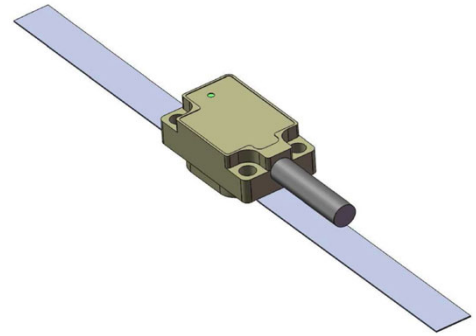


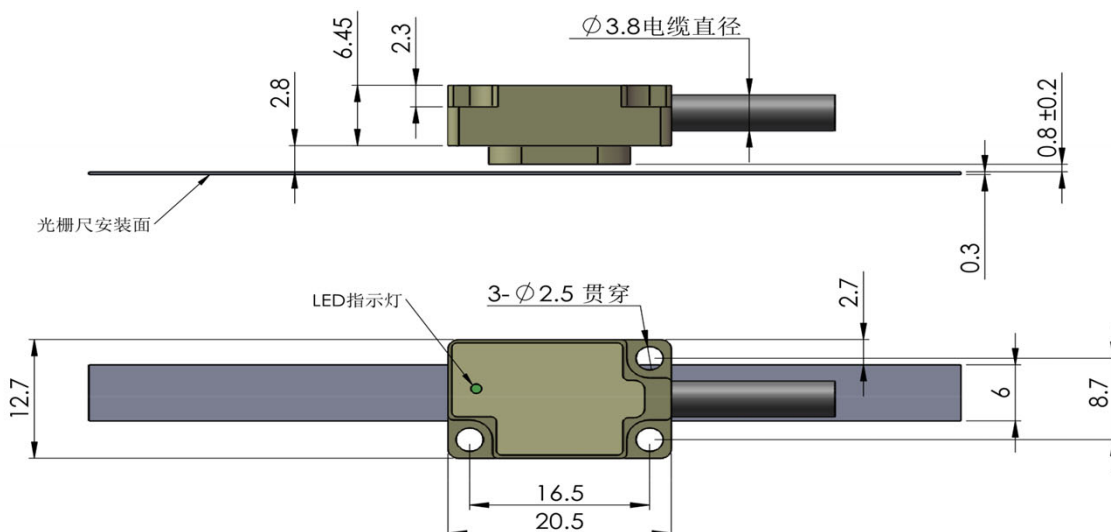
- Non- contact optical encoder
- Industry standard digital and analogue output options
- Customized resolution from 10nm to 5um
- Reference mark
- Small reader design
- High speed operation
- Integral set-up LED



**System data:**

Feature	Technical Data	Additional information
Measuring Principle	Incremental	
Scale embodiment	OS80	Pitch 80μm
Resolution	Max.0.5um	
System accuracy	± (0.001+0.01×L) mm	L in m
Repeat accuracy	±0.0001mm	
Sensor/band reading distance	0.8±0.2mm	
Travel speed	≤5m/s	
Operating voltage	5VDC±5%	
Current consumption	Max.35mA	
Output Signals	A+, A-, B+, B-, Z+, Z- ( Index pulse)	Digital Signal
Output Levels	digital output 5V-TTL differential	
LED Logic	Green/Red	Red: reading distance isn't ok, or the tape was damaged; Green: reading distance is ok
Housing	Alloy	
Operating temperature	-10~+70°C	ORE80 Series is -40 °C to 80 °C
Storage temperature	-30~+80°C	
Protection category	IP67	
Typical sub-divisional error (SDE)	± 50 nm	

**Dimensi**



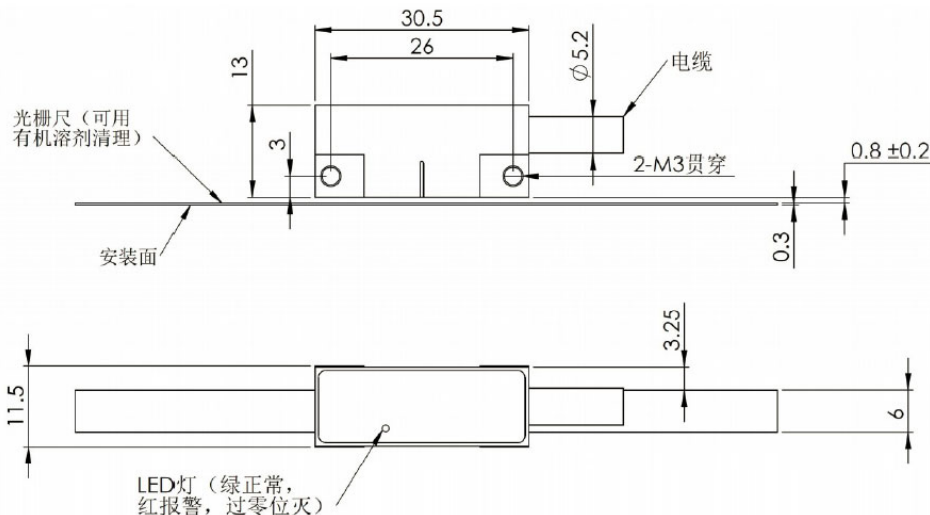
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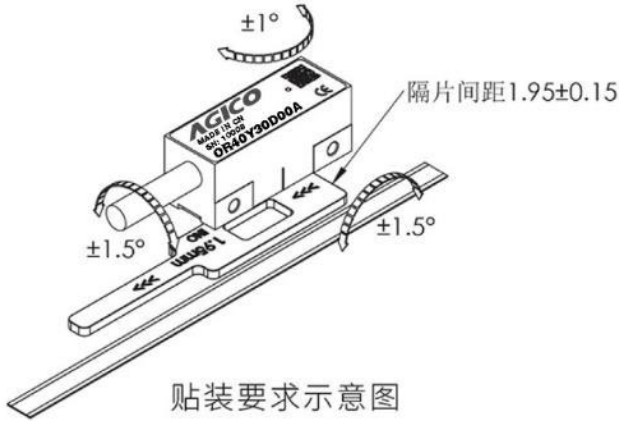
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**Dimension and Installation (Unit: mm)**



**Installation (Unit: mm)**



**Output definition:**

Colour	Function	Description	9 pin D-SUB	15 pin D-SUB
Red	VCC	5V	5	7
Black	GND	0V	1	2
White	A+	Channel A	2	14
Grey	A-	Channel A inverted	6	6
Blue	B+	Channel B	4	13
Purple	B-	Channel B inverted	8	5
Brown	Z+	Channel Z	3	12
Orange	Z-	Channel Z inverted	7	4
Screen	PE	Shield	Shield	Shield

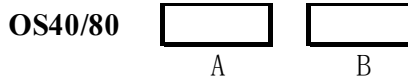
**Reader Head Order table:**

Feature	Order data	Specifications	Remarks
Resolution	D	5μm	Max Speed 18m/s
	X	1μm	Max Speed 18m/s
	Z	0.5μm	Max Speed 15m/s
	W	0.2μm	Max Speed 6m/s
	Y	0.1μm	Max Speed 3m/s
	H	50nm	Max Speed 1.5m/s
	K	40nm	Max Speed 1.1m/s
	I	20nm	Max Speed 0.6m/s
	O	10nm	Max Speed 0.3m/s
Cable length	3	0.3m	
	10	1m	
	30	3m	
	...		
Connections		= Open cable ends	
	D09	Connection by 9 pin D-SUB	
	D15	Connection by 15 pin D-SUB	

**Scale Order table:**

Feature	Order data	Specifications	Remarks
Length of optical scale (mm)	300	A	0.3m
	900		0.9m
	3000		3m
	...		Max 40m
Adhesive tape		B	with adhesive tape
	E		without adhesive tape

**Order code:**



Reference mark	OR40-IND
Scale guide	OS40-MT

**Order code:**

