

**DITRON**<sup>®</sup>

# Digital Readout&Magnetic Scale system



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For Accuracy and Innovation

## ► Digital Readout

Technical Parameter of D80,D50,DL50,D100

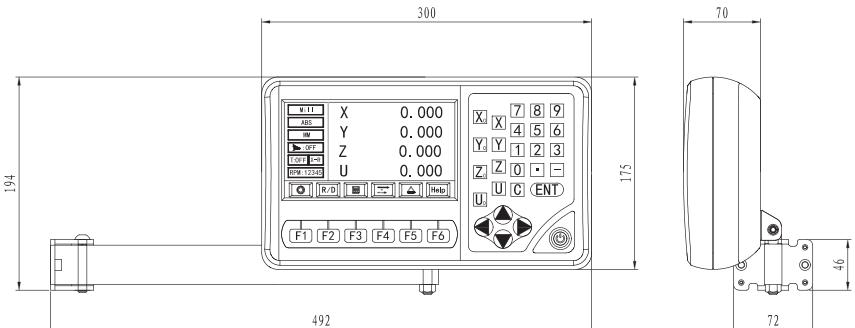
<b>Voltage Range:</b>	AC80V-260V/50HZ-60HZ
<b>Power Dissipation:</b>	5W(D50,DL50),15W(D80,D100)
<b>Working Temperature:</b>	-10°C~60°C
<b>Coordinate Display:</b>	D80(Max.5 Axes),D50&DL50(Max.3 Axes), D100(2 or 3 Axes)
<b>Times Frequency:</b>	4X
<b>Input Signal:</b>	5V TTL/RS422
<b>Input Frequency:</b>	≤4MHZ
<b>Operating Keypad:</b>	Membrane Keypad(D100),Mechanical Keypad(D80,D50,DL50)
<b>Resolution:</b>	0.1μm,0.2μm,0.5μm,1μm,2μm,2.5μm, 5μm,10μm,50μm(Only for D80)

## ► Features(D80):

- 1.7" true color LCD screen,easy to recognizing.
- 2.Saving the drawing function,the DRO allows to save the drawings into the system which makes the machining to be much more convenient.
- 3.Special previewing the drawing function,after setting well the parameters,the DRO will display the machined well effect which makes the operating be more visual.
- 4.Displaying the tool's current position function,during the machining,the system will

display the tool's current position according to the drawing which makes the machining be much easier.

- 5.Help function,during the machining,if there is any doubt,pressing the help button will help you to solve.
- 6.Custom settings for the shortcut keys,operator can set the shortcut keys according to his operating habit.





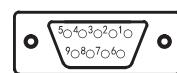
## ► Features(D100):

- 1.Displaying as 8 digits with green LED.
- 2.unique film covering on the Windows makes the displaying much more recognizable.
- 3.High integration makes the performance be stable.
- 4.Switching on& switching off can meet more than 100000 times.
- 5.Adopting the advanced digital filtering makes the counting be more accurate and stable.

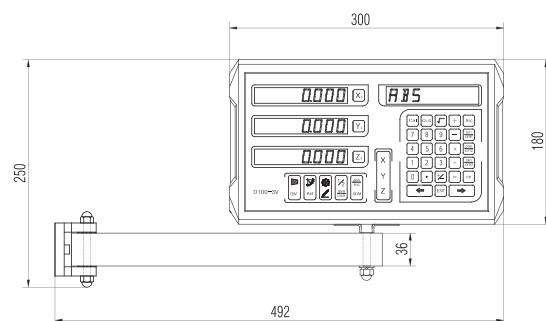
Pin	1	2	3	4	5	6	7	8	9
Signal	Empty	OV	Empty	Shield	Empty	A	+5V	B	Z
Color		Black		Shielding		Yellow	Red	Green	Brown

## ► Features(D50):

- 1.3.5" true color LCD screen,easy to recognizing.
- 2.Optional for RPM function
- 3.Optional for RS232 protocol
- 4.Lathe mode with Z+Z1 and Diameter&Radius conversion
- 5.Smart checking of the inner data and power supply
- 6.Can connect with both linear scale and rotary encoder



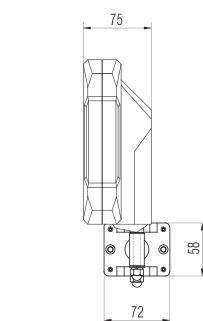
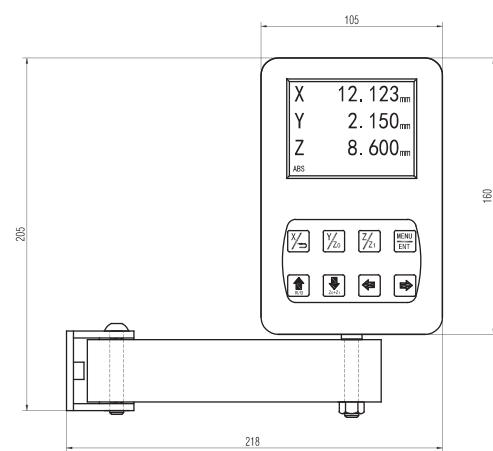
D100



DL50



D50





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## Digital Readout Function List

Model Function	DL50		D50		D100						D80
	DL50 1A 2A	DL50 3A	D50 2A	D50 3A	D100-2A			D100-3A			D80 1-5V
					D100-2L	D100-2M	D100-2G	D100-3L	D100-3M	D100-3E	
Zeroing, Data Recovery											
Input Coordinate											
Metric/British Units											
Power Off Memory Function					●	●	●	●	●	●	
Encoder Selection											
Resolution Setting											
Linear Compensation											
Counting Direction Setting											
ABS/INC Coordinate					●	●					
200 sets SDM Coordinate					●	●					
REF					●	●					
Calculator						●	●	●	●	●	●
Non-linear Compensation											
1/2 Function	●	●	●	●							
Sleeping Function											
PLD Function					●			●		●	●
Tool Offsets											●
PCD Function						●		●		●	●
Simple R Function					●			●			●
Smooth R Function					●			●			●
Rectangle Chambering Function					●			●			●
Taper Measuring						●			●		●
Radius/Diameter Conversion	●	●	●	●		●			●		●
Y+Z Function		●		●					●		●
Digital Filtering Function							●				●
Preview Drawing											●
Tool Location Displaying											●
Axes Summing(Same Direction)					●						●
EDM									●	○	
Rotational Speed Measurement			○	○							○
RS232	○	○	○	○	○	○	○	○	○	○	○
Linear Measuring Basing Rotary Encoder			●	●							●

Remarks: ●Standard Function      ○Optional Function



## ➤ Magnetic Scale

The DM series contactless magnetic scale measuring system get slim dimension which is simple to install. It matches IP 67 protection degree and get excellent performance to resist the oil,dust,dirt..etc.The best choice to work under adverse condition.

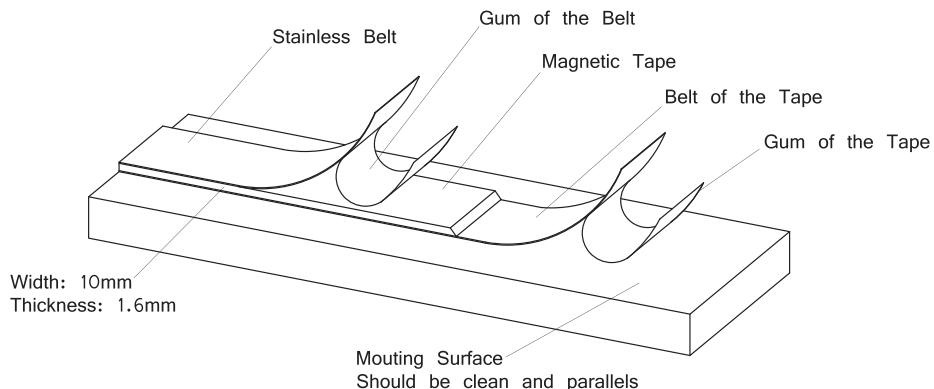
### ➤ Feature:

- 1.Match IP67 protection degree
- 2.Advanced technics and inner structure,2 years warranty against all working condition
- 3.Automatic gain control technics,reduced the requirement for installation.The gap between the reader and tape can be 3mm (5 micron).
- 4.Protection of the anti-pole of the power and wrong wire connection(voltage<5.5V)
- 5.High Speed,can reach 150 Meters/Minute for the resolution of 5 micron

### ➤ Technical Parameter:

<b>Voltage:</b>	4.7V to 7.5V(The range of anti-pole and over-voltage protection:-16V-+16V)
<b>Supply current:</b>	<35mA
<b>Cable Voltage-drop:</b>	~4.8mV/m-without load ~12.5mV/m-with 120Ω load
<b>Output signal:</b>	RS422
<b>Signal Level:</b>	UH≥2.5V at IH=20mA UL≤0.5V at IL=20mA
<b>Temperature:</b>	working:-10°C-+80°C Storage: -40°C-+85°C
<b>Resolution:</b>	0.01mm,0.005mm,0.001mm
<b>Accuracy:</b>	±0.02mm/M
<b>Repeat Accuracy:</b>	1 pulse
<b>Maximum cable length:</b>	200M

MS500



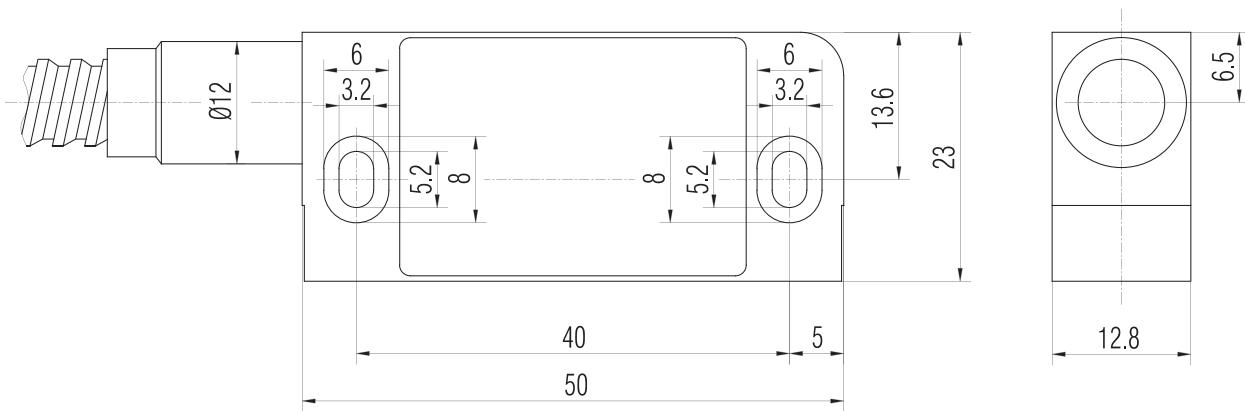


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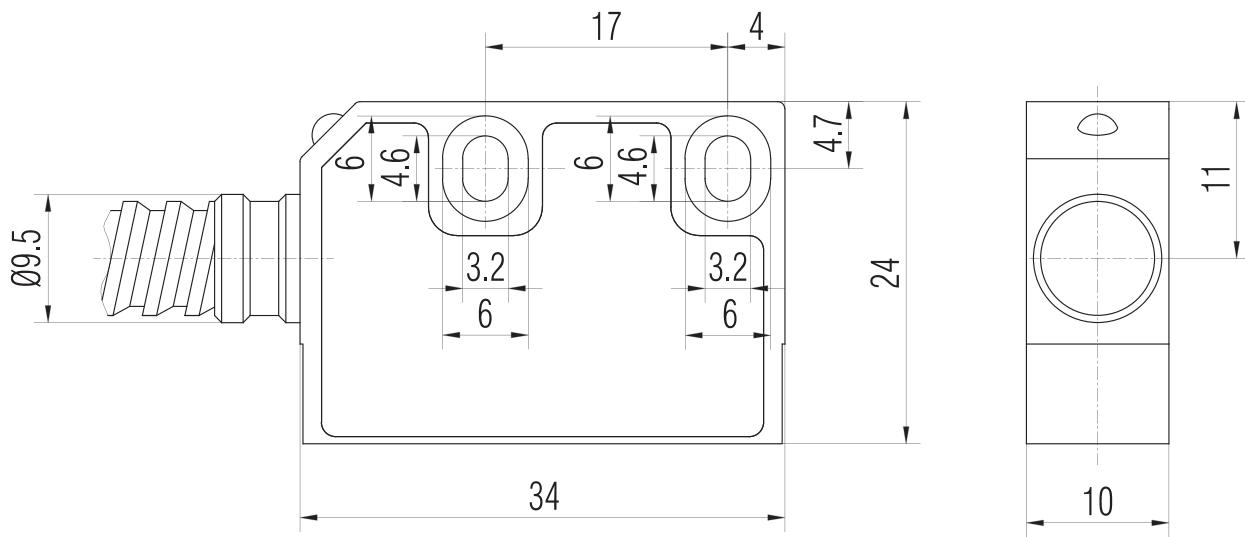
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DMR5000

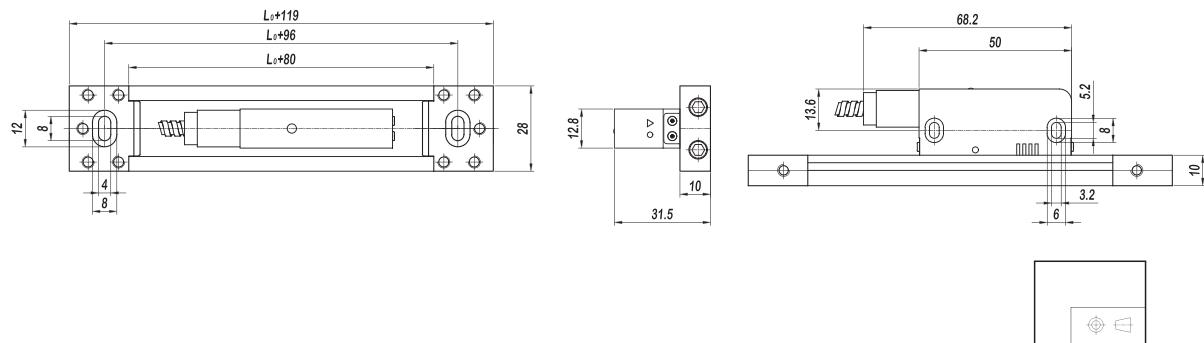


DMR500



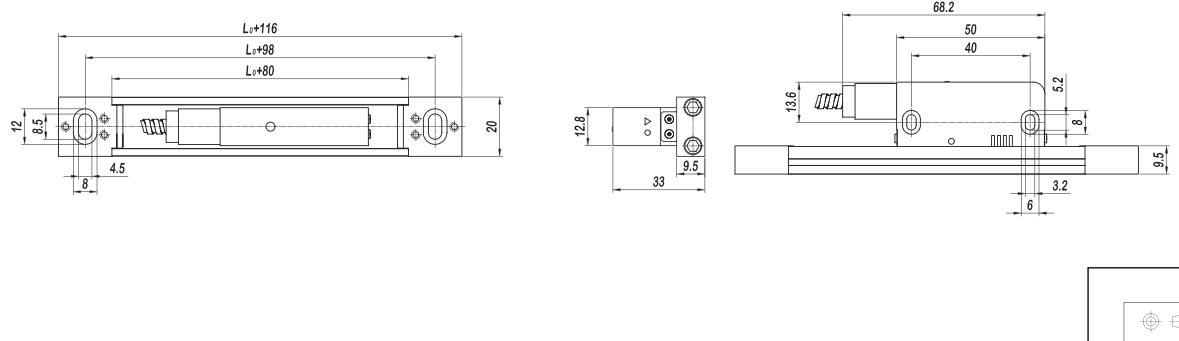
## ► Features(DM-A)

- Fully sealed readhead with perfect structure of the profile makes it match IP67 protection class.
- With the tableting inserted two sides of the profile makes the installation have more choices.
- 5 holes laid on the each end cap for adjustment makes the installation be much easier.
- Rs422 full differential signal
- Special profile connecting way with the needle,flexible to install.
- Full kinds of installing brackets

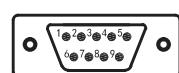


## ► Features(DM-S)

- Very slim dimension,the best choice for the cross slide of lathe and the application where the space is restricted.
- Installing brackets inserted into the profile makes the installing be easy.
- Rs422 full differential signal
- Rated to IP67 protection class



Pin	1	2	3	4	5	6	7	8	9
Signal	A-	OV	B-	Shield	Z-	A	+5V	B	Z
Color	Orange	Black	Blue	Shielding	White	Yellow	Red	Green	Brown





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