



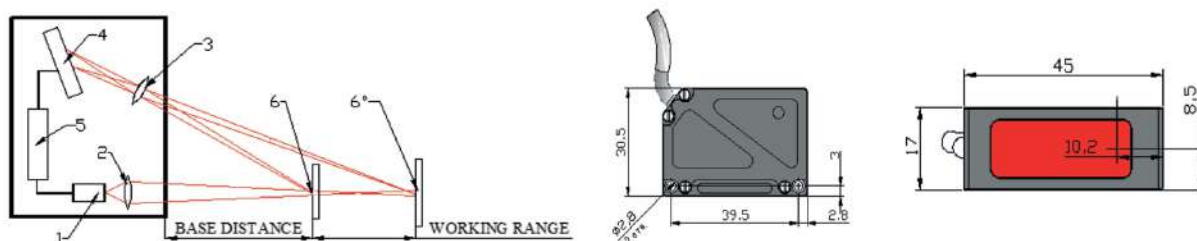
- ▶ **Robust, miniature laser sensor**
- ▶ **High-speed analogue and digital outputs**
- ▶ **6 models with measurement range from 10 to 500 mm**
- ▶ **Linearity to $\pm 0.05\%$ of F.S**
- ▶ **Sealing to IP67**

This matchbox-sized 2D laser triangulation sensor provides a power output of 0.95 mW for measurement ranges up to 500 mm and linearity to 0.05% of range. Easily adapted for measurement of thickness, dimension/displacement, form and profile as well as object sorting etc., the new RF602 series laser triangulation sensors are particularly aimed at applications where restricted space or minimal weight are important machine design requirements.

Specifications							
RF602 -		20/10	20/25	30/50	55/100	65/250	105/500
Base distance (X) - mm		20	20	30	55	65	105
Measuring range (L) - mm		10	25	50	100	250	500
Linearity		+/-0.05% of the range					+/-0.1%
Resolution		0.01% of the range (for the digital output only)					0.02%
Temperature drift		0.02% of the range/°C					
Max.measurement frequency		9400 Hz					
Laser source		red semiconductor laser, 660 nm wavelength;					
Output power		≤ 0.95 mW					
Laser safety class		2 (IEC60825-1)					
Output interface	digital	RS232 or RS485 (max. 921,6 kbit/s)					
	analogue	4...20 mA (load ≤ 500 Ohm) or 0...10 V					
Synchronization input		2.4 – 24 V					
Logic output		programmed functions, NPN: 100 mA max; 40 V max					
Power supply		9 ... 36 V					
Power consumption		1.5 ... 2 W					
Environmental resistance:	Enclosure rating	IP67 (for sensors with cable connector only)					
	Vibration	20 g /10...1000 Hz, 6 hours for each of XYZ axes					
	Shock	30 g / 6 ms					
	Operating ambient temperature	-10...+60 °C					
	Permissible ambient light, lx	10000					
	Relative humidity	5-95% (no condensation)					
	Storage temperature	-20...+70 °C					
Housing material		aluminium					
Weight (without cable)		40 gram					



Dimensions



Optional display equipment

Multi-functional process monitors

- ▶ Easy to use
- ▶ With or without bar graph
- ▶ Data logger software available





Ordering information

(Please use the characters in the chart below to create your product code)

Sample Code RF602 - 60/250 - 232 - U - IN* - AL* - CG - 3M - B

Measuring range	
See table below X/L*	
Digital output	
232 RS232	
485 RS485	
Analog Output	
I 4 - 20 mA	
U 0 - 10 V	
Electr. Connection	
CG 3m Cable	
Cable length	
in Metres	
Housing Option	
S Standard	
P Air Cooling Housing	
B Water Spray Guard	

*IN = Synchronisation input

*AL = User Programmable input/output signal

- ▶ Logical Output (indication of Run-out beyond range)
- ▶ Two or more laser sensors
- ▶ Hardware "zero" setting
- ▶ Hardware laser ON/OFF switch
- ▶ AL is not available for laser sensors with in-built heaters

Measuring Range						
Base distance (X)	20	20	30	55	65	105
Measuring Range (L)	10	25	50	100	250	500

Model of the sensor	Pin number	Assignment	Wire color
232-U/I-IN-AL	free cable	-	Power U+
	free cable	-	Gnd (Power)
	DB9	2	TXD
	DB9	3	RXD
	free cable	-	U/I
	free cable	-	IN
	free cable	-	AL
	DB9	5	Gnd (common for signals)
485-U/I-IN-AL	free cable	-	Power U+
		-	Gnd (Power)
		-	DATA+
		-	DATA-
		-	U/I
		-	IN
		-	AL
		-	Gnd (common for signals)