

# Probes

- Probe identifiers begin with “U” and are created from the probe diameter (8 mm, 12 mm etc.) and the body style (B or C).  
For example, a U8B probe is an 8 mm probe with a “B” body style.
- Extension cables must be factory calibrated with the system.
- Targets must be 3 times larger than probe diameter or custom calibration will be required.

## Operating Environment

Probes are available in two environmental ranges:

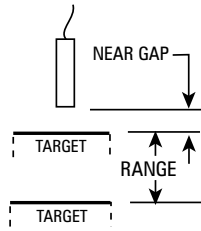
- Standard: -25°C to 125°C, IP67
- High-Temperature: U3-U18: -25°C to 200°C, IP63  
U25-U50: -25°C to 175°C, IP63

Vacuum compatible option available for most probes.

## Measurement Ranges

Larger Probe = Larger Range

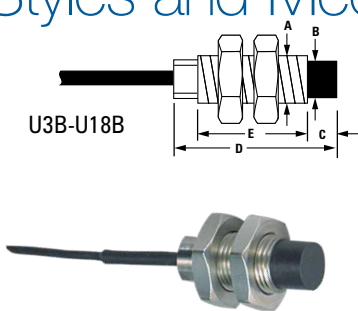
Custom ranges are available.



Probe	Minimum Target Diameter mm/inch	Standard Range		Fine Range (ECL202 Only)	
		Range mm/inch	Near Gap mm/inch	Range mm/inch	Near Gap mm/inch
U3	9/0.35	0.50/0.020	0.05/0.002	0.25/0.010	0.05/0.002
U5	15/0.60	1.25/0.050	0.25/0.010	0.625/0.025	0.25/0.010
U8	25/1.0	2.00/0.080	0.35/0.015	1.0/0.040	0.35/0.015
U12	36/1.4	3.50/0.140	0.60/0.025	1.6/0.065	0.60/0.025
U18	55/2.2	5.00/0.200	0.75/0.030	—	—
U25	75/3.0	8.00/0.320	1.25/0.050	—	—
U38	120/4.7	12.5/0.500	1.50/0.060	—	—
U50	150/6.0	15.0/0.600	2.00/0.080	—	—

## Body Styles and Mechanical Detail

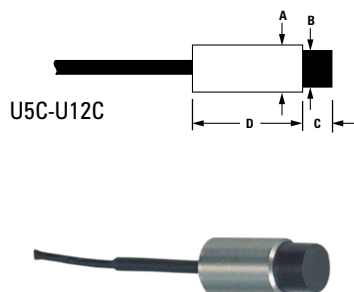
# B



Threaded stainless steel body for threaded or thru-hole mounting.

mm/inch	A	B	C	D	E	Wrench
U3B	M3x.5	2.0 / 0.08	3.0 / 0.12	21.1 / 0.83	13.0 / 0.51	5.5 / 0.22
U5B	M5x.8	3.4 / 0.13	3.0 / 0.12	25.0 / 0.99	18.0 / 0.71	8.0 / 0.31
U8B	M8x1	6.2 / 0.24	5.0 / 0.20	27.0 / 1.07	18.0 / 0.71	13.0 / 0.51
U12B	M12x1	10.0 / 0.39	7.0 / 0.28	29.0 / 1.15	18.0 / 0.71	17.0 / 0.67
U18B	M18x1	15.8 / 0.62	9.0 / 0.36	44.0 / 1.74	31.0 / 1.22	24.0 / 0.94
U25B	M18x1	25.0 / 0.99	15.0 / 0.59	61.0 / 2.40	42.0 / 1.65	24.0 / 0.94
U38B	M18x1	38.0 / 1.50	20.0 / 0.79	80.0 / 3.15	54.0 / 2.13	24.0 / 0.94
U50B	M18x1	50.0 / 1.97	25.0 / 0.99	98.0 / 3.86	69.0 / 2.72	24.0 / 0.94

# C



Smooth stainless steel body for clamp or set-screw mounting.

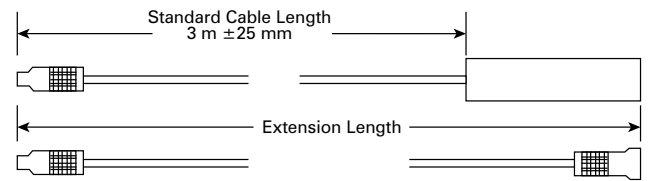
mm/inch	A	B	C	D	E	F
U3C	2.92 / 0.115	2.0 / 0.08	3.0 / 0.12	13.0 / 0.51	5.0 / 0.20	3.6 / 0.14
U5C	4.90 / 0.193	3.4 / 0.13	3.0 / 0.12	18.0 / 0.71		
U8C	7.90 / 0.311	6.2 / 0.24	5.0 / 0.20	18.0 / 0.71		
U12C	11.89 / 0.468	10.0 / 0.39	7.0 / 0.28	18.0 / 0.71		

# Probe Cables

Cable length is three meters. Custom lengths are available

Extension cable length is measured from end-to-end including connectors.

Standard temperature probe cables have PUR jackets.  
High-Temperature probes use PTFE.



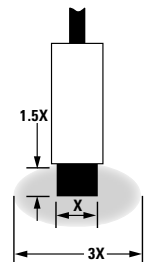
# Armored Cable

Armored cable is available on probes 12 mm (U12) and larger. The armor is only affixed at the probe end.



# Mounting

Probes must be mounted to avoid interaction between the sensing field and the mounting hardware. The area within 3 probe diameters to the sides and 1.5 diameters behind should be kept clear of any metallic objects other than the object to be measured. Otherwise, custom calibration may be required.



# Exports

**Export Considerations:** Because of high resolutions, export to some countries requires an export license. The ECL202 and ECL150 have 'e' versions (ECL202e, ECL150e) which have different resolution specifications and can ship without an export license.

Contact us or see the [lionprecision.com](http://lionprecision.com) web site for details.