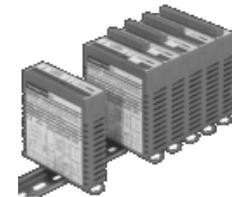


# PRODUCT GUIDE

## 2003 / 2004

### DPM-AL

#### DIGITAL PROCESS MEASUREMENT - ANDREAS LANG



<h1>E</h1>	<p><b>PRODUCT GUIDE</b></p> <p><b>2003/2004</b></p> <p><b>DPM AL</b></p> <p><b>DIGITAL PROCESS MEASUREMENT ANDREAS LANG</b></p>	<p><b>Andreas Lang GmbH</b>          Industrievertretung &amp; Service          Bahnhofstraße 33          D - 61137 Schöneck          Telefon: +49 (0) 6187 88 54                    +49 (0) 6187 88 60          Telefax: +49 (0) 6187 88 71          WebSite: www.alangmbh.de          E-Mail: info@alangmbh.de</p>
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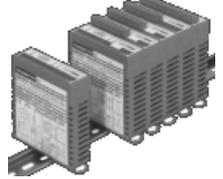
## Process Input Indicators

Model	Graphic	Description
<b>DPM-4001 AL</b>		Programmable indicator, with universal inputs for process, frequency and counting functions for accurate measurement & display of pressure level, flow, speed, counts, volts, currents etc. Sensor excitation is standard & is link selectable for 2-wire / 3-wire transmitters, encoders & potentiometer input. 4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size
<b>DPM-4006 AL</b>		Programmable indicator specifically designed for measurement of high AC/DC voltages up to 600V or high AC/DC currents up to 5A. Rugged, heavy duty, high capacity input terminals. 4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.
<b>DPM-4015 AL</b>		Programmable Dual Channel Process Indicator which can be applied to many applications which require a dual input and a single display eg. temperature and humidity monitoring Excitation is standard and is link selectable for 2-wire / 3-wire transmitters and a potentiometer input. 4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.
<b>DPM-5001 AL</b>		Advanced programmable indicator, with universal inputs for process, frequency, counting, totalising functions on frequency, and process x frequency functions. Applications include the measurement & display of pressure, level, flow, speed, counts, volts, currents etc. Sensor excitation is standard & is link selectable for 2-wire / 3-wire transmitters, encoders & potentiometer input. 5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.
<b>DPM-5015 AL</b>		Programmable Dual Channel Process Indicator which can be applied to many applications which require a dual input and a single display eg. temperature and humidity monitoring Excitation is standard and is link selectable for 2-wire / 3-wire transmitters and a potentiometer input. 5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.

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## Weighing Products (see also beltweigher section)

Model	Graphic	Description
DPM-4004 AL		Programmable load cell indicator for mV inputs from load cells, strain gauges & strain gauge pressure transmitters. Excitation includes sense feedback. Internal resolution of 40000 counts provides accurate weight readings. Provides pre-calibration facilities, and on-site calibration capability for dead-weight offset and span calibration using test weights. 4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size
DPM-5004 AL		High performance programmable load cell indicator for mV inputs from load cells, strain gauges & strain gauge pressure transmitters. Excitation includes sense feedback. Internal resolution of 24-bits provides high resolution and accurate readings. Provides pre-calibration facilities, and on-site calibration capability for dead-weight offset and span calibration using test weights. 4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size
DPM-9004 AL		Space saving DIN-rail mount 92x92x26mm load cell transmitter. Configuration and field calibration is done via a computer using free "DPM-AL-View" configuration software. Output is configurable for 0-10V, 0-20mA. Excitation incl. Sense feedback. Power four load cells. RS232 serial communications standard. Complete 3-way isolation is provided between power supply, input and output. Provides pre-calibration facilities, and on-site calibration capability for dead-weight offset and span calibration using test weights.

## Temperature Indicator

Model	Graphic	Description
DPM-4003 AL		Universal programmable temperature indicator, for use with the thermocouples of type J, K, N, R, S, T, W5 and from RTDs such as PT100, Ni100, PT500 and PT1000. The temperature probes are accurately linearised by the internal micro-controller. Ability to display temperature in Celsius, Fahrenheit or Kelvin. 4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size

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## Totalisers

Model	Graphic	Description
DPM-5001 AL		Programmable indicator for frequency and counting applications, with rate and totalising functions. Sensor excitation is standard & is link selectable for proximity switches and encoders. 5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.
DPM-5001-T AL		Programmable indicator for process inputs (0-10V, 4-20mA etc), with integrating / totalising function. Sensor excitation is standard & is link selectable for 2-wire / 3-wire transmitters. 5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.
DPM-8001 AL		Programmable indicator for frequency and counting applications, with rate and totalising functions. Sensor excitation is standard & is link selectable for proximity switches and encoders. 8 digit (-19999999 to 99999999) bright red 10mm LED display, housing is DIN 1/8 (48x96mm) size.
DPM-8001-T AL		Programmable indicator for process inputs (0-10V, 4-20mA etc), with integrating / totalising function. Sensor excitation is standard & is link selectable for 2-wire / 3-wire transmitters. 8 digit (-19999999 to 99999999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.

## Frequency / Count / Timing Indicators

Model	Graphic	Description
DPM-5012 AL		High performance universal programmable indicator for counting, frequency / speed (dual channel), period, flow, timing, rate, totalising & positioning applications. It can be used in conjunction with most standard pulse / frequency generating sensors. Sensor excitation is standard & is link selectable for proximity sensors, encoders and flow meters. 6 digit (-199999 to 999999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size
DPM-5012-C AL & DPM-5012-Q AL		Model DPM-5012-C AL      Real Time clock, with all features of Model DPM-5012 AL  Model DPM-5012-Q AL      Quadrature input (up and down counting), With all the features of Model DPM-5012 AL.

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### ....Frequency / Count / Timing Indicators

The following models also have frequency / count capabilities, but the range of applications with these products is less than the above models.

<b>DPM-4001 AL</b>		<p>Programmable indicator, with universal inputs for process, frequency and counting functions for accurate measurement &amp; display of pressure level, flow, speed, counts, volts, currents etc.</p> <p>Sensor excitation is standard &amp; is link selectable for 2-wire / 3-wire transmitters, encoders &amp; potentiometer input.</p> <p>4 digit (-1999 to 9999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size</p>
<b>DPM-5001 AL</b>		<p>Programmable indicator for frequency and counting applications, with rate and totalising functions.</p> <p>Sensor excitation is standard &amp; is link selectable for proximity switches and encoders.</p> <p>5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.</p>
<b>DPM-8001 AL</b>		<p>High resolution programmable indicator for counting, frequency / speed, flow, rate &amp; totalising applications. It can be used in conjunction with most standard pulse / frequency generating sensors.</p> <p>Sensor excitation is standard &amp; is link selectable for proximity sensors, encoders and flow meters.</p> <p>8 digit (-19999999 to 99999999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size</p>

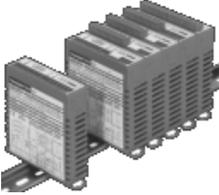
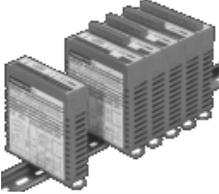
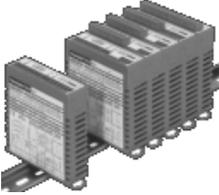
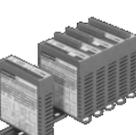
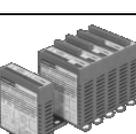
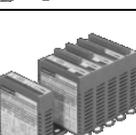
### Belt Weighers & Dynamometers

<b>Model</b>	<b>Graphic</b>	<b>Description</b>
<b>DPM-5013 AL</b>		<p>Low cost belt weigher.</p> <p>All the features of more expensive systems are included in one indicator.</p> <p>Inputs to the instrument include load cell input, encoder input &amp; totaliser reset input. Included is excitation for load cells and a 18-24V DC supply for the shaft encoder.</p> <p>5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.</p>
<b>DPM-5014 AL</b>		<p>Low cost dynamometer.</p> <p>All the features of more expensive systems are included in one indicator.</p> <p>Inputs to the instrument include load cell input &amp; proximity sensor or encoder input. Included is excitation for load cells and a 18-24V DC supply for the proximity switch or encoder.</p> <p>5 ½ digit (-199999 to 199999) bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size</p>

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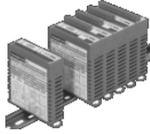
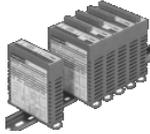
## DIN Rail Mount Transmitters

Model	Graphic	Description
<b>DPM-9000 AL &amp; DPM-9240 AL</b>		Space saving, high performance DIN-rail mount 92x92x26mm, universal programmable process transmitter. Complete 3-way isolation between power, input and output. Isolation greater than 1500V. Input types J, K, N, R, S, T, W5, Pt100, Ni100, mV, 0/4-20mA, 0-10V, frequency, pot. 0-10V, 0-20mA or 4-20mA analogue output with programmable zero & span. User configuration is done using a computer using free "DPM-AL-View" configuration software. RS232 serial communications standard with DIGibus protocol, with optional RS485 communications. 95-265V AC/DC power supply (Model DPM-9000 AL), or 24V DC power supply (Model DPM-9240 AL)
<b>DPM-9004 AL &amp; DPM9244 AL</b>		Space saving DIN-rail mount 92x92x26mm load cell transmitter. Field configuration is done using a computer using free "DPM-AL-View" configuration software. Output is configurable for 0-10V, 0-20mA or 4-20mA. Excitation includes sense feedback. Power four load cells. RS232 serial communications standard. Complete 3-way isolation between power, input and output. Isolation greater than 1500V. Provides pre-calibration facilities, and on-site calibration capability for dead-weight offset and span calibration using test weights. 95-265V AC/DC power supply (Model DPM-9004 AL), or 8-30V DC isolated power supply (Model DPM-9244 AL)
<b>DPM-9006 AL</b>		Space saving 92 x 92 x 26 mm DIN rail mount AC voltage or current programmable transmitter. The unit can accept voltages up to 500V and currents up to 5A, and converts them to an isolated 0-10V, 0-20mA or 4-20mA output. User configuration is done using a computer using free "DPM-AL-View" configuration software. This transmitter offers complete 3-way isolation between power supply, input and output. The power supply is 95-265V AC/DC as standard. The RS232 serial interface is standard. The serial interface allows connections to remote computers and SCADA systems using DPM-AL's DIGibus protocol. The RS485 option allows up to 99 transmitters to be linked on the same bus.
<b>DPM-9300 AL</b>		Space saving 92 x 92 x 26 mm DIN rail mount AC voltage dual setpoint transmitter. This transmitter accepts standard process inputs of 0(4)-20mA, 0-2V, 0-5V, 0-10V and provides user adjustable setpoint outputs. The setpoints can be configured for a high / low setting as well as an LED indication for each set point which is also jumper selectable for a high / low setting. This Model can also be configured to use both setpoints off input A or individual setpoints for each input.
<b>DPM-9400 AL</b>		Space saving 92 x 92 x 26 mm DIN rail mount AC/DC voltage dual channel process power supply. The outputs are galvanically isolated from each other as well as the input power supply. The 9400 outputs are regulated to 24V +/- 5% and current limited to 38mA. The 9400 outputs also contains an LED indication for correct operation or to indicate a current limit / short circuit condition. The 9400 also has a jumper setting to increase the current limit to 100mA per channel. The outputs can also be paralleled together to increase the overall current if needed.
<b>DPM-9500 AL</b>		Space saving 92 x 92 x 26 mm DIN rail mount current / volt / potentiometer to 4-20mA transmitter. The model 9500 accepts standard process inputs of 0(4)-20mA, 0-2V, 0-10V, 0-20V and potentiometer inputs and translates them to a 4-20mA loop signal. The model 9500 also has an LED function for indicating the state of the loop (LED intensity indicates the amount of current flowing in the loop). The model 9500 can be ordered with or without the onboard loop power supply option.
<b>DPM-9600 AL</b>		Space saving 92 x 92 x 26 mm DIN rail mount loop powered 0-30mA loop isolator designed specifically to eliminate ground loop measurement problems. The unit generates a output current to flow in a load which is proportional to the input current but galvanically isolated. The unit boasts galvanic isolation in excess of 1000V between input and output and requires no additional power supply. The model 9600 can be factory fitted with 1 or 2 loop isolators in the same housing.

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## .....DIN Rail Mount Transmitters

Model	Graphic	Description
<b>Option DPM-3016 AL</b>		Space saving DIN-rail mount 92x92x26mm power booster to provide excitation for up to 6 load cells. This unit interfaces to DPM-AL's load cell indicators Model DPM-4004 AL&DPM-5004 AL. 95-265V AC/DC power supply.
<b>DPM-7000 AL</b>		Serial communications isolator & converter from RS485 to RS232. Communications isolator RS232 to RS232. Isolation rating greater than 1500V. 95-265V AC/DC power supply. Space saving DIN-rail mount 92x92x26mm.

## Serial / Parallel Input Indicators

Model	Graphic	Description
<b>DPM-4011 AL</b>		Programmable serial input indicator, using a simple and easy ASCII based protocol, for remote display of serial data of numeric & alpha-numeric format. These indicators are ideal for applications where multiple slave display units are required. Choice or RS232 or RS485 input. 4 digit bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.
<b>DPM-5002 AL</b>		Programmable indicator for parallel digital inputs, such as BCD, Gray Code & Binary inputs. As a universal indicator, the instrument is fully programmable from the front pushbuttons for decimal point selection, scaling, positive or negative logic, parallel or multiplexed BCD input, Gray Code input & Binary input. The panel mount Applications include displays for PLC outputs for process control, & displays for absolute shaft encoders. 6 digit (-199999 to 999999) red LED, housing is a standard DIN 48 x 96 size.
<b>DPM-5011 AL</b>		Programmable serial input indicator, using a simple and easy ASCII based protocol, for remote display of serial data of numeric & alpha-numeric format. These indicators are ideal for applications where multiple slave display units are required. Choice or RS232 or RS485 input. 5 1/2 digit bright red 14.2mm LED display, housing is DIN 1/8 (48x96mm) size.

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## OPTIONS

DPM-3000 AL	Lineariser (square root / sphere / & more)
DPM-3001-P AL	Two setpoints (solid-state relays)
DPM-3001-M AL	Two setpoints (electro-mechanical relays)
DPM-3002 AL	RS485 communication
DPM-3003 AL	0 – 20mA / 4 – 20mA analog output
DPM-3004-P AL	One setpoint (solid-state relay)
DPM-3004-M AL	One setpoint (electro-mechanical relays)
DPM-3005 AL	True RMS AC input
DPM-3006 AL	Isolated outputs (order with 3002/3/7/13)
DPM-3007 AL	0-5V / 0 - 10V analog output
DPM-3008 AL	12 / 24V galvanic isolated DC supply
DPM-3009 AL	Parallel BCD output
DPM-3010 AL	95-265V AC/DC isolated power supply
DPM-3011 AL	Ohms / tap input
DPM-3012 AL	Peak or valley hold
DPM-3013 AL	RS 232 communication
DPM-3014 AL	Auto zero (with remote zero)
DPM-3015 AL	Differential inputs (non-prog)
DPM-3016 AL	External load cell power booster
DPM-3017-P AL	3-setpoints (solid-state relays)
DPM-3017-M AL	3-setpoints (electro-mechanical)
DPM-3018-P AL	4-setpoints (solid-state relays)
DPM-3018-M AL	4-setpoints (electro-mechanical)
DPM-3020 AL	Ultra bright Red LED display
DPM-3021 AL	Mains frequency measurement
DPM-3022 AL	Vertical bar graph display
DPM-3023 AL	Pulse output
DPM-3024 AL	Manual setpoint display
DPM-3025 AL	Keypad lockout
DPM-3026 AL	Display hold



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2003/2004

DPM AL

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