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About

This document provides users of the CAN-PN product assistance to migrate to its successor CAN-PN/2.

Affected Products

Old Device	PLM Status	Recommended Successor Device	PLM Status
 <p>CAN-PN (Article No.: C.2920.02)</p>	End of life (EOL ^[1])	 <p>CAN-PN/2 (Article No.: C.2924.02)</p>	Available (VERF ^[1])

Background and Information

The CAN to PROFINET IO gateway CAN-PN (C.2920.02) is at end of life. It is replaced by its successor CAN-PN/2 (C.2924.02). The new device type is designed as a direct replacement so that it can be used in most installations without any changes to the existing configuration or systems. In addition to several stability and performance improvements, new features have been added. A new GSDML configuration file for the CAN-PN/2 is only required to take advantage of the new features; if used as a replacement product, the existing CAN-PN GSDML configuration file can continue to be used.

Technical Differences

The following table lists the main differences between the CAN-PN and the CAN-PN/2.

Device Property	CAN-PN	CAN-PN/2
Max. input data on PROFINET bus	256 Bytes	1440 Bytes
Max. output data on PROFINET bus	256 Bytes	1440 Bytes
Live CAN bus monitoring via USB	No	Yes
USB connector	Standard-B (not used)	Mini-B

Contact for Questions

Technical Support Mail: support@esd.eu
Sales Mail: sales@esd.eu

Tel.: +49 (0) 511 37298-130
 Tel.: +49 (0) 511 37298-0

CAN-PN to CAN-PN/2 Migration Guide

LED Blinking Codes

The blinking codes and labels of the LEDs differ between the CAN-PN and CAN-PN/2. Please refer to chapter 1.5 of the CAN-PN/2 Manual and chapter 2.2 of the CAN-PN Hardware Manual for the list of codes. [2]

LED Property / Function	CAN-PN				CAN-PN/2			
	F	E	P	C	R	E	CON	PWR
Colors and labels	Identification	PROFINET IO link status	Firmware booted	CAN bus status	CAN Bus Status	Configuration Error	PROFINET IO Connect	Power
PROFINET Identification	F				CON (blinking)			
PROFINET IO Link Status	E				CON (on/off)			
Module Power Status (Firmware booted)	P				PWR			
CAN Bus Status	C				R			
Configuration Error	not displayed				E			
CAN blinking codes	Morse-coded				Code-table			

GSDML Files

The CAN-PN/2 gateway is supplied with a new suitable GSDML file. However, the CAN-PN/2 also works with the GSDML file of the CAN-PN. The use of the new GSDML file is mandatory to use the new functions.

	CAN-PN	CAN-PN/2
CAN-PN GSDML	natively supported	compatible
CAN-PN/2 GSDML	not compatible	natively supported

When using the CAN-PN/2, it is recommended to use the new GSDML file supplied in order to be able to use the full range of functions. Cross-use of the new CAN-PN/2 with a GSDML file of the CAN-PN should only be used as a direct replacement in existing systems.

Necessary Changes in Application

No changes to the application or the existing system are required to use CAN-PN/2 instead of CAN-PN. If you have any further questions, please do not hesitate to contact us.

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New Functions of the CAN-PN/2

New CAN Bus Error Management

With the CAN-PN, an error on the CAN bus triggers a PROFINET alarm. With the CAN-PN/2, you can configure whether and at which CAN status an alarm should be triggered. Alternatively, the CAN status can also be queried via the cyclical data and handled directly in the user application.

New CAN Bus Diagnostics

The CAN-PN/2 supports modules for reading the CAN bus load, the RX and TX counters and the CAN bus status. Furthermore, the device enables the CAN bus to be monitored via the USB port using familiar tools such as CANreal^[3].

Enhanced CAN Frame Handling

The CAN-PN/2 displays not only the data of the last CAN frame received, it also supplements this with a counter and a timestamp so that changes can be easily identified. The device also supports filtering with ID masks if only parts of the ID are static.

New static CAN frame modules

The CAN-PN/2 allows the user to configure CAN frames with a static ID and data that are sent at predefined times, e.g. when the PLC switches to the RUN state or the PROFINET connection is interrupted.

New RX- and TX-FIFO modules

The CAN-PN/2 enables the use of RX and TX FIFOs, which can be used for the easy exchange of CAN frames.

Links

[1] <https://esd.eu/en/support/product-lifecycle-management>

[2] <https://esd.eu/en/support/manuals>

[3] <https://esd.eu/en/products/canreal>

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Document History

Rev.	Changes	Date
1.0	Initial version of the application note	2024-08-09

Technical details are subject to change without further notice.

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