

dametric 

IPN-DM1 IPN-DM2

GMS Industrial Profinet Modules



1 General

The IPN-DM1/IPN-DM2 are communication modules for data interchange between the Profinet IO and a CAN-bus. IPN-DM1 are used together with refiners equipped with TDC or AGS sensors. IPN-DM2 are used for LC or board type refiners. They have the same specifications but are preloaded with different software.

2 Document revision

2018-08-28/BL Created.

2019-11-20/BL Added IPN-DM2.

3 Article number

<i>Unit</i>	<i>SKC</i>	<i>Valmet</i>
IPN-DM1	SKC2594461	VAL0403124
IPN-DM2		VAL0430916

4 Technical Specification

Size	120 * 75 * 27 mm
Power supply	24VDC, +/- 10%
Power consumption	150 mA typ.
Temperature range	-25 till 55 °C
Data area	In 512 byte Out 512 byte
Enclosure	IP20
CAN standard	2.0B
CAN data rate	250 kbit/s
Profinet data rate	100 Mbit/s

5 Software

The unit contains dedicated software to control the data interchange between the IPN unit and the used GMS system from Dametric.

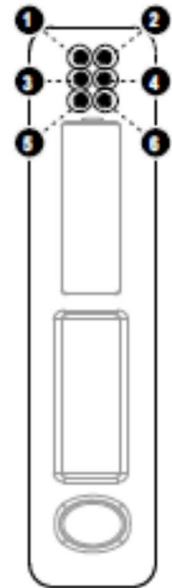
<i>Module</i>	<i>Version</i>	<i>GMS-system</i>	<i>Refiner</i>
IPN-DM1	R100-V12	GMS-V11	RF5
IPN-DM1		GMS-V12	RGP-268.
IPN-DM1	R101-V1A01	GMS-V1A01	RGP-268
IPN-DM1	R102-V1A02	GMS-V1A02	RGP-268, RGP-CD82
IPN-DM2	R100-V1X01	GMS-V1X01	EVO, LC

The software generates CAN-messages to the GMS units and writes the appropriate information at dedicated addresses for the Profinet. A separate document specifies the data and addresses.

6 Status leds

The 6 status led indicates the status of the communication.

Led	Color	Status
1 Communication status	Off	Offline - No contact with IO master
	Green	Online, Run - Contact with IO master - IO master in RUN mode
	Green single flash	Online, Stop - Contact with IO master - IO master in STOP mode
2 Module status	Off	No power supply or no configuration
	Green	Initiated, no error
	Green single flash	Diagnostic data available
	Green double flash	Used for development
	Red single flash	Configuration error - To many modules/sub modules - I/O size or configuration error
	Red triple flash	No station name or no assigned IP address
3 Link/ Activity	Off	No link set-up
	Green	Link ok
	Green short flash	Ongoing signal package transfer
4	Not used	
5 CAN- Subnet status	Off	No power supply/no CAN-communication
	Green	Working without transaction or time error
	Green flash	Not all transactions have been executed at least once since start or transaction error or time error
	Red flash	Transaction error/time error or stopped CAN-net
	Red	Fatal error
6 Unit status	Off	No power supply
	Green/red flash	Faulty or missing configuration
	Green	Working in active mode
	Green flash	Working in idle mode
	Red	Fatal error

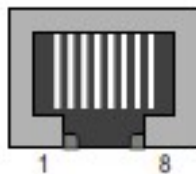


7 Connection

7.1 Profinet IO

8-pole RJ-45 connector for the Ethernet cable.

Pin	Description
1	TD+
2	TD-
3	RD+
4,5,6,7	Connect to ground
6	RD-
Cover	Cable shield



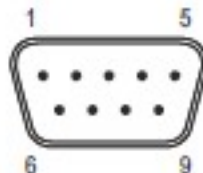
7.2 USB

This connector is only used during program load/update.

7.3 CAN

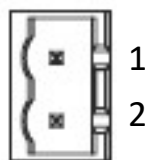
9-pole D-sub connector with screw plinths

Pin	Description
2	CANL
5	Closure (do not connect)
7	CANH
1,4,8,9	Not used
3,6	CAN GND (do not connect)



7.4 Power supply

Pin	Description
1	+24VDC
2	GND

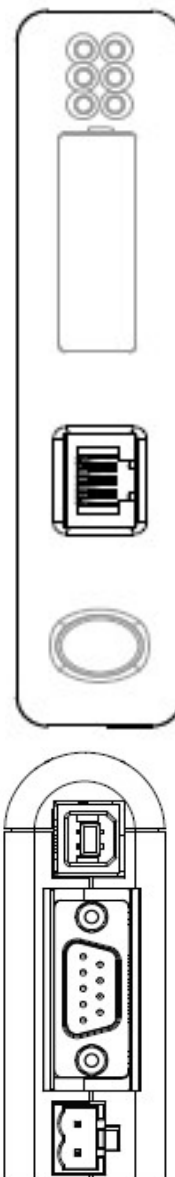


Profinet IO -->

USB -->

CAN -->

24VDC -->



8 Contact

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