

# Selection Guide

## Panel Indicators

| Classification             | 1/32 DIN Multifunctional Digital Panel Indicator   | 1/8 DIN Process Indicator  | 1/8 DIN Temperature Indicator  |
|----------------------------|--|--|--|
| Model                      | <b>K3GN</b>  | <b>K3MA-J</b>  | <b>K3MA-L</b>  |
| <b>Appearance</b>          | <br>   | <br>  | <br>   |
| <b>Features</b>            | <ul style="list-style-type: none"> <li>5 Digit display with programmable display colour</li> <li>User selectable inputs (Voltage/Current/Frequency)</li> <li>Easy configuration through panel keys or RS485 comms</li> <li>Scaling in a wide range of engineering units</li> <li>Programmable output operation, decimal point pos. setting, zero suppression, average processing, min/max hold function</li> </ul> | <ul style="list-style-type: none"> <li>5 Digit display with colour change, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range of engineering units</li> <li>Programmable output operation, decimal point pos. setting, zero suppression, average processing, min/max hold function</li> </ul> | <ul style="list-style-type: none"> <li>4 Digit display with colour change, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range of engineering units</li> <li>Programmable output operation, zero suppression, average processing, min/max hold function</li> </ul> |
| <b>Measuring modes</b>     | —  | —  | —  |
| <b>Model Variations</b>    | <ul style="list-style-type: none"> <li>DC Voltage/Current, NPN</li> <li>DC Voltage/Current, PNP</li> </ul>   | <ul style="list-style-type: none"> <li>DC Voltage/Current</li> </ul>   | <ul style="list-style-type: none"> <li>Platinum-resistance or Thermocouple thermometer</li> </ul>  |
| <b>Input ranges</b>        | <ul style="list-style-type: none"> <li>DC Voltage: 0/1..5 V, -5..5 V, -10..10 V</li> <li>DC Current: 0/4..20 mA</li> <li>No voltage: 0.05..30.00 Hz</li> <li>Open collector: 0.1..5000.0 Hz</li> </ul>   | <ul style="list-style-type: none"> <li>DC Voltage: 0/1-5V, -5- 5V, -10- 10 V</li> <li>DC Current: 0/4-20 mA</li> </ul>   | <ul style="list-style-type: none"> <li>Thermocouples: K, J, T, E, L, U, N, R, S, B</li> <li>Pt-100 and JPt-100</li> </ul>  |
| <b>Indication Accuracy</b> | +/- 0.1% FS max, +/- 1 digit max.  | +/- 0.1% FS max, +/- 1 digit max.  | +/- 0.5% FS max, +/- 1 digit max.  |
| <b>Outputs</b>             | <ul style="list-style-type: none"> <li>Dual Relay SPST-NO 1A at 30 VDC</li> <li>Triple PNP or NPN; 50 mA 24 VDC</li> </ul>   | <ul style="list-style-type: none"> <li>Dual Relay SPST-NO 5A at 30 VDC</li> </ul>  | <ul style="list-style-type: none"> <li>1 Relay 5 A at 30 VDC</li> </ul>  |
| <b>Sample Rate</b>         | 4 Hz   | 4 Hz   | 2 Hz   |
| <b>Communication</b>       | RS-485   | —  | —  |
| <b>Supply Voltage</b>      | 24 VDC (85..110% of rated voltage)   | 100..240 VAC and 24 VAC/VDC (85..110% of rated voltage)  | 100..240 VAC and 24 VAC/VDC (85..110% of rated voltage)  |
| <b>IP grade</b>            | IP66   | IP66   | IP66   |
| <b>Dimensions (mm)</b>     | 48 x 24 x 80 (W x H x D)   | 96 x 48 x 85 (W x H x D)   | 96 x 48 x 85 (W x H x D)   |
| <b>Approvals</b>           | UL, CSA, IEC, CE   | UL, CE   | UL, CE   |
| <b>Page No.</b>            | K-7  | K-29   | K-45   |

| 1/8 DIN Frequency/Rate meter  | 1/8 DIN Process Indicator  | 1/8 DIN Temperature Indicator  | 1/8 DIN Frequency/Rate meter (single or dual input)  |
|---|--|--|--|
| K3MA-F  | K3NX   | K3NH   | K3NR   |
|    | <br>CE UL cUL   | <br>CE UL cUL  | <br>CE UL cUL   |
| <ul style="list-style-type: none"> <li>5 Digit display with colour change, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range of engineering units</li> <li>Programmable output operation, decimal point pos. setting, zero suppression, average processing, min/max hold function, par. Initialization, start-up compensating time, auto-zero time</li> </ul> | <ul style="list-style-type: none"> <li>5 Digit display, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range of engineering units</li> <li>Programmable output operation, decimal point pos. setting, leading zero suppression, average processing, min/max hold function, start-up compensating time, teaching, security, remote/local processing, field calibration</li> <li>Sensor power supply (80 mA at 12 VDC)</li> </ul> | <ul style="list-style-type: none"> <li>5 Digit display, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range</li> <li>Programmable output operation, decimal point pos. setting, leading zero suppression, average processing, min/max hold function, auto-zero time, teaching, security, remote/local processing, field calibration, comparative output pattern selection</li> <li>Sensor power supply (100 mA at 10 VDC)</li> </ul> | <ul style="list-style-type: none"> <li>5 Digit display, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range</li> <li>Programmable output operation, decimal point pos. setting, leading zero suppression, average processing, min/max hold function, start-up compensating time, security, remote/local processing, teaching, comparative output pattern selection, memory power failure</li> <li>Sensor power supply (80 mA at 12 VDC)</li> </ul> |
| –   | –  | –  | Rotational/circumferential speed, Absolute ratio, Error ratio, Rotational difference, Flow rate ratio, Passing time, Pulse counting  |
| <ul style="list-style-type: none"> <li>Rotary Pulse</li> </ul>  | <ul style="list-style-type: none"> <li>Basic model with one process value display</li> <li>Set value model with 2 displays (PV and SV)</li> </ul>  | <ul style="list-style-type: none"> <li>Basic model with one process value display</li> <li>Set value model with 2 displays (PV and SV)</li> </ul>  | <ul style="list-style-type: none"> <li>Basic model with one process value display</li> <li>Set value model with 2 displays (PV and SV)</li> </ul>  |
| <ul style="list-style-type: none"> <li>No voltage: 0.05..30.00 Hz</li> <li>Open collector: 0.1..5000.0 Hz</li> </ul>  | <ul style="list-style-type: none"> <li>DC Voltage: +/- 199.99 V, +/- 19.999 V, +/- 1.9999 V, +/- 199.99m V, 1.0000..5.0000 V</li> <li>DC Current: +/- 199.9 9mA, +/- 19.999 mA, +/- 1.9999 mA, 4.000..20.000 mA</li> <li>AC Voltage: 0.0..400.0 V, 0.00..199.99 V, 0.000..19.999 V, 0.0000..1.9999 V</li> <li>AC Current: 0.000..10.000 A, 0.0000..1.9999 A, 0.00..199.99 mA, 0.00..19.999 mA</li> </ul>   | <ul style="list-style-type: none"> <li>Thermocouples: K, J, T, E, L, U, N, R, S, B, W, PLII</li> <li>Pt-100 and JPt-100</li> <li>DC Current: 0/4-20 mA</li> <li>DC Voltage: 0/1..5 V, 0..10 V</li> </ul>   | <ul style="list-style-type: none"> <li>No voltage contact: 30 Hz max.</li> <li>Voltage pulse: 50 kHz max.</li> <li>Open collector: 50 kHz max.</li> </ul>  |
| +/- 0.1% FS max, +/- 1 digit max.   | DC: +/- 0.1..+/- 0.15% FS; AC: +/- 0.1%..+/- 0.5% FS   | DC: +/- 0.2% FS max, +/- 1 digit max.  | +/- 0.006..0.02% FS (mode dependable)  |
| <ul style="list-style-type: none"> <li>Dual Relay SPST-NO 5 A at 30 VDC</li> </ul>  | <ul style="list-style-type: none"> <li>3 or 5 Relays 5 A at 30 VDC</li> <li>5 Transistor (PNP or NPN) 50 mA 12..24 VDC</li> <li>BCD (5-digit, NPN open collector)</li> <li>Communications</li> <li>Lineair (4..20 mA, 1..5 VDC, 1 mV/10 digits, 0..5 VDC, 0..10 VDC)</li> </ul>  | <ul style="list-style-type: none"> <li>3 or 5 Relays 5 A at 30 VDC</li> <li>5 Transistor (PNP or NPN) 50 mA 12..24 VDC</li> <li>BCD (5-digit, NPN open collector)</li> <li>Communications</li> <li>Lineair (4..20 mA, 1..5 VDC, 1 mV/10 digits, 0..5 VDC, 0..10 VDC)</li> </ul>  | <ul style="list-style-type: none"> <li>3 or 5 Relays 5 A at 30 VDC</li> <li>5 Transistor (PNP or NPN) 50 mA 12..24 VDC</li> <li>BCD (5-digit, NPN open collector)</li> <li>Communications</li> <li>Lineair (4..20 mA, 1..5 VDC, 1 mV/10 digits, 0..5 VDC, 0..10 VDC)</li> </ul>  |
| –   | 12.5 times/s (50 Hz); 15 times/s (60 Hz)   | 10 Hz (analog input), 4 Hz: Pt-100 and thermocouple  | –  |
| –   | RS-232C, RS-422, RS-485  | RS-232C, RS-422, RS-485  | RS-232C, RS-422, RS-485  |
| 100..240 VAC and 24 VAC/VDC (85..110% of rated voltage)   | 100..240 VAC and 12..24 VAC/VDC (85..110% of rated voltage)  | 100..240 VAC and 12..24 VAC/VDC (85..110% of rated voltage)  | 100..240 VAC and 24 VAC/VDC (85..110% of rated voltage)  |
| IP66  | IP66   | IP66   | IP66   |
| 96 x 48 x 85 (W x H x D)  | 96 x 48 x 130 (W x H x D)  | 96 x 48 x 130 (W x H x D)  | 96 x 48 x 130 (W x H x D)  |
| UL, CE  | UL, CSA, CE  | UL, CSA, CE  | UL, CSA, CE  |
| K-61  | K-79   | K-105  | K-129  |

# Selection Guide

## Panel Indicators

| Classification             | 1/8 DIN Weighing Meter   | 1/8 DIN Period Meter  | 1/8 DIN Up/Down Counting Meter   |
|----------------------------|--|---|--|
| Model                      | K3NV   | K3NP  | K3NC   |
| <b>Appearance</b>          | <br>   | <br>  | <br>   |
| <b>Features</b>            | <ul style="list-style-type: none"> <li>5 Digit display, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range</li> <li>Programmable output operation, decimal point pos. setting, leading zero suppression, average processing, min/max hold function, start-up compensating time, auto-zero time, security, remote/local processing, teaching, comparative output pattern selection, tare function</li> <li>Load cell powersupply (100 mA at 10 VDC)</li> </ul> | <ul style="list-style-type: none"> <li>5 Digit display, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range</li> <li>Programmable output operation, decimal point pos. setting, leading zero suppression, min/max hold function, time unit display, security, remote/local processing, teaching, comparative output pattern selection</li> <li>Sensor power supply (80 mA at 12 VDC)</li> </ul> | <ul style="list-style-type: none"> <li>5 Digit display, 2-colour LEDs (Red and Green)</li> <li>Front panel key operation and configuration</li> <li>Scaling in a wide range</li> <li>Programmable output operation, decimal point pos. setting, leading zero suppression, min/max hold function, counting value reset with front panel keys, security, remote/local processing, teaching, memory power failure, external reset</li> <li>Sensor power supply (80 mA at 12 VDC)</li> </ul> |
| <b>Measuring modes</b>     | -  | Passing speed, Cycle, Time difference, Elapsed time, Length measurement, Interval   | -  |
| <b>Model Variations</b>    | <ul style="list-style-type: none"> <li>Basic model with one process value display</li> <li>Set value model with 2 displays (PV and SV)</li> </ul>  | <ul style="list-style-type: none"> <li>Basic model with one process value display</li> <li>Set value model with 2 displays (PV and SV)</li> </ul>   | <ul style="list-style-type: none"> <li>Basic model with one process value display</li> <li>Set value model with 2 displays (PV and SV)</li> </ul>  |
| <b>Input ranges</b>        | <ul style="list-style-type: none"> <li>DC Voltage: 0.00..199.99 mV, 0.000..19.999 mV, +/- 100 mV</li> </ul>  | <ul style="list-style-type: none"> <li>No voltage contact: 30 Hz max.</li> <li>Voltage pulse: 50 kHz max.</li> <li>Open collector: 50 kHz max.</li> </ul>   | <ul style="list-style-type: none"> <li>No voltage contact: 30 Hz max.</li> <li>Voltage pulse: 50 kHz max.</li> <li>Open collector: 50 kHz max.</li> </ul>  |
| <b>Indication Accuracy</b> | +/- 0.1% FS max, +/- 5 digit max.  | +/- 0.08% FS max, +/- 1 digit max.  | -  |
| <b>Outputs</b>             | <ul style="list-style-type: none"> <li>3 or 5 Relays 5 A at 30 VDC</li> <li>5 Transistor (PNP or NPN) 50 mA 12..24 VDC</li> <li>BCD (5-digit, NPN open collector)</li> <li>Communications</li> <li>Linear (4..20 mA, 1..5 VDC, 1 mV/10 digits, 0..5 VDC, 0..10 VDC)</li> </ul>   | <ul style="list-style-type: none"> <li>3 or 5 Relays 5 A at 30 VDC</li> <li>5 Transistor (PNP or NPN) 50 mA 12..24 VDC</li> <li>BCD (5-digit, NPN open collector)</li> <li>Communications</li> <li>Linear (4..20 mA, 1..5 VDC, 1 mV/10 digits, 0..5 VDC, 0..10 VDC)</li> </ul>  | <ul style="list-style-type: none"> <li>3 or 5 Relays 5 A at 30 VDC</li> <li>5 Transistor (PNP or NPN) 50 mA 12..24 VDC</li> <li>BCD (5-digit, NPN open collector)</li> <li>Communications</li> <li>Linear (4..20 mA, 1..5 VDC, 1 mV/10 digits, 0..5 VDC, 0..10 VDC)</li> </ul>   |
| <b>Sample Rate</b>         | 12.5 times/s (50 Hz); 15 times/s (60 Hz)   | -   | -  |
| <b>Communication</b>       | RS-232C, RS-422, RS-485  | RS-232C, RS-422, RS-485   | RS-232C, RS-422, RS-485  |
| <b>Supply Voltage</b>      | 100..240 VAC and 12..24 VAC/VDC (85..110% of rated voltage)  | 100..240 VAC and 12..24 VAC/VDC (85..110% of rated voltage)   | 100..240 VAC and 12..24 VAC/VDC (85..110% of rated voltage)  |
| <b>IP grade</b>            | IP66   | IP66  | IP66   |
| <b>Dimensions (mm)</b>     | 96 x 48 x 130 (W x H x D)  | 96 x 48 x 130 (W x H x D)   | 96 x 48 x 130 (W x H x D)  |
| <b>Approvals</b>           | UL, CSA, CE  | UL, CSA, CE   | UL, CSA, CE  |
| <b>Page No.</b>            | K-157  | B-195   | C-131  |

| 1/8 DIN Low Cost Panel Indicator<br>DC input  | 1/8 DIN Low Cost Panel Indicator<br>AC input   | 1/32 DIN Panel Indicator DC input   |
|---|--|---|
| K3TE  | K3TF   | K3TG  |
| <br>  | <br>   | <br>  |
| <ul style="list-style-type: none"> <li>• 3 1/2 Digit display</li> <li>• Front panel key operation and configuration</li> <li>• Scaling in a wide range</li> <li>• Process value hold, decimal point pos. setting</li> </ul> | <ul style="list-style-type: none"> <li>• 3 1/2 Digit display</li> <li>• Front panel key operation and configuration</li> <li>• Scaling in a wide range</li> <li>• Process value hold, decimal point pos. setting</li> </ul>      | <ul style="list-style-type: none"> <li>• 3 1/2 Digit display</li> <li>• Front panel key operation and configuration</li> <li>• Scaling in a wide range</li> <li>• Process value hold, decimal point pos. setting</li> </ul> |
| –   | –  | –   |
| <ul style="list-style-type: none"> <li>• DC Voltage</li> <li>• DC Current</li> </ul>  | <ul style="list-style-type: none"> <li>• AC Voltage (signal monitor)</li> <li>• AC Current (signal monitor)</li> <li>• AC Voltage (line monitor)</li> </ul>  | <ul style="list-style-type: none"> <li>• DC Voltage</li> </ul>  |
| <ul style="list-style-type: none"> <li>• DC Voltage: +/-199.9 mV, +/-1.999 V, +/- 19.99 V, +/- 199.9 V</li> <li>• DC current: +/- 199.9 microA, +/- 1.999 mA, +/- 19.99 mA, +/- 199.9 mA</li> </ul>                         | <ul style="list-style-type: none"> <li>• AC Voltage: 0..199.9 mV, 0..1.999 V, 0..19.99 V</li> <li>• AC Current: 0..1.999 mA, 0..19.99 mA, 0..199.9 mA</li> <li>• AC Voltage: 0..199.9 V and 0 to 400 V (line monitor)</li> </ul> | <ul style="list-style-type: none"> <li>• DC Voltage: +/-199.9 mV, +/-1.999 V, +/- 19.99 V, +/- 199.9 V</li> </ul>   |
| +/- 0.1% FS max, +/- 1 digit  | AC Voltage: +/-0.3% FS max, +/- 1 digit  | +/- 0.1% FS max, +/- 1 digit  |
| –   | –  | –   |
| 2.5 Hz  | 2.5 Hz   | 2.5 Hz  |
| –   | –  | –   |
| 100..120 VAC, 200..240 VAC,<br>24 VAC/VDC (85..110% of rated voltage)   | 100..120 VAC, 200..240 VAC, 24 VAC/<br>VDC (85..110% of rated voltage)   | 5 VDC (95..105% of rated voltage)   |
| IP50  | IP50   | IP50  |
| 96 x 48 x 70 (W x H x D)  | 96 x 48 x 66 (W x H x D)   | 48x24x70 (WxHxD)  |
| This product is not shown in the catalogue.<br>For more information please contact your local Omron sales office or download the data from <a href="http://www.eu.omron.com">www.eu.omron.com</a>                           |  |   |