1/32 DIN Digital Panel Meter K3GN

CSM_K3GN_DS_E_3_1

1/32 DIN Digital Panel Meter for Downsizing Equipment and Control Panels

- Compact size: 48 x 24 x 83 (W x H x D).
- Multi-input compatible: DC voltage/current, rotary pulse.
- Two display colors (switchable): green/red.
- · Selectable outputs.
- CE marking and UL/CSA approval.
- Splash-proof construction (NEMA4X: equivalent to IP66).

Refer to Safety Precautions for All Digital Panel

/Ì Meters.

Model Number Structure

Model Number Legend



1. Input Type

ND: DC voltage/current, NPN

1

PD: DC voltage/current, PNP

2. Output Type

- 2 relay contact outputs (SPST-NO) C:
- C-FLK: 2 relay contact outputs (SPST-NO) and RS-485
- C-L1: 2 relay contact outputs (SPST-NO) and DC current (0 to 20 mA, 4 to 20 mA)
- 2 relay contact outputs (SPST-NO) and DC voltage (0 to 5 V, 1 to 5 V, 0 to 10 V) C-L2:
- T1: 3 transistor outputs (NPN open collector)
- T1-FLK: 3 transistor outputs (NPN open collector) and RS-485
- T1-L1: 3 transistor outputs (NPN open collector) and DC current (0 to 20 mA, 4 to 20 mA)
- T1-L2: 3 transistor outputs (NPN open collector) and DC voltage (0 to 5 V, 1 to 5 V, 0 to 10 V)
- T2: 3 transistor outputs (PNP open collector)
- T2-FLK: 3 transistor outputs (PNP open collector) and RS-485

3. Option

None:

-400: Normally energized relays

4. Supply Voltage

24 VDC: 24 VDC

None



Ordering Information

■ List of Models

Supply	Input type		Model	
voltage		Judgement output	Data transmission output	
24 VDC	DC voltage, DC current,	2 relay contact outputs (SPST-NO)	None	K3GN-NDC 24 VDC
	or NPN input		RS-485	K3GN-NDC-FLK 24 VDC
			DC current (0 to 20 mA, 4 to 20 mA)	K3GN-NDC-L1 24 VDC
			DC voltage (0 to 5 V, 1 to 5 V, 0 to 10 V)	K3GN-NDC-L2 24 VDC
		2 relay contact outputs	None	K3GN-NDC-400 24 VDC
		(SPST-NO) Normally energized relays (See note.)	RS-485	K3GN-NDC-FLK-400 24 VDC
			DC current (0 to 20 mA, 4 to 20 mA)	K3GN-NDC-L1-400 24 VDC
			DC voltage (0 to 5 V, 1 to 5 V, 0 to 10 V)	K3GN-NDC-L2-400 24 VDC
		3 transistor outputs (NPN	(NPN None K3GN-NDT1 2	K3GN-NDT1 24 VDC
		open collector)	RS-485	K3GN-NDT1-FLK 24 VDC
			DC current (0 to 20 mA, 4 to 20 mA)	K3GN-NDT1-L1 24 VDC
			DC voltage (0 to 5 V, 1 to 5 V, 0 to 10 V)	K3GN-NDT1-L2 24 VDC
	DC voltage, DC current,	2 relay contact outputs	None	K3GN-PDC 24 VDC
	or PNP input	(SPST-NO)	RS-485	K3GN-PDC-FLK 24 VDC
		3 transistor outputs (PNP	None	K3GN-PDT2 24 VDC
		open collector)	RS-485	K3GN-PDT2-FLK 24 VDC

Note: Refer to page 5 for information on models with normally energized relays.

Specifications

Ratings

Item		K3GN-ND With DC voltage, DC current, and NPN input	K3GN-PD With DC voltage, DC current, and PNP input		
Supply voltage		24 VDC			
Operating voltage range		85% to 110% of the rated supply voltage			
Power consumption	(at max. load) (See note 1.)	2.5 W max. (at max. DC load with all indicators lit			
Input signal		DC voltage, DC current, no-voltage contact, open	collector		
DC voltage/current input	A/D conversion	Double integral method			
Pulse signal input	Pulse measurement method	Periodic measurement method			
External power supp	ly	None			
Control input		Present value hold or forced zero (selectable) (Se	e note 2.)		
Outputs (Outputs depend on	Relay contact output	1 A, 30 VDC (resistive load), mechanical life: 50,000,000 operations min., electrical life: 100,000 operations min.			
the model.)	Transistor output	Max. load voltage: 24 VDC, Max. load current: 50 mA, Leakage current: 100 μ A max.			
	Communications output	RS-485 (2-wire, half-duplex)			
	Linear output	DC current (0 to 20 mA DC, 4 to 20 mA: Load: 500 Ω max., Resolution: Approx. 10,000) DC voltage (0 to 5 VDC, 1 to 5 VDC, 0 to 10 VDC: Load: 5k Ω min., Resolution: Approx. 10,000)			
Display		Negative LCD (backlit LCD) display 7-segment digital display, character height: 7.0 mm, and single illuminated display			
Main functions		Scaling, prescaling, teaching, average processing, forced zero, display color selection, output type selection, key protection, startup compensation timer, hysteresis			
Ambient temperature		Operating: -10°C to 55°C (with no condensation or icing) Storage: -25°C to 65°C (with no condensation or icing)			
Ambient humidity		Operating: 25% to 85%			
Altitude		2,000 m max.			
Accessories		Rubber packing, fixture, operation manual			

Note: 1. A control power supply capacity greater than the rated capacity is required when the Digital Panel Meter is turned ON. Do not forget to take this into consideration when using several Digital Panel Meters. When power is supplied, all indicators will light and outputs will be OFF. When using startup compensation time operation, the display will read "DDDD" and all outputs will be OFF.

2. Enabled only when using DC voltage/current input. (Min.time for control signal input: 80 ms)

■ Characteristics

Item		K3GN-ND K3GN-PD With DC voltage, DC current, and NPN input With DC voltage, DC current, and PNP input				
Input signal		DC voltage/current (4 to 20 mA, 1 to 5 V, \pm 5 V, \pm 10 V) No-voltage contact (30 Hz max. with ON/OFF pulse width of 16 ms min.) Open collector (5 kHz max. with ON/OFF pulse width of 90 μ s min.)				
Displayable rang	e	5 digits (-19999 to 99999)				
Sampling period		250 ms				
Display refresh p	period	Sampling period: 250 ms (at 4 Hz min Input pulse cycle (at less than 4 Hz): I	.), 250 \times Number of aven nput pulse cycle \times Num	eraging times (ms) (with average processing selected), ber of averaging times		
Comparative out time (transistor outpu	put response its)	750 ms max. (transistor output) (The time required for the judgment ou	tput to be output if the ir	nput signal rapidly changes from 15% to 95% or from 95% to 15%.)		
Linear output response time		750 ms max. (The time required for th output if the output signal rapidly chan from 95% to 15%.)	e analog output to be ges from 15% to 95% c	r		
Insulation resistance		20 $M\Omega$ min. (at 500 VDC) between exclusion provided between inputs, or	ternal terminal and case utputs, and power suppl	e. y.		
Dielectric streng	th	1,000 VAC for 1 min between external terminal and case.				
Noise immunity		\pm 480 V on power supply terminals in normal mode, \pm 1,500 V in common mode, \pm 1 μ s, or 100 ns for square-wave noise with 1 ns				
Vibration resista	nce	Vibration frequency: 10 to 55 Hz, Acceleration: 50 m/s ² for 10 min each in X, Y, and Z directions				
Shock resistance	9	Models with transistor outputs: 150 m/s ² three times each in 3 axes, 6 directions Models with contact outputs: 100 m/s ² three times each in 3 axes, 6 directions				
Weight		Approx. 100 g (Main Unit only)				
Degree of	Front panel	NEMA4X for indoor use (equivalent to IP66),				
protection	Rear case	IP20				
	Terminals	IP00 and finger protection (VDE0106/100)				
Memory protecti	on	Non-volatile memory (EEPROM) (possible to rewrite 100,000 times)				
Approved standa	ards	UL508, CSA C22.2 No. 142				
EMC		(EMI) Emission Enclosure: (EMS) Immunity ESD: Immunity RF-interference: Immunity Fast Transient Noise: Immunity Burst Noise: Immunity Surge: Immunity Conducted Disturbance Immunity Power Frequency Magnetic	EN 61326 EN55011 Group 1 cla: EN 61326 EN 61000-4-2: EN 61000-4-3: EN 61000-4-3: EN 61000-4-5: EN 61000-4-5: EN 61000-4-6: EN 61000-4-8:	Industry ss A Industry 4 kV (contact discharge) 8 kV (air discharge) 10 V/m (amplitude-modulated, 80 MHz to 1 GHz) 2 kV (power line) 1 kV line to line (I/O signal line) 2 kV line to ground (power line) 3 V (0.15 to 80 MHz) 30 A/m (50 Hz) continuous time		

■ Input Ranges: Measurement Range and Accuracy

Input type	Analog				Pulse		Remote		
In-F		AnRLG			1	PUL SE		rāt	
	DC current input		DC voltag	je input		Ro	otary pulse		
Analog range	4 to 20 mA	Analog range	1 to 5 V	±5 V	±10 V	Pulse frequency	30 Hz	5 kHz	
rRn&E	4-20	r RaŭE	1-5	5	10	P-FrE	30	52	
Connection terminal	5-6	Connection terminal		(4)-(5)		Connection terminal	2	-3	Range of display
Current range (mA) 20.00 4.00 0.00	22.00	Voltage range (V) ^{10.00} 5.000 0.000 -5.000 -10.00	5.500	5.500	-11.00	Frequency range 5000 (Hz) 4000 2000 1000 0.0	<u>30.00</u> 0.05	5000	from 49999 to 99999 using communications.
Input impedance	60 Ω	Input impedance	1 M Ω min.						
Measurement accuracy	±0.1% full s 23±3°C)	cale ± one digit	max. (at	±0.1% full s digit max. (a	cale ± one it 23±5°C)	±0.1% full scale 23±5°C)	± one digit	max. (at	

Note: The shaded ranges indicate default settings.

■ Input/Output Ratings

Relay Contact Output

(Incorporating G6K Relays)

Item	Resistive load (cos
Rated load	1 A at 30 VDC
Rated through current	1 A max. (at COM terminal)
Max. contact voltage	60 VDC
Max. contact current	1 A (at COM terminal)
Max. switching capacity	30 VA
Min. permissible load (P level, reference value)	10 mV, 10 μA
Mechanical life	50,000,000 operations min. (at a switching frequency of 36,000 operations/hr)
Electrical life (at an ambient temperature of 23°C)	100,000 operations min. (at the rated load with a switching frequency of 1,800 operations/hr)

Transistor Output

Rated load voltage	24 VDC
Max. load current	50 mA
Leakage current	100 μA max.

Communications Specifications

	ltem	RS-485	
Communi	cations method	2-wire, half-duplex	
Synchron	ization method	Start-stop synchronization	
Baud rate		1,200/2,400/4,800/9,600/19,200 bps	
Transmiss	sion code	ASCII	
Commu- nications	Reading/ Writing to the K3GN	Read/write comparative set values, read/write scaling values, enable/ disable the writing of data through communications, forced-zero control, and other data.	

Linear Output

Item	0 to 20 mA	4 to 20 mA	0 to 5 V	1 to 5 V	0 to 10 V
Permissible load impedance	500 Ω max.		5 kΩ min.		
Resolution	Approx. 10,000				
Output error	±0.5% full scale		±0.5 full scale. ±0.15 V at 1 V or less (no output for 0 or less)		

Nomenclature



Name		Functions	
1. Main display		Displays process values, parameters, and set values.	
2. Status indicators OUT1		Lit when output 1 is ON.	
	OUT2	Lit when output 2 is ON.	
	SV	Lit when a set value is being displayed or changed.	
Т		Lit when the teaching function is enabled. Flashes when the K3GN is in teaching operation. Lit when a calibration value is being displayed during user calibration. Flashes while reading a calibra- tion value.	
	ZERO	Lit while the forced-zero function is activated.	
	HOLD	Lit when HOLD input is ON.	
	CMW	Lit when communications writing is "enabled" and is out when it is "disabled."	
3. Level indicator		Displays the current level that the K3GN is in. (See below for details.)	
4. Level Key		Used to change the level.	
5. Mode Key		Used to allow the Main display to indicate parameters sequentially.	
6. Shift Key		Used to enable that set value to be changed. When changing a set value, this key is used to move along the digits.	
7. Up/Zero Key		Used to change a set value. Used to set or clear a forced-zero function when a measurement value is being displayed.	

Level indicator	Level
P	Protect
Not lit	Operation
8	Adjustment
5	Initial setting
٢	Communications setting
۶	Advanced function setting
11	User calibration

• The drive operation for the output relay is reversed in these models.

• Relay contacts can be made open (i.e., OFF) when comparative set values are being judged. This is effective when constructing systems that take failsafe measures into consideration.

List of Models

Models with Normally Energized Relays
K3GN-NDC-400 24 VDC
K3GN-NDC-FLK-400 24 VDC
K3GN-NDC-L1-400 24 VDC
K3GN-NDC-L2-400 24 VDC

Relation between Output Type and Relay Output Operation



Connections

Terminal Arrangement



Terminal No.	Name	Description
1-2	Operation power	Connect the operation power supply.
(3)-(2) (3)-(1)	Event input or pulse/contact input	Operates as follows depending on parameter setting:
		 Holds process value.
		 Calibrate the process value to zero and clear the forced-zero function.
		 Pulse or contact input.
(4),(6)-(5)	Analog input	Connect the voltage or current analog input.
7-8	Communications	RS-485 communications terminals.
	Linear output	0 to 20 mA DC, 4 to 20 mA DC
		0 to 5 VDC, 1 to 5 VDC, 0 to 10 VDC
(9),(1)-(2) (9),(0),(1)-(2)	Outputs	Outputs relay or transistor outputs. There is also a PASS output for models with transistor outputs.

Block Diagram



■ Input Circuits

Analog Input (DC Voltage/Current)

Use terminal 5 for analog common.



Comparative Output

Contact Output



Transistor Output NPN Output



Pulse Input/ Event Input (HOLD/ZERO)

- If analog input is selected, 2 and 3 will be the event inputs. Select Hold/Zero with event input allocation.
- Use terminal 2 for the common terminal.
- Use the NPN open collector or the no-voltage contacts for the control input.

NPN Input



PNP Input



Linear Output



Note: The commons for linear output and transistor output on models with L1 and L2 are connected internally.

Depending on how the common is wired for externally connected devices, unwanted current paths for the linear output signal in the circuit may prevent the output signal from being output.

When connecting an external device, externally connect a relay to the transistor output or provide another means of insulation.

■ Initial Setting Flowchart





Input Type

Input type	Parameter	Function
Analog	RARLG	Selects the DC voltage/current signal input.
Pulse	PULSE	Selects the pulse input signal.
Remote	rāt	Displays the communications remote data from the Programmable Controller.

Note: The default value is RoRL 5: Analog input.

Analog Input Type

K3GN-ND

Input specification	Parameter	Setting range
4 to 20 mA	4-20	Values from –19999 to 99999 can be displayed with scaling.
1 to 5 V	1-5	The position of the decimal point can be set as desired.
±5 V	5	
±10 V	10	

Note: The default value is **Ч-2**^{*C*}: 4 to 20 mA input range.

K3GN-NL (with Microvoltage Input)

Input specification	Parameter	Setting range	
±199.9 mV	199.9	Values from –19999 to 99999 can be displayed with scaling.	
±19.99 mV	19.99	The position of the decimal point can be set as desired.	

Note: The default value is 199.9 : ±199.9 mV input range.

Pulse Frequency

Input specification	Parameter	Setting range	
0.05 Hz to 30.00 Hz	30	Values from -19999 to 99999 can be displayed with scaling	
0 Hz to 5 kHz	SM	The position of the decimal point can be set as desired.	

Note: The default value is 5^H: 5 kHz input range.

Setting Scaling

Analog Input Signal

(Refer to page 10 if a pulse input is selected.)

• The scaling will be displayed on a line connecting two points by setting Display 1 for Input 1 and Display 2 for Input 2.

The position of the decimal point can be set as desired. If the decimal point is to be displayed, it is necessary to consider the number of digits to be displayed past the decimal point when setting the scaling display value.

Note: When pulse input is used, the base point is the 0 point, so the settings are only the input value and the display value.



Instead of setting by inputting with the Shift Key and Up Key, current measurement values van be input as scaling input values for teaching. This is useful for making settings while checking the operation status of the K3GN.

For details on the operating procedures, refer to the *K3GN Digital Panel Meter Manual* (Cat. No. N102).

• If the K3GN is used with a pulse signal input, the display value will be the input frequency if scaling is not performed.

Display the rate of rotation or the speed of a device or machine to which the K3GN is mounted by converting using scaling.

The relation between input f (Hz) and display D is expressed in the form D = f x a (factor). The value depends on the display unit. The formula will be comprised as follows:

Display using rpm: D = f x 1/N x 60, N = Number of pulses per rotation, f = Input pulse frequency (Hz) (i.e., number of pulses in one second) Display using m/min: D = f x π d x 1/N x 60, π d = Circumference length (m) per rotation



Pulse Ъ K3GN

To display the rotational speed of a device that outputs five pulses per rotation:

 $D = f \times 1/5 \times 60$, and.

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If f=1,
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D = 12, so
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The setting will be completed by inputting $2\sigma^{p}$:1 and $d5^{p}$:12.

Output 2 Type

Output type	Parameter	Function
Upper limit	HE	Output turns ON if the measurement value ≥ comparative set value 2.
Lower limit	Lõ	Output turns ON if the measurement value ≤ comparative set value 2.
Upper and lower limit	Hĭ-Lō	The comparative upper-limit set value and comparative lower-limit set value can be set separately and expressed high and low. Output turns ON if the measurement value \geq comparative upper-limit set value 2 or if the measurement value is \leq comparative lower-limit set value 2.

Note: The default setting is Lower limit.

Comparative output



OFF

The output operations can be selected separately for OUT1 and OUT2.

Upper Limit 2-stage Output

Threshold Output

Measurement value

Comparative output

Comparative set value

Hyst

ON

OFF



Combination of Upper Limit and Upper/ Lower Limits



Upper Limit Comparative set value lysteresis Measurement value

ON

OFF

Note: The default value is H2: Upper limit.

Lower Limit

Function

measurement value ≥ comparative

measurement value < comparative

The comparative upper-limit set

value and comparative lower-limit

set value can be set separately and

measurement value ≥ comparative upper-limit set value 1 or if the measurement value is <

comparative lower-limit set value 1

Output turns ON if the

Output turns ON if the

expressed high and low. Output turns ON if the

set value 1.

set value 1



Comparative output

Output 1 Type

Parameter

HE

Lā

HE-Lā

Output

type

Upper limit

Lower limit

Upper and

lower

limits



Prescaling Example

Linear Output Type

Linear output type	Parameter	Meaning of set value
Linear current	0-20	Linear current type: 0 to 20 mA
type	4-20	Linear current type: 4 to 20 mA
Linear voltage	0-5	Linear voltage type: 0 to 5 V
type	1-5	Linear voltage type: 1 to 5 V
	0-10	Linear voltage type: 0 to 10 V

Setting Menu and Parameters







- Restricts menu display and writing in the operation level and adjustment level.
- Restricts menu display and moving for the initial setting level, communications setting level, and advanced setting level.
- Restricts changes to setup by operating the keys on the front panel.
 - Restricts forced-zero operation by operating the keys on the front of the panel. (This item is not displayed if pulse input is used.)

Operation/Adjustment Protection

Restricts key operation in the operation level and adjustment level.

Setting	Operati	Moving to	
	Present value Comparative display value display		adjustment level
0	Allowed	Allowed	Allowed
1	Allowed	Allowed	Prohibited
2	Allowed	Prohibited	Prohibited

• The default setting is 0.

• Protection is not enabled when the setting is 0 (initial setting).

Setting Change Protection

Restricts changes to settings.

Setting	Details
OFF	Changes to settings using the keys are allowed. (Moving to setting status is allowed.)
ON	Changes to settings using the keys are prohibited. (Moving to setting status is prohibited.)

• The default setting is OFF.

Note: Changes to protection level parameters, moving to advanced function setting level, and moving to calibration level are all allowed.

Initial Setting/Communications Protection

Restricts moving to the initial setting level, communications setting level, and advanced function setting level.

Setting	Moving to initial setting level	Moving to communications level
0	Allowed (message for moving to advanced function setting level displayed)	Allowed
1	Allowed (message for moving to advanced function setting level not displayed)	Allowed
2	Prohibited	Prohibited

• The default setting is 1.

Forced-zero Protection

Restricts the executing or clearing of a forced zero by using the keys.

Setting	Details
OFF	Executing or clearing of forced zero allowed.
ON	Executing or clearing of forced zero prohibited.

• The default setting is OFF.

Error Displays (Troubleshooting)

If an error occurs, error information will be displayed on the main display. Check the error according to the display and correct the error as indicated.

Main display	Level display	Error details	Correction
E 	Not lit	Memory error: RAM	Cycle the power supply. If the display does not change, replacement is required. If the error is removed, the original error may have been caused by noise. Check that there are no possible sources of noise
E (E111)	5	Memory error: EEP	nearby.
5.E rr (S.Err) flashing	Not lit	Input error or input range exceeded.	The outputs will all turn OFF. Check that the input wiring is correct, that there is no disconnection, or short-circuit, and that the input type is correct. Alternatively, limit the
99999	Not lit	Display range over:	This is not an error. It is displayed when the display range is exceeded
flashing			Limit the input value and display value to within the range.
-19999	Not lit	Display range over:	
Flashing		Lower minit	

Main Functions

Scaling

The K3GN includes a scaling function that can convert the input signal to a desired value and display that value.

The displayed values can be freely adjusted to shift values, to create reversed displays, or to create positive/negative displays.



Teaching

Teaching is used when using scaling or setting comparative set values to set the present measurement values as the set values instead of inputting with the Shift and Up/Zero Keys. Teaching is useful for making settings while checking the operation status of the K3GN.

Average Processing

Average processing can be performed for measurement values using four levels (OFF, 2 times, 4 times, or 8 times). Average processing stabilizes displayed values by averaging the corresponding input signals that fluctuate dynamically. Select the appropriate number of averaging times depending on the application.

Forced-zero Function

It is possible to shift from a value to the zero point with one touch of the Up/Zero Key on the front panel (for example, when adjusting reference values).

Note: This function can be used only when forced-zero operation protection is released.



Changing the Display Color

The color of the value displayed can be set to either red or green. Make the setting according to the purpose and application of the equipment in which the K3GN is installed. The display color can also be set to change from green to red, or from red to green, according to the status of the comparison criteria.

Output Type Selection

Output operation for comparative set values can be freely selected. Upper limit: Output ON if the measurement value \geq comparative set value.

Lower limit: Output ON if the measurement value \leq comparative set value.

Upper/lower limit: Output ON if the measurement value \geq comparative upper-limit set value or if the measurement value is \leq the comparative lower-limit value.

Key Protection

Key protection is used to restrict changes to displays and settings using the front panel keys and to restrict menu display and movement of operation levels. This function is effective for preventing misuse during operation.

Startup Compensation Time (Rotary Pulse Input Only)

The startup compensation time parameter keeps the measurement operation from sending an unnecessary output corresponding to instantaneous, fluctuating input from the moment the K3GN is turned ON until the end of the preset period.

Hysteresis

The hysteresis of comparative outputs can be set to prevent the chattering of relay or transistor outputs.

Dimensions

Note: All units are in millimeters unless otherwise indicated.

K3GN



Installation

- 1. Insert the K3GN into the panel cut-out hole.
- 2. For a waterproof installation, insert the rubber gasket onto the body of the K3MA-J.



3. Fit the adaptor into the grooves on the left and right sides of the rear case, then push it until it contacts the panel to secure the K3MA-J.



Angle of View

The K3GN is designed to provide the best visibility at the angles shown in the following diagram.



Rubber Packing

The Rubber Packing ensures a waterproof level conforming to NEMA4X. Depending on the operating environment, deterioration, contraction, or hardening of the Rubber Packing may occur, making replacement necessary. Contact your OMRON representative if replacement is required.

specified temperature.

Wiring Precautions

- · Wire the power supply with the correct polarity. Wiring with incorrect polarity may result in damage or burning.
- Wire the terminals using crimp terminals.
- Tighten terminal screws to a torque of approx. 0.5 N·m.
- Wire signal lines and power lines separately to reduce the influence of noise.

■ Wiring

Power Supply

• Input 24 VDC to terminals 1 and 2.

• Use M3 crimp terminals of the type shown below.



Measurement Input

The following table shows the relation between input ranges and input terminals.

Input range	Input terminals	
DC voltage/DC current	4 to 20 mA	5-6
	1 to 5 V	(4)-(5)
	±5 V	
	±10 V	
No-voltage contacts and NPN (Models with NPN inputs)	open collector	2-3
No-voltage contacts and PNP (Models with PNP inputs)	1-3	

Be sure to read the Precautions for Correct Use and other information required when using the K3GN in the following user's manual.

K3GN Digital Panel Meter User's Manual (Cat.No. N102) £. _ _ _

ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

In the interest of product improvement, specifications are subject to change without notice.

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The following are some examples of applications for which particular attention must be given. This is not intended to be an exhaustive list of all possible uses of the products, nor is it intended to imply that the uses listed may be suitable for the products:

- · Outdoor use, uses involving potential chemical contamination or electrical interference, or conditions or uses not described in this catalog.
- Nuclear energy control systems, combustion systems, railroad systems, aviation systems, medical equipment, amusement machines, vehicles, safety equipment, and installations subject to separate industry or government regulations.
- · Systems, machines, and equipment that could present a risk to life or property.

Please know and observe all prohibitions of use applicable to the products.

NEVER USE THE PRODUCTS FOR AN APPLICATION INVOLVING SERIOUS RISK TO LIFE OR PROPERTY WITHOUT ENSURING THAT THE SYSTEM AS A WHOLE HAS BEEN DESIGNED TO ADDRESS THE RISKS, AND THAT THE OMRON PRODUCTS ARE PROPERLY RATED AND INSTALLED FOR THE INTENDED USE WITHIN THE OVERALL EQUIPMENT OR SYSTEM.

PROGRAMMABLE PRODUCTS

OMRON shall not be responsible for the user's programming of a programmable product, or any consequence thereof.

Disclaimers

CHANGE IN SPECIFICATIONS

Product specifications and accessories may be changed at any time based on improvements and other reasons.

It is our practice to change model numbers when published ratings or features are changed, or when significant construction changes are made. However, some specifications of the products may be changed without any notice. When in doubt, special model numbers may be assigned to fix or establish key specifications for your application on your request. Please consult with your OMRON representative at any time to confirm actual specifications of purchased products.

DIMENSIONS AND WEIGHTS

Dimensions and weights are nominal and are not to be used for manufacturing purposes, even when tolerances are shown.

PERFORMANCE DATA

Performance data given in this catalog is provided as a guide for the user in determining suitability and does not constitute a warranty. It may represent the result of OMRON's test conditions, and the users must correlate it to actual application requirements. Actual performance is subject to the OMRON Warranty and Limitations of Liability.

ERRORS AND OMISSIONS

The information in this document has been carefully checked and is believed to be accurate; however, no responsibility is assumed for clerical, typographical, or proofreading errors, or omissions.

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In the interest of product improvement, specifications are subject to change without notice.

OMRON Corporation Industrial Automation Company

http://www.ia.omron.com/



Компания «ЭлектроПласт» предлагает заключение долгосрочных отношений при поставках импортных электронных компонентов на взаимовыгодных условиях!

Наши преимущества:

- Оперативные поставки широкого спектра электронных компонентов отечественного и импортного производства напрямую от производителей и с крупнейших мировых складов;
- Поставка более 17-ти миллионов наименований электронных компонентов;
- Поставка сложных, дефицитных, либо снятых с производства позиций;
- Оперативные сроки поставки под заказ (от 5 рабочих дней);
- Экспресс доставка в любую точку России;
- Техническая поддержка проекта, помощь в подборе аналогов, поставка прототипов;
- Система менеджмента качества сертифицирована по Международному стандарту ISO 9001;
- Лицензия ФСБ на осуществление работ с использованием сведений, составляющих государственную тайну;
- Поставка специализированных компонентов (Xilinx, Altera, Analog Devices, Intersil, Interpoint, Microsemi, Aeroflex, Peregrine, Syfer, Eurofarad, Texas Instrument, Miteq, Cobham, E2V, MA-COM, Hittite, Mini-Circuits, General Dynamics и др.);

Помимо этого, одним из направлений компании «ЭлектроПласт» является направление «Источники питания». Мы предлагаем Вам помощь Конструкторского отдела:

- Подбор оптимального решения, техническое обоснование при выборе компонента;
- Подбор аналогов;
- Консультации по применению компонента;
- Поставка образцов и прототипов;
- Техническая поддержка проекта;
- Защита от снятия компонента с производства.



Как с нами связаться

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