Digital Readouts

ND 200
Digital readout for one axis
HEIDENHAIN encoders with 11 µApp or 1 Vpp signals and EnDat 2.2 interface can be connected to the digital readouts of the ND 200 series. The **ND 280** readout provides the basic functions for simple measuring tasks. The **ND 287** also features other functions such as sorting and tolerance check mode, minimum/maximum value storage, measurement series storage. It calculates the mean value and standard deviations and creates histograms and control charts. The ND 287 permits optional connection of a second encoder for sum/difference measurement or of an analog sensor.

The ND 28x units have serial interfaces for measured value transfer.

For more information, see the *Digital Readouts/Linear Encoders* brochure.

	ND 280	ND 287
Encoder input[1]	1 x ∿ 11 µApp, ∿ 1 Vpp or EnDat 2.2	
Connection	D-sub (15-pin) female	
Input frequency	∿ *1 Vpp:* ≤ 500 kHz; *11 µApp:* ≤ 100 kHz	
Signal subdivision	Up to 4096-fold (adjustable)	
Display step (adjustable)	*Linear axis:* 0.5 to 0.002 µm *Angular axis:* 0.5° to 0.00001° and/or 00°00'00.1"	
Functions	• REF reference mark evaluation • 2 datums	
	–	• Sorting and tolerance checking • Measurement series (max. 10000 measured values) • Minimum/maximum value storage • Statistics functions • Sum/difference display (option)
Switching I/O	–	Yes
Interface	RS-232-C/V.24; USB (UART); Ethernet (option for ND 287)	

[1] Automatic detection of interface

ND 2100 G GAGE-CHEK
Digital Readouts
The ND 2100G GAGE-CHEK readouts are versatile metrology displays for measuring and inspection tasks in manufacturing and quality assurance. With inputs for up to eight encoders, they are predestined for multipoint measurements from simple pass/fail detection up to complex SPC evaluation.

For more information see *Digital Readouts for Metrology Applications* brochure

	ND 2100G GAGE-CHEK		
Input signals*	∿ 1 Vpp	⊓⊔TTL	EnDat 2.2
Encoder inputs	D-sub (15-pin) female	D-sub (9-pin) female	M12 flange socket (8-pin) female
Number of inputs*	*ND 2104G:* 4 *ND 2108G:* 8		
Signal evaluation/subdivision	10-fold	4-fold	–
Display	5.7" color flat-panel display		
Functions	• Part programming of up to 100 parts • Sorting and tolerance checking using tolerance and warning limits • Measurement series with MIN/MAX display • Mathematical and trigonometric formulas, logical operations • Functions for statistical process control (SPC) • Graphic display (measurement results, distribution) • Data storage of values and formulas		
Switching I/O	Yes		
Interface	• RS-232-C/V.24 • USB		