



- Touch probes for CNC Robots are used for measuring of workpiece dimensions, centering and positioning.
- Compatible with high-speed contacts for robots.
- Free of lobing phenomena.

■ Standard Specifications

unit:mm

Product name	K3MA
Contact structure	NC (Normally closed)
Output mode	NC (Normally closed)
Pretravel	X=Approx. 0.4* Z=Approx. 0.1
Stroke	X,Y=±10* Z=4
Repeatability	0.03(At operating of speed500 - 1000mm/min) 0.01(At operating of speed100 - 200mm/min)
Contact life time	3 million
Protective structure	IP67
Contact force	X,Y=1N* Z=3N
Contact material	Tungsten carbide ball
Contact rating	DC5V - DC24V 10mA (Max20mA) resistance load
Cable	Oil resistant $\phi 5$ / 4cores Tensile strength 30N, Minimum bending R7
LED lamp	Default : LED OFF / Operating : LED ON

*with finger length of 35.5mm (F635)

■ Precautions

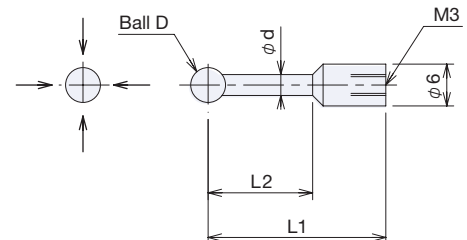
· Rubber materials used in some products are applicable to water-soluble coolants and alkaline liquids. (Refer to P5-4)

- Precautions for Touch Probe P2-3
- Precautions for Sensor Connecting P5-1
- Cable options P5-2
- Technical guide P5-3

■ Options

● Finger

D	ϕd	L2	Finger No.					
5	3	within 15		F615	F625	F635	F645	F655
			L1	15.5	25.5	35.5	45.5	55.5
			L2	6.5	15	15	15	15
				F614	F624	F634	F644	F654
4	2.5	within 15	L1	15.5	25.5	35.5	45.5	55.5
			L2	6.5	10	10	10	10
3	1.8	within 8		F613	F623	F633	F643	
			L1	15.5	25.5	35.5	45.5	
			L2	6.5	8	8	8	
				F612	F622	F632	F642	
2	1.2	within 5	L1	15.5	25.5	35.5	45.5	
			L2	5	5	5	5	



3-Dimension (All-Round Type)

Touch Probe for CNC Robots

Outer dimensions

K3MA

Tungsten Carbide Ball S ϕ 5
Directivity not required

Protective Boot Cover : Downward, sideways

●Circuit diagram

Power supply voltage : DC24V±10%
Power consumption : 10mA
Output capacity : DC60V 100mA (Resistance load)
AC60V 100mA (Peak value) 500mW (Max)

●Mounting method

Flange (Optional)

Specification sheet

Fax +81 42 528 1442
E-mail : touchsensor@metrol.co.jp

▼Please send us your inquiry by fax/e-mail after copying this page, and filling in necessary information. Sample :

Optional specifications (Bold:Standard)

Date:(mm,dd,yy) _____

Finger (Refer to P4-13)	_____ (standard F635)		
Output mode	<input type="checkbox"/> NC : Normally closed	<input type="checkbox"/> NO : Normally open	
Mounting type	<input type="checkbox"/> Bottom screw	<input type="checkbox"/> Flange	

Cable options (1m/unit)

Length / Protective cable	_____ m / <input type="checkbox"/> Not required <input type="checkbox"/> Protective tube _____ m (Upper limit :15m) <input type="checkbox"/> Wire braid _____ m (Upper limit :10m)		
Connector (Refer to P5-2)	<input type="checkbox"/> Not required <input type="checkbox"/> Direct output connector <input type="checkbox"/> Connector		
Machine side cable option	Length	_____ m	
from connector (if desired)	Protective cable	<input type="checkbox"/> Not required <input type="checkbox"/> Protective tube _____ m (Upper limit :15m) <input type="checkbox"/> Wire braid _____ m (Upper limit :10m)	

Company :
Dept. / Title :
Customer name :
Address :
Tel : _____ Fax : _____
E-mail :
Other (if any) :

Ordering and Inquiries

1.Customer

Fill out the specification sheet and send to Metrol.

2.Metrol

Send the drawing(s) of specific model based on spec sheet received.

3.Customer

Select/confirm the specific model by the customer.

4.Customer /Metrol

Metrol sends the quote, and the customer places the order for the same.

E-mail to : touchsensor@metrol.co.jp
 Download PDF sheet : <http://toolsensor.com/builder.html>