

Autonics

Bar Graph Digital Indicator KN-100B SERIES

USER MANUAL FOR COMMUNICATION

■ Communication Specifications

Comm. protocol	Modbus RTU 1.1	Comm. speed	9600, 4800, 2400, 1200 bps
Application standard	Compliance with EIA RS485	Data bit	8-bit
Max. connection	32 units	Parity bit	None
Comm. method	2-wire half duplex	Stop bit	1-bit
Comm. distance	Max. 1200m (within 700m recommended)	Converter	Converter built in RS232

■ Monitoring Mode Parameter

Parameter	Comm. address	Description	Display range
—	300001(0000)	Display value output	Display value
—	300002(0001)	Alarm output	Refer to '■ Alarm Output Parameter Setting Value'

■ Alarm Output Parameter Setting Value (output value)

Alarm status				Output value
Alarm1	Alarm2	Alarm3	Alarm4	
OFF	OFF	OFF	OFF	0
ON	OFF	OFF	OFF	1
OFF	ON	OFF	OFF	2
ON	ON	OFF	OFF	3
OFF	OFF	ON	OFF	4
ON	OFF	ON	OFF	5
OFF	ON	ON	OFF	6
ON	ON	ON	OFF	7

Alarm status				Output value
Alarm1	Alarm2	Alarm3	Alarm4	
OFF	OFF	OFF	ON	8
ON	OFF	OFF	ON	9
OFF	ON	OFF	ON	10
ON	ON	OFF	ON	11
OFF	OFF	ON	ON	12
ON	OFF	ON	ON	13
OFF	ON	ON	ON	14
ON	ON	ON	ON	15

※In case of 2 alarms output model, only 0 to 3 (shaded part) are able to set.

■ Operating Mode Setting Group

Parameter	Comm. address	Description	Setting range
AL1	302001(07D0)	Alarm 1 setting value	[only for alarm output model] Temp. sensor input: within input range, Analog input: L-5℃ to H-5℃
AL2	302002(07D1)	Alarm 2 setting value	
AL3	302003(07D2)	Alarm 3 setting value	
AL4	302004(07D3)	Alarm 4 setting value	
HPEL	302005(07D4)	High peak value	—
LPEL	302006(07D5)	Low peak value	—

■ Input Type Parameter Setting Value (output value)

0	ℓℓℓ1	6	ℓℓ-b	12	ℓℓ-P	18	ℓℓA1
1	ℓℓℓ2	7	ℓℓ-5	13	ℓℓ.50	19	ℓℓA2
2	ℓℓ-J	8	ℓℓ-n	14	ℓℓ.10	20	ℓℓU1
3	ℓℓ-E	9	ℓℓ-ℓ	15	ℓℓℓ.1	21	ℓℓU2
4	ℓℓ-ℓ	10	ℓℓ-L	16	ℓℓℓ.5	22	ℓℓU1
5	ℓℓ-r	11	ℓℓ-U	17	ℓℓℓ.1	23	ℓℓU2

※Shaded parts are only available to set when expansion input model (supplying power with pressing the  key).

■ Setting Mode1 Setting Group

Parameter	Comm. address	Description	Setting range
<i>Input</i>	301001 (03E8)	Input type	Refer to 'Input Type Parameter Setting Value'
<i>Unit</i>	301002 (03E9)	Temperature unit	[only for temp. sensor input] 0: °C, 1: °F
<i>L-Limit</i>	301003 (03EA)	Low limit input value	[only for analog input]
<i>H-Limit</i>	301004 (03EB)	High limit input value	Within input range
<i>d.P</i>	301005 (03EC)	Decimal point	[only for analog input] 0: 0, 1: 0.0, 2: 0.00, 3: 0.000
<i>L-5C</i>	301006 (03ED)	Low limit scale value	[only for analog input]
<i>H-5C</i>	301007 (03EE)	High limit scale value	-1999 to 9999
<i>L-b5</i>	301008 (03EF)	Bar graph low limit scale value	Temp. sensor input: $\text{Temp. range}(\text{low limit}) \leq L-b5 \leq (H-b5-1)$ Analog input: $L-5C \leq L-b5 \leq (H-5C-1)$
<i>H-b5</i>	301009 (03F0)	Bar graph high limit scale value	Temp. sensor input: $(L-b5+1) \leq H-b5 \leq \text{Temp. range}(\text{high limit})$ Analog input: $(L-5C+1) \leq H-b5 \leq H-5C$
<i>Bar</i>	301010 (03F1)	Bar graph display method	0: Full bar, 1: Center bar
<i>4mA</i>	301011 (03F2)	4mA output scale value	[only for transmission output model]
<i>20mA</i>	301012 (03F3)	20mA output scale value	Temp. sensor input: within input range, Analog input: $L-5C$ to $H-5C$
<i>Ext</i>	301013 (03F4)	Input and trans. output extension	[only for analog input] 0: 0%, 1: 5%, 2: 10 %
<i>AL-1</i>	301014 (03F5)	Alarm 1 mode	[only for alarm output model]
<i>AL-2</i>	301015 (03F6)	Alarm 2 mode	1: High limit alarm,
<i>AL-3</i>	301016 (03F7)	Alarm 3 mode	2: Low limit alarm,
<i>AL-4</i>	301017 (03F8)	Alarm 4 mode	3: Sensor break alarm, 4: No alarm
<i>AL-1</i>	301018 (03F9)	Alarm 1 option	[only for alarm output model]
<i>AL-2</i>	301019 (03FA)	Alarm 2 option	10: Standard alarm, 11: Alarm latch,
<i>AL-3</i>	301020 (03FB)	Alarm 3 option	12: Standby sequence,
<i>AL-4</i>	301021 (03FC)	Alarm 4 option	13: Alarm latch and standby sequence, 14: No alarm option (disable to set)
<i>AL-HY</i>	301022 (03FD)	Alarm output hysteresis	1 to 999
<i>InputSF</i>	301023 (03FE)	Input special function	[only for analog input] 0: Linear, 1: Root, 2: Square, 3: Two Unit Function
<i>Input-b</i>	301024 (03FF)	Input correction	-999 to 999
<i>Filter</i>	301025 (0400)	Digital filter	1 to 16
<i>DI-clear</i>	301026 (0401)	Digital input terminal	0: Alarm clear, 1: Display Hold,
<i>DI-key</i>	301027 (0402)	Digital input key	2: Zero-point adjustment
<i>Break</i>	301028 (0403)	Sensor break alarm output	[only for transmission output model] 0: 20mA output, 1: 4mA output
<i>Addr</i>	301029 (0404)	Comm. address	1 to 99
<i>Baud</i>	301030 (0405)	Comm. speed	0: 9600, 1: 4800, 2: 2400, 3: 1200
<i>Lock</i>	301031 (0406)	Lock	0: OFF, 1: LOCK1, 2: LOCK2

■ Major Products

- Photoelectric Sensors
- Fiber Optic Sensors
- Door Sensors
- Door Side Sensors
- Area Sensors
- Proximity Sensors
- Pressure Sensors
- Rotary Encoders
- Connectors/Sockets
- Switching Mode Power Supplies
- Control Switches/Lamps/Buzzers
- I/O Terminal Blocks & Cables
- Stepper Motors/Drivers/Motion Controllers
- Graphic/Logic Panels
- Field Network Devices
- Laser Marking System(Fiber, CO₂, Nd:YAG)
- Laser Welding/Cutting System
- Temperature Controllers
- Temperature/Humidity Transducers
- SSRs/Power Controllers
- Counters
- Timers
- Panel Meters
- Tachometer/Pulse(Rate) Meters
- Display Units
- Sensor Controllers
- Recorders
- Indicators
- Converters
- Controllers
- Thyristor Power Controllers
- Pressure Transmitters
- Temperature Transmitters

Autonics Corporation
http://www.autonics.com

■ **HEADQUARTERS:**
18, Bansong-ro 513beon-gil, Haeundae-gu, Busan, South Korea, 48002

■ **OVERSEAS SALES:**
#402-303, Bucheon Techno Park, 655, Pyeongcheon-ro, Wonmi-gu, Bucheon, Gyeonggi-do, South Korea, 14502
TEL: 82-32-610-2730 / FAX: 82-32-329-0728

■ **E-mail:** sales@autonics.com