



Sensors for motion control

# Multifunctional display: speed, time, counter



Systems for pulse evaluation



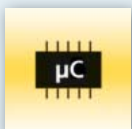
Clearly legible display

Touch display and clear text for intuitive handling

Change of display to red/yellow/green when set limit is exceeded or not reached

4 optional switching outputs and/or analogue outputs (V or mA)

PNP, NPN or NAMUR inputs



## Digital display 4.0

The new multifunctional display is more than a simple display: It pre-processes digital signals in a decentralised manner and passes the information on to a higher-level controller if necessary. This intelligent feature makes it ideally suited for Industry 4.0 applications.

## Versatile pulse evaluation

The multifunction display shows various measured values in industrial automation. It uses the principle of interval measurement to process input pulses. The scaling factor allows (rotational) speed and processing time, etc., to be calculated, displayed and converted into an analogue signal. Moreover, the unit is suitable for counting and timer tasks.



Type	Operating voltage [V]	Inputs pulse	Inputs programmable	Output analogue	Outputs transistor	Order no.
<b>Multifunction display · touch display and clear text</b>						
	115 / 230 AC 24 DC	2	3	–	–	<b>DX2021</b>
	115 / 230 AC 24 DC	2	3	V or mA	4	<b>DX2022</b>
	115 / 230 AC 24 DC	2	3	–	4	<b>DX2023</b>
	24 DC	2	3	–	–	<b>DX2031</b>
	24 DC	2	3	V or mA	4	<b>DX2032</b>
	24 DC	2	3	–	4	<b>DX2033</b>

### User-friendly handling

All settings can be made via a modern, resistive touch-screen interface. The display automatically changes from display mode to parameter setting mode.

All parameters are displayed in clear text on the screen, enabling an easy and intuitive use.

A password mechanism provides protection against manipulation.

### Monitoring of limit values

The user can define up to four limit values. Up to four transistor outputs switch if a set limit is not reached or exceeded.

The states of the outputs are displayed and the colour of the display can be shown in red, yellow or green depending on the process value.

### The basic functions:

#### Speed:

Indication of rotational speed (RPM), operation as tachometer or for frequency measurement.

#### Process time:

Operation as baking time or processing time display (reciprocal rotational speed).

#### Timer:

Operation as stop watch.

Start and stop functions are freely configurable.

#### Counter:

Operation as position display, pulse, totalisator, differential, up or down counter.

#### Velocity:

Speed indication from operating time measurement.

Input A serves as start input and input B as stop input.

### Common technical data

Operating voltage	[V DC] [V AC]	18...30 115 / 230
Current consumption (DC)		approx. 100 mA (without load)
Sensor supply (DC)	[V DC] Output current	U <sub>B</sub> -1 V max. 250 mA
Current consumption (AC)		approx. 3 VA (without load)
Sensor supply (AC)	[V DC] Output current	approx. 24 V DC (± 15 %) 150 mA to 45 °C, 80 mA from 45 °C
Incremental inputs	Usage Format Frequency	PNP, NPN, Namur encoders and sensors HTL (10...30 V) max. 250 kHz
Control inputs	Format Frequency	HTL, PNP (10...30 V) max. 10 kHz
Analogue output (only DX2032, DX2022)	Voltage output Current output Resolution Accuracy	-10...10 V 0...20 mA / 4...20 mA 16 bits ± 0.1 %
Control outputs (DX2032, DX2033, DX2022, DX2023)	Format / level Output current	5...30 V (depending on the voltage on Com+), PNP max. 200 mA (max. 150 mA at Com+ <10 V)
Display	Type Colour Handling	LCD (backlight) red/yellow/green (selectable) touch screen (resistive)
Ambient temperature	[°C]	-20...45/60
Dimensions (W x H x D)	[mm]	112 x 48 x 116

### Dimensions

