MODBUS Address:

Description	Address	Function Code	R / W
Call Point status	0 to 39 - Call / Reset	0x01	R
RI Configuration	0 to 39 - RI Configured data	0x03(R)/0x06(W)	R/W
Slave ID of CNCS	1000 - Slave ID	0x03(R)/0x06(W)	R/W

MODBUS Values:

Call	-	1
Reset	-	0
RI Configured data	-	1 to 40
Slave ID	-	1 to 255

Function Code:

0x01	-	Read coil status register
0x03	-	Read holding register
0x06	-	Preset single register
R	-	Read only
R/W	-	Read and Write

Procedure to set Slave ID of CNCS:

The default slave ID of Conventional Nurse Call System (CNCS) is 1. Slave ID of CNCS can be read and write through MODBUS RTU protocol. The register address is 1000. The function code to read slave ID of CNCS is "read holding register (0x03)" and the function code to write slave ID of CNCS is "preset single register (0x06)".

Procedure to read call point status:

The dynamic status of each call point can be read through MODBUS RTU from registers 0 to 39. The 0th address refers 1st call point status of corresponding CNCS, 1st address refers 2nd call point status of same CNCS and likewise, 39th address refers 40th call point status. The function code to read call point status is "read holding register (0x03)".

Procedure to configure Room Indicator (RI):

The RI configuration of each call point can be read and write through MODBUS RTU registers from 0 to 39. The MODBUS registers have default value as 1 to 40 i.e. (0th address has value 1, 1st address has value 2 and likewise 39th address has value 40). If the 0th address refers value 1, the 1st call point is mapped to 1st RI. If the 0th address refers value 2, the 1st call point mapped with 2nd RI which connected to 2nd call point. In this case if call activated in 1st call point, the 2nd RI (that means RI which connected to 2nd call point) will glow. Likewise, in case that the 0th address refers value 40, if call activated in 1st call point, the 40th RI (which connected to 40th call point) will glow. This configuration is same for all RI.

For example if we want to configure 6th RI (which connected to 6th call point) to call points from 1st to 13th, we have to write value 6 (this value refers 6th RI which connected to 6th call point) to MODBUS RTU registers from 0 to 12. If call activated in any call point from 1st call point to 13th call point, only the 6th RI will glow.

The function code to read RI configuration data is read holding register (0x03) and function code to write RI configuration data is "preset single register (0x06)".

e.g : - Dedicated RI for each NCP

NCP ADD	(MODBUS ADD)	MODBUS VALUE
1	0	1
2	1	2
3	2	3
.	.	.
.	.	.
39	38	39
40	39	40

e.g : - Grouping of NCP to assign single RI (RI 6 is connected to NCP 6 and group is from NCP 1 to NCP 13)

NCP ADD	(MODBUS ADD)	MODBUS VALUE
1	0	6
2	1	6
3	2	6
4	3	6
5	4	6
6	5	6
7	6	6
8	7	6
9	8	6
10	9	6
11	10	6
12	11	6
13	12	6
14	13	14
15	14	15
.	.	.
.	.	.
.	.	.
39	38	39
40	39	40