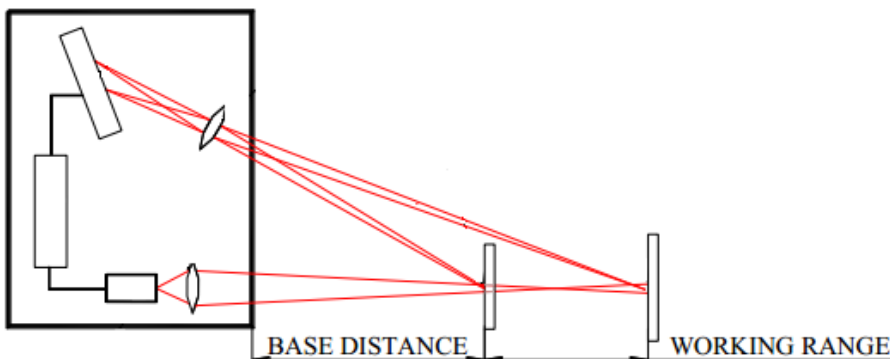


# LASER TRIANGULATION SENSOR

## RF 603 SERIES



- ✓ Measurement ranges from 2mm to 1250mm
- ✓ Resolution to 0.01% of full range, up to 0.2 $\mu$ m
- ✓ Linearity to 0.1% of full scale range
- ✓ Industrial enclosure to IP67 rating
- ✓ Frequency response to 9.4kHz
- ✓ Analogue 0 to 10V or 4 to 20mA output
- ✓ Range of digital outputs including RS232, RS485, CAN or Ethernet
- ✓ Fully self contained unit, compact dimensions and light weight



Ixthus Instrumentation  
The Stables,  
Williams Barns,  
Tiffield Road,  
Towcester,  
Northamptonshire.  
NN12 6HP

Phone: 01327-353-437

Fax: 01327-353-564

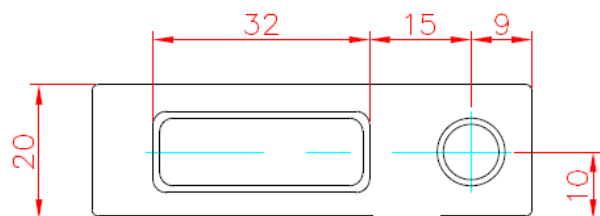
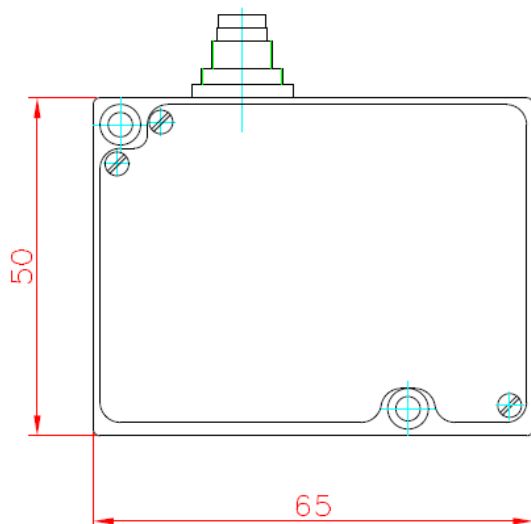
E-mail:

info@Ixthus.co.uk

**IXTHUS**  
Instrumentation

# Technical datasheet

<b>RF603-</b>		R-X/4	X/2	X/5	X/10	X/15	X/25	X/30	X/50	X/100	X/250	X/500	X/750	X/1000	X/1250	
Base Distance X mm		39	10	15	15, 25, 60	15, 30, 65	25, 45, 80	35, 55, 95	45, 65, 105	60, 90, 140	80	125	145	245	260	
Measurement range mm		4	2	5	10	15	25	30	50	100	250	500	750	1000	1250	
Linearity %		±0.1%													±0.1%	
Resolution %		0.01%													0.02%	
Temperature drift		0.02% of the range/°C														
Max measurement frequency Hz		9400Hz														
Light source		Red semiconductor laser, 660nm wavelength or UV semiconductor laser 405nm wavelength (Blue version)														
Light source	Model	RF603														
	Output power	≤0.2	≤3mW									≤4.8mW				
	Laser safety class	1	3R (IEC60825-1)													
	Model	RF603L														
	Output power		≤0.95mW													
	Laser safety class		2 (IEC60825-1)													
	Model											RFR603P				
Output power											≤20mW					
Laser safety class											3B (IEC60825-1)					
Output interface	Digital	RS232 (max. 460.8kbit/s) or RS485 (max. 921.6 kbit/s) or RS232 and CAN V2.0B (max 1Mbit/s) or Ethernet and (RS232 or RS485)														
	Analogue	2...20mA (≤500Ω load) or 0...10V														
Synchronisation output		2.4-5V (CMOS, TTL)														
Logic output		Program functions, NPN: 100mA max; 40V max for output														
Power supply V		9...36V														
Power consumption		1.5...2W														
Environmental ratings	Enclosure rating	IP67 (for sensors with cable output only)														
	Vibration	20g/10...1000Hz, 6 hours, for each XYZ axis														
	Shock	30g / 6ms														
	Operating temperature °C	-10...+60°C -30...+60°C for sensor with in-built heater -30...+120°C for sensors with in-built heaters and air cooled housing														
	Permissible ambient light lux	10000 – RF603L, 30000 – RF603, >30000 – RF603P														
	Relative humidity	5-95% (no condensation)														
	Storage temperature °C	-20...+70°C														
Housing material		Aluminium														
Weight (without cable)		100 grams														



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