

PROFINET®

**PROFINET®
Fieldbus Interface
for Infranor® drives**

WARNING

This is a specific manual describing the PROFINET® fieldbus interface of INFRANOR® drives.

It must be used in conjunction with the Installation, User and Programming manuals of the corresponding drives.

Instructions for storage, use after storage, commissioning as well as all technical details require the MANDATORY reading of the manual before getting the amplifiers operational.

Maintenance procedures should be attempted only by highly skilled technicians having good knowledge of electronics and servo systems with variable speed (EN 60204-1 standard) and using proper test equipment.

The conformity with the standards and the "CE" approval is only valid if the items are installed according to the recommendations of the amplifier manuals. Connections are the user's responsibility if recommendations and drawings requirements are not met.



Any contact with electrical parts, even after power down, may involve physical damage. Wait for at least 5 minutes after power down before handling the amplifiers (a residual voltage of several hundreds of volts may remain during a few minutes).

**ESD INFORMATION (ElectroStatic Discharge)**

INFRANOR amplifiers are conceived to be best protected against electrostatic discharges. However, some components are particularly sensitive and may be damaged if the amplifiers are not properly stored and handled.

STORAGE

- The amplifiers must be stored in their original package.
- When taken out of their package, they must be stored positioned on one of their flat metal surfaces and on a dissipating or electrostatically neutral support.
- Avoid any contact between the amplifier connectors and material with electrostatic potential (plastic film, polyester, carpet...).

HANDLING

- If no protection equipment is available (dissipating shoes or bracelets), the amplifiers must be handled via their metal housing.
- Never get in contact with the connectors.

**ELIMINATION**

In order to comply with the 2002/96/EC directive of the European Parliament and of the Council of 27 January 2003 on waste electrical and electronic equipment (WEEE), all INFRANOR® devices have got a sticker symbolizing a crossed-out wheel dustbin as shown in Appendix IV of the 2002/96/EC Directive.

This symbol indicates that INFRANOR® devices must be eliminated by selective disposal and not with standard waste.

INFRANOR does not assume any responsibility for any physical or material damage due to improper handling or wrong descriptions of the ordered items.

Any intervention on the items, which is not specified in the manual, will immediately cancel the warranty.

INFRANOR reserves the right to change any information contained in this manual without notice.

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GLOSSARY

Acronym	Description
GDS	Gem Drive Studio
PNU	Parameter NUmber
RT	Real Time
IRT	Isochronous Real Time
STX	PROFIdrive® Standard Telegram n°X
N/A	Non-Applicable

Table 1: Glossary

CHAPTER 1 - INTRODUCTION

1.1 - REFERENCE DOCUMENTS

Id	Description	Document name	Rev.
[RD1]	Installation guide of Infranor® XtrapulsPacHP™ drives	XtrapulsPacHP Installation	1.3
[RD2]	User guide of Infranor® XtrapulsPacHP™ drives	XtrapulsPacHP User Manual	1.2.8.50
[RD3]	Technical specification of the drive profile "PROFIdrive®"	PROFIdrive_3172_V42_Oct15	4.2

Table 2: Reference documents

1.2 - PURPOSE

The purpose of this manual is to provide the user with a support when designing an application and configuring a PROFINET®¹ communication.

This manual describes only the setting and the behaviour of the PROFINET® interface of the Infranor® drives. Information about the general behaviour of the drive are available in [RD1] and [RD2].

The PROFINET® fieldbus interface allows the Infranor drives to be used in a PROFINET® communication network using the drive profile PROFIdrive®² v4.2 (information of this drive profile are available in [RD3]).

In this manual, the PROFINET® slave is supposed to be an XtrapulsPacHP™-pn drive from Infranor®.

IMPORTANT NOTE : This user's manual revision is applicable for XtrapulsPacHP™-pn drives that include at least the 1.2.10.44 DSP firmware release and 0.2.10.14 NetX firmware.

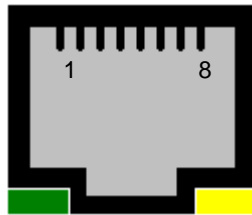
¹ PROFINET® is a registered trademark and patented technology, licensed by PROFIBUS® and PROFINET® International (PI), Germany.

² PROFIdrive® is a registered trademark and patented technology, licensed by PROFIBUS® and PROFINET® International (PI), Germany.

CHAPTER 2 - CONNECTIONS

2.1 - FIELDBUS CONNECTORS

A PROFINET® network uses standard Ethernet® wires with at least category 5e quality equipped with two RJ45 connectors. Maximum cable length should be 100 m. The following table indicates the pin functions and the wire colors (see T 568-B standard for more information).



Picture 1: RJ45 connector

Pin	T568-B Color	Signal
1	White/Orange stripe	Tx Data+
2	Orange solid	Tx Data-
3	White/Green stripe	Rx Data+
4	Blue solid	Not used
5	White/Blue stripe	Not used
6	Green solid	Rx Data-
7	White/Brown stripe	Not used
8	Brown solid	Not used

Table 3: RJ45 wiring

On the XtrapulsPacHP™ drive, the PROFINET® fieldbus connectors X6 and X7 are RJ45 with LED connectors and are located on the drive front panel.



Picture 2: X6 and X7 connectors location

2.1.1 - RJ45 connector #1 (X6)

Pin	Signal	Description
1	Tx Data+	Differential signals
2	Tx Data-	
3	Rx Data+	Differential signals
6	Rx Data-	
Others		Reserved

Table 4: X6 connector wiring

2.1.2 - RJ45 connector #2 (X7)

Pin	Signal	Description
1	Tx Data+	Differential signals
2	Tx Data-	
3	Rx Data+	Differential signals
6	Rx Data-	
Others		Reserved

Table 5: X7 connector wiring

NOTE: On each Infranor® PROFINET® slave, the incoming and outgoing cables can be indifferently connected to X6 or X7.

2.2 - LOCAL SETTINGS CONNECTORS

Infranor® PROFINET® drives include several connectors used for the local settings (connecting a PC directly to the drive) that must be realized by using the Gem Drive Studio (GDS) software tool.

2.2.1 - USB connector (X5)

A USB connector allowing the setting access by GDS is available on the drive front panel.



Picture 3: X5 connector location

2.2.2 - RS232 and CANopen connector (X5-a)

In addition to X5, a Sub-D9 male connector, including RS232 and CANopen connections, is available on the top of the drive as shown below:



Picture 4: X5-a connector location

The wiring of this connector is the following:

Pin	Signal	Description
5	GND	GND (shield connection if no 360° connection on the connector). 360° shield is strongly recommended.
3	TxD	Transmit data RS-232
2	RxD	Receive data RS-232
1	CAN-H	Line CAN-H (dominant high)
9	CAN-L	Line CAN-L (dominant low)
Others	N/A	Reserved

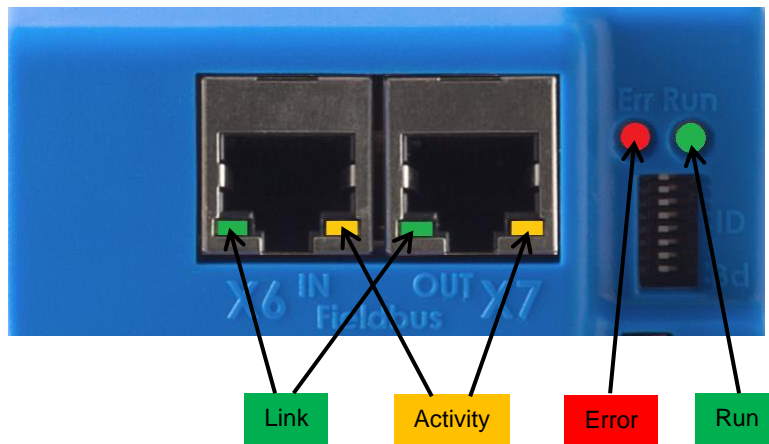
Table 6: CANopen and RS232 connector wiring

NOTE: CANopen connection can be used to control the drive by using the DS402 profile as described in [RD2]. In this case, take care to disconnect the PROFINET® fieldbus.

CHAPTER 3 - DISPLAY

3.1 - INDICATORS

Six LEDs are available on the front panel for quick diagnosis purposes.



Picture 5: LED indicators location

3.1.1 - Link/Activity indicators

Four LEDs are integrated in RJ-45 sockets to inform the user about the fieldbus link and activity. These LEDs include the following behaviour:

Label	Color	Function	Coding
Link	Green	No link on the corresponding Ethernet® port	OFF
		Link present on the corresponding Ethernet® port	ON
Activity	Yellow	No Tx/Rx activity on the corresponding Ethernet® port	OFF
		Tx/Rx activity present on the corresponding Ethernet® port	Flickering

Table 7: Link/Activity of the LEDs coding

3.1.2 - Run indicator

Another green LED on the front panel provides information about the drive and the PROFINET® fieldbus state as described in the table below:

Label	Color	Function	Coding
Run	Green	Booting error (Firmware does not start correctly)	ON or OFF
		PROFINET® Bus Failure: No TCP/IP link	Four flashes
		Only TCP/IP link runs correctly	Two flashes
		PROFINET® communication is running	One flash

Table 8: Run LED coding

3.1.3 - Error indicator

One red LED indicates the drive errors and warnings status with the behaviour described below:

Label	Color	Function	Coding
Error	Red	No error	OFF
		Warning detection	Four flashes
		No critical error detection	Two flashes
		Undervoltage error	One flash
		PROFINETNET® System Failure	ON

Table 9: Error LED coding

3.2 - PROFINET® BLINKING FUNCTION

When the PROFINET® blinking function is activated by the user via a PROFINET® master, the two Run and Error LEDs are simultaneously blinking.

After the PROFINET® blinking function activation, both Run and Error indicators recover their behaviours described in § 3.1.2 and § 3.1.3.

CHAPTER 4 - ADDRESSING MODE

On a PROFINET® network, the master does not use the addressing method to communicate with slaves. However, the XtrapulsPacHP™-pn drive includes a Node-Id selector allowing the communication with GDS as described in [RD2].



Picture 6: Node-Id selector location

NOTE #1: The Node-Id selector (6 first switches) must be used also if a CANopen communication for controlling the drive by the DS402 profile is wanted.

NOTE #2: Below the Node-Id selector, a baudrate selector (2 last switches) is also available. See [RD2] for more details.

CHAPTER 5 - BASIC INFORMATION ABOUT PROFINET® AND PROFIDRIVE®

5.1 - PROFINET® AND PROFIDRIVE® SUPPORTED FUNCTIONS

5.1.1 - PROFINET®

Infranor® drives support the PROFINET® functionalities described below:

Function	Level
Communication class	RT_Class_1
Redundancy class	Class 1
Conformance class	CC-B

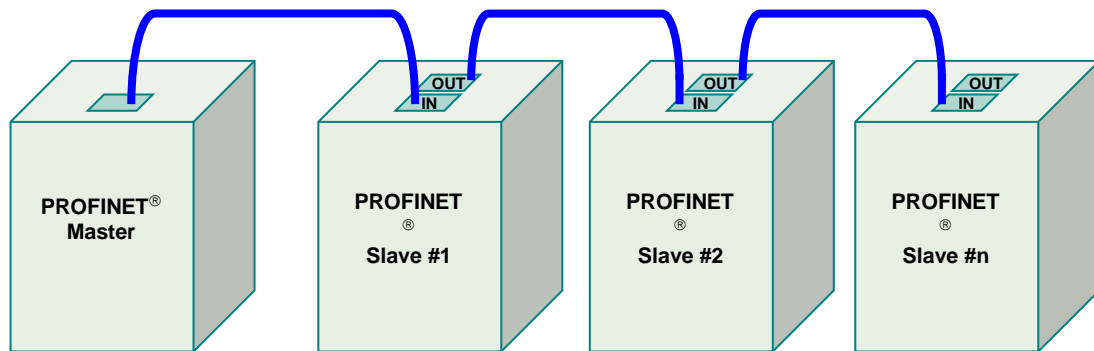
Table 10: PROFINET® supported functions

5.1.2 - PROFIdrive®

Infranor® drives support the standard PROFIdrive® telegrams ST7, ST3 and ST8 (more details are available in § 5.5).

5.2 - PROFINET® FIELDBUS TOPOLOGY

In motion control applications, PROFINET® slaves are connected together. The physical layer technology used by the PROFINET® fieldbus is 100BASE-TX. The PROFINET® master is connected at one end of the line.



Picture 7: PROFINET® topology

RJ-45 sockets on PROFINET® slaves are labelled "X6" and "X7". The PROFINET® master should be connected to the first PROFINET® slave using one RJ-45 socket of the PROFINET® slave.

5.3 - PROFINET® AND PROFIDRIVE® ARCHITECTURE OF INFRANOR™ DRIVES

To communicate with Infranor® PROFINET® drives, please consider the following:

- Data are contained in Slot 1 / Sub-slot 2;
- The PROFIdrive® access index for local data is 0xB02E;
- The PROFIdrive® access index for global data is 0xB02F.

5.4 - ACYCLIC COMMUNICATION

With PROFINET®, acyclic communication is used for slave settings. Settings are made by reading and writing objects named PNUs.

The PROFIdrive® specification ([RD3]) lists some mandatory and optional PNUs. The table below indicates PNUs supported by Infranor® drives. All details of these PNUs are available in [RD3].

PROFIdrive® PNUs	Description
922	Telegram selection
930	Operating mode
944	Fault message counter
947	Fault number
951	Fault number list with text
952	Fault situation counter
964	Drive Unit identification
965	Profile identification number
975	DO identification
979	Sensor format
980 to 989	Number list of defined parameters (length = 120)
60000	Velocity reference value
61000	Drive name
61001	IP address
61002	MAC address
61003	Gateway address
61004	Network mask

Table 11: Supported standard PNUs

Historically, Infranor® drives use DS402 objects for the settings. All DS402 objects available for drive settings are detailed in [RD2]

In appendix 1, the mapping allowing the access to DS402 objects through manufacturer specific PROFIdrive® PNUs is described. All PNUs described in this appendix are available **only** by using a local data access (see §5.3).

NOTE: DS402 objects which are not mentioned in the appendix tables may be accessed **only** via local settings using GDS.

5.5 - CYCLIC COMMUNICATION

Infranor® drives support the standard PROFIdrive® telegrams:

- ST7 (application class 3);
- ST3 and ST8 (application class 4/5 without IRT).

However, several objects (detailed below) of these telegrams are not supported by Infranor® drives:

- ZSW2;
- G1_ZSW;
- STW2;
- G1_STW.

Furthermore, the following table detailed bits supported by Infranor® drives on STW1 (Control Word 1) object:

Bit	Speed control mode (ST3)	Positioning mode (ST8)	Supported by Infranor®
0	ON / OFF		Yes
1	No Coast Stop / Coast Stop (no OFF2 / OFF 2)		Yes
2	No Quick Stop / Quick Stop (no OFF3 / OFF 3)		Yes
3	Enable Operation / Disable Operation		Yes
4	Enable Ramp Generator / Reset Ramp Generator	Do Not Reject Traversing Task / Reject Traversing Task	Yes
5	Unfreeze Ramp Generator / Freeze Ramp Generator	No Intermediate Stop / Intermediate Stop	Yes
6	Enable Setpoint/Disable Setpoint	Activate Traversing Task (0 -> 1)	Yes
7	Fault Acknowledge (0 -> 1)		Yes
8	Jog 1 ON / Jog 1 OFF (optional)		No
9	Jog 2 ON / Jog 2 OFF (optional)		No
10	Control By PLC/No Control By PLC		Yes
11	Device-specific	Start Homing Procedure / Stop Homing Procedure	Yes
12	Device-specific		No
13	Device-specific		No
14	Device-specific		No
15	Device-specific: Bypass standard telegram / No bypass standard telegram (When activated, all data contained in setpoint of a standard telegram are not taken into account by the drive. The drive is then controlled by PNUs)		Yes

NOTE: The meaning for bit value = 1 is on the left of the slash; bit value = 0 is on the right.

Table 12: STW1 support

5.5.1 – Homing

The “Homing” function is available only with ST8.

Before the activation of bit 11 of STW1 to start the homing procedure, it is necessary to set the wanted homing procedure (more details are available in [RD2]).

5.5.2 – Standard Telegram 7 (Sequence mode)

ST7 allows controlling the sequence mode of the Infranor® drives.

Before using ST7, it is necessary to:

- Set the sequence mode in the “0x6060, 0x00” DS402 object (more details available in [RD2]);
- Set the wanted sequences by using the sequence editor of GDS (more details available in [RD2]).

The ST7 specific data are:

- SATZANW: this value defines the sequence number to run when a rising edge is detected on the STW1 bit 6;
- AKTSATZ: this value defines the running sequence number. When no sequence is currently executed, this value is 0xFFFF.

5.6 – ERROR MANAGEMENT

5.6.1 – PROFIdrive® errors

The error management of the Infranor® drives is totally compliant with the PROFIdrive® technical specification ([RD3]).

The table below describes the mapping between Infranor® drives errors (see [RD2]) and PROFIdrive® errors (see [RD3]).

Infranor® drives error number	PROFIdrive® error number (see [RD3])
32	01
3	02
2	03
6	04
17, 18, 28	05
11, 26	06
8	07
37	08
-	09
5, 56	10
19, 20, 21, 22, 23, 24, 25, 59, 61, 62	11
7, 30	12
-	13
4	14
-	15
-	16
-	17
-	18
-	19
13	20

Table 13: Mapping between Infranor® drives errors and PROFIdrive® error

5.6.2 – Specific warnings and errors

The “0x3024, 0x00” DS402 object of an Infranor® drive may indicate the following specific warning:

- 14: If the FW releases of the CPUs are not compatible but may work without any risk.

The “0x3022, 0x01” and “0x3022,0x02” DS402 objects of an Infranor® drive may indicate the following specific errors:

- 46: If the communication between the Motion CPU and the communication CPU shows errors;
- 47: If the PROFINET communication is lost;
- 48: If the communication between the Motion CPU and the communication CPU is broken;
- 53: If the FW releases of the CPUs are not compatible and cannot work together.

APPENDIX - MAPPING BETWEEN DS402 OBJECTS AND PROFINET® PNUS

0x1000 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x1000, 0x00	0x1000
0x1005, 0x00	0x1012
0x1006, 0x00	0x1013
0x1008, 0x00	0x1015
0x1009, 0x00	0x1016
0x100A, 0x00	0x1017
0x1010, 0x01	0x101A
0x1011, 0x01	0x101B
0x1018, 0x04	0x1022
0x1400, 0x01	0x1400
0x1400, 0x02	0x1401
0x1401, 0x01	0x1402
0x1401, 0x02	0x1403
0x1402, 0x01	0x1404
0x1402, 0x02	0x1405
0x1403, 0x01	0x1406
0x1403, 0x02	0x1407
0x1600, 0x01	0x1600
0x1600, 0x02	0x1601
0x1600, 0x03	0x1602
0x1600, 0x04	0x1603
0x1601, 0x01	0x1604
0x1601, 0x02	0x1605
0x1601, 0x03	0x1606
0x1601, 0x04	0x1607
0x1602, 0x01	0x1608
0x1602, 0x02	0x1609
0x1602, 0x03	0x160A
0x1602, 0x04	0x160B
0x1603, 0x01	0x160C
0x1603, 0x02	0x160D
0x1603, 0x03	0x160E
0x1603, 0x04	0x160F
0x1800, 0x01	0x1800
0x1800, 0x02	0x1801
0x1801, 0x01	0x1805

DS402 Object (Index, SubIndex)	PROFdrive® Manufacturer- specific PNUs
0x1801, 0x02	0x1806
0x1802, 0x01	0x180A
0x1802, 0x02	0x180B
0x1803, 0x01	0x180F
0x1803, 0x02	0x1810
0x1A00, 0x01	0x1A00
0x1A00, 0x02	0x1A01
0x1A00, 0x03	0x1A02
0x1A00, 0x04	0x1A03
0x1A01, 0x01	0x1A04
0x1A01, 0x02	0x1A05
0x1A01, 0x03	0x1A06
0x1A01, 0x04	0x1A07
0x1A02, 0x01	0x1A08
0x1A02, 0x02	0x1A09
0x1A02, 0x03	0x1A0A
0x1A02, 0x04	0x1A0B
0x1A03, 0x01	0x1A0C
0x1A03, 0x02	0x1A0D
0x1A03, 0x03	0x1A0E
0x1A03, 0x04	0x1A0F

0x2000 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x2000, 0x00	0x2000
0x2001, 0x00	0x2001

0x2300 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x2300, 0x01	0x2300
0x2300, 0x02	0x2301
0x2300, 0x03	0x2302
0x2300, 0x04	0x2303
0x2301, 0x00	0x2304

0x3000 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3022, 0x01	0x300D
0x3022, 0x02	0x300E
0x3022, 0x03	0x300F
0x3023, 0x01	0x3010
0x3023, 0x02	0x3011
0x3023, 0x03	0x3012
0x3023, 0x04	0x3013
0x3024, 0x00	0x3014
0x3025, 0x01	0x3015
0x3025, 0x02	0x3016
0x3025, 0x03	0x3017
0x3025, 0x04	0x3018
0x3025, 0x05	0x3019
0x3025, 0x06	0x301A
0x3025, 0x07	0x301B
0x3025, 0x08	0x301C
0x3041, 0x01	0x301E
0x3041, 0x02	0x301F
0x3041, 0x03	0x3020
0x3041, 0x04	0x3021
0x3041, 0x05	0x3022
0x3041, 0x06	0x3023
0x3043, 0x01	0x3026
0x3043, 0x02	0x3027
0x3043, 0x03	0x3028
0x3044, 0x01	0x3029
0x3044, 0x02	0x302A
0x3045, 0x01	0x302B
0x3045, 0x02	0x302C
0x304F, 0x00	0x302D
0x3050, 0x01	0x302E
0x3050, 0x02	0x302F
0x3050, 0x03	0x3030
0x3050, 0x04	0x3031
0x3050, 0x05	0x3032
0x3050, 0x06	0x3033
0x3050, 0x07	0x3034
0x3050, 0x08	0x3035
0x3050, 0x09	0x3036
0x3050, 0x0A	0x3037

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3050, 0x0B	0x3038
0x3050, 0x0C	0x3039
0x3051, 0x00	0x303A
0x3054, 0x01	0x303B
0x3054, 0x02	0x303C
0x3054, 0x03	0x303D
0x3054, 0x04	0x303E
0x3054, 0x05	0x303F
0x3054, 0x06	0x3040
0x3054, 0x07	0x3041
0x3054, 0x08	0x3042
0x3055, 0x00	0x3043
0x3058, 0x01	0x3044
0x3058, 0x02	0x3045
0x3058, 0x03	0x3046
0x3058, 0x04	0x3047
0x3059, 0x01	0x3048
0x3059, 0x02	0x3049
0x3059, 0x03	0x304A
0x305A, 0x00	0x304B
0x3065, 0x00	0x304C
0x3069, 0x00	0x304D
0x306A, 0x00	0x304E
0x306B, 0x00	0x304F
0x306C, 0x00	0x3050
0x306D, 0x00	0x3051
0x306E, 0x00	0x3052
0x3070, 0x00	0x3053
0x3071, 0x00	0x3054
0x3077, 0x00	0x3056
0x3078, 0x00	0x3057
0x3079, 0x00	0x3058
0x307B, 0x00	0x3059
0x3081, 0x00	0x305A
0x3082, 0x00	0x305B
0x3083, 0x00	0x305C
0x3089, 0x00	0x305D
0x308A, 0x00	0x305E
0x309C, 0x00	0x3060
0x309D, 0x00	0x3061
0x30A1, 0x01	0x3062

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x30A1, 0x02	0x3063
0x30A1, 0x03	0x3064
0x30A1, 0x04	0x3065
0x30A2, 0x01	0x3066
0x30A2, 0x02	0x3067
0x30A2, 0x03	0x3068
0x30A2, 0x04	0x3069
0x30B1, 0x00	0x306B
0x30B2, 0x00	0x306C
0x30B3, 0x00	0x306D
0x30C1, 0x00	0x3070
0x30D1, 0x00	0x3073
0x30D2, 0x00	0x3074
0x30D4, 0x00	0x3075
0x30D5, 0x00	0x3076
0x30DA, 0x00	0x3077
0x30E0, 0x01	0x3078
0x30E0, 0x02	0x3079
0x30E0, 0x03	0x307A
0x30E0, 0x04	0x307B
0x30E0, 0x05	0x307C
0x30E0, 0x06	0x307D
0x30E0, 0x07	0x307E
0x30E0, 0x08	0x307F
0x30E0, 0x09	0x3080
0x30E0, 0x0A	0x3081
0x30E0, 0x0B	0x3082
0x30E0, 0x0C	0x3083
0x30E0, 0x0D	0x3084
0x30E0, 0x0E	0x3085
0x30E0, 0x0F	0x3086
0x30E0, 0x10	0x3087
0x30E0, 0x11	0x3088
0x30E0, 0x12	0x3089
0x30E0, 0x13	0x308A
0x30E0, 0x14	0x308B
0x30E0, 0x15	0x308C
0x30E0, 0x16	0x308D
0x30E0, 0x17	0x308E
0x30E0, 0x18	0x308F
0x30E0, 0x19	0x3090

DS402 Object (Index, SubIndex)	PROFdrive® Manufacturer- specific PNUs
0x30E0, 0x1A	0x3091
0x30E0, 0x1B	0x3092
0x30E0, 0x1C	0x3093
0x30E0, 0x1D	0x3094
0x30E0, 0x1E	0x3095
0x30E0, 0x1F	0x3096
0x30E0, 0x20	0x3097
0x30E1, 0x01	0x3098
0x30E1, 0x02	0x3099
0x30E1, 0x03	0x309A
0x30E1, 0x04	0x309B
0x30E1, 0x05	0x309C
0x30F1, 0x01	0x30A6
0x30F1, 0x02	0x30A7
0x30F1, 0x03	0x30A8
0x30F1, 0x04	0x30A9
0x30F1, 0x05	0x30AA
0x30F1, 0x06	0x30AB
0x30F1, 0x07	0x30AC
0x30F1, 0x08	0x30AD
0x30F1, 0x09	0x30AE
0x30F2, 0x01	0x30AF
0x30F2, 0x02	0x30B0
0x30F2, 0x03	0x30B1
0x30F2, 0x04	0x30B2
0x30F2, 0x05	0x30B3
0x30F2, 0x06	0x30B4
0x30F2, 0x07	0x30B5
0x30F2, 0x08	0x30B6
0x30F2, 0x09	0x30B7
0x30F5, 0x01	0x30B8
0x30F5, 0x02	0x30B9
0x30F5, 0x03	0x30BA
0x30F5, 0x04	0x30BB
0x30F5, 0x05	0x30BC
0x30F5, 0x06	0x30BD
0x30F5, 0x07	0x30BE
0x30F5, 0x08	0x30BF
0x30F5, 0x09	0x30C0
0x30F5, 0x0A	0x30C1
0x30F5, 0x0B	0x30C2

DS402 Object (Index, SubIndex)	PROFdrive® Manufacturer- specific PNUs
0x30F5, 0x0C	0x30C3
0x30F5, 0x0D	0x30C4
0x30F8, 0x01	0x30C8
0x30F8, 0x02	0x30C9
0x30F8, 0x03	0x30CA
0x30F8, 0x04	0x30CB
0x30F8, 0x05	0x30CC
0x30F8, 0x06	0x30CD
0x30F8, 0x07	0x30CE
0x30F8, 0x08	0x30CF
0x30F8, 0x09	0x30D0
0x30F9, 0x01	0x30D1
0x30F9, 0x02	0x30D2
0x30F9, 0x03	0x30D3
0x30FA, 0x00	0x30D4
0x30FC, 0x01	0x30D5
0x30FC, 0x02	0x30D6
0x30FC, 0x03	0x30D7
0x30FC, 0x04	0x30D8
0x30FC, 0x05	0x30D9
0x30FC, 0x06	0x30DA
0x30FF, 0x00	0x30DD

0x3100 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3100, 0x01	0x3100
0x3100, 0x02	0x3101
0x3100, 0x03	0x3102
0x3100, 0x04	0x3103
0x3100, 0x05	0x3104
0x3101, 0x01	0x3105
0x3101, 0x02	0x3106
0x3101, 0x03	0x3107
0x3101, 0x04	0x3108
0x3101, 0x05	0x3109
0x3101, 0x06	0x310A
0x3101, 0x07	0x310B
0x3101, 0x08	0x310C
0x3102, 0x01	0x310D
0x3102, 0x02	0x310E
0x3102, 0x03	0x310F
0x3102, 0x04	0x3110
0x3102, 0x05	0x3111
0x3104, 0x01	0x3112
0x3104, 0x02	0x3113
0x3105, 0x01	0x3114
0x3105, 0x02	0x3115
0x3105, 0x03	0x3116
0x3105, 0x04	0x3117
0x3105, 0x05	0x3118
0x3105, 0x06	0x3119
0x3105, 0x07	0x311A
0x3105, 0x08	0x311B
0x3105, 0x09	0x311C
0x3105, 0x0A	0x311D
0x3105, 0x0B	0x311E
0x3107, 0x00	0x311F
0x3108, 0x00	0x3120
0x3109, 0x00	0x3121
0x310A, 0x00	0x3122
0x310C, 0x00	0x3123
0x3120, 0x01	0x3127
0x3120, 0x02	0x3128
0x3120, 0x03	0x3129
0x3120, 0x04	0x312A

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3120, 0x05	0x312B
0x3120, 0x06	0x312C
0x3120, 0x07	0x312D
0x3120, 0x08	0x312E
0x3120, 0x09	0x312F
0x3121, 0x01	0x3130
0x3121, 0x02	0x3131
0x3121, 0x03	0x3132
0x3121, 0x04	0x3133
0x3121, 0x05	0x3134
0x3121, 0x06	0x3135
0x3121, 0x07	0x3136
0x3122, 0x01	0x3137
0x3122, 0x02	0x3138
0x3122, 0x03	0x3139
0x3122, 0x04	0x313A
0x3122, 0x05	0x313B
0x3122, 0x06	0x313C
0x3124, 0x00	0x3141
0x3125, 0x01	0x3142
0x3125, 0x02	0x3143
0x3125, 0x03	0x3144
0x3125, 0x04	0x3145
0x3125, 0x05	0x3146
0x3125, 0x06	0x3147
0x3125, 0x07	0x3148
0x3125, 0x08	0x3149
0x3126, 0x01	0x314A
0x3126, 0x02	0x314B
0x3127, 0x00	0x314C
0x3128, 0x00	0x314D
0x3129, 0x00	0x314E
0x312A, 0x00	0x314F
0x312B, 0x01	0x3150
0x312B, 0x02	0x3151
0x312B, 0x03	0x3152
0x312B, 0x04	0x3153
0x312C, 0x00	0x3154
0x312D, 0x01	0x3155
0x312D, 0x02	0x3156
0x312D, 0x03	0x3157

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x312D, 0x04	0x3158
0x312D, 0x05	0x3159
0x312D, 0x06	0x315A
0x312D, 0x07	0x315B
0x3130, 0x00	0x3165
0x3131, 0x01	0x3166
0x3131, 0x02	0x3167
0x3131, 0x03	0x3168
0x3131, 0x04	0x3169
0x3131, 0x05	0x316A
0x3131, 0x06	0x316B
0x3131, 0x07	0x316C
0x313E, 0x00	0x3178
0x313F, 0x01	0x3179
0x3160, 0x01	0x3180
0x3160, 0x02	0x3181
0x3160, 0x03	0x3182
0x3160, 0x04	0x3183
0x3160, 0x05	0x3184
0x3160, 0x06	0x3185
0x3160, 0x07	0x3186
0x3160, 0x08	0x3187
0x3160, 0x09	0x3188
0x31F6, 0x01	0x3191
0x31FF, 0x01	0x3192
0x31FF, 0x02	0x3193
0x31FF, 0x03	0x3194

0x3200 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3218, 0x00	0x3201

0x3300 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3300, 0x02	0x3301
0x3301, 0x01	0x3302
0x3301, 0x02	0x3303
0x3302, 0x01	0x3304
0x3302, 0x02	0x3305
0x3302, 0x03	0x3306
0x3304, 0x00	0x3307
0x3305, 0x00	0x3308
0x3323, 0x00	0x330D
0x3324, 0x01	0x330E
0x3324, 0x02	0x330F
0x3324, 0x03	0x3310
0x3324, 0x04	0x3311
0x3324, 0x05	0x3312
0x3328, 0x00	0x3313
0x3350, 0x00	0x3316
0x3360, 0x00	0x3317
0x3370, 0x00	0x3318
0x3371, 0x01	0x3319
0x3371, 0x02	0x331A
0x3371, 0x03	0x331B
0x3371, 0x04	0x331C
0x3371, 0x05	0x331D
0x3371, 0x06	0x331E
0x3371, 0x07	0x331F
0x3371, 0x08	0x3320
0x3372, 0x01	0x3321
0x3372, 0x02	0x3322
0x3372, 0x03	0x3323
0x3372, 0x04	0x3324
0x3372, 0x05	0x3325
0x3372, 0x06	0x3326
0x3372, 0x07	0x3327
0x3372, 0x08	0x3328
0x3373, 0x01	0x3329
0x3373, 0x02	0x332A
0x3373, 0x03	0x332B
0x3373, 0x04	0x332C
0x3373, 0x05	0x332D
0x3373, 0x06	0x332E
0x3373, 0x07	0x332F
0x3373, 0x08	0x3330

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3374, 0x01	0x3331
0x3374, 0x02	0x3332
0x3374, 0x03	0x3333
0x3374, 0x04	0x3334
0x3374, 0x05	0x3335
0x3374, 0x06	0x3336
0x3374, 0x07	0x3337
0x3374, 0x08	0x3338
0x337F, 0x00	0x3339
0x33B0, 0x01	0x333E
0x33B0, 0x02	0x333F

0x3400 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3400, 0x01	0x3400
0x3400, 0x02	0x3401
0x3400, 0x03	0x3402
0x3402, 0x01	0x3404
0x3402, 0x02	0x3405
0x3404, 0x01	0x3406
0x3404, 0x02	0x3407
0x3404, 0x03	0x3408
0x3404, 0x04	0x3409
0x3408, 0x01	0x340B
0x3408, 0x02	0x340C
0x340F, 0x00	0x340D
0x3410, 0x01	0x340E
0x3410, 0x02	0x340F
0x3410, 0x03	0x3410
0x3410, 0x04	0x3411
0x3411, 0x00	0x3412
0x3412, 0x00	0x3413
0x3413, 0x00	0x3414
0x3414, 0x00	0x3415
0x3425, 0x01	0x3427
0x3425, 0x02	0x3428
0x3425, 0x03	0x3429
0x3425, 0x04	0x342A
0x3426, 0x00	0x342B
0x3427, 0x00	0x342C
0x3440, 0x00	0x3433
0x3441, 0x00	0x3434
0x3442, 0x00	0x3435

0x3600 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3601, 0x01	0x3600
0x3601, 0x02	0x3601
0x3601, 0x03	0x3602
0x3601, 0x04	0x3603
0x3602, 0x01	0x3604
0x3602, 0x02	0x3605
0x3602, 0x03	0x3606
0x3602, 0x04	0x3607
0x3603, 0x00	0x3608
0x3604, 0x01	0x3609
0x3604, 0x02	0x360A
0x3605, 0x00	0x360B
0x360B, 0x00	0x360C
0x360C, 0x00	0x360D
0x360F, 0x00	0x360E
0x3610, 0x00	0x360F
0x3611, 0x01	0x3610
0x3611, 0x02	0x3611
0x3611, 0x03	0x3612
0x3611, 0x04	0x3613
0x3611, 0x05	0x3614
0x3611, 0x06	0x3615
0x3611, 0x07	0x3616
0x3611, 0x08	0x3617
0x3611, 0x09	0x3618
0x3611, 0x0A	0x3619
0x3611, 0x0B	0x361A
0x3611, 0x0C	0x361B
0x3611, 0x0D	0x361C
0x3611, 0x0E	0x361D
0x3611, 0x0F	0x361E
0x3611, 0x10	0x361F
0x3611, 0x11	0x3620
0x3611, 0x12	0x3621
0x3611, 0x13	0x3622
0x3611, 0x14	0x3623
0x3611, 0x15	0x3624
0x3611, 0x16	0x3625
0x3611, 0x17	0x3626
0x3611, 0x18	0x3627
0x3611, 0x19	0x3628
0x3611, 0x1A	0x3629

DS402 Object (Index, SubIndex)	PROFdrive® Manufacturer- specific PNUs
0x3612, 0x00	0x362A

0x3900 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x3901, 0x00	0x3900
0x3902, 0x00	0x3901
0x3903, 0x00	0x3902
0x3906, 0x00	0x3903
0x3910, 0x00	0x3904
0x3911, 0x00	0x3905
0x3912, 0x00	0x3906
0x3913, 0x00	0x3907
0x3915, 0x00	0x3909
0x3916, 0x00	0x390A
0x391A, 0x00	0x390B
0x391B, 0x00	0x390C
0x391C, 0x00	0x390D
0x391D, 0x00	0x390E
0x3920, 0x00	0x390F
0x3921, 0x01	0x3910
0x3921, 0x02	0x3911
0x3921, 0x03	0x3912
0x3921, 0x04	0x3913
0x3925, 0x01	0x3914
0x3925, 0x02	0x3915
0x3925, 0x03	0x3916
0x3926, 0x00	0x3917
0x3927, 0x00	0x3918
0x3928, 0x01	0x3919
0x3928, 0x02	0x391A
0x3928, 0x03	0x391B
0x3928, 0x04	0x391C
0x392A, 0x00	0x391D
0x392C, 0x00	0x391E
0x392D, 0x00	0x391F
0x3940, 0x00	0x3920
0x3941, 0x00	0x3921
0x3942, 0x00	0x3922
0x3943, 0x00	0x3923
0x3944, 0x00	0x3924

0x5F00 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x5F30, 0x01	0x5F04
0x5F30, 0x02	0x5F05
0x5F31, 0x01	0x5F06
0x5F31, 0x02	0x5F07
0x5F31, 0x03	0x5F08
0x5F31, 0x04	0x5F09
0x5F32, 0x01	0x5F0A
0x5F32, 0x02	0x5F0B
0x5F32, 0x03	0x5F0C
0x5F32, 0x04	0x5F0D
0x5F32, 0x05	0x5F0E
0x5F32, 0x06	0x5F0F
0x5F32, 0x07	0x5F10
0x5F32, 0x08	0x5F11
0x5F80, 0x01	0x5F2A
0x5F80, 0x02	0x5F2B
0x5F80, 0x03	0x5F2C
0x5F80, 0x04	0x5F2D
0x5F80, 0x05	0x5F2E
0x5F80, 0x06	0x5F2F
0x5F80, 0x07	0x5F30

0x6000 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUMs
0x603F, 0x00	0x6000
0x6040, 0x00	0x6001
0x6041, 0x00	0x6002
0x604F, 0x00	0x6003
0x605A, 0x00	0x6004
0x605B, 0x00	0x6005
0x605C, 0x00	0x6006
0x6060, 0x00	0x6008
0x6061, 0x00	0x6009
0x6062, 0x00	0x600A
0x6063, 0x00	0x600B
0x6064, 0x00	0x600C
0x6065, 0x00	0x600D
0x6068, 0x00	0x6010
0x606B, 0x00	0x6013
0x606C, 0x00	0x6014
0x606D, 0x00	0x6015
0x606E, 0x00	0x6016
0x606F, 0x00	0x6017
0x6070, 0x00	0x6018
0x6071, 0x00	0x6019
0x6072, 0x00	0x601A
0x6073, 0x00	0x601B
0x6074, 0x00	0x601C
0x6075, 0x00	0x601D
0x6076, 0x00	0x601E
0x6077, 0x00	0x601F
0x6078, 0x00	0x6020
0x6079, 0x00	0x6021
0x607A, 0x00	0x6022
0x607B, 0x01	0x6023
0x607B, 0x02	0x6024
0x607C, 0x00	0x6025
0x607D, 0x01	0x6026
0x607D, 0x02	0x6027
0x607F, 0x00	0x6029
0x6080, 0x00	0x602A
0x6081, 0x00	0x602B
0x6082, 0x00	0x602C
0x6083, 0x00	0x602D
0x6084, 0x00	0x602E
0x6085, 0x00	0x602F

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUMs
0x6086, 0x00	0x6030
0x6087, 0x00	0x6031
0x6088, 0x00	0x6032
0x6089, 0x00	0x6033
0x608A, 0x00	0x6034
0x608F, 0x01	0x6035
0x608F, 0x02	0x6036
0x6093, 0x01	0x6037
0x6093, 0x02	0x6038
0x6098, 0x00	0x6039
0x6099, 0x01	0x603A
0x6099, 0x02	0x603B
0x609A, 0x00	0x603C
0x60B0, 0x00	0x603D
0x60B1, 0x00	0x603E
0x60B2, 0x00	0x603F
0x60B8, 0x00	0x6040
0x60B9, 0x00	0x6041
0x60BA, 0x00	0x6042
0x60BB, 0x00	0x6043
0x60BC, 0x00	0x6044
0x60BD, 0x00	0x6045
0x60C0, 0x00	0x6046
0x60D0, 0x01	0x6051
0x60D0, 0x02	0x6052
0x60F4, 0x00	0x607A
0x60F6, 0x01	0x607B
0x60F6, 0x02	0x607C
0x60F6, 0x03	0x607D
0x60F6, 0x04	0x607E
0x60F6, 0x05	0x607F
0x60F9, 0x01	0x6080
0x60F9, 0x02	0x6081
0x60F9, 0x03	0x6082
0x60F9, 0x04	0x6083
0x60F9, 0x05	0x6084
0x60F9, 0x06	0x6085
0x60F9, 0x07	0x6086
0x60F9, 0x08	0x6087
0x60FB, 0x01	0x6088
0x60FB, 0x02	0x6089
0x60FB, 0x03	0x608A
0x60FB, 0x04	0x608B

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x60FB, 0x05	0x608C
0x60FD, 0x00	0x608D
0x60FE, 0x01	0x608E
0x60FE, 0x02	0x608F
0x60FF, 0x00	0x6090

0x6400 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x6402, 0x00	0x6400
0x6410, 0x01	0x6401
0x6410, 0x02	0x6402
0x6410, 0x03	0x6403
0x6410, 0x04	0x6404
0x6410, 0x05	0x6405
0x6410, 0x06	0x6406
0x6410, 0x07	0x6407
0x6410, 0x08	0x6408
0x6410, 0x09	0x6409
0x6410, 0x0A	0x640A
0x6410, 0x0B	0x640B
0x6410, 0x0C	0x640C
0x6410, 0x0D	0x640D
0x6410, 0x0E	0x640E
0x6410, 0x0F	0x640F
0x6410, 0x10	0x6410
0x6410, 0x11	0x6411
0x6410, 0x12	0x6412
0x6410, 0x13	0x6413
0x6410, 0x14	0x6414

0x6500 OBJECTS

DS402 Object (Index, SubIndex)	PROFIdrive® Manufacturer- specific PNUs
0x6502, 0x00	0x6500
0x6504, 0x00	0x6501
0x6510, 0x01	0x6502
0x6510, 0x02	0x6503
0x6510, 0x03	0x6504
0x6510, 0x04	0x6505
0x6510, 0x05	0x6506



Infranor Group

Infranor creates added value for its customers by providing tailor-made motion solutions.

Based on strong working relationships, Infranor offers extensive market know-how, comprehensive engineering skills and a wide range of high-quality products leading to productivity gains and therefore to comparative advantages for its customers in their respective markets.

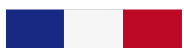
Infranor worldwide

Benelux
China
France
Germany
Italy
Spain
Switzerland
United Kingdom
USA

Other representations:
Austria, Denmark, India, Israel,
Poland, Slovenia, Turkey

Contact

Manufacturer: INFRANOR SAS • 29, avenue Jean Moulin • F-65100 LOURDES



Made in France

