

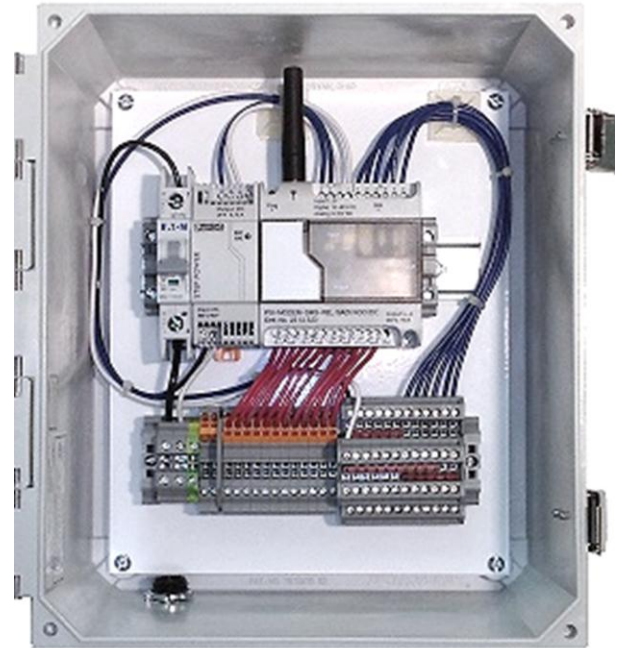
# Remote iKnow

## Remote Cellular I/O

The Remote iKnow by Industrial Controls Solutions is a compact remote control and signaling system. Featuring six digital or configurable analog/digital inputs and four relay outputs with PDT contacts which are monitored and controlled using SMS messages via any GSM mobile phone network puts the control in your hand no matter where you are. With its integrated phonebook which stores up to 50 phone numbers and e-mail addresses, that are used to receive the messages, each change in status of an input sends a user-defined message to the selected receivers via SMS or e-mail. Also a predefined message can be sent by a user to enable or disable the outputs of the Remote iKnow via SMS. In this way, an error can be acknowledged and even removed remotely using simple SMS text. As an added benefit at any time a user can obtain an overview of the system state, the status of the inputs, or change the state of the outputs. As an option, the relay outputs can be switched for a predefined period and then return to their initial state.

The base Remote iKnow comes with a 1-phase tri-power (12vdc, 24vdc, 48vdc) DIN-rail-mounted power supply with an output current of 2.5 amps and has an optional 3-phase version or a solar powered option for those locations without line power.

The Remote iKnow enclosure is ideally suited for applications with high temperatures and/or highly corrosive environments and is housed in a molded fiberglass polyester modular NEMA 4X enclosure specifically design for use as instrument enclosure and comes with a hinged lockable cover



- 6 digital or analog Inputs
- 4 SMS remote controlled Outputs
- Up to 50 numbers or e-mail addresses
- Maximum 5 receivers per SMS message
- Easy configuration
- 24 VDC Power Supply
- Optional solar power
- Option remote antenna



# Technical Specifications

## Ambient conditions

Ambient temperature (storage)	-40°C ... +85°C
Ambient temperature (operation)	-25°C ... +55°C
Relative humidity	0% ... 95% (no condensation)
Transient protection	Single pulse 2.5 kV/2.5 Ws

## Electrical data

	.../6 DI/4DO/AC	.../6ADI/4DO/DC
Nominal operating voltage	110 V AC ... 240 V AC	12 V DC ... 48 V DC
Operating voltage	85 V AC ... 250 V AC	10 V DC ... 60 V DC
Frequency range	45 Hz ... 63 Hz	–
Standby current consumption Conditions	10 mA, approximately at 230 V AC	15 mA, approximately at 24 V DC 25 mA, approximately at 12 V DC
Nominal current consumption	10 mA 15 mA	
Inrush current surge	< 2.6 A, $\tau = 0.4$ ms	2.6 A, $\tau = 0.4$ ms

## Digital inputs IN 1 ... 6

	.../6 DI/4DO/AC	.../6ADI/4DO/DC
Control voltage range	110 V AC ... 240 V AC	12 V DC ... 48 V DC
Input voltage range	0 V AC ... 250 V AC	0 V DC ... 60 V DC
Operate threshold	85 V AC	9.5 V DC
Hysteresis	20 V, approximately	5 V, approximately
Current consumption	4 mA/230 V	1.5 mA/24 V
Permissible residual current	0.9 mA	20 $\mu$ A
Cable capacitance	$\leq 50$ nF	–
Inductive parallel load energy	50 mWs/1 Hz (2.5 kV)	50 mWs/1 Hz (2.5 kV)

## Analog inputs IN 1 ... 6

	.../6ADI/4DO/DC
Nominal input range	0 ... 10 V DC
Effective input range	0 ... 12 V DC
Maximum input voltage	60 V DC
Resolution	10 bits, LSB 12.5 mV, approximately
Input impedance	142 k $\Omega$
Error limit, with reference to input range	$\pm 1\%$

## Time data

Supply startup time ( $R_i = 0$ )	$\leq 25$ s
Minimum control duration for input (AC, DC)	$\geq 200$ ms
Mains reliability	$\geq 15$ ms

## Relay outputs OUT 1 ... 4

	.../6 DI/4DO/AC	.../6ADI/4DO/DC
Contact type	Single contact, 4PDT	Single contact, 4PDT
Limiting continuous current	10 A (total current 20 A, maximum)	10 A (total current 20 A, maximum)
Inrush current	15 A/20 ms	15 A/20 ms
Maximum switching voltage	250 V AC	250 V AC
Maximum switching power	2500 VA	250 W
Minimum switching voltage	12 V	12 V
Minimum switching current	10 mA	10 mA
Contact material	AgNi 90/10	AgNi 90/10
Mechanical service life	30 x 10 <sup>6</sup> cycles	30 x 10 <sup>6</sup> cycles
Test voltage		
Device - contact	2.5 kV (50 Hz, 1 min.)	2.5 kV (50 Hz, 1 min.)
Contact – contact	2.5 kV (50 Hz, 1 min.)	2.5 kV (50 Hz, 1 min.)

## Wireless interface

Antenna	50 $\Omega$ impedance SMA female antenna connector, GSM interface
Frequency	850 MHz at 2 W (EGSM) 900 MHz at 2 W (EGSM) 1800 MHz at 1 W (EGSM) 1900 MHz at 1 W (EGSM)



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