2 IDENT *Control*

IDENTControl

2.1 System overview

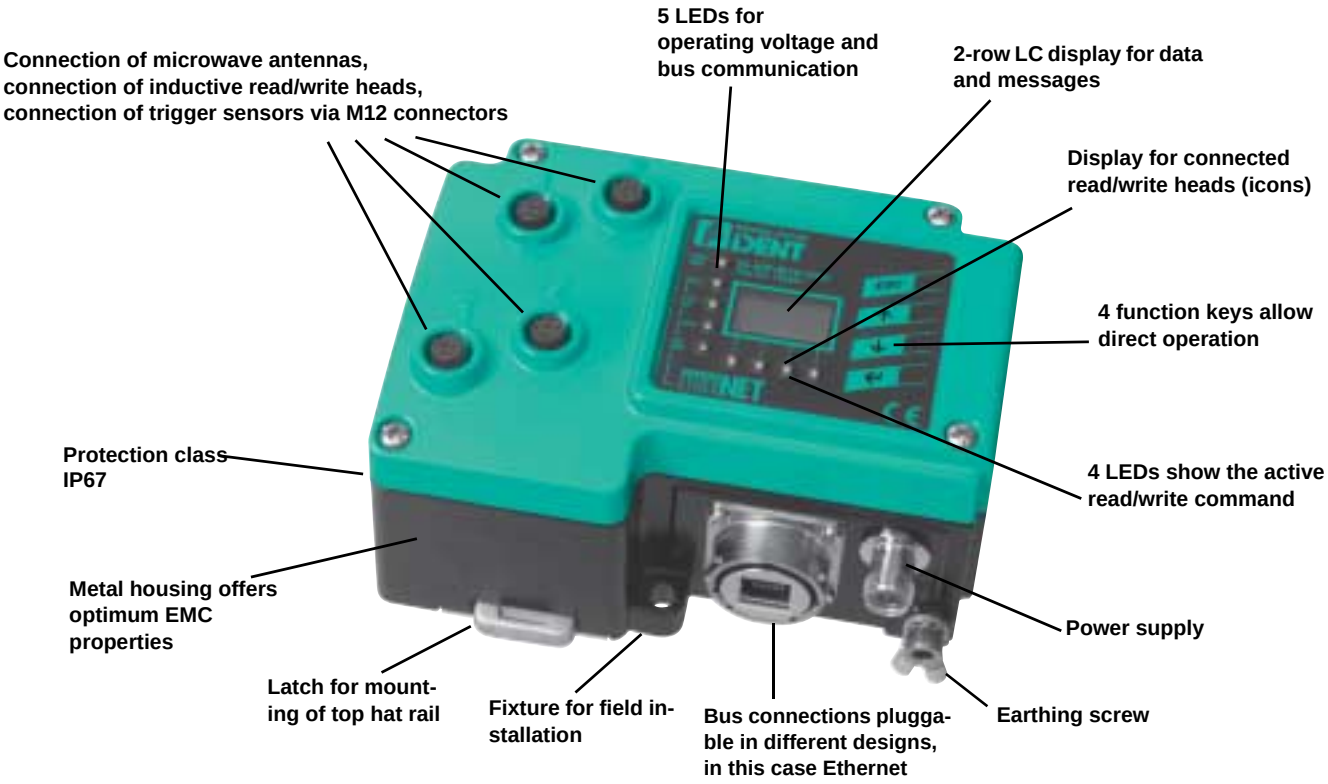
The brand name IDENT ***Control*** stands for an innovative identification system. It allows the connection of different physical identification methods such as inductive read/write heads and microwave antennas.

Due to the almost identical command set in the common control unit IDENT ***Control***, the implementation into the PLC program is very easy. The plain text display and function keys on the IDENT ***Control*** make function tests directly after the installation possible, even without PLC program.

A demo/parameterisation software for the "IDENT 2005" PC for devices with a serial interface completes the system and makes life easier for the user. This software is supplied for free with each documentation CD.

2.2 Advantages of the IDENT *Control*

- Suitable for switch cabinet (with snap-in hook for top hat DIN rail) and for field application in the IP67 protection class
- Up to 4 read/write heads can be connected
- Mixed operation of inductive heads and microwave antennas possible
- Trigger sensors for starting read/write commands can be connected
- 2-row LC display for data and device status
- Direct operation via function keys (e.g. read commands)
- Entry of the bus address via function keys on the device
- Web server functionality together with EtherNet connection offers e.g. notification of process faults directly via your mobile phone
- Due to the pluggable design, all components can be easily connected and quickly replaced



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Switch cabinet AND field solution

Two fastening solutions make both installation in the switch cabinet and mounting in the field possible. The IDENT ***Control*** has a snap-in hook at the rear for fixing the top hat DIN rail. Due to the L-shaped housing, the device including bus connector fits into a 120 mm grid in the switch cabinet. The mounting depth is only 70 mm. Thus, an installation in flat switch boxes with a depth of only 100 mm is also possible. Moreover, 3 mounting holes offer the mounting option via M6 screw connections in the field.

Read/write heads

The following read/write heads are available for the IDENT ***Control***:

- M18 series (Ø 18 mm)
- M30 series (Ø 30 mm)
- Flat housing F61 (76 mm x 28 mm x 12 mm)
- VariKont L design (40 mm x 40 mm x 55 mm)
- Compact housing FP (80 mm x 80 mm x 60 mm)
- Flat housing F15 (140 mm x 140 mm) (125 kHz and 2.45 GHz)

With its 4 LEDs, the VariKont L design offers an ideal visibility of the operating voltage display and the display for "Read head active" / "Data successfully read or written".

Fieldbus connection

The IDENT ***Control*** offers integrated interfaces to the current Fieldbus systems such as Profibus, EtherNet TCP/IP, Modbus and serial connections (RS 232/RS 485/RS 422). A DeviceNet and Ethernet IP connection will be available at the end of 2005. Due to the common control unit, the command structure and the operating philosophy are very similar.

Web server functionality

Often, already existing networks can be used via an EtherNet connection. High transfer rates and new functions are provided. This makes intermediate bus systems superfluous. If desired, the web server functionality even informs you directly via SMS on a mobile phone, e.g. whether a fault has occurred in the plant, which spare part is required, which reaction must be initiated. This reduces downtimes and also allows a remote parameterisation, which is protected by an access code, or an on-site release.

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2.3 Overview of the available products

Control units IDENT *Control*

Design		Type code	Interface	Bus connection	Page
KP		IC-KP-B12-V45	Ethernet TCP/IP and Modbus (plus Ethernet IP from 2006)	RJ45	24
		IC-KP-B6-SUBD	PROFIBUS DP	Sub-D	26
		IC-KP-B6-V15B	PROFIBUS DP	M12 connector	28
		IC-KP-R2-V1	Serial RS 232	M12 connector	28
		IC-KP-B7-V15	DeviceNet from 2006	M12 connector	-

Read/write heads for IDENT *Control*

Design		Type code	Principle of operation	Read distance	Page
Ø M18		IPH-18GM-V1	Inductive (125 kHz)	up to 50 mm	32
Ø M30		IPH-30GM-V1	Inductive (125 kHz)	up to 70 mm	33
F61		IPH-F61-V1	Inductive (125 kHz)	up to 70 mm	34
L2		IPH-L2-V1	Inductive (125 kHz)	up to 80 mm	35
FP		IPH-FP-V1	Inductive (125 kHz)	up to 100 mm	36
F15		IPH-F15-V1	Inductive (125 kHz)	up to 140 mm	37
		MVH500-F15-V1	Microwave (2.45 GHz)	up to 1.5 m	38
		MVH2000-F15-V1	Microwave (2.45 GHz)	up to 4 m	39

Accessories for IDENT *Control*

			
IPT-HH9	MVT-HH12	IDENT 2005	Additional accessories, e.g. cables
Inductive (125 kHz)	Microwave (2.45 GHz)	Software	
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Code/data carriers for IDENT *Control* (125 kHz)

Design		Code carrier (fixed code) Type code	Page	Data carrier Type code	Page	Features
Ø 12		IPC02-12	40			
Ø 16		IPC02-16	40			
Ø 20		IPC02-20W	41	IPC03-20W	47	
Ø 30		IPC02-30W	41	IPC03-30W	47	with mounting hole
Ø 50		IPC02-50W	41	IPC03-50P	47	
Ø 100				IPC03-100	49	
Ø 58				IPC03-58	48	
Ø 54				IPC03-54-T8	48	with mounting hole
Ø 68		IPC02-68-T7	42			higher resistance
Ø 20		IPC02-20CD	43			transparent
Ø 12.4				IPC03-12.4	45	flush-mounted
Ø 24				IPC03-24	45	
Ø 16				IPC03-16GK	46	
Ø 30				IPC03-30GK	46	
Ø 3.15		IPC02-3GL	43			
Ø 7.1				IPC03-7H3	45	
ISO		IPC02-C1	42	IPC03-C1	49	ISO card
Ø 31				IPC03-20K1	49	key fob
Ø 12				IPC11-12	43	special fixed code can be defined by the user
Ø 30				IPC11-30	44	
Ø 50				IPC11-50	44	

Data carriers for IDENT *Control* (2.45 GHz)

Design		Type code	Page
		MVC-60B-64K	50

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2.4 Read/write distances

Read/write distances in air (at 25 °C, in mm)

Read/write head	IPH-18GM-V1		IPH-30GM-V1		IPH-F61		IPH-L2-V1		IPH-FP-V1		IPH-F15	
Code/data carriers	read	write	read	write	read	write	read	write	read	write	read	write
IPC02-12	0…14	-	0…18	-	0…18	-	0…18	-	0…22	-	-	-
IPC02-16	0…14	-	0…18	-	0…18	-	0…18	-	0…22	-	-	-
IPC02-20W	0…20	-	0…30	-	0…30	-	0…30	-	0…35	-	-	-
IPC02-20CD	0…20	-	0…30	-	0…30	-	0…30	-	0…35	-	-	-
IPC02-30W	0…28	-	0…40	-	0…40	-	0…40	-	0…50	-	-	-
IPC02-50W	0…40	-	0…55	-	0…55	-	0…60	-	0…80	-	0…100	-
IPC02-68-T7	0…40	-	0…55	-	0…55	-	0…55	-	0…80	-	0…100	-
IPC02-3GL	0…10	-	0…15	-	0…15	-	-	-	-	-	-	-
IPC02-C1	0…40	-	0…55	-	0…55	-	0…60	-	0…80	-	0…100	-
IPC03-12.4	0…16	0…12	0…22	0…16	0…22	0…16	0…24	0…17	0…20	0…11	-	-
IPC03-20W	0…20	0…15	0…30	0…20	0…30	0…20	0…30	0…20	0…35	0…25	-	-
IPC03-24	0…26	0…20	0…35	0…26	0…35	0…26	0…38	0…29	0…47	0…33	-	-
IPC03-30W	0…28	0…20	0…40	0…25	0…40	0…25	0…40	0…30	0…50	0…35	-	-
IPC03-16GK	0…14	0…11	0…18	0…14	0…18	0…14	0…18	0…14	0…22	0…15	-	-
IPC03-30GK	0…26	0…20	0…36	0…27	0…36	0…27	0…40	0…30	0…49	0…34	-	-
IPC03-50P	0…40	0…30	0…55	1…35	0…55	0…35	0…60	0…40	0…80	0…60	0…100	0…80
IPC03-54-T8	0…40	0…30	0…50	0…35	0…50	0…35	0…55	0…40	0…75	0…55	0…95	0…80
IPC03-58	0…40	0…30	0…50	0…35	0…50	0…35	0…55	0…40	0…75	0…55	0…95	0…80
IPC03-100	0…50	0…40	0…70	0…55	0…70	0…55	0…80	0…60	0…100	0…80	0…140	0…100
IPC03-7H3	0…10	0…8	0…15	0…10	0…15	0…10	0…15	0…10	0…20	0…12	-	-
IPC03-C1	0…40	0…30	0…50	0…35	0…50	0…35	0…60	0…40	0…80	0…60	0…100	0…80
IPC03-20-K1	0…20	0…15	0…30	0…20	0…30	0…20	0…30	0…20	0…35	0…25	-	-
IPC11-12	0…14	0…12	0…18	0…15	0…18	0…15	0…18	0…15	0…22	0…18	-	-
IPC11-30	0…28	0…20	0…40	0…25	0…40	0…25	0…40	0…30	0…50	0…35	-	-
IPC11-50	0…40	0…30	0…55	0…40	0…55	0…40	0…60	0…45	0…80	0…60	0…100	0…80

Read/write distances flush-mounted in steel (at 25 °C, in mm)

Read/write head	IPH-18GM-V1		IPH-30GM-V1		IPH-F61		IPH-L2-V1		IPH-FP-V1		IPH-F15	
Code/data carriers	read	write	read	write	read	write	read	write	read	write	read	write
IPC03-12.4	0…11	0…9	0…13	0…9	0…13	0…9	0…15	0…10	-	-	-	-
IPC03-24	0…19	0…15	0…26	0…21	0…26	0…21	0…27	0…22	-	-	-	-
IPC03-16GK	0…12	0…10	0…13	0…11	0…13	0…11	0…14	0…11	-	-	-	-
IPC03-30GK	0…22	0…17	0…26	0…21	0…26	0…21	0…30	0…22	-	-	-	-
IPC03-7H3	0…4	0…3	0…4	0…3	0…4	0…3	0…4	0…3	-	-	-	-

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Read/write distances directly on steel (at 25 °C, in mm)

Read/write head	IPH-18GM-V1		IPH-30GM-V1		IPH-F61		IPH-L2-V1		IPH-FP-V1		IPH-F15	
Code/data carriers	read	write	read	write	read	write	read	write	read	write	read	write
IPC03-54-T8	0…28	0…21	0…35	0…24	0…35	0…24	0…38	0…28	0…52	0…38	0…65	0…50
IPC03-58	0…28	0…21	0…35	0…24	0…35	0…24	0…38	0…28	0…52	0…38	0…65	0…50

Note

If the code/data carriers are mounted in aluminium, the read/write distance is reduced by another 30% compared with steel.

Read/write distances on steel with a distance of 10 mm (at 25 °C, in mm)

Read/write head	IPH-18GM-V1		IPH-30GM-V1		IPH-F61		IPH-L2-V1		IPH-FP-V1		IPH-F15	
Code/data carriers	read	write	read	write	read	write	read	write	read	write	read	write
IPC02-12	0…9	-	0…12	-	0…12	-	0…12	-	-	-	-	-
IPC02-16	0…9	-	0…12	-	0…12	-	0…12	-	0…15	-	-	-
IPC02-20W	0…14	-	0…21	-	0…21	-	0…21	-	0…24	-	-	-
IPC02-30W	0…19	-	0…28	-	0…28	-	0…28	-	0…35	-	-	-
IPC02-50W	0…28	-	0…38	-	0…38	-	0…42	-	0…56	-	0…65	-
IPC02-68-T7	0…28	-	0…38	-	0…38	-	0…38	-	0…56	-	0…65	-
IPC02-3GL	0…7	-	0…10	-	0…10	-	-	-	-	-	-	-
IPC02-C1	0…28	-	0…38	-	0…38	-	0…42	-	0…56	-	0…65	-
IPC03-12.4	0…10	0…6	0…15	0…10	0…15	0…10	0…15	0…10	-	-	-	-
IPC03-20W	0…14	0…10	0…21	0…14	0…21	0…14	0…21	0…14	0…24	0…17	-	-
IPC03-24	0…17	0…10	0…25	0…15	0…25	0…15	0…25	0…18	0…30	0…20	-	-
IPC03-30W	0…19	0…14	0…28	0…17	0…28	0…17	0…28	0…21	0…35	0…24	-	-
IPC03-50P	0…28	0…21	0…38	0…24	0…38	0…24	0…42	0…28	0…56	0…42	0…65	0…50
IPC03-54-T8	0…28	0…21	0…38	0…24	0…38	0…24	0…42	0…28	0…56	0…42	0…65	0…50
IPC03-58	0…28	0…21	0…38	0…24	0…38	0…24	0…42	0…28	0…56	0…42	0…65	0…50
IPC03-7H3	0…7	0…5	0…10	0…7	0…10	0…7	0…10	0…7	0…12	0…8	-	-
IPC03-C1	0…28	0…21	0…35	0…24	0…35	0…24	0…42	0…28	0…56	0…42	0…65	0…50
IPC11-12	0…9	0…8	0…12	0…10	0…12	0…10	0…12	0…10	0…15	0…13	-	-
IPC11-30	0…19	0…14	0…28	0…17	0…28	0…17	0…28	0…17	0…35	0…24	-	-
IPC11-50	0…28	0…21	0…38	0…24	0…38	0…24	0…42	0…28	0…56	0…42	0…65	0…50

Legend: - Combination not recommended

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