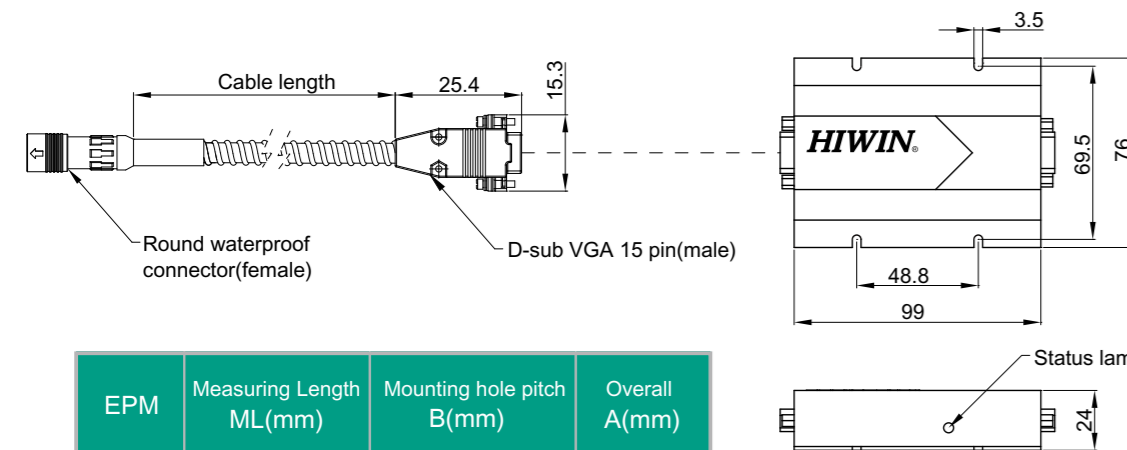
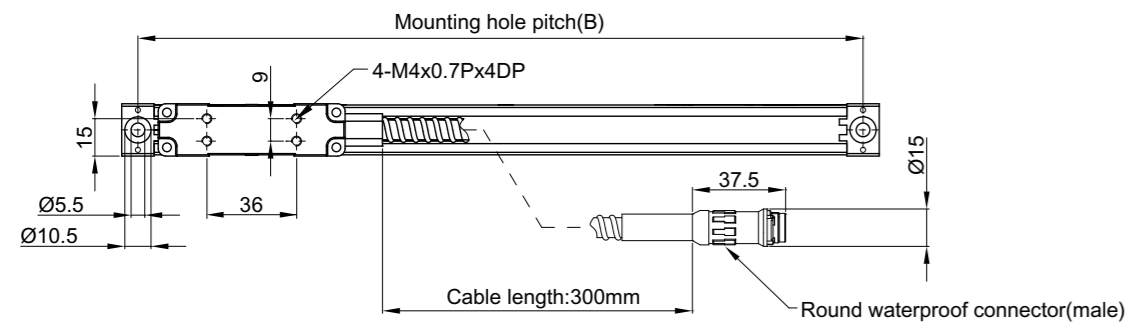
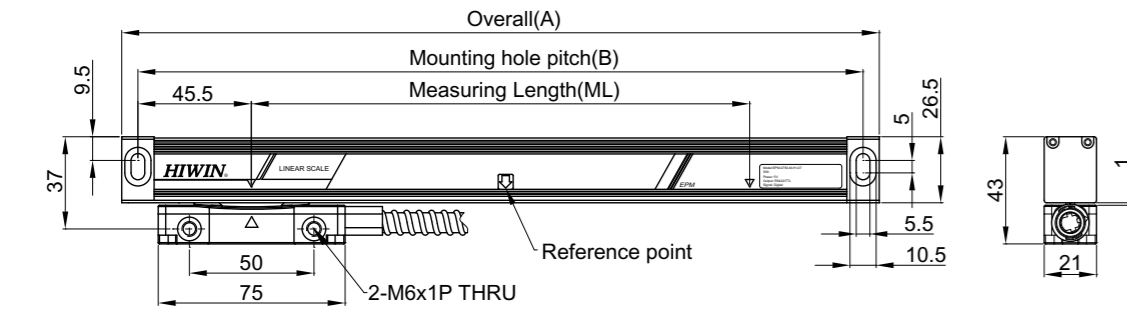


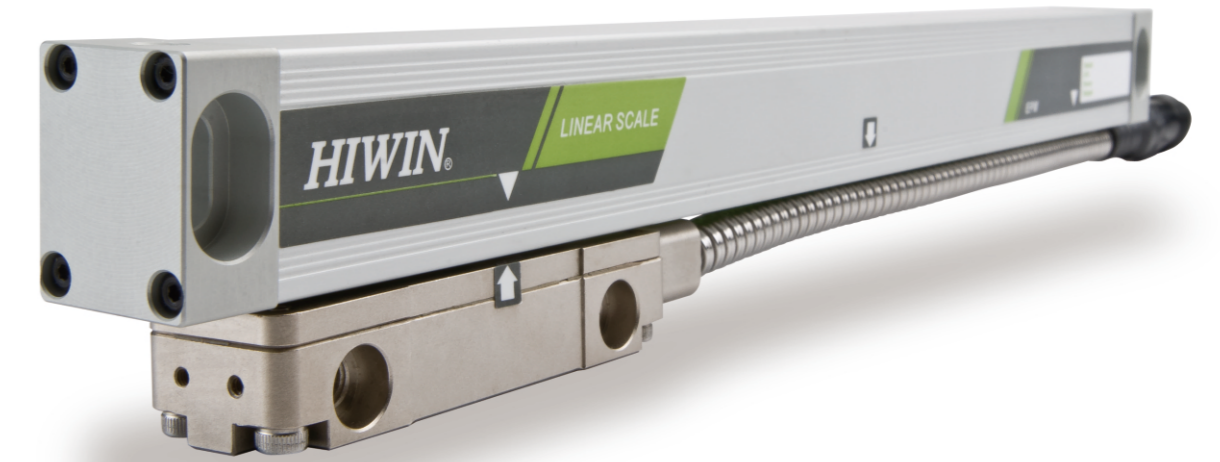
## Dimensions



EPM	Measuring Length ML(mm)	Mounting hole pitch B(mm)	Overall A(mm)
0050	50	141	154
0100	100	191	204
0150	150	241	254
0200	200	291	304
0250	250	357	370
0300	300	407	420
0350	350	457	470
0400	400	507	520
0450	450	557	570
0500	500	607	620
0550	550	657	670
0600	600	707	720
0650	650	757	770
0750	750	857	870
0850	850	957	970
0950	950	1057	1070
1050	1050	1157	1170

## Pin Assignment

Function	Signal		Color	Connector(male) (D-sub VGA 15 pin)	Connector(male) (D-sub 9 pin)
	Analog	Digital		Analog	Digital
Power	5V		Brown	1	2
	0V		White	2	1
Incremental signals	SIN+	A+	Green	11	3
	SIN-	A-	Yellow	12	8
	COS+	B+	Blue	13	4
	COS-	B-	Red	14	7
Reference mark	REF+	Z+	Purple	7	5
	REF-	Z-	Gray	8	9
Fault Detection Signal	FLT	-	-	-	6
Shield	-	-	-	case	case



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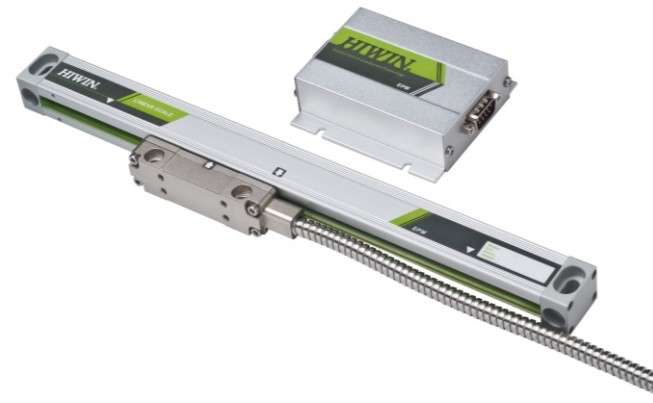
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# High-precision Enclosed Positioning Measurement System

## EPM Series

## Features

- Magnetic sensing mechanism
- Accuracy : (5+5ML/1000) $\mu$ m
- Resolution:1 $\mu$ m
- With Reference Mark
- Simple design and easy-mounting
- Best for harsh environment, up to IP65 protection class
- Protection Class IP65



## Specifications

Model		
Measuring Length(ML)		50/100/150/200/250/300/350/400/450/500/550/600/650/750/850/950/1050mm
Scale length	Overall length	ML+104mm(50~200mm) ML+120mm(250~1050mm)
	Max.travel	ML+12mm(50~200mm) · ML+28mm(250~1050mm)
Resolution		1 $\mu$ m
Accuracy@20°C		(5+5ML/1000) $\mu$ m      At Measuring Length:30 $\mu$ m
Reference point		Standard: Center point / edge (approach to ML 25mm) User-selected point
Maximum speed		1.2m/s
Mounting parallelism		$\pm$ 0.1mm
Expansion coefficient		11.8 $\pm$ 0.6 $\times$ 10 <sup>-6</sup> /°C
Operating temperature		0~+50°C
Storage temperature		-20~+60°C
Encoder cable length		0.3m
Cable length		3m/5m/7m
Power supply voltage		DC +5V $\pm$ 5%
Output signal		Digital:RS422/TTL
Connector		D-sub 9pin
Protection Class		Read head : IP65 Translator : IP30
Current consumption		Max.230mA
Vibration resistance (50Hz~2000Hz)		150m/s <sup>2</sup> (EN60068-2-6)
Impact resistance(11ms)		1000m/s <sup>2</sup> (EN60068-2-27)

## Ordering Code

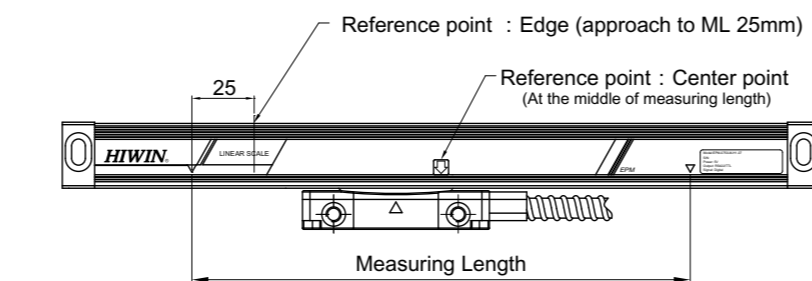
EPM - XXXX - □ - △△ - ○ - ☆

Measuring Length

Code	Measuring Length (mm)	Code	Measuring Length (mm)	Code	Measuring Length (mm)
0050	50	0350	350	0650	650
0100	100	0400	400	0750	750
0150	150	0450	450	0850	850
0200	200	0500	500	0950	950
0250	250	0550	550	1050	1050
0300	300	0600	600		

Reference point

Code	
M	Center point
S	Edge (approach to ML 25mm)
C	User-selected point



Accuracy-Resolution-Signal

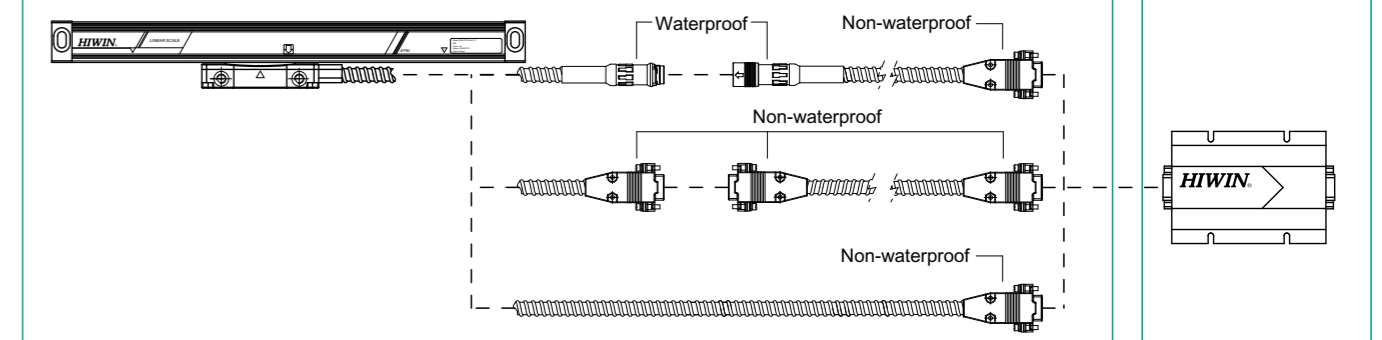
Code	Accuracy	Resolution	Signal
H1	(5+5ML/1000) $\mu$ m	1 $\mu$ m	5V TTL/RS422
D1	At Measuring Length:30 $\mu$ m	1 $\mu$ m	5V TTL/RS422

※ML:Measuring Length

Cable Outlet

Code	Specification	ConnectorHead
1	With interconnect cable	Round waterproof connector(IP68)
2	With interconnect cable	D-sub VGA 15 pin
3	Direct connection type	D-sub VGA 15 pin

Analog SIN/COS 1Vp-p



Cable length

Code	Length
3	3m
5	5m
7	7m

Ex: EPM - 1050 - M - H1 - 7 - 1

