

DLS-M series



General Characteristics:

- Resolutions up to 0.5um
- Cross Size 20.5 x 47.6 mm
- Max Measure Length: 600mm



Mechanical and Electrical Features

Grating Pitch	20um		<table border="1"> <thead> <tr> <th>pin</th> <th>PP signal</th> <th>EIA422 signal</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>—</td> <td>\bar{A}</td> </tr> <tr> <td>2</td> <td>OV</td> <td>OV</td> </tr> <tr> <td>3</td> <td>—</td> <td>\bar{B}</td> </tr> <tr> <td>4</td> <td>GND</td> <td>GND</td> </tr> <tr> <td>5</td> <td>—</td> <td>\bar{R}</td> </tr> <tr> <td>6</td> <td>A</td> <td>A</td> </tr> <tr> <td>7</td> <td>5V</td> <td>5V</td> </tr> <tr> <td>8</td> <td>B</td> <td>B</td> </tr> <tr> <td>9</td> <td>R</td> <td>R</td> </tr> </tbody> </table>	pin	PP signal	EIA422 signal	1	—	\bar{A}	2	OV	OV	3	—	\bar{B}	4	GND	GND	5	—	\bar{R}	6	A	A	7	5V	5V	8	B	B	9	R	R
pin	PP signal			EIA422 signal																													
1	—			\bar{A}																													
2	OV			OV																													
3	—			\bar{B}																													
4	GND			GND																													
5	—			\bar{R}																													
6	A			A																													
7	5V			5V																													
8	B			B																													
9	R			R																													
Thermal Expansion	10.6×10^{-6}																																
Resolution	0.5 - 1 - 5 um																																
Repeatability	± 1 increment																																
Max Speed m/min	60(5um); 20(1um)																																
Output type	TTL / EIA422A																																
Max. Acceleration	20 m/S ²																																
Protection	IP54																																
Power supply	60mA Max.																																
Phase displacement	90° \pm 5° electrical																																
Operating temperature	0° - 50°																																
Storage temperature	-20° - 80°																																
Humidity	100% not condensed																																

Interface Circuit and output signals

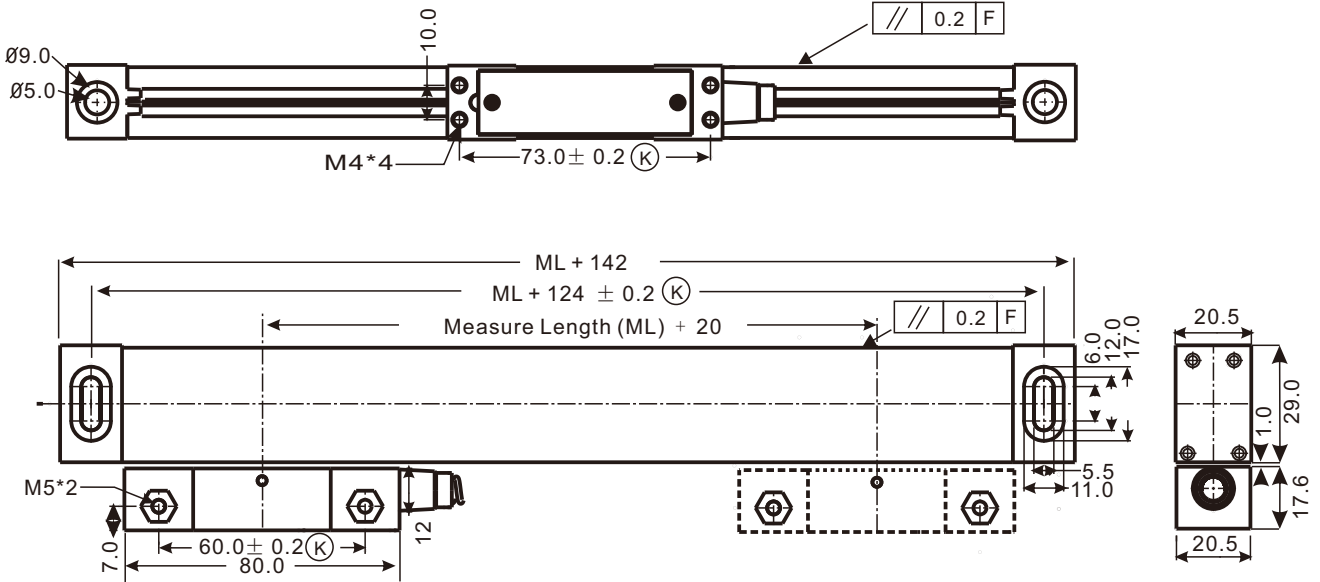
INTERFACE CIRCUIT	OUTPUT SIGNALS
<p>TTL</p> <p>SCALE COUNTER</p> <p>A/B/R1 R1 R2 R3</p> <p>C1 C2</p> <p>74HC14</p> <p>R1=68 C1=1000pF R2=100 C2=1000pF R3=10K</p>	<p>A \bar{A} B \bar{B} I_0</p> <p>90 180 270 360</p>
<p>EIA422A</p> <p>SCALE COUNTER</p> <p>26LS31 Vcc R2 R1 R3 26LS32</p> <p>10 A/B/R1 10 A/B/R1</p> <p>R1=120 R2=R3=5K</p>	<p>A B I_0</p> <p>90 180 270 360</p>



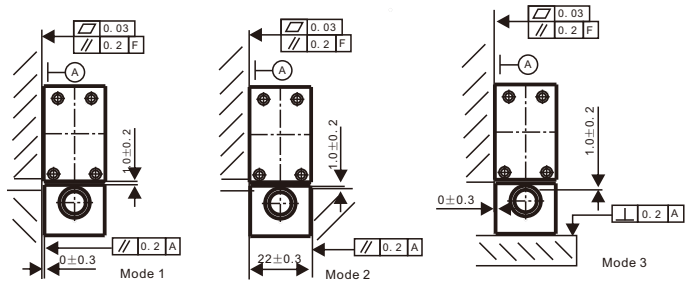
Dimensions and Mounting Tolerances

Unit: mm Tolerancing ISO8015
 ISO 2768 -mH
 < 6 mm ±0.2mm

Delos Linear Scale
DLS-M



Measure Length: (mm)
 50, 100, 150, 200, 250, 300, 350,
 400, 450, 500, 550, 600, 650(Max ML)



Note: F = Machine guideway;
 (K) = Required mating dimensions

Ordering Code

TYPE	RESOLUTION	MEASURE LENGTH	CABLE LENGTH	VOLTAGE	OUTPUT MODE	MARK POINT	OEM LOGO
DLS-M	5R	xxx	Cxx	Vxx		Mxx	
DLS-M	5R = 5um 1R = 1um	400 = 400mm	C35 = 3.5meter	V05 = 5 V V24 = 24V	TTL EIA422	M0 = Center Point M1 = Left Point M2 = Right Point M3 = 50mm point	

Example: DLS-M05R400

