ignition protection, and accessories are tailored to the specific application and the planned operating location, ordered specifically by order number, and delivered promptly.

To ensure an efficient connection to the control technology, FieldConnex® power supplies offer factory-made connector solutions that allow four segments to be connected to one another. Regional Solution Engineering Centers take care of full planning and execution, including documentation and factory testing.

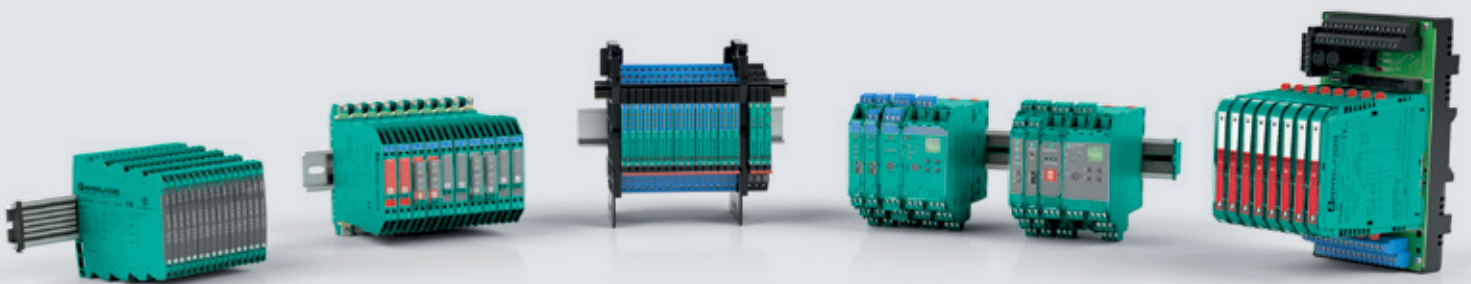


Tailor-Made SEC Solutions

More and more users are looking for complete system solutions from a single source. Experienced employees in Pepperl+Fuchs' Solution Engineering Centers (SECs) support companies from the initial planning stages up to the commissioning of new plants. All over the world, customers receive tailor-made system solutions complete with hazardous-location certification and documentation.

Interface Technology: Isolated Barriers, Signal Conditioners, and Zener Barriers

Interface technology ensures reliable signal transmission between the control level and field devices. It includes products for explosion and surge protection, galvanic isolation between the field and control panel, and digital communication based on the HART protocol.



K-System Isolated Barriers and Signal Conditioners

The K-System offers the broadest product portfolio of its kind, has the right solution for every requirement in the process industry, and is designed for a mixture of applications involving both Ex modules and non-Ex modules.

The modules are snapped onto a DIN mounting rail. They can be energized via terminals and via the Power Rail, which also transmits a collective error message.

K-System isolators offer removable terminal blocks for wiring on the control and field sides, and control elements on the front of the device. This makes them use-friendly and easy to service. The modules are available as a 12.5 mm wide KC version as well as a 20 or 40 mm wide KF version.

H-System Isolated Barriers

The H-System offers an interface solution based on a termination board for large plants and for plants directly connected to DCS/ESD systems. The modules are connected to termination boards mounted on a DIN rail without the need for tools. The termination boards connect the control system via system plugs, which ensure fast, error-free wiring.

The isolated barriers are available as HiC modules with a width of 12.5 mm for compact single-loop integrity or as multichannel HiD modules with a width of 18 mm for maximum packing density.

Z-System Zener Barriers

Z-System Zener barriers offer cost-effective explosion protection and limit the energy supplied in intrinsically safe circuits to a safe level.

For more information on our interface product portfolio, visit:

www.pepperl-fuchs.com/k-system
www.pepperl-fuchs.com/h-system
www.pepperl-fuchs.com/z-system
www.pepperl-fuchs.com/sc-system
www.pepperl-fuchs.com/surge

SC-System Signal Conditioners

The SC-System was developed for plants where explosion-hazardous areas are not a factor. The powerful signal conditioners ensure completely fault-free communication between the control level and the field and feature a high level of isolation quality, an extended temperature range, and an extremely compact, space-saving design that is only 6 mm wide.

HART Interface Solutions

K- and H-System multiplexers are used to ensure the best possible communication between the asset management system and HART field devices. The HART loop converter in the K-System is a single-channel isolated barrier and utilizes the full potential of HART field devices.

Surge Protection Modules

For reliable protection of field devices and the control level against surge voltage, Pepperl+Fuchs offers five product lines that are tailored to different process requirements:

Signal line protection:

- **M-LB-5000**: DIN rail mounting; 6,2 mm width; two parts
- **M-LB-2000**: DIN rail mounting; 6,2 mm width; one part
- **K-LB**: DIN rail mounting; 12,5 mm width; one part
- **P-LB**: K-System plug-in modules
- **F*-LB**: Screw modules for field devices

Supply line protection:

- **M-LB-Systems**

Product Selection Terms

You are looking for

Isolating Amplifier
 Ex-isolator
 Coupling Relay
 Safety Relay
 Motherboard
 Backplane
 Base Plate

Pepperl+Fuchs term

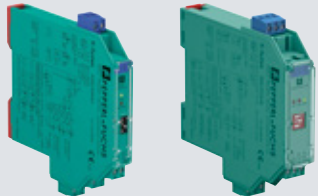
Signal Conditioner
 Isolated Barrier
 Relay Module
 Relay Module
 Termination Board
 Termination Board
 Termination Board

Interface Technology

K-System Isolated Barriers

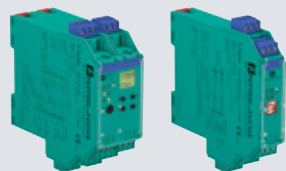
Digital input signals

Switch amplifiers



Model Number	Number of channels	Housing width			Input			Output				Functions							Supply				SIL 2	SIL 3	Installation in Zone 2	Installation in Div. 2			
		12.5 mm	20 mm	40 mm	NAMUR sensor	volt-free contact	SN/SIN sensor	Relays	Transistor	Relay and Voltage output	Relay and Transistor	Line fault detection	Reversible mode of operation	Fault indication output	Splitter function	Line fault transparency	Reset function	Time function	Interval relay	2:1 method	24 V DC	230 V AC					115 V AC/230 V AC	115 V AC	
KCD2-SOT-EX1.LB	1	■			■	■		■			■	■		■							■				■		■		■
KCD2-SR-EX1.LB	1	■			■	■		■			■			■							■				■		■		■
KCD2-ST-EX1.LB	1	■			■	■		■			■	■		■							■				■		■		■
KFD2-SR2-EX1.W	1		■		■	■		■			■			■							■				■		■		■
KFA5-SR2-EX1.W	1		■		■	■		■			■			■											■		■		■
KFA6-SR2-EX1.W	1		■		■	■		■			■			■											■		■		■
KFD2-SR2-EX1.W.LB	1		■		■	■		■			■			■							■				■		■		■
KFA5-SR2-EX1.W.LB	1		■		■	■		■			■			■											■		■		■
KFA6-SR2-EX1.W.LB	1		■		■	■		■			■			■											■		■		■
KCD2-SON-EX1	1	■			■	■		■			■			■							■				■		■		■
KCD2-SON-EX1.R1	1	■			■	■		■			■			■							■				■		■		■
KCD2-SON-EX2.R1	2	■			■	■		■			■			■							■				■		■		■
KCD2-SON-EX2	2	■			■	■		■			■			■							■				■		■		■
KCD2-SOT-EX2	2	■			■	■		■			■	■		■							■				■		■		■
KCD2-SR-EX2	2	■			■	■		■			■			■							■				■		■		■
KCD2-ST-EX2	2	■			■	■		■			■	■		■							■				■		■		■
KFD2-SR2-EX2.W	2		■		■	■		■			■	■		■							■				■		■		■
KFA5-SR2-EX2.W	2		■		■	■		■			■	■		■											■		■		■
KFA6-SR2-EX2.W	2		■		■	■		■			■	■		■											■		■		■
KFA5-SR2-EX2.W.IR	2		■		■	■		■			■			■							■				■		■		■
KFA6-SR2-EX2.W.IR	2		■		■	■		■			■			■							■				■		■		■
KFD2-SRA-EX4	4		■		■	■		■			■	■		■							■				■		■		■
KFD2-ST3-EX1.LB	1		■		■	■		■			■	■		■							■				■		■		■
KFD2-ST3-EX2	2		■		■	■		■			■	■		■							■				■		■		■
KFD2-SOT3-EX1.LB	1		■		■	■		■			■	■		■							■				■		■		■
KFD2-SOT3-EX1.LB.IO	1		■		■	■		■			■	■		■							■				■		■		■
KFD2-SOT3-EX2	2		■		■	■		■			■	■		■							■				■		■		■
KFD2-SOT3-EX2.IO	2		■		■	■		■			■	■		■							■				■		■		■
KFD2-SH-EX1	1			■	■	■		■			■			■							■				■		■		■
KFD2-SH-EX1.T.OP	1		■		■	■		■			■			■							■				■		■		■
KHA6-SH-EX1	1			■	■	■		■			■			■											■		■		■
KFD2-DU-EX1.D	1			■	■	■		■			■			■							■				■		■		■
KFA5-DU-EX1.D	1			■	■	■		■			■			■							■				■		■		■
KFA6-DU-EX1.D	1			■	■	■		■			■			■							■				■		■		■

Frequency converters



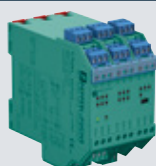
Model Number	Number of channels	Housing width		Input			Output		Functions								Supply								
		20 mm	40 mm	Frequency	NAMUR sensor	volt-free contact	0(4) mA ... 20 mA	Relay and Transistor	Start-up override	Rotation speed monitoring	Fault indication output	Frequency conversion	Trip relay	Pulse divider	Line fault detection	Rotation direction monitoring	Synchronization monitoring	Slip monitoring	24 V DC	20 V ... 90 V DC/48 V ... 253 V AC	230 V AC	115 V AC	SIL 2	Installation in Zone 2	Installation in Div. 2
KFD2-SR2-EX2.W.SM	2	■		■	■	■			■	■			■		■				■				■	■	■
KFD2-DWB-EX1.D	1		■	■	■	■			■	■	■		■						■				■	■	■
KFA5-DWB-EX1.D	1		■	■	■	■			■	■	■		■								■		■	■	■
KFA6-DWB-EX1.D	1		■	■	■	■			■	■	■		■								■		■	■	■
KFD2-UFC-EX1.D	1		■	■	■	■	■	■	■	■	■	■	■	■					■				■	■	■
KFU8-UFC-EX1.D	1		■	■	■	■	■	■	■	■	■	■	■	■					■				■	■	■
KFD2-UFT-EX2.D	2		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					■	■
KFU8-UFT-EX2.D	2		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■					■	■

Conductive switch amplifiers



Model Number	Number of channels	Housing width		Input	Output	Functions				Supply			
		20 mm		Resistance	Relays	Fault indication output	Conductivity measurement	Line fault detection	Min./max. control	Time delay	230 V AC	115 V AC	24 V DC
KFD2-ER-EX1.W.LB	1	■		■	■	■	■	■	■	■			■
KFA5-ER-EX1.W.LB	1	■		■	■	■	■	■	■	■		■	
KFA6-ER-EX1.W.LB	1	■		■	■	■	■	■	■	■	■		

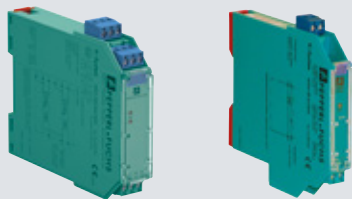
Earth fault detection



Model Number	Number of channels	Housing width	Output	Functions	Supply
KFD2-ELD-EX16	16	60 mm	Relays	Conformal coating	24 V DC

Digital output signals

Solenoid drivers



Model Number	Housing width		Input		Output			Output voltage						Output current				Functions			Supply											
	Number of channels	12.5 mm	20 mm	Logic input	Field device supply	Valve	audible alarm	visual alarm	9.8 V	10 V	11 V	11.2 V	11.7 V	12 V	12.5 V	13.5 V	20.4 mA	45 mA	65 mA	70 mA	80 mA	100 mA	Fault indication output	Line fault detection	Conformal coating	Test pulse immunity	24 V DC	Loop powered	SIL 2	SIL 3	Installation in Zone 2	Installation in Div. 2
KFD0-SD2-EX1.1045	1		■	■	■	■	■	■	■								■									■		■	■	■		
KFD0-SD2-EX2.1045	2		■	■	■	■	■		■																		■		■	■	■	
KCD0-SD-EX1.1245	1	■		■	■	■	■						■					■									■		■	■	■	
KFD0-SD2-EX2.1245	2		■	■	■	■	■						■					■									■		■	■	■	
KFD0-SD2-EX1.1065	1		■	■	■	■	■	■										■									■		■	■	■	
KFD0-SD2-EX1.1180	1		■	■	■	■	■			■											■						■		■	■	■	
KFD0-SD2-EX1.10100	1		■	■	■	■	■		■												■						■		■	■	■	■
KCD0-SD3-Ex1.1045	1	■		■	■	■	■		■									■							■	■		■	■	■	■	
KCD0-SD3-Ex1.1245	1	■		■	■	■	■			■				■				■							■	■		■	■	■	■	
KFD2-SL2-EX1	1		■	■	■	■	■						■					■				■					■		■	■	■	
KFD2-SL2-EX1.B	1		■	■		■	■	■					■					■								■		■	■	■	■	
KFD2-SL2-EX1.LK	1		■	■		■	■	■			■							■				■	■				■		■	■	■	
KFD2-SL2-EX1.LK.1045	1		■	■		■	■	■		■								■				■	■				■		■	■	■	
KFD2-SL2-EX2	2		■	■		■	■	■					■					■								■		■	■	■	■	
KFD2-SL2-EX2.B	2		■	■		■	■	■					■					■								■		■	■	■	■	
KFD2-RCI-EX1	1		■	■	■	■	■	■								■	■					■	■	■			■		■	■	■	
KCD2-SLD-EX1.1045	1	■		■	■	■	■		■									■				■	■		■	■		■	■	■	■	
KCD2-SLD-EX1.1065	1	■		■	■	■	■		■									■				■	■		■	■		■	■	■	■	
KCD2-SLD-EX1.1245	1	■		■	■	■	■						■					■				■	■		■	■		■	■	■	■	
KFD2-SLD-EX1.13100	1		■	■	■	■	■	■								■						■	■		■	■		■	■	■	■	

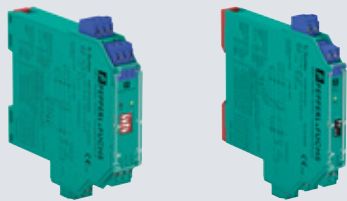
Relay modules



Model Number	Number of channels	Housing width	Input	Output	Supply			
		20 mm	Logic input	Relays	Loop powered	SIL 3	Installation in Zone 2	Installation in Div. 2
KFD0-RO-EX2	2		■	■	■	■	■	■

Analog input signals

Transmitter power supplies



Model Number	Number of channels	Housing width		Input				Output				Functions				Supply		SIL 3	SIL 2	Installation in Zone 2	Installation in Div. 2	
		12.5 mm	20 mm	2-wire-transmitters	3-wire-transmitters	Current source	4 mA ... 20 mA	0(4) mA ... 20 mA	0(4) mA ... 20 mA	0(2) V ... 10 V	0(1) V ... 5 V	1 V ... 5 V	Test sockets	Splitter function	For higher field voltages	Line fault detection	For long field lines					Fault indication output	24 V DC
KCD2-STC-EX1	1	■		■		■	■	■										■		■	■	■
KCD2-STC-EX1.ES	1	■		■		■	■	■							■		■	■		■	■	■
KFD2-STC3-EX1	1		■	■			■	■				■						■			■	■
KFD2-STC5-EX1	1		■	■	■	■	■	■				■						■			■	■
KFD2-STC5-EX1.20	1		■	■	■	■	■	■				■	■					■	■		■	■
KFD2-STC5-EX1.20.H	1		■	■	■	■	■	■				■	■	■				■	■		■	■
KFD2-STC5-EX1.H	1		■	■	■	■	■	■				■		■				■		■	■	■
KFD2-STC5-EX2	2		■	■	■	■	■	■				■						■		■	■	■
KFD2-STV5-EX1-1	1		■	■	■	■	■			■		■						■		■	■	■

Transmitter power supplies with trip values



Model Number	Number of channels	Housing width		Input		Output		Supply		SIL 2	Installation in Zone 2	Installation in Div. 2
		40 mm		2-wire-transmitters	3-wire-transmitters	0(4) mA ... 20 mA	Relays	20 V ... 90 V DC/ 48 V ... 253 V AC	24 V DC			
KFD2-CRG2-EX1.D	1	■		■	■	■	■		■	■	■	■
KFU8-CRG2-EX1.D	1	■		■	■	■	■	■	■	■	■	■

Transmitter power supplies with HART communication



Model Number	Number of channels	Housing width	Input				Output		Functions			Supply		
		40 mm	3-wire-transmitters	HART	Transmitter supply	active sources	4 mA ... 20 mA	Relays	Trip relay	HART communication	Splitter function	24 V DC	Installation in Zone 2	Installation in Div. 2
KFD2-HLC-EX1.D	1	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD2-HLC-EX1.D.2W	1	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD2-HLC-EX1.D.4S	1	■	■	■	■	■	■	■	■	■	■	■	■	■

Current repeaters



Model Number	Number of channels	Housing width	Field Side				Control Side				Transmission Direction		Functions			Supply				
		20 mm	1 mA ... 20 mA	4 mA ... 20 mA	0 mA ... 40 mA	Fire alarm	1 mA ... 20 mA	4 mA ... 20 mA	0 mA ... 40 mA	HART	To the control system	To the field / To the control system	HART communication	Reverse polarity protection	Line fault detection	Loop powered	SIL 3	SIL 2	Installation in Zone 2	Installation in Div. 2
KFD0-SCS-EX1.55	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX1.50P	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX1.51P	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX1.52	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX1.54	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX2.50P	2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX2.51P	2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX2.52	2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX2.54	2	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-CS-EX1.54-Y2	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Voltage repeaters



Model Number	Number of channels	Housing width		Field Side						Control Side						Transmission Direction	Supply	Cut-off frequency									
		20 mm	40 mm	RS 232	-10 V ... +10 V	0 V ... 12 V	-20 V ... 0 V	0 V ... 9 V	-50 mV ... +50 mV	-500 mV ... +500 mV	RS 232	-10 V ... +10 V	0 V ... 12 V	-20 V ... 0 V	0 V ... 9 V			-50 mV ... +50 mV	-500 mV ... +500 mV	To the control system	24 V DC	350 Hz	1.2 kHz	10 kHz	20 kHz	50 kHz	SIL 2	Installation in Zone 2	Installation in Div. 2
KFD2-VR2-EX1.50M	1	■						■									■	■	■							■	■
KFD2-VR2-EX1.500M	1	■							■								■	■	■							■	■
KFD2-VR-EX1.12	1	■											■				■	■	■								
KFD2-VR-EX1.18	1	■				■											■	■	■							■	■
KFD2-VR-EX1.19	1	■			■												■	■	■							■	■
KFD2-VR-EX1.19-Y109129	1	■			■												■	■	■						■	■	
KFD2-VR4-EX1.26	1	■					■										■	■	■				■	■		■	■
KFD2-FF-EX2.RS232	1	■		■													■	■	■								■

Signal converters for current and voltage



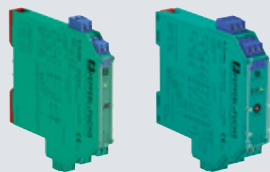
Model Number	Number of channels	Housing width		Input			Output				Functions		Supply					
		20 mm	40 mm	Current / voltage	Strain gauge bridge	Voltage	-10 V ... +10 V	-20 mA ... +20 mA	0 V ... 10 V	0 mA ... 20 mA	Relays	4 mA ... 20 mA	Trip relay	Line fault detection	24 V DC	Loop powered	Installation in Zone 2	Installation in Div. 2
KFD0-CC-EX1	1	■		■								■			■	■	■	■
KFD2-WAC2-Ex1.D	1		■		■	■	■	■	■	■	■	■	■	■	■	■	■	■

Signal converters for resistors and potentiometers



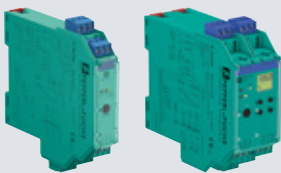
Model Number	Number of channels	Housing width		Input				Output				Supply					
		20 mm	40 mm	3-wire connection	4-wire connection	5-wire connection	Potentiometer	0 mA ... 20 mA	4 mA ... 20 mA	0 V ... 5 V	0 V ... 10 V	24 V DC	SIL 2	Installation in Zone 2	Installation in Div. 2		
KFD2-PT2-EX1	1	■		■	■	■	■					■	■	■	■	■	■
KFD2-PT2-EX1-1	1	■		■	■	■	■					■	■	■	■	■	■
KFD2-PT2-EX1-4	1	■		■	■	■	■	■					■	■	■	■	■
KFD2-PT2-EX1-5	1	■		■	■	■	■	■	■					■	■	■	■

Temperature converters and repeaters



Model Number	Number of channels	Housing width		Input						Output				Functions			Supply					
		12.5 mm	20 mm	2-wire connection	3-wire connection	4-wire connection	Potentiometer	Voltage	Thermocouple	Resistance thermometer	4 mA ... 20 mA	0(1) V ... 5 V	0(4) mA ... 20 mA	Resistance	Internal cold junction compensation	Line fault detection	Splitter function	24 V DC	Loop powered	SIL 2	Installation in Zone 2	Installation in Div. 2
KCD2-UT2-EX1	1	■		■	■	■	■	■	■			■			■			■		■	■	
KFD2-UT2-EX1	1		■	■	■	■	■	■	■			■			■			■		■	■	
KFD2-UT2-EX1-1	1		■	■	■	■	■	■	■		■				■			■		■	■	
KFD2-UT2-EX2	2		■	■	■	■	■	■	■			■			■	■		■		■	■	
KFD2-UT2-EX2-1	2		■	■	■	■	■	■	■		■				■	■		■		■	■	
KFD0-TR-EX1	1		■		■					■	■							■	■		■	■
KCD2-RR2-Ex1*	1	■								■			■		■			■		■	■	■

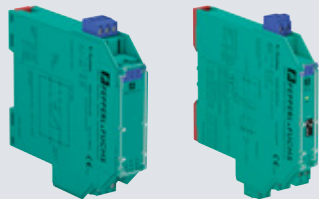
Temperature converters with trip values



Model Number	Number of channels	Housing width		Input					Output		Functions			Supply						
		20 mm	40 mm	Potentiometer	Voltage	Thermocouple	Resistance thermometer	Current / voltage	0(4) mA ... 20 mA	Relays	Trip relay	Line fault detection	Programmable high/low alarm	24 V DC	20 V ... 90 V DC/48 V ... 253 V AC	230 V AC	SIL 2	Installation in Zone 2	Installation in Div. 2	
KFD2-GUT-EX1.D	1		■	■	■	■	■		■	■	■	■		■		■		■	■	
KFU8-GUT-EX1.D	1		■	■	■	■	■		■	■	■	■		■		■		■	■	

Analog output signals

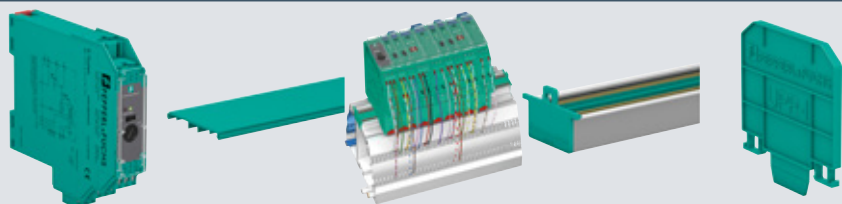
Current drivers



Model Number	Number of channels	Housing width		Input								Output				Transmission Direction			Functions				Supply		Installation						
		12.5 mm	20 mm	0 V ... 10 V	0 V ... 5 V	1 V ... 5 V	2 V ... 10 V	0 mA ... 20 mA	0 mA ... 40 mA	4 mA ... 20 mA	HART	4 mA ... 20 mA	0 mA ... 40 mA	1 V ... 5 V	0 V ... 5 V	0 V ... 10 V	2 V ... 10 V	I/P converters	Positioner	Fire alarm	To the field	To the field / To the control system	HART communication	Fault indication output	Test sockets	For long field lines	Reverse polarity protection	24 V DC	Loop powered	SIL 2	Installation in Zone 2
KCD2-SCD-EX1	1	■								■	■						■	■		■							■		■	■	■
KCD2-SCD-EX1.SP	1	■								■	■						■	■		■							■		■	■	■
KFD2-SCD2-EX1.LK	1		■							■	■						■	■		■		■	■				■		■	■	■
KFD2-SCD2-EX2.LK	2		■							■	■						■	■		■		■	■				■		■	■	■
KFD0-SCS-EX1.55	1		■							■	■										■	■					■		■	■	■
KFD0-CS-EX1.51P	1		■							■	■								■		■	■					■		■	■	■
KFD0-CS-EX1.53	1		■							■	■										■	■					■		■	■	■
KFD0-CS-EX2.51P	2		■							■	■								■		■	■					■		■	■	■
KFD0-CS-EX2.53	2		■							■	■								■		■	■					■		■	■	■
KFD2-CD-EX1.32	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-1	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-2	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-3	1		■		■	■				■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-5	1		■		■					■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-6	1		■		■					■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-8	1		■		■					■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-9	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-10	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-12	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-13	1		■							■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-15	1		■		■	■	■	■		■	■										■	■					■		■	■	■
KFD2-CD-EX1.32-21	1		■		■					■	■										■	■					■		■	■	■

Accessories

Supply and assembly



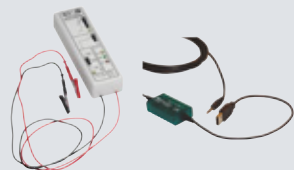
Model Number	Description
KFA6-STR-1.24.500	Power supply, 24 V, 500 mA
KFA6-STR-1.24.4	Power supply, 24 V, 4 A
KFD2-EB2	Power Feed Module
KFD2-EB2.R4A.B	Power feed module, redundant supply
UPR-03-S	Universal Power Rail with end caps and cover, 3 conductors, length: 0.8 m
UPR-03-M	Universal Power Rail with end caps and cover, 3 conductors, length: 1.6 m
UPR-03	Universal Power Rail with end caps and cover, 3 conductors, length: 2 m
UPR-05-S	Universal Power Rail with end caps and cover, 5 conductors, length: 0.8 m
UPR-05	Universal Power Rail with end caps and cover, 5 conductors, length: 2 m
UPR-E	End cap for universal power rail UPR-**-*
UPR-I	Insulation spacer for universal power rail UPR-**-*
UPR-COVER	Cover for 35 mm DIN mounting rail
UPR-INS-03	Insert for 35 mm DIN mounting rail
UPR-MR	35 mm DIN mounting rail, length: 2 m (packaging unit: 2 pieces)
K-DUCT-BU-UPR-03	Profile rail with UPR-03- * insert, 3 conductors, wiring comb field side blue
K-DUCT-BU-UPR-05	Profile rail with UPR-05- * insert, 5 conductors, wiring comb field side blue
K-DUCT-GY-UPR-03	Profile rail with UPR-03-* insert, 3 conductors, wiring comb field side gray
K-DUCT-GY-UPR-05	Profile rail with UPR-05-* insert, 5 conductors, wiring comb field side gray
K-MS	Mounting Socket

Terminal blocks



Model Number	Type		Accessories		Number of pins	Test sockets	External cold junction compensation	Color					Packing unit	Structure
	Spring terminal	Screw terminal	for KC modules	for KF modules				blue	blue, green	green	red	black		
K-CJC-BK		■		■	3		■						1 item(s)	one-rowed
K-CJC-BU		■		■	3		■	■					1 item(s)	one-rowed
KC-ST-5GN		■	■		2				■				5 item(s)	one-rowed
KF-ST-5BU		■		■	3			■					5 item(s)	one-rowed
KF-ST-5GN		■		■	3				■				5 item(s)	one-rowed
KC-STP-5BU		■	■		2	■		■					5 item(s)	one-rowed
KC-STP-5GN		■	■		2	■			■				5 item(s)	one-rowed
KF-STP-5BU		■		■	3	■		■					5 item(s)	one-rowed
KF-STP-5GN		■		■	3	■			■				5 item(s)	one-rowed
KC-CTT-3GN2BU	■		■		2	■		■					5 item(s)	one-rowed
KC-CTT-5BU	■		■		2	■		■					5 item(s)	one-rowed
KC-CTT-5GN	■		■		2	■			■				5 item(s)	one-rowed
KC-ST-5BU		■	■		2			■					5 item(s)	one-rowed
KF-CTT-3GN2BU	■			■	3	■		■					5 item(s)	one-rowed
KF-CTT-5BU	■			■	3	■		■					5 item(s)	one-rowed
KF-CTT-5GN	■			■	3	■			■				5 item(s)	one-rowed
KF-CP			■	■							■		120 item(s) (20 x 6 item(s))	

Commissioning



Model Number	Description
K-ADP-USB	Adapter with USB Interface
IS01	Simulator

Additional accessories



Model Number	Description
F-KD-EX2	Terminal module for NAMUR sensors
F-KDR-EX2	Terminal module for mechanical contacts
F-NR2-EX1	NAMUR Resistor Network
K-500R0%1	Measuring resistor
KCD0-LGH	Place holder barrier for KC modules, intrinsically safe
KFD0-LGH	Place holder barrier for KF modules, intrinsically safe
KFD0-LGH-GN	Place holder barrier for KF modules, intrinsically safe
KFD0-LGH-Y34868	Place holder barrier for KF modules, non-intrinsically safe, DC version, negative polarity
KF-SEAL	Adhesive sticker
K-250R	1 channel precision resistor, conversion of 0-20 mA / 0-5 V

H-System Isolated Barriers

SMART Universal Barrier																
Model Number	Number of channels	Housing width		Field Side								Control Side	Functions	Supply		
		12.5 mm	18 mm	NAMUR sensor	Mechanical Contact	2-wire SMART transmitters	Current source	Magnetic valve	Acoustic or visual alarms	I/P converters	On-site-displays	Current Sink	HART transparency	24 V DC	SIL 2	Installation in Zone 2
HIC2441	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Digital input signals

Switch amplifiers																			
Model Number	Number of channels	Housing width		Input			Output			Functions					Supply				
		12.5 mm	18 mm	NAMUR sensor	volt-free contact	SN/SIN sensor	Transistor	Voltage output	Relays	Fault indication output	Line fault detection	Splitter function	Applicationspecific outputs	Line fault transparency	Reversible mode of operation	24 V DC	SIL 2	SIL 3	Installation in Zone 2
HIC2821	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2822	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2831	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2831R1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2831R2	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2831R3	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2832	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2832R1	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2832R2	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2832R3	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2841	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2842	2	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2851	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2853	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2853R1	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HIC2853R2	1	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HID2821	1	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HID2822	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HID2824	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HID2842	2	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
HID2844	4	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Digital output signals

Solenoid drivers



Model Number	Number of channels	Housing width		Input			Output			Output voltage			Output Current			Functions			Supply				
		12.5 mm	18 mm	Field device supply	Contact input	Logic input	Valve	audible alarm	visual alarm	11.2 V	13 V	12 V	40 mA	60 mA	45 mA	Filter	Test pulse immunity	Line fault detection	Fault indication output	24 V DC	Loop powered	SIL 3	Installation in Zone 2
HIC2871A	1	■		■		■	■	■	■			■	■		■	■	■		■	■	■	■	■
HIC2873	1	■		■	■	■	■	■	■			■	■		■	■	■	■	■	■	■	■	■
HIC2877	1	■		■	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■
HID2872	2		■	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■	■
HID2876	2		■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■	■
HID2881	1		■	■	■	■	■	■	■	■	■		■	■		■	■	■	■	■	■	■	■
HIC2883	1	■		■		■	■	■	■			■	■		■	■	■	■	■	■	■	■	■

Relay modules



Model Number	Number of channels	Housing width		Input				Output				Supply				
		12.5 mm	18 mm	Field device supply	Logic input	Test input	Contact input	Relays	ETS function	Test pulse immunity	DTS-Functions	Loop powered	SIL 3	Installation in Zone 2		
HID2862	2		■		■		■					■		■		■
HiC5861	1	■		■	■	■		■			■		■		■	
HiC5861Y1	1	■		■	■	■		■			■		■		■	
HiC5863	1	■		■	■	■		■	■		■		■		■	
HiC5863Y1	1	■		■	■	■		■	■		■		■		■	

Analog input signals

Transmitter power supplies



Model Number	Number of channels	Housing width		Input					Output			Functions				Supply			
		12.5 mm	18 mm	2-wire-transmitters	3-wire-transmitters	Current source	0(4) mA ... 20 mA	0(1) V ... 5 V	0(4) mA ... 20 mA	0(1) V ... 5 V	HART communication	Fault indication output	Line fault detection	Splitter function	For long field lines	24 V DC	SIL 2	SIL 3	Installation in Zone 2
HIC2025	1	■		■		■	■		■	■	■				■	■		■	■
HIC2025ES	1	■		■		■	■		■	■	■	■	■		■		■	■	■
HIC2025HC	1	■		■		■	■		■	■	■			■	■		■	■	■
HIC2027	1	■		■		■	■		■	■	■			■	■		■	■	■
HIC2027DE	1	■		■		■	■		■	■	■			■	■		■	■	■
HIC2027ES	1	■		■		■	■		■	■	■			■	■		■	■	■
HID2022	2		■	■	■	■	■		■	■	■				■		■	■	■
HID2022SK	2		■	■	■	■	■		■	■	■				■		■	■	■
HID2024	4		■				■	■	■	■	■				■		■	■	■
HID2025	1		■	■			■		■	■	■				■		■	■	■
HID2025SK	1		■	■			■		■	■	■				■		■	■	■
HID2026	2		■	■			■		■	■	■				■		■	■	■
HID2026SK	2		■	■			■		■	■	■				■		■	■	■
HID2029	1		■	■		■	■		■	■	■	■	■		■		■	■	■
HID2030	2		■	■		■	■		■	■	■	■	■	■	■		■	■	■
HID2029SK	1		■	■		■	■		■	■	■	■	■		■		■	■	■
HID2030SK	2		■	■		■	■		■	■	■	■	■		■		■	■	■

Current repeaters



Model Number	Number of channels	Housing width		Field Side			Control Side	Transmission Direction	Functions		Supply		
		18 mm		Fire and smoke detectors	I/P converters	Current	1.5 mA ... 50 mA	To the field / To the control system	Conformal coating	Reverse polarity protection	24 V DC	Installation in Zone 2	Installation in Div. 2
HID2035	1	■		■	■	■	■	■		■	■	■	■
HID2036	2	■		■	■	■	■	■	■	■	■	■	■

Voltage repeaters



Model Number	Number of channels	Housing width		Field Side							Control Side			Transmission Direction	Functions		Supply			
		12.5 mm	18 mm	Acceleration Sensor	Voltage	Vibration sensor	Strain gauge	Thermocouple	Amplifiers	Load cell	-20 V ... 0 V	0 V ... ± 500 mV	0 V ... ± 50 mV		To the control system	Fault indication output	Line fault detection	24 V DC	SIL 2	Installation in Zone 2
HIC2065	1	■			■	■	■	■	■	■				■	■	■	■	■	■	■
HIC2068	1	■			■	■	■	■	■	■		■		■	■	■	■	■	■	■
HIC2095	1	■		■	■	■					■			■			■	■	■	■
HID2096	2		■	■	■	■					■			■			■	■	■	■

Signal converters for current and voltage



Model Number	Number of channels	Housing width	Input			Output			Supply	Installation in Zone 2	Installation in Div. 2
			Voltage	Current / voltage		0(1) V ... 5 V	0(2) V ... 10 V	0(4) mA ... 20 mA			
HID2012	2	18 mm	■	■	■	■	■	■	■	■	■

Temperature converters and repeaters



Model Number	Number of channels	Housing width		Input							Output			Functions			Supply	SIL 2	Installation in Zone 2	Installation in Div. 2
		12.5 mm	18 mm	2-wire connection	3-wire connection	4-wire connection	Potentiometer	Voltage	Thermocouple	Resistance thermometer	0(1) V ... 5 V	0(4) mA ... 20 mA	Resistance	Fault indication output	Line fault detection	Splitter function				
HIC2077	1	■								■			■	■	■		■	■	■	
HIC2081	1	■		■	■	■	■	■	■	■			■	■	■		■	■	■	
HID2061	1		■	■	■	■	■	■	■	■			■	■	■		■	■	■	
HID2062	2		■	■	■	■	■	■	■	■			■	■	■		■	■	■	
HID2071	1		■	■	■	■	■	■	■	■			■	■	■		■	■	■	
HID2072	2		■	■	■	■	■	■	■	■			■	■	■		■	■	■	
HID2081	1		■	■	■	■	■	■	■	■			■	■	■		■	■	■	
HID2082	2		■	■	■	■	■	■	■	■			■	■	■		■	■	■	

Analog output signals

Current drivers



Model Number	Number of channels	Housing width		Input				Output				Transmission Direction		Functions				Supply								
		12.5 mm	18 mm	0(4) mA ... 20 mA	4 mA ... 20 mA	1.5 mA ... 50 mA	0(1) V ... 5 V	4 mA ... 20 mA	0(4) mA ... 20 mA	1.5 mA ... 50 mA	I/P converters	Positioner	visual alarm	Fire and smoke detectors	To the field	To the field / To the control system	Fault indication output	HART communication	Line fault detection	Reverse polarity protection	For long field lines	24 V DC	Loop powered	SIL 2	Installation in Zone 2	Installation in Div. 2
HIC2031	1	■		■				■						■							■					
HIC2031HC	1	■		■				■						■							■					
HID2024	4		■	■		■		■							■						■					
HID2031	1		■		■			■		■	■	■		■							■					
HID2032	2		■		■			■		■	■	■		■							■					
HID2033	1		■		■			■		■	■	■		■					■		■	■	■	■	■	■
HID2034	2		■		■			■		■	■	■		■					■		■	■	■	■	■	■
HID2035	1		■			■		■		■			■		■				■		■	■				
HID2036	2		■			■		■		■			■		■				■		■	■				
HID2037	1		■		■			■		■	■	■		■							■					
HID2038	2		■		■			■		■	■	■		■							■					
HID2038Y	2		■		■			■		■	■	■		■							■					

Termination boards



Model Number	Number of modules	Construction type		Control side		Field side		Number of channels per module	Number of HART communication channels
		HID	HIC	screw terminals per module, black	37-pin Sub-D connector	screw terminals per module, blue			
HICTB08-SCT-44C-SC-RA	8		■	4			4	1, 2	2 per module
HICTB16-SCT-44C-SC-RA	16		■	4			4	1, 2	2 per module
HICTB08-SDC-44C-SC-RA	8		■			1	4	1, 2	2 per module
HICTB16-SDC-24C-SC-RA	16		■			1	4	1	1 per module
HICTB16-SDC-44C-SC-RA	16		■			2	4	1, 2	2 per module
HICTB32-SDC-24C-SC-RA	32		■			2	4	1	1 per module
HIDTB16-SCT-44C-SC-RA	16	■		4			4	1, 2	2 per module
HIDTB08-SCT-49C-SC-RA	8	■		4			9	1, 2	2 per module
HIDTB08-SCT-99C-SC-RA	8	■		9			9	1, 2, 4	2 per module
HIDTB08-SDC-44C-SC-RA	8	■				1	4	1, 2	2 per module
HIDTB08-SDC-89C-SC-RA	8	■				2	9	1, 2, 4	4 per module
HIDTB16-SDC-44C-SC-RA	16	■				2	4	1, 2	2 per module
HIDTB08-SCT-44C-SC-RA	8	■		4			4	1, 2	2 per module
HIDTB08-SDC-49C-SC-RA	8	■				1	9	1, 2	2 per module

Accessories

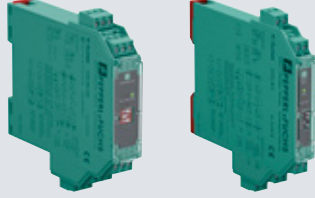


Model Number	Description
HIALC-HICTB-SET-108	Label carriers for HiC termination boards
HIALC-HIDTB-SET-150	Label carriers for HiD termination boards
HIACA-UNI-FLK34-FLK34-0M5	HART Connection Cable, length: 0.5 m
HIACA-UNI-FLK34-FLK34-2M0	HART Connection Cable, length: 2 m
HIACA-UNI-FLK34-FLK34-3M0	HART Connection Cable, length: 3 m
HIACA-UNI-FLK34-FLK34-6M0	HART Connection Cable, length: 6 m
HIC2000 BLANK	Place holder barrier for HiC modules
HID2000 BLANK	Place holder barrier for HiD modules

K-System Signal Conditioners

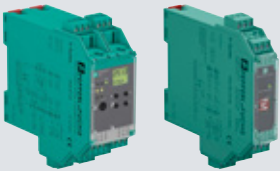
Digital input signals

Switch amplifiers



Model Number	Number of channels	Housing width		Input				Output		Functions						Supply			SIL 2	Installation in Zone 2		
		12.5 mm	20 mm	3-wire sensor	Push-pull (4 in 1) output	NAMUR sensor	volt-free contact	Relays	Transistor	Interval relay	Min./max. control	Line fault detection	Splitter function	Reversible mode of operation	Fault indication output	Time function	115 V AC + 230 V AC	24 V DC			230 V AC	
KCD2-SOT-1.LB	1	■				■	■		■			■	■	■				■		■		
KCD2-SOT-2	2	■				■	■		■			■		■				■		■		
KCD2-SR-1.LB	1	■				■	■	■				■	■					■		■		
KCD2-SR-2	2	■				■	■	■				■	■					■		■		
KCD2-ST-1.LB*	1	■				■	■		■			■	■	■	■			■		■		
KCD2-ST-2*	2	■				■	■		■			■		■	■			■		■		
KFD2-SR3-2.2S	2		■			■	■	■				■	■					■		■		■
KFU8-SR-1.3L.V	1		■	■	■			■					■					■				■
KFA6-SR-2.3L	2		■	■	■			■			■							■				■

Frequency converters



Model Number	Number of channels	Housing width		Input			Output		Functions								Supply			SIL 2	Installation in Zone 2	
		20 mm	40 mm	Frequency	NAMUR sensor	volt-free contact	0(4) mA ... 20 mA	Relay and Transistor	Relays	Start-up override	Rotation direction monitoring	Rotation speed monitoring	Fault indication output	Frequency conversion	Synchronization monitoring	Trip relay	Line fault detection	Slip monitoring	Pulse divider			20 V ... 90 V DC/ 48 V ... 253 V AC	24 V DC
KFD2-SR2-2.W.SM	2	■		■	■	■		■	■	■	■		■					■		■		■
KFD2-DWB-1.D	1		■	■	■	■		■	■	■	■		■					■		■		■
KFU8-DWB-1.D	1		■	■	■	■		■	■	■	■		■					■		■		■
KFD2-UFC-1.D	1		■	■	■	■		■	■	■	■		■					■		■		■
KFU8-UFC-1.D	1		■	■	■	■		■	■	■	■		■					■		■		■
KFD2-UFT-2.D	2		■	■	■	■		■	■	■	■		■					■		■		■
KFU8-UFT-2.D	2		■	■	■	■		■	■	■	■		■					■		■		■

Digital input/output signals

Conductive switch amplifiers



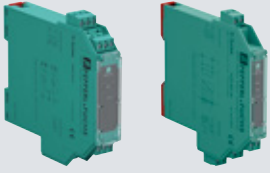
Model Number	Number of channels	Housing width 20 mm	Input Resistance	Output Relays	Functions					Supply	
					Fault indication output	Conductivity measurement	Line fault detection	Min./max. control	Time delay	230 V AC	24 V DC
KFD2-ER-1.5	1	■	■	■		■		■			■
KFD2-ER-1.6	1	■	■	■		■		■			■
KFA6-ER-1.5	1	■	■	■		■		■		■	
KFA6-ER-1.6	1	■	■	■		■		■		■	
KFD2-ER-1.W.LB	1	■	■	■	■	■	■	■	■		■
KFD2-ER-2.W.LB	2	■	■	■	■	■	■	■	■		■
KFA6-ER-1.W.LB	1	■	■	■	■	■	■	■	■	■	
KFA6-ER-2.W.LB	2	■	■	■	■	■	■	■	■	■	

Solenoid drivers



Model Number	Number of channels	Housing width 20 mm	Input Logic input	Output			Output Current 600 mA	Functions Line fault detection	Supply 24 V DC	SIL 2
				Valve	audible alarm	visual alarm				
KFD2-SL-4	4	■	■	■	■	■	■	■	■	

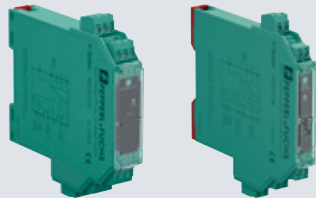
Relay modules



Model Number	Number of channels	Housing width		Input			Output	Functions							Supply					
		12.5 mm	20 mm	Field device supply	Logic input	Test input		Relays	ETS function	Test pulse immunity	DTS function	DPS function	Diagnostic function	Error message output	Line fault transparency	Loop powered	24 V DC	SIL 3	Installation in Zone 2	Installation in Div.2
KFD2-RSH-1.2D.FL2	1		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■
KFD2-RSH-1.2D.FL3	1		■	■	■	■	■		■	■	■	■	■	■	■	■	■	■	■	■
KFD2-RSH-1.2E.L2	1		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD2-RSH-1.2E.L3	1		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-RSH-1.4S.PS2	1		■	■	■	■	■	■	■		■	■	■	■	■	■	■	■	■	■
KFD0-RSH-1.1D.F1	1		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-RSH-1.1E.1	1		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KCD0-RSH-1.1D.1	1	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KCD0-RSH-1.1D.4	1	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KCD0-RSH-1.1E.1	1	■		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-RSH-1	1		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD0-RO-2	2		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Analog input signals

Transmitter power supplies



Model Number	Number of channels	Housing width		Input				Output			Functions			Supply				
		12.5 mm	20 mm	2-wire-transmitters	3-wire-transmitters	Current source	0(2) V ... 10 V	0(4) mA ... 20 mA	4 mA ... 20 mA	0(4) mA ... 20 mA	0(2) V ... 10 V	0(1) V ... 5 V	HART communication	Test sockets	Splitter function	24 V DC	SIL 2	SIL 3
KCD2-STC-1	1	■		■		■			■			■			■		■	
KCD2-STC-1.20	1	■		■		■		■	■		■	■	■	■	■		■	
KFU8-VCR-1	1		■	■	■	■	■	■	■	■					■		■	
KFD2-STC5-1	1		■	■	■	■	■	■	■	■					■		■	
KFD2-STC5-1.20	1		■	■	■	■	■	■	■	■					■		■	■
KFD2-STC5-2	2		■	■	■	■	■	■	■	■					■		■	■

Transmitter power supplies with trip values



Model Number	Number of channels	Housing width		Input			Output			Functions	Supply		
		40 mm		0(4) mA ... 20 mA	2-wire-transmitters	3-wire-transmitters	Current source	0(4) mA ... 20 mA	Relays		Trip relay	20 V ... 90 V DC/ 48 V ... 253 V AC	24 V DC	SIL 2
KFD2-CRG2-1.D	1	■		■	■	■	■	■	■	■		■	■
KFU8-CRG2-1.D	1	■		■	■	■	■	■	■	■		■	■

Current repeaters



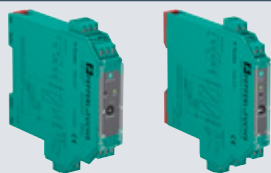
Model Number	Number of channels	Housing width		Field Side		Control Side		Functions			Supply		
		20 mm		0 mA ... 40 mA	4 mA ... 20 mA	0 mA ... 40 mA	4 mA ... 20 mA	HART	HART communication	Line fault detection	Loop powered	SIL 2	
KFD0-SCS-1.55	1	■		■	■		■	■	■	■		■	■
KFD0-CS-1.50	1	■		■	■		■					■	■
KFD0-CS-2.50	2	■		■	■		■					■	■
KFD0-CS-2.51P	2	■	■	■	■	■	■					■	■

Signal converters for current and voltage



Model Number	Number of channels	Housing width		Input		Output						Functions				Supply						
		40 mm	20 mm	Strain gauge bridge	Voltage	Current / voltage	-10 V ... +10 V	-20 mA ... +20 mA	0 V ... 10 V	0 mA ... 20 mA	Relays	0(2) V ... 10 V	0(4) mA ... 20 mA	0(1) V ... 5 V	4 mA ... 20 mA	Trip relay	Line fault detection	Programmable high/low alarm	Test sockets	20 V ... 90 V DC/ 48 V ... 253 V AC	24 V DC	Loop powered
KFD0-CC-1	1		■			■								■							■	■
KFD2-USC-1.D	1		■			■				■	■	■	■			■					■	■
KFU8-USC-1.D	1		■			■				■	■	■	■			■					■	■
KFD2-GS-1.2W	1		■			■				■							■	■			■	■
KFD2-WAC2-1.D	1	■		■	■	■	■	■	■	■					■	■					■	■
KFU8-VCR-1	1		■		■						■	■									■	■

Temperature converters and repeaters



Model Number	Number of channels	Housing width		Input				Output			Functions			Supply		SIL 2	
		12.5 mm	20 mm	Resistance thermometer	Thermocouple	Potentiometer	Voltage	4 mA ... 20 mA	0(4) mA ... 20 mA	0(1) V ... 5 V	Resistance	Internal cold junction compensation	Line fault detection	Splitter function	24 V DC		Loop powered
KCD2-UT2-1	1	■		■	■	■	■		■			■			■		■
KFD2-UT2-1-1	1		■	■	■	■	■			■		■			■		■
KFD2-UT2-1	1		■	■	■	■	■		■			■			■		■
KFD2-UT2-2	2		■	■	■	■	■		■			■	■		■		■
KFD2-UT2-2-1	2		■	■	■	■	■			■		■	■		■		■
KFD0-TR-1	1		■	■				■							■	■	
KFD0-TT-1	1		■		■			■				■	■		■	■	

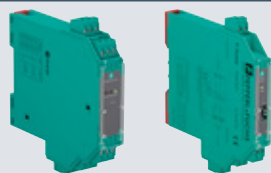
Temperature converters with trip values



Model Number	Number of channels	Housing width		Input				Output		Functions			Supply		SIL 2
		20 mm	40 mm	Thermocouple	Resistance thermometer	Potentiometer	Voltage	0(4) mA ... 20 mA	Relays	Trip relay	Line fault detection	Programmable high/low alarm	20 V ... 90 V DC/ 48 V ... 253 V AC	24 V DC	
KFD2-GUT-1.D	1		■	■	■	■	■	■	■	■	■			■	■
KFU8-GUT-1.D	1		■	■	■	■	■	■	■	■	■			■	■

Analog output signals

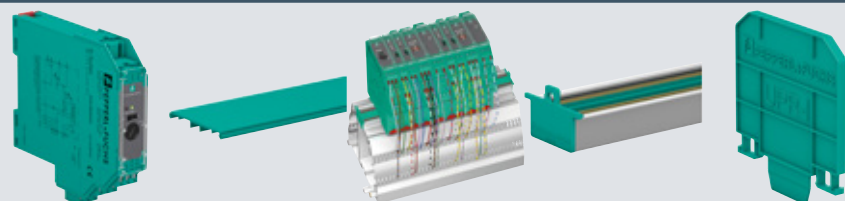
Current drivers



Model Number	Number of channels	Housing width		Input			Output			Transmission Direction		Functions				Supply				
		20 mm	12.5 mm	0 mA ... 40 mA	0 mA ... 20 mA	4 mA ... 20 mA	0 mA ... 40 mA	4 mA ... 20 mA	Fire alarm	I/P converters	Positioner	To the field / To the control system	To the field	Reverse polarity protection	HART communication	Line fault detection	Test sockets	Loop powered	24 V DC	SIL 2
KCD2-SCD-1	1		■			■			■	■		■		■					■	■
KFD0-SCS-1.55	1	■				■		■			■			■	■			■		■
KFD0-CS-2.51P	2	■		■			■		■		■		■					■		■
KFD2-CD-1.32	1	■			■					■	■								■	■

Accessories

Supply and assembly



Model Number	Description
KFA6-STR-1.24.500	Power supply, 24 V, 500 mA
KFA6-STR-1.24.4	Power supply, 24 V, 4 A
KFD2-EB2	Power Feed Module
KFD2-EB2.R4A.B	Power feed module, redundant supply
UPR-03-M	Universal Power Rail with end caps and cover, 3 conductors, length: 1.6 m
UPR-03-S	Universal Power Rail with end caps and cover, 3 conductors, length: 0.8 m
UPR-05-S	Universal Power Rail with end caps and cover, 5 conductors, length: 0.8 m
UPR-E	End cap for universal power rail UPR-**-*
UPR-I	Insulation spacer for universal power rail UPR-**-*
UPR-COVER	Cover for 35 mm DIN mounting rail
UPR-INS-03	Insert for 35 mm DIN mounting rail
UPR-MR	35 mm DIN mounting rail, length: 2 m (packaging unit: 2 pieces)
K-DUCT-GY-UPR-03	Profile rail with UPR-03-* insert, 3 conductors, wiring comb field side gray
K-DUCT-GY-UPR-05	Profile rail with UPR-05-* insert, 5 conductors, wiring comb field side gray
K-MS	Mounting Socket

Commissioning



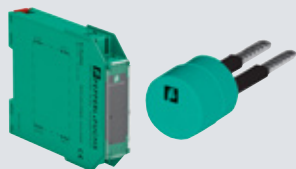
Model Number	Description
K-ADP-USB	Adapter with USB Interface

Terminal blocks



Model Number	Type		Accessories		Number of pins	Test sockets	External cold junction compensation	Color			Packing unit	Structure
	Screw terminal	Spring terminal	for KC modules	für KF-Module				green	red	black		
K-CJC-BK	■			■	3		■			■	1 item(s)	one-rowed
KC-ST-5GN	■		■		2			■			5 item(s)	one-rowed
KF-ST-5GN	■			■	3			■			5 item(s)	one-rowed
KC-STP-5GN	■		■		2	■		■			5 item(s)	one-rowed
KF-STP-5GN	■			■	3	■		■			5 item(s)	one-rowed
KC-CTT-5GN		■	■		2	■		■			5 item(s)	one-rowed
KF-CTT-5GN		■		■	3	■		■			5 item(s)	one-rowed
KF-CP			■	■						■	120 item(s) (20 x 6 item(s))	

Additional accessories



Model Number	Description
K-500R0%1	Measuring resistor
KFD0-LGH-GN	Place holder barrier for KF modules, intrinsically safe
KFD0-LGH-Y34868	Place holder barrier for KF modules, non-intrinsically safe, DC version, negative polarity
KF-SEAL	Adhesive sticker
K-250R	1 channel precision resistor, conversion of 0-20 mA / 0-5 V

SC-System Signal Conditioners

Digital input signals

Switch amplifiers



Model Number	Number of channels	Housing width	Digital input									Output	Supply	Functions	
			2-wire DC sensor	AC/DC voltage source	NAMUR sensor	NPN sensor	PNP sensor	S0 sensor	SN sensor	volt-free contact	Relays				
S1SD-1DI-1R	1	6.2 mm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	24 V DC	Time function

Rotation speed monitors



Model Number	Number of channels	Housing width	Digital input								Output	Supply	Functions					
			2-wire DC sensor	AC/DC voltage source	NAMUR sensor	NPN sensor	PNP sensor	S0 sensor	SN sensor	volt-free contact			Relays	24 V DC	Start-up override	Wiedereinschaltsperr	Time function	
S1SD-1FI-1R	1	6.2 mm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Analog input signals

Transmitter power supplies



Model Number	Number of channels	Housing width	Analog input			Output		Supply	Functions					
			0(4) mA ... 20 mA	2-wire-transmitters	3-wire-transmitters	0(4) mA ... 20 mA	0(2) V ... 10 V		24 V DC	Splitter function	HART communication	Installation in Zone 2	Installation in Div. 2	
S1SD-1AI-1U	1	6.2 mm	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
S1SD-1AI-1C.H	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
S1SD-1AI-2C	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>
S1SD-1AI-2U	1	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>

Isolating amplifiers



Model Number	Number of channels	Housing width	Analog input								2-wire-transmitters	Output				Supply	Functions		Installation in Zone 2	Installation in Div. 2					
			0(2) mA ... 20 mA	0(4) mA ... 20 mA	-10 mA ... 10 mA	-20 mA ... 20 mA	-10 V ... 10 V	-5 V ... 5 V	0(1) V ... 5 V	0(2) V ... 10 V		0(4) mA ... 20 mA	-10 mA ... 10 mA	-20 mA ... 20 mA	-10 V ... 10 V		-5 V ... 5 V	0(1) V ... 5 V			0(2) V ... 10 V	Splitter function	Line fault detection		
S1SD-1AI-1U.1	1	6.2 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
S1SD-1AI-1U.2	1	6.2 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
S1SD-1AI-2U	1	6.2 mm	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Passive isolators



Model Number	Number of channels	Housing width	Analog input	Output	Supply		Installation in Zone 2	Installation in Div. 2
					24 V DC	Loop powered		
S1SL-1AI-1C	1	6.2 mm	0(4) mA ... 20 mA	0(4) mA ... 20 mA	24 V DC	Loop powered	■	■
S1SL-2AI-2C	2	6.2 mm	0(4) mA ... 20 mA	0(4) mA ... 20 mA	24 V DC	Loop powered	■	■

Signal converters



Model Number	Number of channels	Housing width	Analog input	Output			Supply	Installation in Zone 2	Installation in Div. 2
				-10 V ... 10 V	-5 V ... 5 V	0(1) V ... 5 V				0(2) V ... 10 V	0(4) mA ... 20 mA
S1SD-1AI-1U.3	1	6.2 mm	± mV	■	■	■	■	■	■

Temperature converters



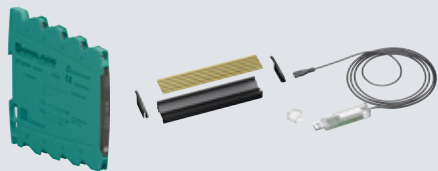
Model Number	Number of channels	Housing width	Analog input			Output			Supply	Functions	Installation in Zone 2	Installation in Div. 2
S1SD-1TI-1U	1	6.2 mm	± mV	2-wire connection	3-wire connection	4-wire connection	0(1) V ... 5 V	0(2) V ... 10 V	0(4) mA ... 20 mA	24 V DC	Line fault detection	

Trip amplifier

Model Number	Number of channels	Housing width	Input				Output	Supply	Functions			Installation in Zone 2	Installation in Div. 2					
S1SD-1AI-1R	1	6.2 mm	2-wire-transmitters	3-wire-transmitters	-10 mA ... 10 mA	-20 mA ... 20 mA	0(2) mA ... 20 mA	0(4) mA ... 20 mA	-5 V ... 5 V	-10 V ... 10 V	0(1) V ... 5 V	0(2) V ... 10 V	Relays	24 V DC	Restart inhibit	One-shot function	Time function	

Accessories

General

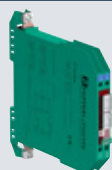


Model Number	Description
POWERBUS-SETL5.250	Power bus for 35 mm DIN mounting rail, height: 7.5 mm, length: 250 mm
POWERBUS-SETH5.250	Power bus for 35 mm DIN mounting rail, height: 15 mm, length: 250 mm
POWERBUS-SETL5.500	Power bus for 35 mm DIN mounting rail, height: 7.5 mm, length: 500 mm
POWERBUS-SETH5.500	Power bus for 35 mm DIN mounting rail, height: 15 mm, length: 500 mm
POWERBUS-COV.250	Cover for 35 mm DIN mounting rail, length: 250 mm
POWERBUS-CAP	End Cap for Power Bus
S1SD-2PF	Power feed module with screw terminals
S-ADP-USB	Adapter with USB Interface

Z-System Zener Barriers

DC versions

Positive polarity




Model Number	Number of channels	Housing width (12.5 mm)	Supply loop	Measurement loop	Series resistance	Fuse rating	Asymmetrical version	High power version	Increased nominal resistance	Current limit	Internal measuring resistor	Replaceable back-up fuse	Diode return	Installation in Zone 2
Z040	2	■	5 V	3 V at 10 µA (1 V at 1 µA)	50 Ω	100 mA								■
Z041	2	■	7.5 V	7 V at 10 µA (6 V at 1 µA)	2030.5 Ω	80 mA								■
Z042	2	■	5 V	3 V at 10 µA (1 V at 1 µA)	209.5 Ω	100 mA								■
Z 705	1	■	4.3 V	0.9 V at 1 µA	18.18 Ω	250 mA								■
Z 710	1	■	8.5 V	6.5 V at 10 µA	56 Ω	100 mA								■
Z 713	1	■	14.1 V	13.7 V at 10 µA	29 Ω	160 mA								■
Z 715	1	■	13.3 V	13 V at 10 µA	107 Ω	100 mA								■
Z 715.1K	1	■	13.3 V	13 V at 10 µA	1025 Ω	100 mA			■					■
Z 715.F	1	■	13.3 V	13 V at 10 µA	121 Ω	63 mA						■		■
Z 722	1	■	19.5 V	19 V at 10 µA	166 Ω	50 mA								■
Z 728	1	■	26.9 V	26.5 V at 10 µA	327 Ω	50 mA								■
Z 728.CL	1	■	26.9 V	26.5 V at 10 µA	342 Ω +2 V	50 mA				■				■
Z 728.F	1	■	26.9 V	26.5 V at 10 µA	341 Ω	50 mA						■		■
Z 728.H	1	■	26.9 V	26.5 V at 10 µA	250 Ω	80 mA		■						■
Z 728.H.F	1	■	26.9 V	26.5 V at 10 µA	273 Ω	50 mA		■				■		■
Z 755	2	■	4.4 V	0.9 V at 1 µA	18.µ18 Ω	250 mA								■
Z 757	2	■	6.4 V	6 V at 10 µA	15.5 Ω	200 mA								■
Z 764	2	■	10.4 V	10 V at 10 µA	1033 Ω	50 mA								■
Z 765	2	■	13.3 V	13 V at 10 µA	107 Ω	100 mA								■
Z 765.F	2	■	13.3 V	13 V at 10 µA	121 Ω	63 mA						■		■
Z 772	2	■	19.6 V	19 V at 10 µA	166 Ω	50 mA								■
Z 778	2	■	27 V	26.5 V at 10 µA	646 Ω	50 mA								■
Z 779	2	■	27 V	26.5 V at 10 µA	327 Ω	50 mA								■
Z 779.F	2	■	27 V	26.5 V at 10 µA	341 Ω	50 mA						■		■
Z 779.H	2	■	27 V	26.5 V at 10 µA	250 Ω	80 mA		■						■
Z 779.H.F	2	■	27 V	26.5 V at 10 µA	273 Ω	50 mA		■				■		■
Z 786	2	■	27 V	26.5 V at 10 µA	36 Ω + 0.9 V	50 mA							■	■
Z 787	2	■	27 V	26.5 V at 10 µA	327 Ω	50 mA								■
Z 787.F	2	■	27 V	26.5 V at 10 µA	341 Ω	50 mA						■		■
Z 787.H	2	■	27 V	26.5 V at 10 µA	250 Ω	80 mA		■				■		■
Z 787.H.F	2	■	27 V	26.5 V at 10 µA	273 Ω	50 mA		■				■	■	■
Z 788	2	■	27 V /8.6 V	26.5 V at 10 µA/6.5 V at 10 µA	327 Ω /64 Ω	50 mA	■							■
Z 788.H	2	■	27 V /8.6 V	26.5 V at 10 µA/6.5 V at 10 µA	250 Ω /64 Ω	80 mA	■	■						■
Z 788.R	2	■	27 V /8.6 V	26.5 V at 10 µA/6.5 V at 10 µA	327 Ω /64 Ω	50 mA	■				■			■
Z 789	2	■	27 V	26.5 V at 10 µA	640 Ω	50 mA							■	■
Z 796	2	■	24.6 V /19 V	24 V at 10 µA/18 V at 10 µA	340 Ω /437 Ω	50 mA	■							■

Negative polarity



Model Number	Number of channels	Housing width (12.5 mm)	Supply loop	Measurement loop	Series resistance	Fuse rating	High power version	Asymmetrical version	Replaceable back-up fuse	Diode return	Installation in Zone 2
Z 810	1	■	8.6 V	6.5 V at 10 μ A	56 Ω	100 mA					■
Z 810.CL	1	■	8.6 V	6.5 V at 10 μ A	56 Ω	100 mA					■
Z 813	1	■	14.2 V	13.7 V at 10 μ A	29 Ω	160 mA					■
Z 822	1	■	19.6 V	19 V at 10 μ A	166 Ω	50 mA					■
Z 828	1	■	27 V	26.5 V at 10 μ A	327 Ω	50 mA					■
Z 828.H	1	■	27 V	26.5 V at 10 μ A	250 Ω	80 mA	■				■
Z 828.H.F	1	■	27 V	26.5 V at 10 μ A	273 Ω	50 mA	■		■		■
Z 857	2	■	6.4 V	6 V at 10 μ A	15,5 Ω	200 mA					■
Z 864	2	■	10.4 V	10 V at 10 μ A	1033 Ω	50 mA					■
Z 865	2	■	13.3 V	13 V at 10 μ A	107 Ω	100 mA					■
Z 865.F	2	■	13.3 V	13 V at 10 μ A	121 Ω	63 mA			■		■
Z 879.F	2	■	27 V	26.5 V at 10 μ A	341 Ω	50 mA			■		■
Z 872	2	■	19.6 V	19 V at 10 μ A	166 Ω	50 mA					■
Z 878	2	■	27 V	26.5 V at 10 μ A	646 Ω	50 mA					■
Z 879.H.F	2	■	27 V	26.5 V at 10 μ A	273 Ω	50 mA	■		■		■
Z 886	2	■	27 V	26.5 V at 10 μ A	36 Ω + 0.9 V	50 mA					■
Z 887	2	■	27 V	26.5 V at 10 μ A	327 Ω	50 mA					■
Z 887.F	2	■	27 V	26.5 V at 10 μ A	341 Ω	50 mA			■	■	■
Z 887.H.F	2	■	27 V	26.5 V at 10 μ A	273 Ω	50 mA	■		■	■	■
Z 888	2	■	27 V /8.6 V	26.5 V at 10 μ A/6.5 V at 10 μ A	327 Ω /64 Ω	50 mA		■			■
Z 888.H	2	■	27 V /8.6 V	26.5 V at 10 μ A/6.5 V at 10 μ A	250 Ω /64 Ω	80 mA	■	■			■
Z 896	2	■	24.6 V /19 V	24 V at 10 μ A/18 V at 10 μ A	340 Ω /437 Ω	50 mA		■			■

AC versions

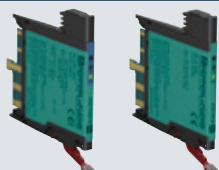
AC versions											
											
Model Number	Number of channels	Housing width (12.5 mm)	Supplieskreis	Measurement loop	Series resistance	Fuse rating	High power version	Increased nominal resistance	Replaceable back-up fuse	Diode return	Installation in Zone 2
Z 905	1	■	4.3 V	0.9 V at 1 μ A	18.18 Ω	250 mA					■
Z 910	1	■	8.8 V	6.5 V at 10 μ A	56 Ω	100 mA					■
Z 915	1	■	13.6 V	13 V at 10 μ A	107 Ω	100 mA					■
Z 915.1K	1	■	13.6 V	13 V at 10 μ A	1025 Ω	100 mA		■			■
Z 928	1	■	26.3 V	26 V at 10 μ A	327 Ω	50 mA					■
Z 954	3	■	3.7 V	0.6 V at 1 μ A	27.27 Ω	50 mA					■
Z 955	2	■	4.3 V	0.9 V at 1 μ A	18.18 Ω	250 mA					■
Z 960	2	■	8.8 V	6.5 V at 10 μ A	64 Ω	50 mA					■
Z 960.F	2	■	8.8 V	6.5 V at 10 μ A	79 Ω	50 mA			■		■
Z 961	2	■	7.7 V	6.5 V at 10 μ A	106 Ω	100 mA					■
Z 961.F	2	■	7.7 V	6.5 V at 10 μ A	115 Ω	100 mA			■		■
Z 961.H	2	■	7.7 V	6.5 V at 10 μ A	380 Ω	50 mA	■				■
Z 964	2	■	11.1 V	10 V at 10 μ A	1033 Ω	50 mA					■
Z 965	2	■	13.6 V	13 V at 10 μ A	115 Ω	50 mA					■
Z 966	2	■	11.1 V	10 V at 10 μ A	166 Ω	50 mA					■
Z 966.F	2	■	11.1 V	10 V at 10 μ A	169 Ω	63 mA			■		■
Z 966.H	2	■	11.1 V	10 V at 10 μ A	82 Ω	100 mA	■				■
Z 967	2	■	15.6 V	15 V at 10 μ A	136 Ω	50 mA				■	■
Z 972	2	■	19.6 V	19 V at 10 μ A	327 Ω	50 mA				■	■
Z 978	2	■	26.3 V	26 V at 10 μ A	646 Ω	50 mA				■	■

Accessories	
	
Model Number	Description
USLKG5	Terminal Block
ZH-Z.NLS-CU 3/10	Grounding Rail
Z 799	Place Holder Zener Barrier
ZH-ES/LB	Insertion Strip
ZH-Z.AB/NS	Mounting Block
ZH-Z.AB/SS	Mounting Block
ZH-Z.AK16	Connection Terminal
ZH-Z.AR.125	Spacing Roller
ZH-Z.BT	Label Carrier
ZH-Z.ES	Single Socket
ZH-Z.LL	Ground Rail Feed

Surge Protection Barriers

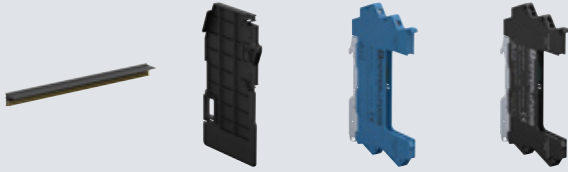
M-LB-5000

Surge protection for signal lines, DIN Rail Mounting



Model Number	Number of protected signal lines	Housing width (6.2 mm)	Nominal voltage	Nominal discharge current (8/20 μ s)	Total discharge current (8/20 μ s)	Topology		Display elements	Installation in Zone 1	Installation in Zone 2	SIL 3
						non-grounded	grounded				
M-LB-5111	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)	■				■	■
M-LB-5112	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■				■	■
M-LB-5113	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)		■			■	■
M-LB-5114	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■			■	■
M-LB-5141	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)	■				■	■
M-LB-5142	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■				■	■
M-LB-5143	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)		■			■	■
M-LB-5144	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■			■	■
M-LB-5211	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)	■		■		■	■
M-LB-5212	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■		■		■	■
M-LB-5213	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)		■	■		■	■
M-LB-5214	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■	■		■	■
M-LB-5241	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)	■		■		■	■
M-LB-5242	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■		■		■	■
M-LB-5243	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)		■	■		■	■
M-LB-5244	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■	■		■	■
M-LB-EX-5111	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)	■			■		■
M-LB-EX-5112	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■			■		■
M-LB-EX-5113	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)		■		■		■
M-LB-EX-5114	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■		■		■
M-LB-EX-5141	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)	■			■		■
M-LB-EX-5142	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■			■		■
M-LB-EX-5143	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)		■		■		■
M-LB-EX-5144	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■		■		■
M-LB-EX-5211	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)	■		■	■		■
M-LB-EX-5212	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■		■	■		■
M-LB-EX-5213	1	■	1 V DC	5 kA per line (10x)	10 kA (1x)		■	■	■		■
M-LB-EX-5214	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■	■	■		■
M-LB-EX-5241	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)	■		■	■		■
M-LB-EX-5242	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■		■	■		■
M-LB-EX-5243	1	■	24 V DC	5 kA per line (10x)	10 kA (1x)		■	■	■		■
M-LB-EX-5244	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■	■	■		■

Accessories



Model Number	Description
M-LB-5000	Base module for non-intrinsically safe protection modules or function modules
M-LB-5000.SP	Base module for non-intrinsically safe protection modules or function modules, with spring terminals
M-LB-EX-5000	Base module for intrinsically safe protection modules
M-LB-EX-5000.SP	Base module for intrinsically safe protection modules, with spring terminals
M-LB-5900	Place holder module for non-intrinsically safe protection modules or function modules
M-LB-EX-5900	Place holder module for intrinsically safe protection modules
M-LB-5300	Power Feed Module
M-LB-5400	Fault Status Module
M-LB-5500	Maintenance Status Module
M-UPR-03-S	Universal Power Rail, 3 conductors, length: 0.8 m
M-UPR-I	Insulation Spacer for Universal Power Rail

M-LB-2000

Surge protection for signal lines, DIN Rail Mounting



Model Number	Number of protected signal lines	Housing width (6.2 mm)	Nominal voltage	Nominal discharge current (8/20 µs)	Total discharge current (8/20 µs)	Topology		Terminal			Installation in Zone 1	Installation in Zone 2	SIL 3
						non-grounded	grounded	Screw terminals	Spring terminals with push-in-connection technology				
M-LB-Ex-2112	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■		■		■		■	
M-LB-Ex-2112.SP	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■			■	■		■	
M-LB-Ex-2114	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■	■		■		■	
M-LB-Ex-2114.SP	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■		■	■		■	
M-LB-Ex-2142	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■		■		■		■	
M-LB-Ex-2142.SP	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■			■	■		■	
M-LB-Ex-2144	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■	■		■		■	
M-LB-Ex-2144.SP	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■		■	■		■	
M-LB-2112	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■		■				■	
M-LB-2112.SP	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■			■			■	
M-LB-2114	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■	■				■	
M-LB-2114.SP	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■		■			■	
M-LB-2142	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■		■				■	
M-LB-2142.SP	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■			■			■	
M-LB-2144	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■	■				■	
M-LB-2144.SP	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■		■			■	

Accessories



Model Number	Description
M-LB-2800	Base module for non-intrinsically safe protection modules or function modules

K-LB

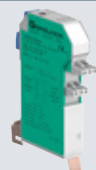
Modules for measuring signals for DIN rail mounting



Model Number	Number of protected signal lines	Housing width (12.5 mm)	Maximum continuous operating voltage	Nominal discharge current (8/20 µs)	Total discharge current (8/20 µs)	Topology		Installation Zone 1	Installation in Div.2
						grounded	non-grounded		
K-LB-1.30	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■	■	■
K-LB-2.30	4	■	24 V DC	5 kA per line (10x)	20 kA (1x)		■	■	■
K-LB-1.6	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■	■	■
K-LB-2.6	4	■	1 V DC	5 kA per line (10x)	20 kA (1x)		■	■	■
K-LB-1.30G	2	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■		■	■
K-LB-2.30G	4	■	24 V DC	5 kA per line (10x)	20 kA (1x)	■		■	■
K-LB-1.6G	2	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■		■	■
K-LB-2.6G	4	■	1 V DC	5 kA per line (10x)	20 kA (1x)	■		■	■

P-LB

Modules for measuring signals for DIN rail mounting, K-System plug-in modules



Model Number	Number of protected signal lines	Housing width (20 mm)	Supply	Connection	Installation Zone 2
P-LB-1.A.13	2	■	30 V	terminals 1, 3	■
P-LB-2.A.1346	4	■	30 V	terminals 1, 3; 4, 6	■
P-LB-1.B.12	2	■	30 V	terminals 1, 2	■
P-LB-2.B.1245	4	■	30 V	terminals 1, 2; 4, 5	■
P-LB-1.C.123	3	■	30 V	terminals 1, 2, 3	■
P-LB-2.D.123456	6	■	30 V	terminals 1, 2, 3; 4, 5, 6	■
P-LB-1.E.23	2	■	30 V	terminals 2, 3	■
P-LB-2.C.2356	4	■	30 V	terminals 2, 3; 5, 6	■
P-LB-1.D.1234	4	■	30 V	terminals 1, 2, 3, 4	■
P-LB-1.F.1236	4	■	30 V	terminals 1, 2, 3, 6	■

F*-LB

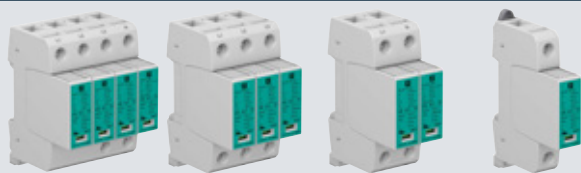
Modules for measuring signals for DIN rail mounting, screw modules for Field Devices



Model Number	Number of protected signal lines	Supply	Max. surge current	Mounting			Installation in Zone 1
				NPT1/2 thread	PG13.5 thread	M20 x 1.5 thread	
FS-LB-I	1	48 V	20 kA			■	■
FP-LB-I	1	48 V	20 kA		■		■
FN-LB-I	1	48 V	20 kA	■			■

M-LB-1/2/3/4

Surge protection for supply lines, DIN rail mounting



Model Number	Number of protected supply lines	Housing width	Nominal voltage	Network configuration	Nominal discharge current (8/20 μs)	Fault indication output	Status display
M-LB-1.150.D	1	18 mm	120 V AC		15 kA	■	■
M-LB-1.275.D	1	18 mm	230 V AC		20 kA	■	■
M-LB-2.150TN.D	2	36 mm	120 V AC	TN	15 kA	■	■
M-LB-2.275TN.D	2	36 mm	230 V AC	TN	20 kA	■	■
M-LB-2.275TT.D	2	36 mm	230 V AC	TT	20 kA	■	■
M-LB-3.150TNC.D	3	54 mm	120 V AC/240 V AC	TN-C	15 kA	■	■
M-LB-3.275TNC.D	3	54 mm	230 V AC/400 V AC	TN-C	20 kA	■	■
M-LB-4.150TNS.D	4	72 mm	120 V AC/240 V AC	TN-S	15 kA	■	■
M-LB-4.275TNS.D	4	72 mm	230 V AC/400 V AC	TN-S	20 kA	■	■
M-LB-4.275TT.D	4	72 mm	230 V AC/400 V AC	TT	20 kA	■	■
M-LB-2.30.T3.D	2	18 mm	24 V AC		1 kA	■	■
M-LB-2.150.T3.D	2	18 mm	120 V AC		2 kA	■	■
M-LB-1.NPE.M	1	18 mm	230 V AC		20 kA	■	■
M-LB-1.150.M	1	18 mm	120 V AC		15 kA	■	■
M-LB-1.275.M	1	18 mm	230 V AC		20 kA	■	■
M-LB-2.150.T3.M	2	18 mm	120 V AC		2 kA	■	■
M-LB-2.255.T3.D	2	18 mm	230 V AC		3 kA	■	■
M-LB-2.255.T3.M	2	18 mm	230 V AC		3 kA	■	■
M-LB-2.30.T3.M	2	18 mm	24 V AC		1 kA	■	■

HART Interface Solutions

K-System HIS

HART multiplexers



Model Number	Description	Number of channels	Housing width		Functions		SIL 3	Installation in Zone 2
			40 mm	20 mm	Master	Slave		
KFD2-HMM-16	HART-Multiplexer-Master	16	■		■		■	■
KFD0-HMS-16	HART-Multiplexer-Slave	16		■		■	■	■

Termination boards



Model Number	Description
FI-PFH-NS0137-R	HART termination board for K-System HART Multiplexer

HART loop converters



Model Number	Number of channels	Housing width	Input				Output		Functions			Supply	Installation in Zone 2	Installation in Div. 2	
			40 mm	3-wire-transmitters	HART	Transmitter supply	active sources	4 mA ... 20 mA	Relays	Trip relay	HART communication				Splitter function
KFD2-HLC-EX1.D	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD2-HLC-EX1.D.2W	1	■	■	■	■	■	■	■	■	■	■	■	■	■	■
KFD2-HLC-EX1.D.4S	1	■	■	■	■	■	■	■	■	■	■	■	■		

Accessories



Model Number	Description
K-22μ	HART Filter
K-HM14	HART connection cable for master – slave connection
K-HM26	HART connection cable for master/slave – termination board connection

H-System HIS

HART multiplexers



Model Number	Number of channels	Housing width	Supply	SIL 3	Installation in Zone 2	Installation in Div. 2
HIDMUX2700	32	18 mm	24 V DC	■	■	■

Termination boards



Model Number	Number of channels	Splitting	2 x RS-485	Supply	Redundancy available
HIATB01-HART-2X16	32-channel	2 x 16	■	24 V DC	■
HIATB01-HART-4X8	32-channel	4 x 8	■	24 V DC	■
HIATB01-HART-4X8-Y1	32-channel	4 x 8	■	24 V DC	■

Accessories



Model Number	Description
HIACA-UNI-FLK34-FLK34-0M5	HART Connection Cable, length: 0.5 m
HIACA-UNI-FLK34-FLK34-1M0	HART Connection Cable, length: 1 m
HIACA-UNI-FLK34-FLK34-2M0	HART Connection Cable, length: 2 m
HIACA-UNI-FLK34-FLK34-3M0	HART Connection Cable, length: 3 m
HIACA-UNI-FLK34-FLK34-6M0	HART Connection Cable, length: 6 m

Remote I/O Systems: The Link Between Conventional Field Technology and Bus Technology

Modular remote I/O systems from Pepperl+Fuchs transfer process data from explosion-hazardous and non-explosion-hazardous areas by connecting digital or analog sensors and actuators to the control system via a bus interface. This reduces costs by allowing plants to be modernized or expanded without replacing existing field-level technology.



Typical Industries

Remote I/O systems are the ideal solution for applications in explosion-hazardous areas or harsh industrial environments. The technology is used in the oil and gas industry (both onshore and offshore), in the pharmaceutical and chemical sector, in the wastewater sector, and in the food and beverage industry.

The FB System

The FB remote I/O system is certified for use in Zone 1. The modular system allows modules with Ex-i field circuits and Ex-e field terminals to be combined directly next to one another. An innovative plug-in design saves space and reduces costs. The FB system can be installed in an enclosure made of glass fiber reinforced polyester or stainless steel.

The LB System

The LB remote I/O system is certified for use in Zone 2/Class I, Div. 2 and non-explosion-hazardous areas. The modular system allows different circuits to be operated directly next to one another. Signals can be transferred to the process control system via the Ex-i field circuits in a non-explosion-hazardous area. The LB remote I/O system is mounted on a backplane.

You can find more information on the remote I/O product portfolio in the product brochure or in the Engineer’s Guide at www.pepperl-fuchs.com/rio

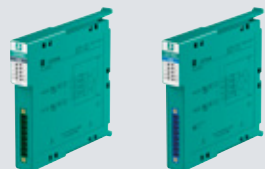
Product Selection Terms	
You are looking for	Pepperl+Fuchs term
Current Driver	Backplane
Output Isolator Transformer	Analog Output Signals
Input Isolator	Analog Output Signals
Gateway	Analog Input Signals
Pt100	Com Unit
Thermocouple	Temperatur Converter
Motherboard	Temperatur Converter
Power Supply	Backplane
Switch Amplifier	Power Supply
Transmitter Power Supply	Digital Input Signals
Isolated Switch Amplifier	Analog Input Signals
	Digital Input Signals
Isolator Transformer	Analog Input Signals
Solenoid Driver	Digital Output Signals
Valve Driver	Digital Output Signals

Remote I/O Systems

LB System

Universal input and output signals

Analog output



Model Number	Number of input channels	Number of output channels	Occupied slots	Voltage	Current	Power	Explosion protection		Installation in Zone 2	Installation in Div. 2
							Ex ic	Ex ia		
LB7004A	4	4	1				■		■	
LB7104A	4	4	1	27 V	87 mA	575 mW		■	■	■

Digital input signals

Digital input



Model Number	Number of input channels		Connection		Operating frequency	Voltage	Current	Power	Explosion protection		Installation in Zone 2	Installation in Div. 2
	Number of input channels	Occupied slots	NAMUR sensor	volt-free contact					Ex ia	Ex ic		
LB1001A	2	1	■	■						■	■	
LB1002A	3	1	■	■		10,5 V	35 mA	92 mW		■	■	
LB1003A	1	1	■	■	0 ... 15 kHz					■		
LB1003C	1	1	■	■	0 ... 400 Hz					■		
LB1008A	8	2	■	■						■	■	
LB1009A	8	1	■	■		10 V	12 mA	30 mW		■	■	
LB1015A	15	2										
LB1101A	2	1	■	■		12.6 V	12.8 mA	40.1 mW	■		■	■
LB1102A	3	1	■	■		10.5 V	35 mA	92 mW	■		■	■
LB1103A	1	1	■	■	0 ... 15 kHz	10.5 V	23.3 mA	61.2 mW	■		■	■
LB1103C	1	1	■	■	0 ... 400 Hz	10.5 V	23.3 mA	61.2 mW	■		■	■
LB1108A	8	2	■	■		14.9 V	15.7 mA	58.2 mW	■		■	■
LB1109A	8	1	■	■		10 V	12 mA	30 mW	■		■	■

Binary output signals

Digital output with position feedback



Model Number	Number of input channels	Number of output channels	Occupied slots	Open loop voltage	Internal resistor	Current limit	Voltage	Current	Power	Explosion protection			Installation in Zone 2	Installation in Div. 2
										Ex ia	Ex ic			
LB2016E	2	1	1	23 V	258 Ω	50 mA	24.2 V	108 mA	654 mW		■		■	
LB2017E	2	1	1	16.5 V	131 Ω	50 mA	17.8 V	162 mA	721 mW		■		■	
LB2116E	2	1	1	23 V	258 Ω	50 mA	24.2 V	108 mA	654 mW	■			■	■
LB2117E	2	1	1	16.5 V	131 Ω	50 mA	17.8 V	162 mA	751 mW	■			■	■

Digital output with shutdown input



Model Number	Number of output channels	Occupied slots	Field device			Current limit	Internal resistor	Open loop voltage	Voltage	Current	Power	Explosion protection			Installation in Zone 2	Installation in Div. 2
			Solenoid Valve	audible alarm	visual alarm							Ex ia	Ex ic	Ex ib		
LB6008A	8	2	■	■	■	8 mA		20 V	28 V	13,5 mA	376 mW		■		■	
LB6016E	2	1	■	■	■	40 mA	258 Ω	23 V	24.2 V	108 mA	654 mW		■		■	
LB6017E	2	1	■	■	■	50 mA	131 Ω	16.5 V	17.8 V	162 mA	721 mW		■		■	
LB6108A	8	2	■	■	■	8 mA		20 V	28 V	13,5 mA	376 mW			■	■	■
LB6108C	8	2	■	■	■	5.2 mA		21.6 V	30 V	13,5 mA	404 mW			■	■	■
LB6116E	2	1	■	■	■	40 mA	258 Ω	23 V	24.2 V	108 mA	654 mW	■			■	■
LB6117E	2	1	■	■	■	50 mA	131 Ω	16.5 V	17.8 V	162 mA	721 mW	■			■	■

Relay output



Model Number	Number of output channels	Occupied slots	Connection	Explosion protection		
				Ex nA nC	Installation in Zone 2	Installation in Div. 2
LB6005A	4	2	Relay output	■	■	■
LB6006A	8	2	Relay output	■	■	■

Analog input signals

Transmitter power supplies



Model Number	Number of input channels		Connection						Voltage	Current	Power	Explosion protection		Installation in Zone 2	Installation in Div. 2
	Number of input channels	Occupied slots	2-wire-transmitters	3-wire-transmitters	4-wire-transmitters	HART communication	HART secondary variable	Ex ia				Ex ic			
LB3002A2	1	1	■	■	■	■	■					■		■	
LB3005A2	4	2	■	■	■	■	■					■		■	
LB3006A	4	1	■			■	■					■		■	
LB3103A2	1	1	■	■	■	■	■	24.9 V	77 mA	478 mW	■		■	■	
LB3104A2	4	2	■	■	■			27 V	90 mA	588 mW	■		■	■	
LB3105A2	4	2	■	■	■	■	■	27 V	90 mA	588 mW	■		■	■	
LB3106A	4	1	■			■	■	27 V	87 mA	575 mW	■		■	■	

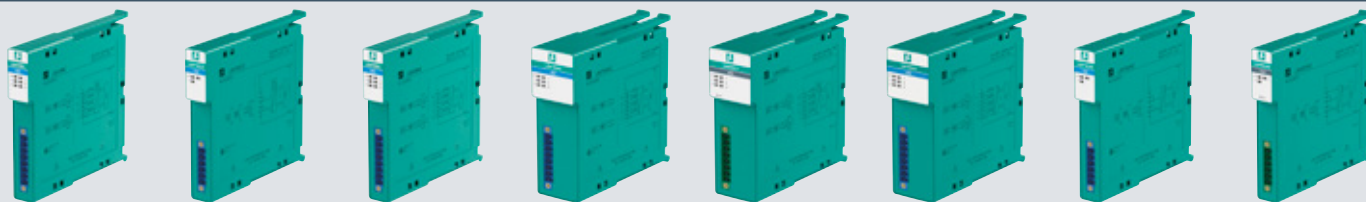
Temperature converters, voltage converters



Model Number	Number of input channels		Field device					Connection			Voltage	Current	Power	Explosion protection		Installation in Zone 2	Installation in Div. 2	
	Number of input channels	Occupied slots	Resistance thermometer	Thermocouple	slide-wire sensors	mV source	potentiometer	2-wire sensor	3-wire sensor	4-wire sensor				Ex ia	Ex ic			
LB5001A	1	1	■		■			■	■	■					■		■	
LB5004A	4	2	■		■			■	■	■					■		■	
LB5005A	4	2		■		■									■		■	
LB5101A	1	1	■		■			■	■	■	2.7 V	43 mA	93 mW	■		■	■	
LB5102A	1	1		■		■					1.8 V	43 mA	67 mW	■		■	■	
LB5104A	4	2	■		■			■	■	■	7.14 V	70 mA	123 mW	■		■	■	
LB5105A	4	2		■		■					1 V	71 mA	62 mW	■		■	■	
LB5106A	1	1									0.9 V	0.2 mA	0.2 mW	■		■	■	

Analog output signals

Analog output



Model Number	Number of output channels	Occupied slots	Field device					HART communication	Voltage	Current	Power	Explosion protection		Installation in Zone 2	Installation in Div. 2
			Proportional Valve	I/P converters	on-site display	HART secondary variable	Ex ia					Ex ic			
LB4002A2	1	1	■	■	■		■						■	■	
LB4005A2	4	2	■	■	■	■	■						■	■	
LB4005C2	4	2	■	■	■	■	■						■	■	
LB4102A2	1	1	■	■	■		■	27 V	87 mA	575 mW		■		■	■
LB4102C2	1	1	■	■	■		■	27 V	87 mA	575 mW		■		■	■
LB4104A2	4	2	■	■	■	■	■	27 V	87 mA	575 mW		■		■	■
LB4105A2	4	2	■	■	■	■	■	27 V	87 mA	575 mW		■		■	■
LB4105C2	4	2	■	■	■	■	■	27 V	87 mA	575 mW		■		■	■
LB4106A	4	1	■	■	■	■	■	27 V	87 mA	575 mW		■		■	■
LB4106C	4	1	■	■	■	■	■	27 V	87 mA	575 mW		■		■	■

Power Supplies

Power supply units



Model Number	Bus coupler	I/O modules	Input voltage range	Installation in Zone 2	Installation in Div. 2
LB9006C	2	>12	18 ... 32 V DC	■	■

Com units

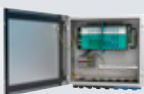
Gateways



Model Number	Description	Cyclic process data		Number of stations per bus line			Fieldbus			Installation in Zone 2	Installation in Div. 2	
		240 bytes input	240 bytes output	PROFIBUS	MODBUS	service bus	MODBUS TCP	PROFIBUS DP/DP-V1	MODBUS RTU			HART communication
LB8106H0629	EasyCom Com Unit for PROFIBUS DP/DP-V1	■	■	125		119		■		■	■	■
LB8107H0706	Com Unit for MODBUS RTU				245	119			■	■	■	■
LB8109H0907	Unicom Com Unit for PROFIBUS DP/DP-V1	■	■	125		119		■		■	■	■
LB8111A2-0756	Com Unit for MODBUS TCP						■			■	■	■

Enclosures

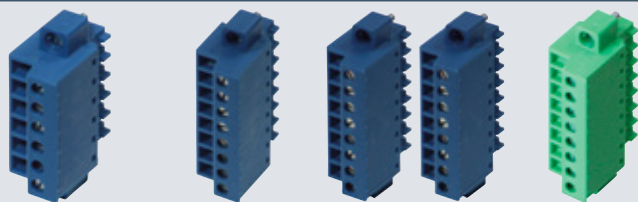
Field units



Model Number	Field Unit	Redundancy Field Unit	I/O modules		Fieldbus				Installation in Zone 2
			(single width) [max.]	(dual width) [max.]	MODBUS RTU	PROFIBUS DP/DP-V1	MODBUS TCP	FOUNDATION Fieldbus H1	
LB9508-PB0-B-0A0-00-0	■		8	4	■	■			■
LB9508-PB0-B-MA0-00-0	■		8	4			■		■
LB9513-PB0-B-0A0-00-0		■	12	6	■	■			■
LB9513-S50-B-0A0-00-0		■	12	6	■	■			■
LB9516-PB0-B-0A0-00-0	■		16	8	■	■			■
LB9516-PB0-B-MA0-00-0	■		16	8			■		■
LB9532-S60-B-0A0-00-0	■		32	16	■	■			■
LB9547-S70-B-0A0-00-0		■	46	23	■	■			■
LB9547-S70-B-MA0-00-0		■	46	23			■		■

Accessories

Terminal blocks



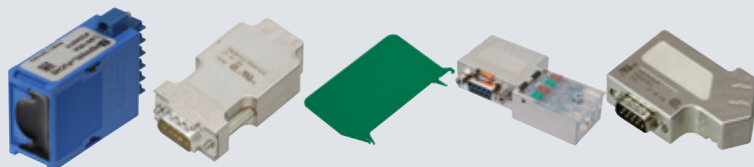
Model Number	Description	Construction type			Number of pins	Housing		
		Screw terminal	Spring terminal	Front screw terminal		blue	green	black
LB9007A	Terminal Block, green	■			6		■	
LB9008A	Protective Cover for green Terminal Blocks				6		■	
LB9009A	Terminal Block, green		■		6		■	
LB9010A	Protective Cover for green Terminal Blocks				8		■	
LB9011A	Cold Junction Module with Protective Cover for LB9111				6		■	
LB9013A	Terminal Block, green	■			8		■	
LB9014A	2 Terminal Blocks, green	■			2 x 8		■	
LB9015A	Terminal Block, green		■		8		■	
LB9016A	2 Terminal Blocks, green		■		2 x 8		■	
LB9017A	Terminal Block, green			■	6		■	
LB9018A	Terminal Block, green	■			8		■	
LB9019A	2 Terminal Blocks, green	■			2 x 8		■	
LB9107A	Terminal Block, blue	■			6	■		
LB9107P	Terminal Block, blue		■		6	■		
LB9108A	Protective Cover, blue				6	■		
LB9111A	Cold Junction Module with Protective Cover for LB9111				6	■		
LB9112A	Cold Junction Module for LB and FB modules				6	■		
LB9113A	Terminal Block, blue	■			8	■		
LB9115A	Terminal Block, blue		■		8	■		
LB9116A	2 Terminal Blocks		■		2 x 8	■		
LB9117A	Terminal Block, blue	■			6	■		
LB9118A	Terminal Block, blue	■			8	■		
LB9119A	2 Terminal Blocks, blue	■			2 x 8	■		
LB9120A	Protective Cover for Terminal Blocks				8	■		
LB9124A	2 blue Terminal Blocks (1-8 and 9-16)	■			2 x 8	■		
LB9125A	Terminal Blocks, blue (9-16)	■			8	■		
LB9126A	Terminal Blocks, blue (9-16)		■		8	■		
LB9127A	Terminal Block	■			8	■		
LB9130A	2 Terminal Blocks, blue, 2,5 mm (1-8 and 9-16)		■		2 x 8	■		
LB9131A	2 Terminal Blocks, green		■		2 x 8		■	

Backplanes



Model Number	Backplane		Redundancy		I/O modules		Fieldbus					
	Base Backplane	Extension Backplane	Fieldbus	Power Supply	(single width) [max.]	(dual width) [max.]	MODBUS RTU	PROFIBUS DP/ DP-V1	FOUNDATION Fieldbus H1	MODBUS TCP	Installation in Zone 2	Installation in Div. 2
LB9022E	■		■	■	22	11				■	■	■
LB9022S	■		■	■	22	11	■	■			■	■
LB9023A	■				8	4	■	■			■	■
LB9023E	■				8	4				■	■	■
LB9024S		■		■	24	12	■	■		■	■	■
LB9025A		■			8	4	■	■			■	■
LB9026A	■				16	8	■	■			■	■
LB9026E	■				16	8				■	■	■
LB9027A		■			16	8	■	■		■	■	■
LB9029A	■		■	■	12	6	■	■			■	■
LB9035A	■					5			■		■	■

Additional accessories



Model Number	Description
LB9099	I/O module placeholder, green screw terminal
LB9199	I/O module placeholder, blue screw terminal
LB9110A	D-Sub plug, 9-pin, bus terminator, switchable
LB9180	Watchdog Plug, 1-channel
LB9182A	Separation wall for mounting on LB backplanes, color: green
LB9001A	D-Sub plug 9-pin, cable feed below 35°
LB9002A	D-Sub plug 9-pin, axial cable feed
LB9003A	D-Sub plug 9-pin, cable feed below 90°

FB System

Digital input signals

Digital input															
Model Number	Number of input channels		Functions				Connection			Voltage	Current	Power	Explosion protection		
	Number of input channels	Occupied slots	Counter	Frequency	Direction of rotation	NAMUR sensor	volt-free contact	active binary signal 24 V DC	Ex e connection				Ex ia	Installation in Zone 1	
FB1201B	2	1				■	■	■	12.6 V	12.8 mA	40.1 mW		■	■	
FB1202B	3	1				■	■	■	10.5 V	35 mA	92 mW		■	■	
FB1203B	1	1	■	■	■	■	■		10.5 V	23.3 mA	61.2 mW			■	
FB1203D	1	1	■	■	■	■	■		10.5 V	23.3 mA	61.2 mW		■	■	
FB1208B	8	2				■	■		14.9 V	15.7 mA	58.2 mW		■	■	
FB1301B2	2	1				■	■	■				■		■	
FB1302B2	3	1				■	■	■				■		■	
FB1303B2	1	1	■	■	■	■	■	■						■	
FB1308B2	8	2				■	■	■				■		■	

Digital output signals

Digital outputs with position feedback														
Model Number	Number of input channels		Occupied slots	Open loop voltage	Internal resistor	Current limit	Voltage	Current	Power	Explosion protection		Installation in Zone 1		
	Number of input channels	Number of output channels								Ex ia	Installation in Zone 1			
FB2201BR	2	1	1	22 V	315 Ω	53 mA	24.9 V	91 mA	558 mW	■	■			
FB2201ER	2	1	1	22 V	315 Ω	53 mA	24.9 V	91 mA	558 mW	■	■			
FB2204B	2	1	1	22 V	220 Ω	52 mA	24.2 V	145 mA	872 mW	■	■			
FB2212BR	2	1	1	25.3 V	329 Ω	53 mA	27.8 V	108 mA	751 mW	■	■			
FB2212ER	2	1	1	25.3 V	329 Ω	53 mA	27.8 V	108 mA	751 mW	■	■			
FB2213BR	2	1	1	26.7 V	509 Ω	40 mA	28.7 V	68 mA	485 mW	■	■			
FB2213ER	2	1	1	26.7 V	509 Ω	40 mA	28.7 V	68 mA	485 mW	■	■			

Digital output



Model Number	Number of output channels	Occupied slots	Field device			Internal resistor	Current limit	Voltage	Current	Power	Explosion protection		Installation in Zone 1
			Solenoid Valve	audible alarm	visual alarm						Ex e connection	Ex ib	
FB6208B	8	2	■	■	■		8 mA				■	■	
FB6208C	8	2	■	■	■		5.2 mA				■	■	
FB6210BR	4	2	■	■	■	370 Ω	37 mA	27.8 V	90.4 mA	629 mW		■	
FB6210ER	4	2	■	■	■	370 Ω	37 mA	27.8 V	90.4 mA	629 mW		■	
FB6211BR	4	2	■	■	■	320 Ω	40 mA	27.8 V	107 mA	744 mW		■	
FB6211ER	4	2	■	■	■	320 Ω	40 mA	27.8 V	107 mA	744 mW		■	
FB6213BR	4	2	■	■	■	290 Ω	42 mA	26 V	110 mA	714 mW		■	
FB6215BR	4	2	■	■	■	78 Ω	70 mA	18.9 V	286 mA	1350 mW		■	
FB6308B2	8	2	■	■	■		8 mA				■	■	

Relay output



Model Number	Number of output channels	Occupied slots	Connection	Switching voltage	Switching current	Switch power	Installation in Zone 1
FB6306B2	2	2	Relay output	24 V DC/AC	1 A DC / AC resistive load	30 VA/30 W	■

Temperature converters, voltage converters



Model Number	Number of input channels	Occupied slots	Field device							Voltage	Current	Power	Explosion protection	
			Resistance thermometer	Thermocouple	slide-wire sensors	mV source	Potentiometer	Voltage input	Ex ia				Installation in Zone 1	
FB5201B	1	1	■		■				2,7 V	43 mA	93 mW	■	■	
FB5202B	1	1		■		■			1.8 V	43 mA	67 mW	■	■	
FB5204B	4	2	■		■		■		7.14 V	70 mA	123 mW	■	■	
FB5205B	4	2		■		■			1 V	71 mA	62 mW	■	■	
FB5206B	1	1						■	0.9 V	0.2 mA	0.2 mW	■	■	

Analog input signals

Transmitter power supplies



Model Number	Number of input channels	Occupied slots	Connection						Voltage	Current	Power	Explosion protection	
			2-wire-transmitters	3-wire-transmitters	4-wire-transmitters	HART communication	HART secondary variable	Ex ia				Ex e connection	Installation in Zone 1
FB3205B2	4	2	■	■	■	■	■	27 V	90 mA	588 mW	■		■
FB3202B1	1	1	■			■	■	27 V	87 mA	575 mW	■		■
FB3302B2	1	1	■	■	■	■	■					■	■
FB3204B2	4	2	■	■	■			27 V	90 mA	588 mW	■		■
FB3305B2	4	2	■	■	■	■	■					■	■

Analog output signals

Output isolators



Model Number	Number of output channels	Occupied slots	Field device				HART communication	HART secondary variable	Explosion protection		Installation in Zone 1
			Proportional Valve	I/P converters	on-site display	Ex e connection			Ex ia		
FB4201B2	1	1	■	■	■				■	■	
FB4202B2	1	1	■	■	■	■			■	■	
FB4205B2	4	2	■	■	■	■	■		■	■	
FB4204B2	4	2	■	■	■	■	■		■	■	
FB4205C2	4	2	■	■	■	■	■		■	■	
FB4302B2	1	1	■	■	■	■		■		■	

Power supplies

Power supplies



Model Number	Bus coupler	I/O modules	Input voltage range	Installation in Zone 1
FB9205C			95 ... 230 V AC	■
FB9206D	2	>12, depending on type	18 ... 32 V DC	■
FB9215B2	2	>12, depending on type	90 ... 253 V AC	■

Com units

Gateways



Model Number	Description	Number of channels per station		HART communication	Installation in Zone 1
		analog [max.]	binär [max.]		
FB8206H0629	EasyCom Com Unit for PROFIBUS DP/DP-V1			■	■
FB8207H0706	Com Unit for MODBUS RTU	80	184	■	■
FB8209H0907	Unicom Com Unit for PROFIBUS DP/DP-V1			■	■
FB8211B2-0756	Com Unit for MODBUS TCP				■

Enclosures

Field units



Model Number	Redundancy Field Unit	Field Unit	I/O modules		Installation in Zone 1
			(single width) [max.]	(dual width) [max.]	
FB9210-PF0-A-0A0-00-0		■	10	5	■
FB9211-PF0-A-0A0-00-0	■		10	5	■
FB9210-S60-A-0A0-00-0		■	10	5	■
FB9211-S60-A-0A0-00-0	■		10	5	■
FB9220-PF0-A-0A0-00-0		■	20	10	■
FB9221-PF0-A-0A0-00-0	■		20	10	■
FB9224-PF0-A-0A0-00-0		■	24	12	■
FB9220-S60-A-0A0-00-0		■	20	10	■
FB9221-S60-A-0A0-00-0	■		20	10	■
FB9224-S60-A-0A0-00-0		■	24	12	■
FB9240-PF0-A-0A0-00-0		■	40	20	■
FB9241-PF0-A-0A0-00-0	■		40	20	■
FB9248-PF0-A-0A0-00-0		■	48	24	■
FB9240-S70-A-0A0-00-0		■	40	20	■
FB9241-S70-A-0A0-00-0	■		40	20	■
FB9248-S70-A-0A0-00-0		■	48	24	■

Accessories

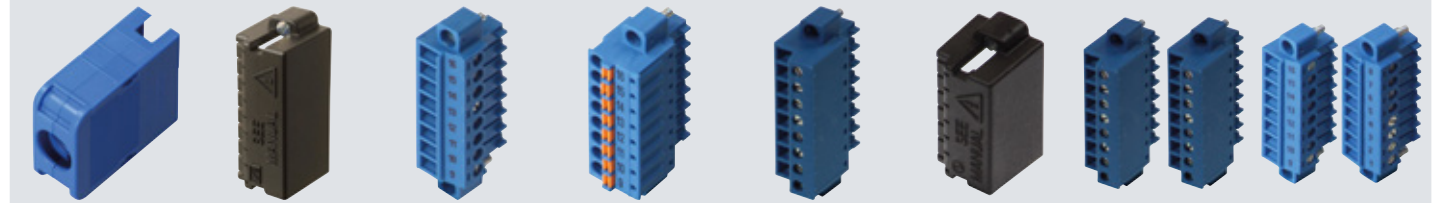
Bus termination modules



Model Number	Description
FB9293B	Bus termination module, service bus termination
FB9293F	Bus termination module, fieldbus terminating resistor
FB9294B	Bus termination module, bus termination
FB9295B	Bus termination module, bus and service bus termination

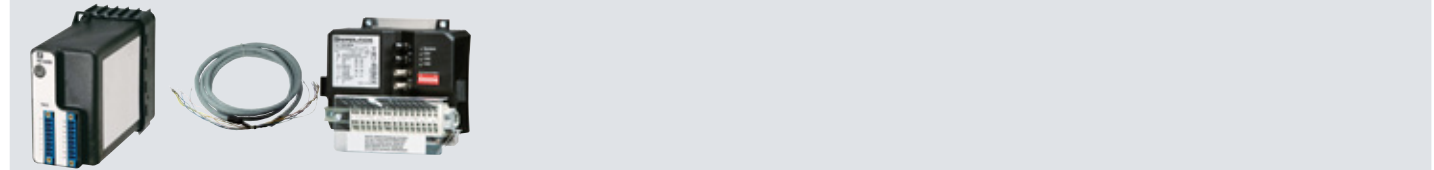
Accessories

Terminal blocks



Model Number	Description	Construction type			Number of pins	Housing		
		Screw terminal	Spring terminal	Front screw terminal		blue	green	black
LB9107A	Terminal Block, blue	■			6	■		
LB9107P	Terminal Block, blue		■		6	■		
LB9108A	Protective Cover, blue				6	■		
LB9111A	Cold Junction Module with Protective Cover for LB9111				6	■		
LB9112A	Cold Junction Module for LB and FB modules				6	■		
LB9113A	Terminal Block, blue	■			8	■		
LB9115A	Terminal Block, blue		■		8	■		
LB9116A	2 Terminal Blocks		■		2 x 8	■		
LB9117A	Terminal Block, blue	■			6	■		
LB9118A	Terminal Block, blue	■			8	■		
LB9119A	2 Terminal Blocks, blue	■			2 x 8	■		
LB9120A	Protective Cover for Terminal Blocks				8	■		
LB9124A	2 blue Terminal Blocks (1-8 and 9-16)	■			2 x 8	■		
LB9125A	Terminal Blocks, blue (9-16)	■			8	■		
LB9126A	Terminal Blocks, blue (9-16)		■		8	■		
LB9127A	Terminal Block	■			8	■		
LB9107.E.6	Protective Cover for Ex e Modules				6			■
LB9107.E.8	Protective Cover for Ex e Modules				8			■
LB9109.E.6.1	Plug for Ex e Modules		■		6			■
LB9109.E.8.1	Plug for Ex e Modules		■		8			■
LB9109.E.8.2	Plug for Ex e Modules		■		8			■

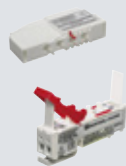
Additional accessories



Model Number	Description
FB9299B	Place Holder Module
FOL7250B059	PROFIBUS Fiber Optic Link Coupler and Repeater

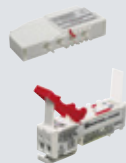
Multifunction Terminals

Multifunction terminal with fuse



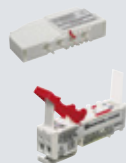
Model Number	Description
MFT-2F.0500	Multifunction terminal, 4-pin, 2x fuses (0.5 A)
MFT-F.0315	Multifunction terminal, 2-pin, 1x fuse (0.315 A)
MFT-F.1000.L	Multifunction terminal, 4-pin, 1x fuse (1 A) and bridge

Multifunction terminal with diode



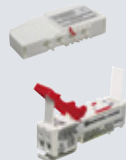
Model Number	Description
MFT-2D.0500	Multifunction terminal, 4-pin, 2x diodes (230 V/0.5 A)
MFT-D.1000	Multifunction terminal, 2-pin, 1x diode (230 V/1 A)
MFT-D.1000.L	Multifunction terminal, 4-pin, 1x diode (230 V / 1 A), 1 x bridge

Multifunction terminal with resistor



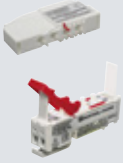
Model Number	Description
MFT-2R.1004	Multifunction terminal, 4-pin, 2x resistors (1 kOhm)
MFT-R.1003	Multifunction terminal, 2-pin, 1x resistor (100 Ohm)

Multifunction terminal with relay



Model Number	Description
MFT-RNC.0006	Multifunction terminal, 4-pin, 1x relay (NC)
MFT-RNO.0006	Multifunction terminal, 4-pin, 1x relay (NO)

Multifunction terminal with bus terminator



Model Number	Description
MFT-FT.0001	Multifunction terminal, 4-pin, 1x terminator

Module socket



Model Number	Description
MFT-BASE.2P	Multifunction terminal socket, 2-pin
MFT-BASE.4P	Multifunction terminal socket, 4-pin

FieldConnex®: Fieldbus Technology for Maximum Transparency

The FieldConnex® product portfolio from Pepperl+Fuchs enables easy management of FOUNDATION Fieldbus H1 and PROFIBUS PA infrastructure.



Power Supplies

Fieldbus power supplies are typically installed in control buildings and are designed for use in Zone 2/Class I, Div. 2. For FOUNDATION Fieldbus H1, machine-made cordsets are available that provide seamless integration into all standard control systems. For PROFIBUS PA, you have a choice between PROFINET and PROFIBUS DP control protocols.

Power supplies are available with advanced diagnostics. This feature monitors the quality of the installation in real time and indicates deviations before they can have a negative impact on the availability of the automation, ensuring maximum transparency and availability.

Fieldbus Junction Boxes

Segment protectors allow devices to be connected in plants without requirements for explosion protection and make them suitable for Zone 2/Div. 2. Field barriers connect field devices in Zone 0 ... 1/Div. 1. All fieldbus junction boxes offer extensive fault protection at the output, which protects the fieldbus from issues that can occur when working on a field device. They are available with screw or spring terminals.

Enclosure solutions made from aluminum, glass fiber reinforced plastic, or stainless steel offer a host of options for adapting the device to the plant's ambient conditions. This includes the size and material of the cable glands, nameplate, shield connection, lightning protection, and terminator. The fieldbus junction box is mounted and pre-wired at the factory.

Process Interfaces

Process interfaces connect basic signals with control technology. The temperature multiplexer transfers signals from 2-, 3-, and 4-wire thermocouples and resistance temperature sensors. The multi-input/output connects discrete signals such as low-power valves, vibrating forks, pulse generators, or up to twelve NAMUR switches to the control system. The same enclosure solutions are available as for the field junction box.

Commissioning Tools and Accessories

Diagnostic handhelds assist field service technicians and engineers during inspections. An embedded expert system, automated segment checking, and other features reduce the time needed for commissioning and troubleshooting.

Lightning protection with self-diagnostics reports its status automatically. Moisture ingress can be detected in critical applications using leakage sensors.

FieldConnex® components are specially developed for use in extreme conditions and can withstand temperature fluctuations, changes in humidity, and vibration. They also meet all current national and international safety requirements and are marine-certified.

You can find more information on the FieldConnex® product portfolio in the "FieldConnex® Fieldbus Infrastructure" product overview and at

www.pepperl-fuchs.com/fieldconnex

Fieldbus Infrastructure

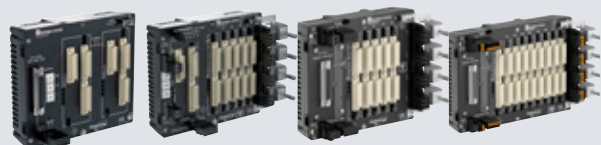
PROFIBUS PA

Fieldbus power supply – power hub modules



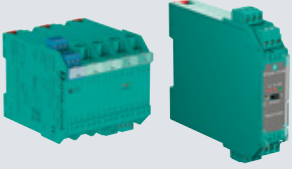
Model Number	Description	Functions			Output voltage			Output current
		Physical layer diagnostics	Gateway	Fieldbus power supply	9 ... 32 V	28 ... 29.5 V	21 ... 23 V	500 ... 10 mA
HCD2-FBPS-1.23.500	Fieldbus Power Hub, Compact Power Supply Module			■			■	■
HCD2-FBPS-1.500	Fieldbus Power Hub, Compact Power Supply Module			■	■			■
HD2-DM-A	Fieldbus Power Hub, Advanced Diagnostic Module	■			■			
HD2-DM-A.RO	Fieldbus Power Hub, Advanced Diagnostic Module with Relay Output	■			■			
HD2-DM-B	Fieldbus Power Hub, Basic Diagnostic Module	■						
HD2-GTR-4PA	PROFIBUS Power Hub, Gateway Module		■					
HD2-GTR-4PA.PN	PROFINET Power Hub, Gateway Module		■					
ACC-MB-HDC	Diagnostic Cordset for Motherboards							

Fieldbus power supply – power hub motherboards



Model Number	Description	Number of segments	Connection type	
			pluggable, screw terminal	pluggable, spring terminal
MB-FB-GTR1	Fieldbus Power Hub, Gateway Motherboard	4 redundant	■	
MB-FB-GTR1.1	Fieldbus Power Hub, Gateway Motherboard	4 redundant		■
MBHC-FB-4.GT	Fieldbus Power Hub, Motherboard for Gateway and Power Supply Modules	4 simplex	■	
MBHC-FB-4.GT.1	Fieldbus Power Hub, Motherboard for Gateway and Power Supply Modules	4 simplex		■
MBHC-FB-4.HSC	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 simplex	■	
MBHC-FB-4.HSC.1	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 simplex		■
MBHC-FB-4R.HSC	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 redundant	■	
MBHC-FB-4R.HSC.1	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 redundant		■

Fieldbus power supply – basic power supplies



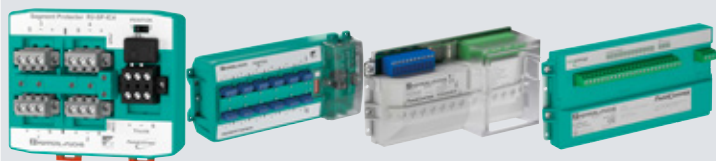
Model Number	Description	Function	Output voltage		Rated current	
			24 ... 26 V	12.6 ... 13.4 V	100 mA	400 mA
KFD2-BR-1.PA.1500	Basic Segment Coupler	PROFIBUS gateway	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/>
KFD2-BR-EX1.3PA.93	Segment Coupler		<input type="checkbox"/>	<input checked="" type="checkbox"/>	<input checked="" type="checkbox"/>	<input type="checkbox"/>

Commissioning tools



Model Number	Description
FDH-1	Fieldbus Diagnostic Handheld
FDH-SW-P	FDH-1 Manager Software, Premium License
ACC-FDH-CTRG	FDH-1 Accessory, Trigger Output Cable
KT-SRT-PA	Starter Kit for PROFIBUS PA Infrastructure
BP-FBPS-1.30.1	Portable Fieldbus Battery

Gerätekoppler



Model Number	Description	Anzahl der Ausgänge	Connection type		
			steckbar , Screw terminal	steckbar , Spring terminal	feste Klemmen , Screw terminal
R2-SP-IC10	Segment Protector for Cabinet Installation	10	■		
R2-SP-IC10.1	Segment Protector for Cabinet Installation	10		■	
R2-SP-IC12	Segment Protector for Cabinet Installation	12	■		
R2-SP-IC12.1	Segment Protector for Cabinet Installation	12		■	
R2-SP-IC4	Segment Protector for Cabinet Installation	4	■		
R2-SP-IC4.1	Segment Protector for Cabinet Installation	4		■	
R2-SP-IC6	Segment Protector for Cabinet Installation	6	■		
R2-SP-IC6.1	Segment Protector for Cabinet Installation	6		■	
R2-SP-IC8	Segment Protector for Cabinet Installation	8	■		
R2-SP-IC8.1	Segment Protector for Cabinet Installation	8		■	
R-SP-E12	Segment Protector for Cabinet Installation	12			■
R4D0-FB-IA10.0	FieldBarrier® for Cabinet Installation	10	■		
R4D0-FB-IA10.1	FieldBarrier® for Cabinet Installation	10		■	
R4D0-FB-IA12.0	FieldBarrier® for Cabinet Installation	12	■		
R4D0-FB-IA12.1	FieldBarrier® for Cabinet Installation	12		■	
R4D0-FB-IA8.0	FieldBarrier® for Cabinet Installation	8	■		
R4D0-FB-IA8.1	FieldBarrier® for Cabinet Installation	8		■	
RD0-FB-Ex4	FieldBarrier® for Cabinet Installation	4			■
RD0-FB-Ex4.COM	FieldBarrier® for Cabinet Installation	4	■		

Physical-Layer-Diagnose



Model Number	Description
DTM-FC.AD	Diagnostic Manager Software Standard License (up to 100 Segments)
DTM-FC.AD.1	Diagnostic Manager Software Bulk License (from 100 Segments)
DTM-FC.AD.UPG	Diagnostic Manager Upgrade License (up to 100 Segments)
DTM-FC.AD.1.UPG	Diagnostic Manager Upgrade Bulk License (from 100 Segments)
KT-MB-DMA	Advanced Diagnostic Module, Kit for stand-alone Operation
KT-MB-GT2AD.FF	Advanced Diagnostic Gateway with Ethernet and FF-H1 Interface
KT-MB-GT2AD.FF.1	Advanced Diagnostic Gateway with Ethernet and FF-H1 Interface
KT-MB-GT2AD.FF.IO	Advanced Diagnostic Gateway with Ethernet and FF-H1 Interface and I/O
HD2-DM-A	Fieldbus Power Hub, Advanced Diagnostic Module
HD2-DM-A.RO	Fieldbus Power Hub, Advanced Diagnostic Module with Relay Output
HD2-DM-B	Fieldbus Power Hub, Basic Diagnostic Module
FDH-1	Fieldbus Diagnostic Handheld
FDH-SW-P	FDH-1 Manager Software, Premium License
ACC-FDH-CTRG	FDH-1 Accessory Cable

Temperatur-Interface



Model Number	Description	Ausführung/ Montage		Connection type	
		Außeninstallation	Schaltschrankinstallation	steckbare Klemmen, Screw terminal	steckbare Klemmen, Spring terminal
RD0-TI-Ex8.PA.SC	Temperature Multi-Input Device for Cabinet Installation		■		■
RD0-TI-Ex8.PA.ST	Temperature Multi-Input Device for Cabinet Installation		■	■	
F2D0-TI-Ex8.PA.CG.SC	Temperature Multi-Input Device with Aluminum Housing	■			■
F2D0-TI-Ex8.PA.CG.ST	Temperature Multi-Input Device with Aluminum Housing	■		■	
F2D0-TI-Ex8.PA.CGB.ST	Temperature Multi-Input Device with Aluminum Housing	■		■	
F2D0-TI-Ex8.PA.CGS.ST	Temperature Multi-Input Device with Aluminum Housing	■		■	

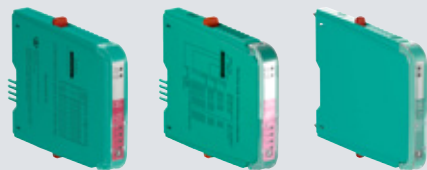
Interface für diskrete I/O



Model Number	Description	Ausführung/ Montage		Connection type	
		Außeninstallation	Schaltschrankinstallation	steckbare Klemmen, Spring terminal	steckbare Klemmen, Screw terminal
R8D0-MIO-EX12.PA.1	Multi-Input/Output Device for Cabinet Installation		■		■
R8D0-MIO-EX12.PA.2	Multi-Input/Output Device for Cabinet Installation		■	■	
F2D0-MIO-EX12.PA.1.02	Multi-Input/Output Device with Aluminum Housing	■			■
F2D0-MIO-EX12.PA.1.05	Multi-Input/Output Device with Aluminum Housing	■			■

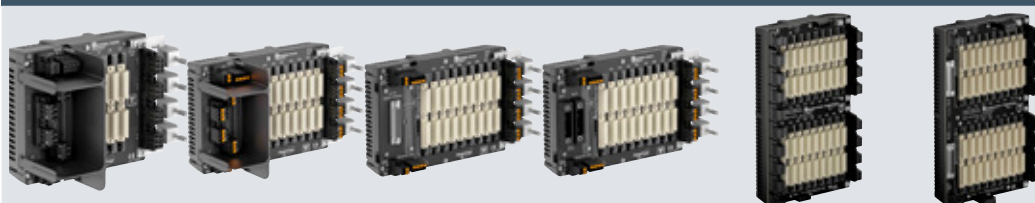
FOUNDATION Fieldbus H1

Fieldbus power supply – power hub modules



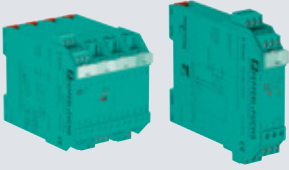
Model Number	Description	Functions		Output voltage			Output current
		Physical layer diagnostics	supply	9 ... 32 V	21 ... 23 V	28 ... 29,5 V	500 ... 10 mA
HCD2-FBPS-1.23.500	Fieldbus Power Hub, Compact Power Supply Module		■		■		■
HCD2-FBPS-1.500	Fieldbus Power Hub, Compact Power Supply Module		■			■	■
HD2-DM-A	Fieldbus Power Hub, Advanced Diagnostic Module	■		■			
HD2-DM-A.RO	Fieldbus Power Hub, Advanced Diagnostic Module with Relay Output	■		■			
HD2-DM-B	Fieldbus Power Hub, Basic Diagnostic Module	■					

Fieldbus power supply – power hub motherboards



Model Number	Description	Number of segments	System Interface						Connection type	
			All systems	Honeywell	Invensys	Yokogawa	ABB	Emerson	pluggable, spring terminal	pluggable, screw terminal
MBHC-FB-4	Compact Fieldbus Power Hub Motherboard with Common Interface	4 simplex	■					■	■	■
MBHC-FB-4.1	Compact Fieldbus Power Hub Motherboard with Common Interface	4 simplex	■					■	■	■
MBHC-FB-4.HSC	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 simplex		■	■					■
MBHC-FB-4.HSC.1	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 simplex		■	■					■
MBHC-FB-4.YO	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	4 simplex				■				■
MBHC-FB-4.YO.1	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	4 simplex				■				■
MBHC-FB-4R.YO.R	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	4 redundant				■				■
MBHC-FB-4R	Compact Fieldbus Power Hub Motherboard with Common Interface	4 redundant	■					■	■	■
MBHC-FB-4R.1	Compact Fieldbus Power Hub Motherboard with Common Interface	4 redundant	■					■	■	■
MBHC-FB-4R.HSC	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 redundant		■	■					■
MBHC-FB-4R.HSC.1	Compact Fieldbus Power Hub Motherboard with Host System Connectors	4 redundant		■	■					■
MBHC-FB-4R.YO	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	4 redundant				■				■
MBHC-FB-4R.YO.1	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	4 redundant				■				■
MBHC-FB-8R	Compact Fieldbus Power Hub Motherboard with Common Interface	8 redundant	■					■	■	■
MBHC-FB-8R.1	Compact Fieldbus Power Hub Motherboard with Common Interface	8 redundant	■					■	■	■
MBHC-FB-8R.HSC	Compact Fieldbus Power Hub Motherboard with Host System Connectors	8 redundant		■	■					■
MBHC-FB-8R.HSC.1	Compact Fieldbus Power Hub Motherboard with Host System Connectors	8 redundant		■	■					■
MBHC-FB-8R.HSC.R	Compact Fieldbus Power Hub Motherboard with Host System Connectors	8 redundant		■	■					■
MBHC-FB-8R.HSC.R.1	Compact Fieldbus Power Hub Motherboard with Host System Connectors	8 redundant		■	■					■
MBHC-FB-8R.RH	Compact Fieldbus Power Hub Motherboard with Redundant Host Terminals	8 redundant	■					■		■
MBHC-FB-8R.RH.R	Compact Fieldbus Power Hub Motherboard with Redundant Host Terminals	8 redundant	■					■		■
MBHC-FB-8R.YO	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	8 redundant				■				■
MBHC-FB-8R.YO.1	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	8 redundant				■				■
MBHC-FB-8R.YO.R	Compact Fieldbus Power Hub Motherboard for Yokogawa ALF111	8 redundant				■				■

Fieldbus power supply – basic power supplies



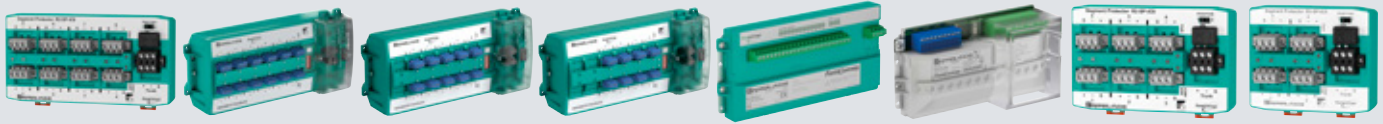
Model Number	Description	Function	Output voltage		Output current	
			12 ... 13 V	25 ... 27 V	220 mA	360 mA
KLD2-FBPS-1.12.220	Fieldbus Power Supply	Fieldbus power supply	■	■	■	
KLD2-FBPS-1.25.360	Fieldbus Power Supply	Fieldbus power supply		■		■
KLD2-PR-1.IEC	Fieldbus Power Repeater	Fieldbus power supply	■			

Commissioning tools



Model Number	Description
FDH-1	Fieldbus Diagnostic Handheld
FDH-SW-P	FDH-1 Manager Software, Premium License
ACC-FDH-CTRG	FDH-1 Accessory, Trigger Output Cable
KT-SRT-FF	Starter Kit for FOUNDATION Fieldbus H1 Infrastructure
USB-FBPS-1.11.45.NI	USB Fieldbus Power Supply
BP-FBPS-1.30.1	Portable Fieldbus Battery

Device couplers



Model Number	Description	Number of outputs	Connection type		
			pluggable, spring terminal	pluggable, screw terminal	screw fixing
R2-SP-IC10	Segment Protector for Cabinet Installation	10		■	
R2-SP-IC10.1	Segment Protector for Cabinet Installation	10	■		
R2-SP-IC12	Segment Protector for Cabinet Installation	12		■	
R2-SP-IC12.1	Segment Protector for Cabinet Installation	12	■		
R2-SP-IC4	Segment Protector for Cabinet Installation	4		■	
R2-SP-IC4.1	Segment Protector for Cabinet Installation	4	■		
R2-SP-IC6	Segment Protector for Cabinet Installation	6		■	
R2-SP-IC6.1	Segment Protector for Cabinet Installation	6	■		
R2-SP-IC8	Segment Protector for Cabinet Installation	8		■	
R2-SP-IC8.1	Segment Protector for Cabinet Installation	8	■		
R-SP-E12	Segment Protector for Cabinet Installation	12			■
R4D0-FB-IA10.0	FieldBarrier® for Cabinet Installation	10		■	
R4D0-FB-IA10.1	FieldBarrier® for Cabinet Installation	10	■		
R4D0-FB-IA12.0	FieldBarrier® for Cabinet Installation	12		■	
R4D0-FB-IA12.1	FieldBarrier® for Cabinet Installation	12	■		
R4D0-FB-IA8.0	FieldBarrier® for Cabinet Installation	8		■	
R4D0-FB-IA8.1	FieldBarrier® for Cabinet Installation	8	■		
RD0-FB-Ex4	FieldBarrier® for Cabinet Installation	4			■
RD0-FB-Ex4.COM	FieldBarrier® for Cabinet Installation	4		■	

Physical layer diagnostics



Model Number	Description
DTM-FC-AD	Diagnostic Manager Software Standard License (up to 100 Segments)
DTM-FC-AD.1	Diagnostic Manager Software Bulk License (from 100 Segments)
KT-MB-GT2AD.FF.1	Advanced Diagnostic Gateway with Ethernet and FF-H1 Interface
KT-MB-GT2AD.FF	Advanced Diagnostic Gateway with Ethernet and FF-H1 Interface
KT-MB-DMA	Advanced Diagnostic Module, Kit for stand-alone Operation
KT-MB-GT2AD.FF.IO	Advanced Diagnostic Gateway with Ethernet and FF-H1 Interface and I/O
DTM-FC-AD.1.UPG	Diagnostic Manager Upgrade Bulk License (from 100 Segments)
DTM-FC-AD.UPG	Diagnostic Manager Upgrade License (up to 100 Segments)
FDH-1	Fieldbus Diagnostic Handheld
FDH-SW-P	FDH-1 Manager Software, Premium License
ACC-FDH-CTRG	FDH-1 Accessory Cable

Temperature interface



Model Number	Description	Design / Mounting		Connection type	
		Outside installation	Cabinet installation	plug-in terminals, screw terminal	plug-in terminals, spring terminal
RD0-TI-EX8.FF.SC	Temperature Multi-Input Device for Cabinet Installation		■		■
RD0-TI-EX8.FF.ST	Temperature Multi-Input Device for Cabinet Installation		■	■	
F2D0-TI-EX8.FF.CG.ST	Temperature Multi-Input Device with Aluminum Housing	■		■	
F2D0-TI-EX8.FF.CGB.ST	Temperature Multi-Input Device with Aluminum Housing	■		■	
F2D0-TI-EX8.FF.CGS.ST	Temperature Multi-Input Device with Aluminum Housing	■		■	

Interface for discrete I/O



Model Number	Description	Design / Mounting		Connection type	
		Outside installation	Cabinet installation	plug-in terminals, spring terminal	plug-in terminals, screw terminal
R8D0-MIO-EX12.FF.1	Multi-Input/Output Device for Cabinet Installation		■		■
R8D0-MIO-EX12.FF.2	Multi-Input/Output Device for Cabinet Installation		■	■	
F2D0-MIO-EX12.FF.1.02	Multi-Input/Output Device with Aluminum Housing	■			■
F2D0-MIO-EX12.FF.1.05	Multi-Input/Output Device with Aluminum Housing	■			■

Accessories

Enclosure leakage sensors



Model Number	Description
ELS-1	Housing leakage sensor, for operation with FOUNDATION Fieldbus and PROFIBUS PA

Surge protection



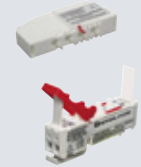
Model Number	Description	Diagnostics function	Design/Mounting	
			Cabinet installation	Outside installation
TCP-LBF-IA1.36.IE.0	Surge Protector for Plugging onto the Trunk, Ex ia		■	
TCP-LBF-IA1.36.IE.1	Surge Protector for Plugging onto the Trunk, Ex ia with Integrated Diagnostics	■	■	
SCP-LBF-IA1.36.IE.0	Surge Protector, Pluggable onto the device coupler for the Spur, Ex ia		■	
SCP-LBF-IA1.36.IE.1	Surge Protector, Pluggable onto the device coupler for the Spur, Ex ia with Integrated Diagnostics	■	■	
TPH-LBF-IA1.36.DE.0	Surge Protector, Pluggable onto the Power Hub for the Trunk, Ex ia		■	
TPH-LBF-IA1.36.DE.1	Surge Protector, Pluggable onto the Power Hub for the Trunk, Ex ia with Integrated Diagnostics	■	■	
ACC-LBF-EB.8	8x Grounding Rail for Surge Protection, TPH-LBF* and MBHC-FB*			
DB-LBF-I1	Fieldbus Surge Protector for Cabinet Installation, Ex ia		■	
DB-LBF-I1.I	Fieldbus Surge Protector for Cabinet Installation, Ex ia		■	
DP-LBF-I1.36.DE	Fieldbus Surge Protector for Cabinet Installation, Ex ia, for double-sided grounding		■	
DP-LBF-I1.36.IE	Fieldbus Surge Protector for Cabinet Installation, Ex ia, for Single-Point Grounding, Indirect Shield Grounding for Entity, FISCO, DART		■	
FN-LBF-D1.32	Surge Protector for Field Mounting, Ex d, 1/2" NPT Thread			■
FN-LBF-I1.32	Surge Protector for Field Mounting, Ex ia, 1/2" NPT Thread			■
FS-LBF-D1.32	Surge Protector for Field Mounting, Ex d, ISO 20 mm Thread			■
FS-LBF-I1.32	Surge Protector for Field Mounting, Ex ia, ISO 20 mm Thread			■

Terminator



Model Number	Description	Design / Mounting
		Outside installation
FN-FT-EX1	Fieldbus terminating resistor, field mounted, Ex ia, thread: 1/2 NPT	■
FP-FT-EX1	Fieldbus Terminator, Field Mounting, Ex ia, PG 13.5 thread	■
FS-FT-EX1	Fieldbus Terminator, Field Mounting, Ex ia, ISO 20 mm thread	■
M-FT	Fieldbus terminator	

Additional accessories



Model Number	Description
ACC-LBF-EB.6	6x Grounding Rail for Surge Protection, SCP-LBF*, R2-SP*, and R4D0-FB*
ACC-LBF-EB.8	8x Grounding Rail for Surge Protection, TPH-LBF* and MBHC-FB*
ACC-LBF-SW.3	Separation Wall for Installation on the Surge Protector TCP-LBF*, 3 pcs., Ex ic Applications
ACC-MB-CC	Cover for Power Supply Connector of Motherboards with Screw Terminals, Ex ic applications
ACC-MB-CC.1	Cover for Power Supply Connector of Motherboards with Spring Terminals, Ex ic applications
ACC-MB-HSK	Grounding Rail including 4 Cable Clamps
ACC-MB-SW	Separation Wall for MBHC, Ex ic Applications
ACC-R2-SW.3	Separation Wall for Ex ic Applications
MFT-2L.1600	Multifunction terminal, 4-pin, 2 x bridges
MFT-BASE.4P	Multifunction terminal socket, 4-pin
TP-CON.3	Fieldbus Plug Sockets with Test Points, 4 pcs.
T-CON.3	T-Connector as Accessory, 3 pcs.

Enclosure Solutions for Segment Protectors and Field Barriers

Cable glands for enclosures F.SP* and F.FB*

Cable gland versions

Type	Cable gland					Stopping plug		
	GP2	GB2	GS2	GN2	GA2	H02	H03	H04
Mechanical specifications								
Protection degree	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66
Material	polyamide	nickel-plated brass	stainless steel	nickel plated brass	stainless steel	polyamide	nickel-plated brass	stainless steel
Thread	M20	M20	M20	M20	M20	M20	M20	M20
Inner sheath (mm)	–	–	–	7 ... 12	7 ... 12	–	–	–
Outer sheath (mm)	5.5 ... 13	3 ... 12	3 ... 12	10 ... 16	10 ... 16	–	–	–
Cable								
Suitable for armored cable	no	no	no	yes	yes	–	–	–
Data for application in conjunction with hazardous areas								
Type of protection	Ex e	Ex de	Ex de	Ex de	Ex de	Ex e	Ex de	Ex de

Enclosure Solutions for Segment Protectors

Type Code/Order Designation

Type of housing										
F2	Field housing, aluminum, IP66									
Function										
SP	Segment Protector									
Type of protection										
IC	Ex ic, non-incendive field wiring rated spur outputs									
Number of outputs										
04	4 spurs									
06	6 spurs									
08	8 spurs									
10	10 spurs									
Terminal options										
0	Screw terminal, non-pluggable									
1	Screw terminal, pluggable									
2	Spring terminal									
Trunk entry options³										
00	M20 stopping plug, plastic									
02	M20 cable gland, plastic									
03	M20 cable gland, nickel plated brass									
04	M20 cable gland, stainless steel									
05	M20 cable gland, nickel plated brass for armored cable									
06	M20 cable gland, stainless steel for armored cable									
09	M12 plug connection, nickel plated brass FOUNDATION Fieldbus ²									
10	M12 plug connection, nickel plated brass PROFIBUS PA ²									
11	M12 plug connection, stainless steel FOUNDATION Fieldbus ¹									
12	M12 plug connection, stainless steel PROFIBUS PA ¹									
Spur cable entry options³										
00	M20 stopping plug, plastic									
02	M20 cable gland, plastic									
03	M20 cable gland, nickel plated brass									
04	M20 cable gland, stainless steel									
05	M20 cable gland, nickel plated brass for armored cable									
06	M20 cable gland, stainless steel for armored cable									
09	M12 plug connection, nickel plated brass FOUNDATION Fieldbus									
10	M12 plug connection, nickel plated brass PROFIBUS PA									
11	M12 plug connection, stainless steel FOUNDATION Fieldbus									
12	M12 plug connection, stainless steel PROFIBUS PA									
Accessory options										
0	No tag plate									
1	Tag plate stainless steel incl. printing									
2	Tag plate stainless steel excl. printing									
0	No trunk surge protector									
1	Trunk surge protector									
F2	-	SP	-	IC	.	.	.	.	.	.
A	-	B	-	C	D	.	E	.	F	G
										H
										I

Note:

¹ If no surge protector is selected, one trunk entry is closed with a stainless steel stopping plug.

² If no surge protector is selected, one trunk entry is closed with a plastic stopping plug.

³ Only options with cable glands are permitted for dust hazardous areas.

Type Code/Model Number

Electronic type

F.SP5 Enclosure solution for R2-SP-IC**

Enclosure material

P Glass-fiber reinforced polyester, IP66

Number of installed devices

- 12.B04** 1 x R2-SP-IC4
- 12.B06** 1 x R2-SP-IC6
- 12.B08** 1 x R2-SP-IC8
- 12.B10** 1 x R2-SP-IC10
- 12.B12** 1 x R2-SP-IC12
- 20.B16** 2 x R2-SP-IC8
- 20.B20** 2 x R2-SP-IC10
- 20.B24** 2 x R2-SP-IC12

Fieldbus type

1 Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Terminals

- 0** Screw terminals
- 3** Spring terminals

Trunk entries

Spur entries

- | | | |
|------------|------------|--|
| H02 | H02 | Stopping plug M20, polyamide, Ex e, IP66 |
| H03 | H03 | Stopping plug M20, nickel plated brass, Ex e, IP66 |
| H04 | H04 | Stopping plug M20, stainless steel, Ex e, IP66 |
| GP2 | GP2 | Cable gland M20, polyamide, Ex de, IP66 |
| GB2 | GB2 | Cable gland M20, nickel plated brass, Ex de, IP66 |
| GS2 | GS2 | Cable gland M20, stainless steel, Ex e, IP66 |
| GN2 | GN2 | Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cables |
| GA2 | GA2 | Cable gland M20, stainless steel, Ex de, IP66, for armoured cables |

Tag plate

- D** Stainless steel, 95 x 20 mm
- C** Plastic, 95 x 20 mm
- 0** No tag plate

Grounding bar

- 2** Grounding bar, isolated
- 1** Grounding bar, connected to PA
- 0** No grounding bar

Surge protection

- D** Surge protection trunk with diagnostics (TCP-LBF-IA1.36.IE.1) and spurs with diagnostics (SCP-LBF-IA1.36.IE.1)
- C** Surge protection trunk (TCP-LBF-IA1.36.IE.0) and spurs with diagnostics (SCP-LBF-IA1.36.IE.1)
- B** Surge protection trunk with diagnostics (TCP-LBF-IA1.36.IE.1) and spurs (SCP-LBF-IA1.36.IE.0)
- 9** Surge protection trunk (TCP-LBF-IA1.36.IE.0) and spurs (SCP-LBF-IA1.36.IE.0)
- 7** Surge protection spurs with diagnostics (SCP-LBF-IA1.36.IE.1)
- 6** Surge protection trunk with diagnostics (TCP-LBF-IA1.36.IE.1)
- 5** Surge protection spurs (SCP-LBF-IA1.36.IE.0)
- 4** Surge protection trunk (TCP-LBF-IA1.36.IE.0)
- 0** No surge protection

Additional accessories

- 5** Enclosure leakage sensor (ELS-1) + document pocket (A4)
- D** Document pocket (A4)
- L** Enclosure leakage sensor (ELS-1)
- 0** No accessory

F.SP5	.	P	.	1
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Predefined characters indicate pre-set attributes.

Type Code/Model Number

Electronic type

F.SP5 Enclosure solution for R2-SP-IC**

Enclosure material

S Stainless steel, 1.4404 (AISI 316L), IP66

Number of installed devices

- 13.B04** 1 x R2-SP-IC4
- 13.B06** 1 x R2-SP-IC6
- 13.B08** 1 x R2-SP-IC8
- 13.B10** 1 x R2-SP-IC10
- 13.B12** 1 x R2-SP-IC12
- 20.B16** 2 x R2-SP-IC8
- 20.B20** 2 x R2-SP-IC10
- 20.B24** 2 x R2-SP-IC12

Fieldbus type

1 Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Terminals

- 0** Screw terminals
- 3** Spring terminals

Trunk entries

Spur entries

- H02 H02** Stopping plug M20, polyamide, Ex e, IP66
- H03 H03** Stopping plug M20, nickel plated brass, Ex e, IP66
- H04 H04** Stopping plug M20, stainless steel, Ex e, IP66
- GP2 GP2** Cable gland M20, polyamide, Ex de, IP66
- GB2 GB2** Cable gland M20, nickel plated brass, Ex de, IP66
- GS2 GS2** Cable gland M20, stainless steel, Ex e, IP66
- GN2 GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cables
- GA2 GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cables

Tag plate

- D** Stainless steel, 95 x 20 mm
- C** Plastic, 95 x 20 mm
- 0** No tag plate

Grounding bar

- 2** Grounding bar, isolated
- 1** Grounding bar, connected to PA
- 0** No grounding bar

Surge protection

- D** Surge protection trunk with diagnostics (TCP-LBF-IA1.36.IE.1) and spurs with diagnostics (SCP-LBF-IA1.36.IE.1)
- C** Surge protection trunk (TCP-LBF-IA1.36.IE.0) and spurs with diagnostics (SCP-LBF-IA1.36.IE.1)
- B** Surge protection trunk with diagnostics (TCP-LBF-IA1.36.IE.1) and spurs (SCP-LBF-IA1.36.IE.0)
- 9** Surge protection trunk (TCP-LBF-IA1.36.IE.0) and spurs (SCP-LBF-IA1.36.IE.0)
- 7** Surge protection spurs with diagnostics (SCP-LBF-IA1.36.IE.1)
- 6** Surge protection trunk with diagnostics (TCP-LBF-IA1.36.IE.1)
- 5** Surge protection spurs (SCP-LBF-IA1.36.IE.0)
- 4** Surge protection trunk (TCP-LBF-IA1.36.IE.0)
- 0** No surge protection

Additional accessories

- 5** Enclosure leakage sensor (ELS-1) + document pocket (A4)
- D** Document pocket (A4)
- L** Enclosure leakage sensor (ELS-1)
- 0** No accessory

F.SP5 . **S** . . **1**

Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.SPE Enclosure solution for R-SP-E12

Enclosure material

P Glass-fiber reinforced polyester, IP66

Number of installed devices

12.A12 1 x R-SP-E12 ¹

20.A24 2 x R-SP-E12

Fieldbus type

1 Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Spur terminals

0 Spurs directly wired to R-SP-E12

Trunk entries

Spur entries

- GP2 GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2 GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2 GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2 GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
- GA2 GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
- H02 H02** Stopping plug M20, polyamide, Ex e, IP66
- H03 H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04 H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

Surge protection Trunk

- 3** Surge protection for Trunk FS-LBF-D1.32 installed ¹
- 0** No surge protection

External terminator

- 1** Fieldbus terminator FS-FT-Ex1.D.IEC installed ¹
- 0** No terminator installed

¹ In conjunction with version 12.A12 surge protection and external terminator are available on request.

F.SPE	.	P	.	1	.	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.SPE Enclosure solution for R-SP-E12

Enclosure material

S Stainless steel 316, electropolished, IP66

Number of installed devices

12.A12 1 x R-SP-E12 ¹

20.A24 2 x R-SP-E12

Fieldbus type

1 Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Spur terminals

0 Spurs directly wired to R-SP-E12

Trunk entries

Spur entries

- GP2** **GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2** **GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2** **GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2** **GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
- GA2** **GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
- H02** **H02** Stopping plug M20, polyamide, Ex e, IP66
- H03** **H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04** **H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

Surge protection Trunk

- 3** Surge protection for Trunk FS-LBF-D1.32 installed ¹
- 0** No surge protection

External terminator

- 1** Fieldbus terminator FS-FT-Ex1.D.IEC installed ¹
- 0** No terminator installed

¹ In conjunction with version 12.A12 surge protection and external terminator are available on request.

F.SPE	.	S		.	1	.	0	
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Predefined characters indicate pre-set attributes.

Enclosure Solutions for Segment Protectors, with North American certification only

Type code/model number

Electronic type

SPJB Enclosure solution for R2-SP-N**

Number of spurs

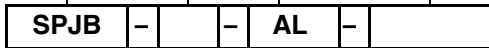
- 4 4 spurs
- 6 6 spurs
- 8 8 spurs
- 10 10 spurs
- 12 12 spurs

Enclosure material

AL Aluminum, anodized, IP67

Connection type

- NF** No fitting
- CGP** Cable gland M16, polyamide
- CGB** Cable gland M16, nickel-plated brass
- CGS** Cable gland M16, stainless steel
- 7/8S** Plug connection M16, stainless steel, 7/8" thread
- M12S** Plug connection M16, stainless steel, M12 thread
- 1/2CB** Conduit connection M16, nickel-plated brass, 1/2" NPT conduit adapter



Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

SPJB Enclosure solution for R2-SP-N**

Number of spurs

- 4 4 spurs
- 6 6 spurs
- 8 8 spurs
- 10 10 spurs
- 12 12 spurs

Enclosure material

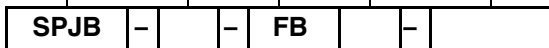
FB Glass-fiber reinforced polyester, NEMA 4X, NEMA 6P, NEMA 12

Window

- No window
- W** With window

Connection type

- NF** No fitting
- CGP** Cable gland M16, polyamide
- CGB** Cable gland M16, nickel-plated brass
- CGS** Cable gland M16, stainless steel
- 7/8S** Plug connection M16, stainless steel, 7/8" thread
- M12S** Plug connection M16, stainless steel, M12 thread
- 1/2CB** Conduit connection M16, nickel-plated brass, 1/2" NPT conduit adapter



Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

SPJB Enclosure solution for R2-SP-N**

Number of spurs

- 4** 4 spurs
- 6** 6 spurs
- 8** 8 spurs
- 10** 10 spurs
- 12** 12 spurs

Enclosure material

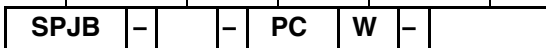
PC Polycarbonate, painted, IP67, NEMA 4, NEMA 4x, NEMA 6, NEMA 12, NEMA 13

Window

W With window

Connection type

- NF** No fitting
- CGP** Cable gland M16, polyamide
- CGB** Cable gland M16, nickel-plated brass
- CGS** Cable gland M16, stainless steel
- 7/8S** Plug connection M16, stainless steel, 7/8" thread
- M12S** Plug connection M16, stainless steel, M12 thread
- 1/2CB** Conduit connection M16, nickel-plated brass, 1/2" NPT conduit adapter



Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

SPJB Enclosure solution for R2-SP-N**

Number of spurs

- 4** 4 spurs
- 6** 6 spurs
- 8** 8 spurs
- 10** 10 spurs
- 12** 12 spurs

Enclosure material

SS Stainless steel, brushed, IP66, NEMA 4, NEMA 4X, NEMA 12

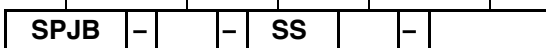
Window

- No window

W With window

Connection type

- NF** No fitting
- CGP** Cable gland M16, polyamide
- CGB** Cable gland M16, nickel-plated brass
- CGS** Cable gland M16, stainless steel
- 7/8S** Plug connection M16, stainless steel, 7/8" thread
- M12S** Plug connection M16, stainless steel, M12 thread
- 1/2CB** Conduit connection M16, nickel-plated brass, 1/2" NPT conduit adapter



Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

SPJB Enclosure solution for R2-SP-N**

Number of spurs

- 4** 4 spurs
- 6** 6 spurs
- 8** 8 spurs
- 10** 10 spurs
- 12** 12 spurs

Enclosure material

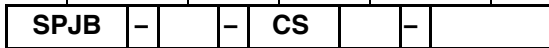
CS Carbon steel, painted, IP66, NEMA 4, NEMA 4X, NEMA 12

Window

- No window
- W** With window

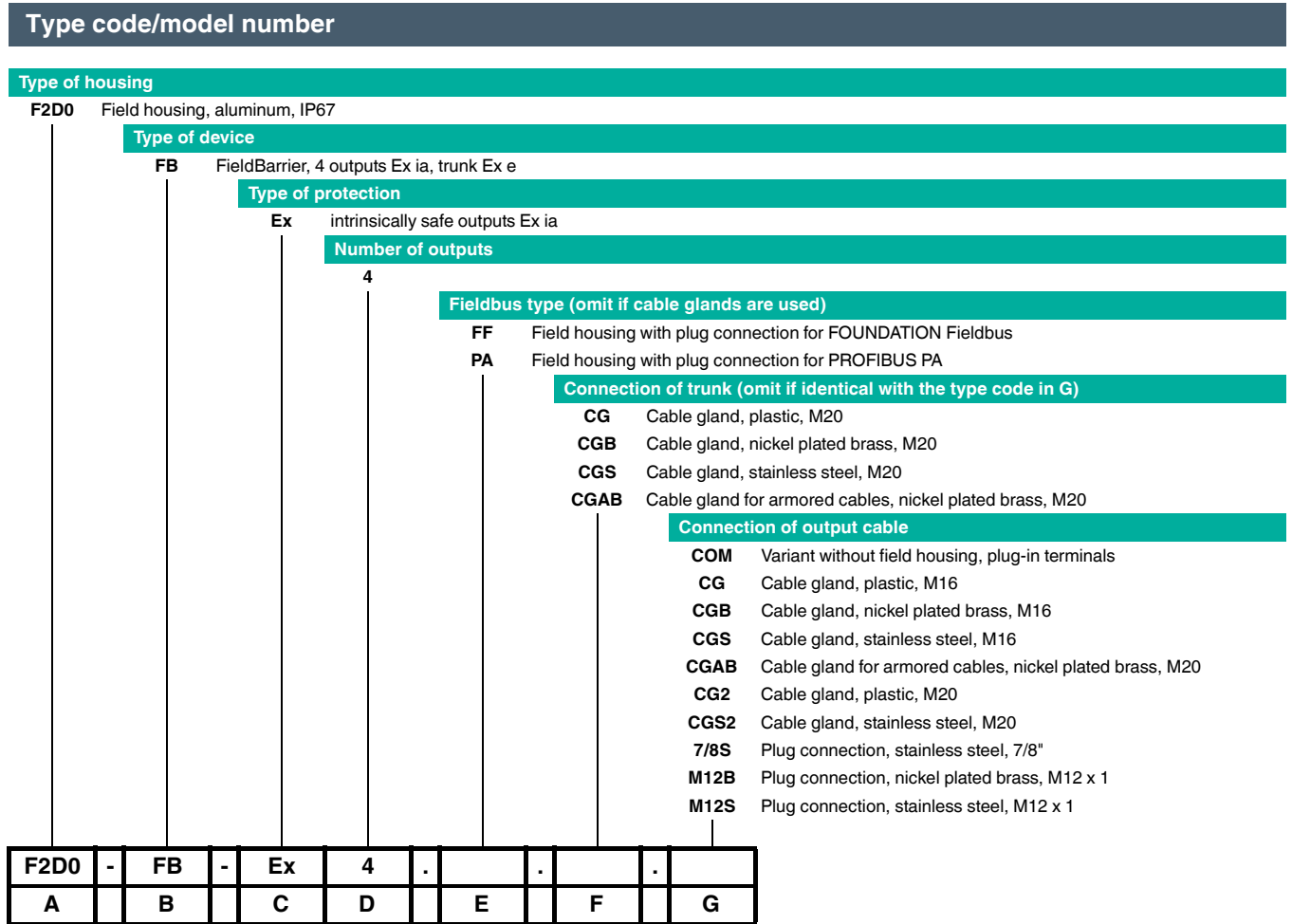
Connection type

- NF** No fitting
- CGP** Cable gland M16, polyamide
- CGB** Cable gland M16, nickel-plated brass
- CGS** Cable gland M16, stainless steel
- 7/8S** Plug connection M16, stainless steel, 7/8" thread
- M12S** Plug connection M16, stainless steel, M12 thread
- 1/2CB** Conduit connection M16, nickel-plated brass, 1/2" NPT conduit adapter



Predefined characters indicate pre-set attributes.

Enclosure Solutions for Field Barriers



Example:

F2D0-FB-EX4.PA.CG.M12B: FieldBarrier with aluminum housing, connection of trunk, cable gland plastic M20, 4 intrinsically safe outputs, plug connection nickel plated brass M12, pinout for PROFIBUS PA.

Type code/model number

Electronic type

F.FB0 Enclosure solution for RD0-FB-Ex4.COM

Enclosure material

P Impact-resistant, glass-fiber reinforced polyester, IP66

Number of installed devices

- 11.A04** 1 x RD0-FB-Ex4.COM ¹
- 20.A08** 2 x RD0-FB-Ex4.COM
- 30.A12** 3 x RD0-FB-Ex4.COM

Fieldbus type

1 Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Spur terminals

0 Spurs directly wired to RD0-FB-Ex4.COM

Trunk entries

Spur entries

- | | | |
|------------|------------|---|
| GP2 | GP2 | Cable gland M20, polyamide, Ex e, IP66 |
| GB2 | GB2 | Cable gland M20, nickel plated brass, Ex e, IP66 |
| GS2 | GS2 | Cable gland, M20, stainless steel, Ex e, IP66 |
| GN2 | GN2 | Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable |
| GA2 | GA2 | Cable gland M20, stainless steel, Ex de, IP66, for armoured cable |
| H02 | H02 | Stopping plug M20, polyamide, Ex e, IP66 |
| H03 | H03 | Stopping plug M20, nickel plated brass, Ex de, IP66 |
| H04 | H04 | Stopping plug M20, stainless steel, Ex de, IP66 |

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

Surge protection trunk

- 3** Surge protection for trunk FS-LBF-D1.32 installed ¹
- 0** No surge protection

External terminator

- T** Fieldbus terminator FS-FT-Ex1.D.IEC installed ¹
- 0** No terminator installed

¹ In conjunction with version 11.A04 surge protection and external terminator are available on request.

F.FB0	.	P	.	1	.	0	
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Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.FB0 Enclosure solution for RD0-FB-Ex4.COM

Enclosure material

S Stainless steel 316, electropolished, IP66

Number of installed devices

- 11.A04** 1 x RD0-FB-Ex4.COM ¹
- 20.A08** 2 x RD0-FB-Ex4.COM
- 30.A12** 3 x RD0-FB-Ex4.COM

Fieldbus type

1 Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Spur terminals

0 Spurs directly wired to RD0-FB-Ex4.COM

Trunk entries

Spur entries

- GP2** **GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2** **GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2** **GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2** **GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
- GA2** **GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
- H02** **H02** Stopping plug M20, polyamide, Ex e, IP66
- H03** **H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04** **H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

Surge protection Trunk

- 3** Surge protection for Trunk FS-LBF-D1.32 installed ¹
- 0** No surge protection

External terminator

- T** Fieldbus terminator FS-FT-Ex1.D.IEC installed ¹
- 0** No terminator installed

¹ In conjunction with version 11.A04 surge protection and external terminator are available on request.

F.FB0	.	S	.	1	.	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.FB1 Enclosure solution for R4D0-FB-IAxx.x

Enclosure material

- S** Stainless steel 316 electropolished, IP66
- P** Glass-fiber reinforced polyester, IP66

Installed device with number of outputs

- 14.A08** 1 x R4D0-FB-IA08.x
- 14.A10** 1 x R4D0-FB-IA10.x
- 14.A12** 1 x R4D0-FB-IA12.x

Fieldbus type

- 1** Suitable for FOUNDATION Fieldbus H1 and PROFIBUS PA

Terminals + trunk options

- 0** Screw terminals (R4D0-FB-IAxx.0)
- 3** Spring terminals (R4D0-FB-IAxx.1)
- 6** Screw terminals + multi function terminal (MFT) for trunk disconnection
- 8** Screw terminals + multi function terminal (MFT) for trunk disconnection + spare terminals
- A** Spring terminals + multi function terminal (MFT) for trunk disconnection
- C** Spring terminals + multi function terminal (MFT) for trunk disconnection + spare terminals

Trunk entries

Spur entries

- GP2** **GP2** Cable gland M20, polyamide
- GB2** **GB2** Cable gland M20, nickel plated brass
- GS2** **GS2** Cable gland M20, stainless steel
- GN2** **GN2** Cable gland M20, nickel plated brass for armored cable
- GA2** **GA2** Cable gland M20, stainless steel for armored cable
- H02** **H02** Stopping plug M20, polyamide
- H03** **H03** Stopping plug M20, nickel plated brass
- H04** **H04** Stopping plug M20, stainless steel

Tag plate

- A** Tag plate, traffolyte
- B** Tag plate, stainless steel
- 0** No tag plate

Grounding bar

- 0** No grounding bar installed

Surge protection

- 0** No surge protection
- 3** Surge protection on the trunk
- 5** Surge protection on spurs
- 7** Surge protection on spurs with diagnosis
- 8** Surge protection on the trunk and spurs
- A** Surge protection for trunk and spurs with diagnosis

Additional accessories

- 0** No additional accessories
- L** Enclosure Leakage Sensor
- D** Document pocket (A4)
- 5** Enclosure Leakage Sensor + document pocket (A4)

F.FB1	.	.	.	1	0	.	.
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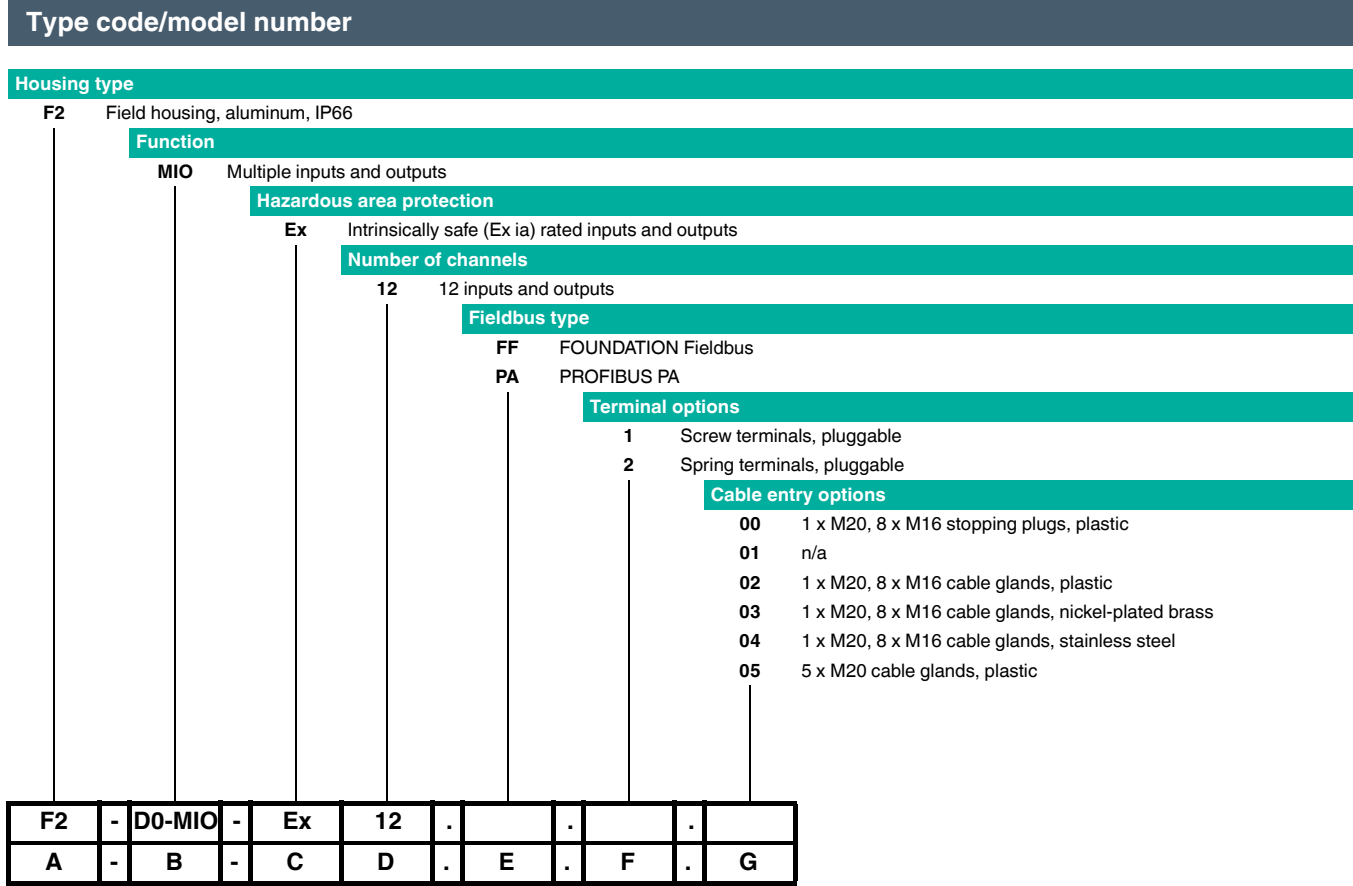
Enclosure Solutions for Process Interfaces

Cable glands

Cable gland versions

Type	Cable gland					Stopping plug		
	GP2	GB2	GS2	GN2	GA2	H02	H03	H04
Mechanical specifications								
Protection degree	IP66	IP66	IP66	IP66	IP66	IP66	IP66	IP66
Material	polyamide	nickel-plated brass	stainless steel	nickel plated brass	stainless steel	polyamide	nickel-plated brass	stainless steel
Thread	M20	M20	M20	M20	M20	M20	M20	M20
Inner sheath (mm)	–	–	–	7 ... 12	7 ... 12	–	–	–
Outer sheath (mm)	5.5 ... 13	3 ... 12	3 ... 12	10 ... 16	10 ... 16	–	–	–
Cable								
Suitable for armored cable	no	no	no	yes	yes	–	–	–
Data for application in conjunction with hazardous areas								
Type of protection	Ex e	Ex de	Ex de	Ex de	Ex de	Ex e	Ex de	Ex de

Enclosure Solutions for Foundation Fieldbus H1



Example:

F2D0-MIO-Ex12.FF.1.02: Multi-input/output in aluminum housing with cable glands made of plastic and 12 inputs/outputs with pluggable screw terminals.

Note:

Contact your Pepperl+Fuchs representative to check the availability of individual variants.

Type code/model number

Electronic type

F.MIO Enclosure solution for R8D0-MIO-Ex12.FF*

Enclosure material

S Stainless steel 316L, electropolished, IP66

Number of installed devices

12.A12 1 x R8D0-MIO-Ex12.FF* for installation in Zone 1

12.B12 1 x R8D0-MIO-Ex12.FF* for installation in Zone 2

Fieldbus type

F Suitable for FOUNDATION Fieldbus

Terminals

0 Screw terminals

3 Spring terminals

Bus line entries

Field signal line entries

- GP2** **GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2** **GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2** **GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2** **GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armored cable
- GA2** **GA2** Cable gland M20, stainless steel, Ex de, IP66, for armored cable
- H02** **H02** Stopping plug M20, polyamide, Ex e, IP66
- H03** **H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04** **H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

D Tag plate, stainless steel, 95 mm x 20 mm

C Tag plate, plastic, 95 mm x 20 mm

0 No tag plate

Grounding bar

2 With isolated grounding bar

1 With grounding bar connected to potential equalization

0 No grounding bar installed

F.MIO	.	S		.	F	0	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.MIO Enclosure solution for R8D0-MIO-Ex12.FF*

Enclosure material

P Glass fiber reinforced polyester, IP66

Number of installed devices

12.A12 1 x R8D0-MIO-Ex12.FF* for installation in Zone 1

12.B12 1 x R8D0-MIO-Ex12.FF* for installation in Zone 2

Fieldbus type

F Suitable for FOUNDATION Fieldbus

Terminals

0 Screw terminals

3 Spring terminals

Bus line entries

Field signal line entries

GP2 **GP2** Cable gland M20, polyamide, Ex e, IP66

GB2 **GB2** Cable gland M20, nickel plated brass, Ex e, IP66

GS2 **GS2** Cable gland, M20, stainless steel, Ex e, IP66

GN2 **GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armored cable

GA2 **GA2** Cable gland M20, stainless steel, Ex de, IP66, for armored cable

H02 **H02** Stopping plug M20, polyamide, Ex e, IP66

H03 **H03** Stopping plug M20, nickel plated brass, Ex de, IP66

H04 **H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

D Tag plate, stainless steel, 95 mm x 20 mm

C Tag plate, plastic, 95 mm x 20 mm

0 No tag plate

Grounding bar

2 With isolated grounding bar

1 With grounding bar connected to potential equalization

0 No grounding bar installed

F.MIO	.	P	.	F	0	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Type of housing

F2D0 Field housing, aluminum, IP67

Type of device

TI Temperature Multi-Input Device

Explosion protection method

Ex intrinsically safe

Number of inputs

8

Fieldbus type

FF FOUNDATION Fieldbus

Type of connection

- CG** Cable gland, plastic
- CGB** Cable gland, nickel plated brass
- CGS** Cable gland, stainless steel

Type of terminal

- ST** Screw terminals
- SC** Spring terminals

F2D0	-	TI	-	Ex	8	.	FF	.	.	.
A	-	B	-	C	D	.	E	.	F	G

Identification for assignment of the type code to the following tables

Example:

F2D0-TI-Ex8.FF.CGB.ST: Temperature Multi-Input Device in aluminum housing with cable glands made of nickel plated brass and 8 inputs with screw terminals

Note:

Contact your Pepperl+Fuchs representative to check the availability of individual variants.

Type code/model number

Electronic type

F.T10 Enclosure solution for RD0-TI-Ex8.FF.ST

Enclosure material

P Glass-fiber reinforced polyester, IP66

Number of installed devices

12.A08 1 x RD0-TI-Ex8.FF.ST for installation in Zone 1

12.B08 1 x RD0-TI-Ex8.FF.ST for installation in Zone 2

Fieldbus type

F Suitable for FOUNDATION Fieldbus H1

Spur terminals

0 Spurs directly wired to RD0-TI-Ex8.FF.ST

Bus line entries

Field signal line entries

GP2	GP2	Cable gland M20, polyamide, Ex e, IP66
GB2	GB2	Cable gland M20, nickel plated brass, Ex e, IP66
GS2	GS2	Cable gland, M20, stainless steel, Ex e, IP66
GN2	GN2	Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
GA2	GA2	Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
H02	H02	Stopping plug M20, polyamide, Ex e, IP66
H03	H03	Stopping plug M20, nickel plated brass, Ex de, IP66
H04	H04	Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

F.T10	.	P	.	F	.	0	0	.	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.TI0 Enclosure solution for RD0-TI-Ex8.FF.ST

Enclosure material

S Stainless steel 316, electropolished, IP66

Number of installed devices

12.A08 1 x RD0-TI-Ex8.FF.ST for installation in Zone 1

12.B08 1 x RD0-TI-Ex8.FF.ST for installation in Zone 2

Fieldbus type

F Suitable for FOUNDATION Fieldbus H1

Spur terminals

0 Spurs directly wired to RD0-TI-Ex8.FF.ST

Bus line entries

Field signal line entries

- GP2** **GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2** **GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2** **GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2** **GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
- GA2** **GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
- H02** **H02** Stopping plug M20, polyamide, Ex e, IP66
- H03** **H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04** **H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

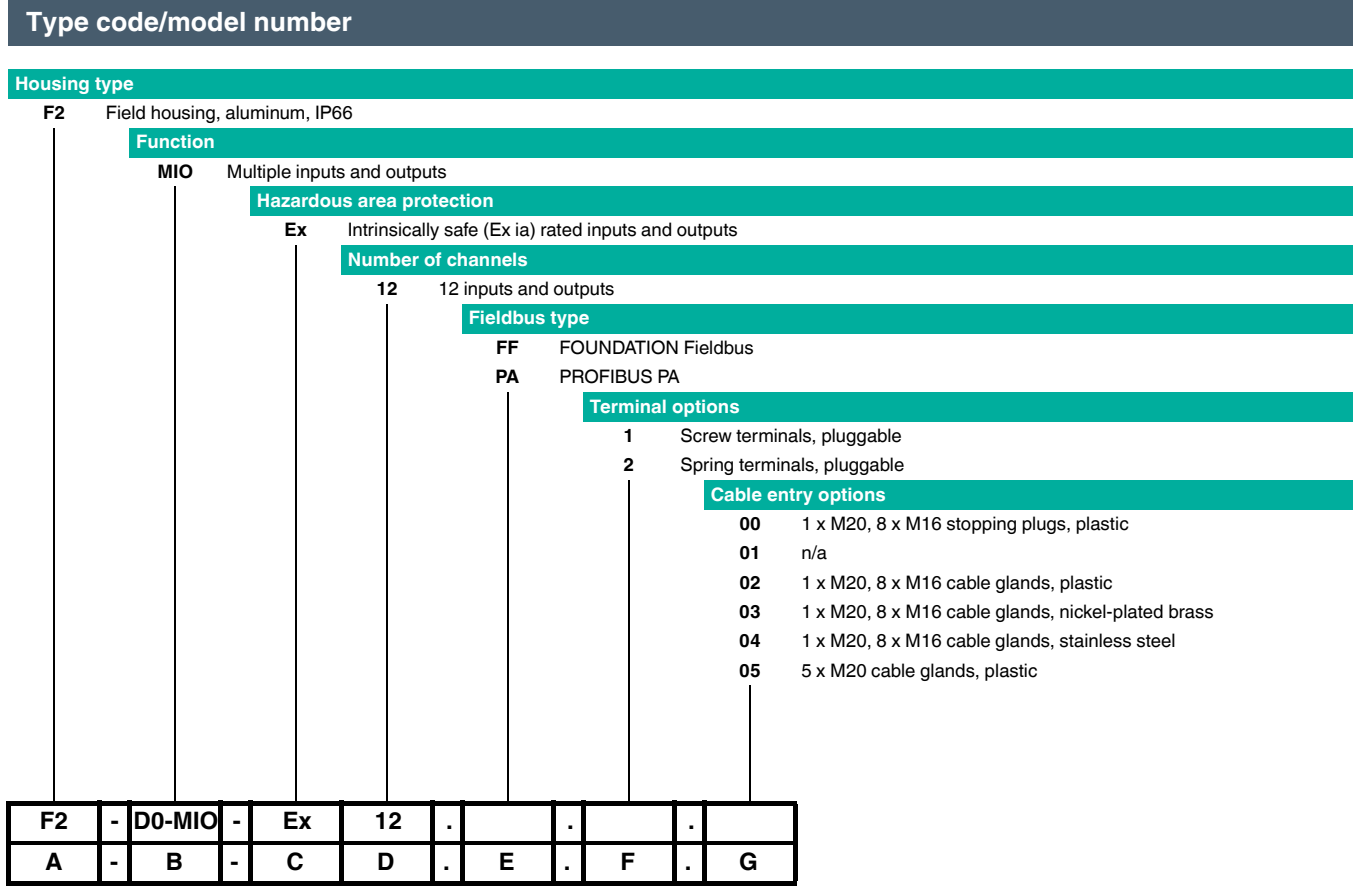
Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

F.TI0	.	S		.	F	.	0	0	0
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Predefined characters indicate pre-set attributes.

Enclosure Solutions for PROFIBUS PA



Example:

F2D0-MIO-Ex12.FF.1.02: Multi-input/output in aluminum housing with cable glands made of plastic and 12 inputs/outputs with pluggable screw terminals.

Note:

Contact your Pepperl+Fuchs representative to check the availability of individual variants.

Type code/model number

Electronic type												
F.MIO		Enclosure solution for R8D0-MIO-Ex12.PA*										
Enclosure material												
P		Glass fiber reinforced polyester, IP66										
Number of installed devices												
12.A12		1 x R8D0-MIO-Ex12.PA* for installation in Zone 1										
12.B12		1 x R8D0-MIO-Ex12.PA* for installation in Zone 2										
Fieldbus type												
P		Suitable for PROFIBUS PA										
Terminals												
0		Screw terminals										
3		Spring terminals										
Bus line entries												
Field signal line entries												
GP2		GP2		Cable gland M20, polyamide, Ex e, IP66								
GB2		GB2		Cable gland M20, nickel plated brass, Ex e, IP66								
GS2		GS2		Cable gland, M20, stainless steel, Ex e, IP66								
GN2		GN2		Cable gland M20, nickel plated brass, Ex de, IP66, for armored cable								
GA2		GA2		Cable gland M20, stainless steel, Ex de, IP66, for armored cable								
H02		H02		Stopping plug M20, polyamide, Ex e, IP66								
H03		H03		Stopping plug M20, nickel plated brass, Ex de, IP66								
H04		H04		Stopping plug M20, stainless steel, Ex de, IP66								
Tag plate												
D		Tag plate, stainless steel, 95 mm x 20 mm										
C		Tag plate, plastic, 95 mm x 20 mm										
0		No tag plate										
Grounding bar												
2		With isolated grounding bar										
1		With grounding bar connected to potential equalization										
0		No grounding bar installed										
F.MIO	.	P	.	P	.	.	.	.	.	.	.	0 0

Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.MIO Enclosure solution for R8D0-MIO-Ex12.PA*

Enclosure material

S Stainless steel 316L, electropolished, IP66

Number of installed devices

12.A12 1 x R8D0-MIO-Ex12.PA* for installation in Zone 1

12.B12 1 x R8D0-MIO-Ex12.PA* for installation in Zone 2

Fieldbus type

P Suitable for PROFIBUS PA

Terminals

0 Screw terminals

3 Spring terminals

Bus line entries

Field signal line entries

GP2 GP2 Cable gland M20, polyamide, Ex e, IP66

GB2 GB2 Cable gland M20, nickel plated brass, Ex e, IP66

GS2 GS2 Cable gland, M20, stainless steel, Ex e, IP66

GN2 GN2 Cable gland M20, nickel plated brass, Ex de, IP66, for armored cable

GA2 GA2 Cable gland M20, stainless steel, Ex de, IP66, for armored cable

H02 H02 Stopping plug M20, polyamide, Ex e, IP66

H03 H03 Stopping plug M20, nickel plated brass, Ex de, IP66

H04 H04 Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

D Tag plate, stainless steel, 95 mm x 20 mm

C Tag plate, plastic, 95 mm x 20 mm

0 No tag plate

Grounding bar

2 With isolated grounding bar

1 With grounding bar connected to potential equalization

0 No grounding bar installed

F.MIO	.	S	.	P	0	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Type of housing

F2D0 Field housing, aluminum, IP67

Type of device

TI Temperature Multi-Input Device

Explosion protection method

Ex intrinsically safe

Number of inputs

8

Fieldbus type

PA PROFIBUS PA

Type of connection

CG Cable gland, plastic

CGB Cable gland, nickel plated brass

CGS Cable gland, stainless steel

Type of terminal

ST Screw terminals

SC Spring terminals

F2D0	-	TI	-	Ex	8	.	PA	.	.	.
A	-	B	-	C	D	.	E	.	F	G

Identification for assignment of the type code to the following tables

Example:

F2D0-TI-Ex8.PA.CGB.ST: Temperature Multi-Input Device in aluminum housing with cable glands made of nickel plated brass and 8 inputs with screw terminals

Note:

Contact your Pepperl+Fuchs representative to check the availability of individual variants.

Type code/model number

Electronic type

F.T10 Enclosure solution for RD0-TI-Ex8.PA.ST

Enclosure material

S Stainless steel 316, electropolished, IP66

Number of installed devices

12.A08 1 x RD0-TI-Ex8.PA.ST for installation in Zone 1

12.B08 1 x RD0-TI-Ex8.PA.ST for installation in Zone 2

Fieldbus type

P Suitable for PROFIBUS PA

Spur terminals

0 Spurs directly wired to RD0-TI-Ex8.PA.ST

Bus line entries

Field signal line entries

- GP2 GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2 GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2 GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2 GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
- GA2 GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
- H02 H02** Stopping plug M20, polyamide, Ex e, IP66
- H03 H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04 H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

F.T10	.	S		.	P	.	0	0	0
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Predefined characters indicate pre-set attributes.

Type code/model number

Electronic type

F.TI0 Enclosure solution for RD0-TI-Ex8.PA.ST

Enclosure material

P Glass-fiber reinforced polyester, IP66

Number of installed devices

12.A08 1 x RD0-TI-Ex8.PA.ST for installation in Zone 1

12.B08 1 x RD0-TI-Ex8.PA.ST for installation in Zone 2

Fieldbus type

P Suitable for PROFIBUS PA

Spur terminals

0 Spurs directly wired to RD0-TI-Ex8.PA.ST

Bus line entries

Field signal line entries

- GP2 GP2** Cable gland M20, polyamide, Ex e, IP66
- GB2 GB2** Cable gland M20, nickel plated brass, Ex e, IP66
- GS2 GS2** Cable gland, M20, stainless steel, Ex e, IP66
- GN2 GN2** Cable gland M20, nickel plated brass, Ex de, IP66, for armoured cable
- GA2 GA2** Cable gland M20, stainless steel, Ex de, IP66, for armoured cable
- H02 H02** Stopping plug M20, polyamide, Ex e, IP66
- H03 H03** Stopping plug M20, nickel plated brass, Ex de, IP66
- H04 H04** Stopping plug M20, stainless steel, Ex de, IP66

Tag plate

- A** Tag plate, traffolyte, 120 x 30 mm
- B** Tag plate, stainless steel, 120 x 30 mm
- 0** No tag plate

Grounding bar

- 1** Grounding bar 10 x 3 mm, equipped with grounding terminals
- 0** No grounding bar installed

F.TI0	.	P		.	P	.	0		0	0
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Predefined characters indicate pre-set attributes.

Your automation, our passion.

Explosion Protection

- Intrinsic Safety Barriers
- Signal Conditioners
- FieldConnex® Fieldbus
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- Mobile Computing and Communications
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- Surge Protection
- Wireless Solutions
- Level Measurement

Industrial Sensors

- Proximity Sensors
- Photoelectric Sensors
- Industrial Vision
- Ultrasonic Sensors
- Rotary Encoders
- Positioning Systems
- Inclination and Acceleration Sensors
- Fieldbus Modules
- AS-Interface
- Identification Systems
- Displays and Signal Processing
- Connectivity