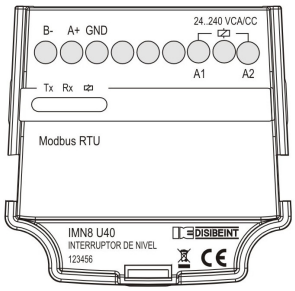
KNT8

MODULE FOR COMMUNICATION RS-485



General	
Description	The conductive level electrodes, magnetic level switches and magnetic level transducers provided with connection box can exchange the standard output module by the KNT8 module that allows to establish a communication RS-485, Modbus RTU protocol, with other devices of similar properties.
Characteristics	RS485 communication port to read and write the parameters. Protocol Modbus RTU.
Default vale	9600 bps, 8, N, 1
Reading the temperature	Available in models with Ø12 tube or higher.
Power supply	
Code and rank	U40: 24 .. 240 VAC/DC
Frequency	47 .. 63 Hz
Consumption	0,2 .. 0,7 VA
Control module	
Reference	KNT8 U40
Configuration	The module KNT8 is configured by default with peripheral number 1 (decimal) and communication mode 4 (9600 bps, 8, N, 1). Using the command to change the device number it is possible to assign any other number (maximum FF hexadecimal, 255 decimal).
Registers table	Level electrodes NCV8: see page 2 Magnetic switches IMN8: see page 3 Magnetic transducers TMN8: see page 4

NCV8 · Conductive level electrodes

Application	Detection of one or more level points in conductive liquids (maximum 4).
Working mode	While the liquid is not in contact with the electrode, the value of the output is 0. When the liquid is in contact with the electrode, the value of the output is 1.
Detection range	Adjustable sensitivity between 1 and 50 Kohm.

Set up

Magnitude	Register	Bytes No	Function	Remarks
Peripheral Nr.	0x00	2	3, 6, 16 (0x10)	1..255
Comm parameters	0x01	2	3, 6, 16 (0x10)	(See table)
ID_Manufacturer	0x02	4	3	Manufacturer code
ID_ProductCode	0x04	8	3	ERP code
ID_Verify	0x08	2	3	
HW_Version	0x09	2	3	
SW_Version	0x0A	2	3	
MODEL_Serie	0x0B	4	3	
SERIAL_Number	0x0D	6	3	Serial no.
Sensibility	0x10	2	3, 6, 16 (0x10)	1..50 Kohm
TAG	0x12	16	3, 16 (0x10)	<= 16 char.
Reference	0x1A	50	3	<= 50 char.

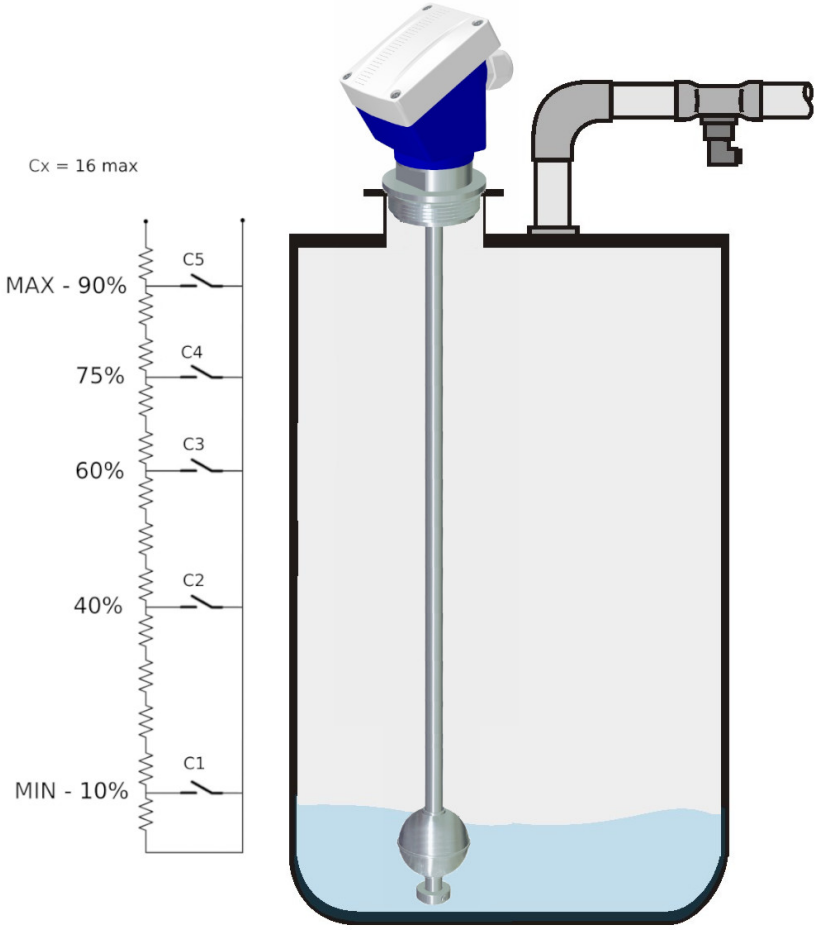
Communication parameters

Command	bps	Bits	Parity	StopBit
0	9600	8	E	1
1	19200	8	E	1
2	9600	8	N	2
3	19200	8	N	2
4	9600	8	N	1
5	19200	8	N	1

Data

Magnitude	Register	Bytes No	Function	Remarks
Electrode L1	0x02	2	4	True/False
Electrode L2	0x03	2	4	True/False
Electrode L3	0x04	2	4	True/False
Electrode L4	0x05	2	4	True/False

IMN8 · Magnetic level switches

Application	Detection of one or more level points in liquids (maximum 16 contacts) and/or process temperature.
Working mode	With the tank empty, the output indicates % of minimum contact. As the float moves displaced due to the thrust of the liquid, the output indicates the % proportional to the location of the activated contacts until reaching the maximum level.
Example	

Set up

Magnitude	Register	Bytes No	Function	Remarks
Peripheral Nr.	0x00	2	3, 6, 16 (0x10)	1..255
Comm parameters	0x01	2	3, 6, 16 (0x10)	(See table)
ID_Manufacturer	0x02	4	3	Manufacturer code
ID_ProductCode	0x04	8	3	ERP code
ID_Verify	0x08	2	3	
HW_Version	0x09	2	3	
SW_Version	0x0A	2	3	
MODEL_Serie	0x0B	4	3	
SERIAL_Number	0x0D	6	3	Serial no.
TAG	0x12	16	3, 6, 16 (0x10)	<= 16 char.
Reference	0x1A	50	3	<= 50 char.

Communication parameters

Command	bps	Bits	Parity	StopBit
0	9600	8	E	1
1	19200	8	E	1
2	9600	8	N	2
3	19200	8	N	2
4	9600	8	N	1
5	19200	8	N	1

Data

Magnitude	Register	Bytes No	Function	Remarks
Value	0x00	2	4	% (IEEE754)
Temperature	0x06	4	4	ºC (IEEE754)
Lecture when power supply is recovered *	0x26	1	4	True/False

Data that indicates whether the value reading corresponds to a stored value before losing voltage (True) or if it corresponds to a current reading (False)

TMN8 · Magnetic level transducers

Application	Continuous detection of the level in liquids and/or process temperature.
Working mode	With the empty tank, the output indicates 0% capacity. As the float moves due to the push of the liquid, the output indicates the proportional percentage of the capacity until reaching 100%.

Set up

Magnitude	Register	Bytes No	Function	Remarks
Peripheral Nr.	0x00	2	3, 6, 16 (0x10)	1..255
Comm parameters	0x01	2	3, 6, 16 (0x10)	(See table)
ID_Manufacturer	0x02	4	3	Manufacturer code
ID_ProductCode	0x04	8	3	ERP code
ID_Verify	0x08	2	3	
HW_Version	0x09	2	3	
SW_Version	0x0A	2	3	
MODEL_Serie	0x0B	4	3	
SERIAL_Number	0x0D	6	3	Serial no.
TAG	0x12	16	3, 6, 16 (0x10)	<= 16 char.
Reference	0x1A	50	3	<= 50 char.

Communication parameters

Command	bps	Bits	Parity	StopBit
0	9600	8	E	1
1	19200	8	E	1
2	9600	8	N	2
3	19200	8	N	2
4	9600	8	N	1
5	19200	8	N	1

Data

Magnitude	Register	Bytes No	Function	Remarks
Value	0x00	4	4	% (IEEE754)
Temperature	0x06	4	4	ºC (IEEE754)