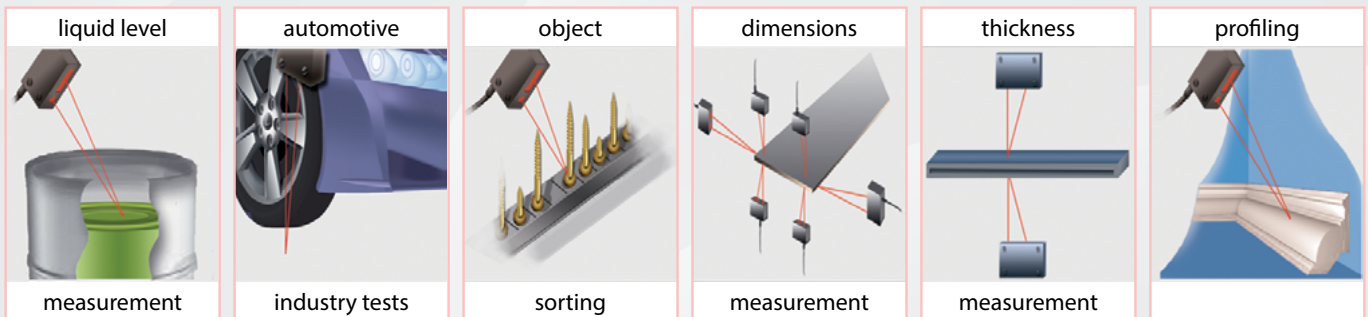


Position, dimensions, surface profiles, deformations, vibrations measurement, sorting and sensing presence or absence



- Universal high-speed laser sensors
- Measuring ranges from 2 to 1250 mm
  - Linearity  $\pm 0.1\%$
  - Resolution  $\pm 0.01\%$
- Sampling rate up to 180 kHz
- RS232/RS485/Ethernet +4...20 mA/0...10V
- Sensors with BLUE lasers

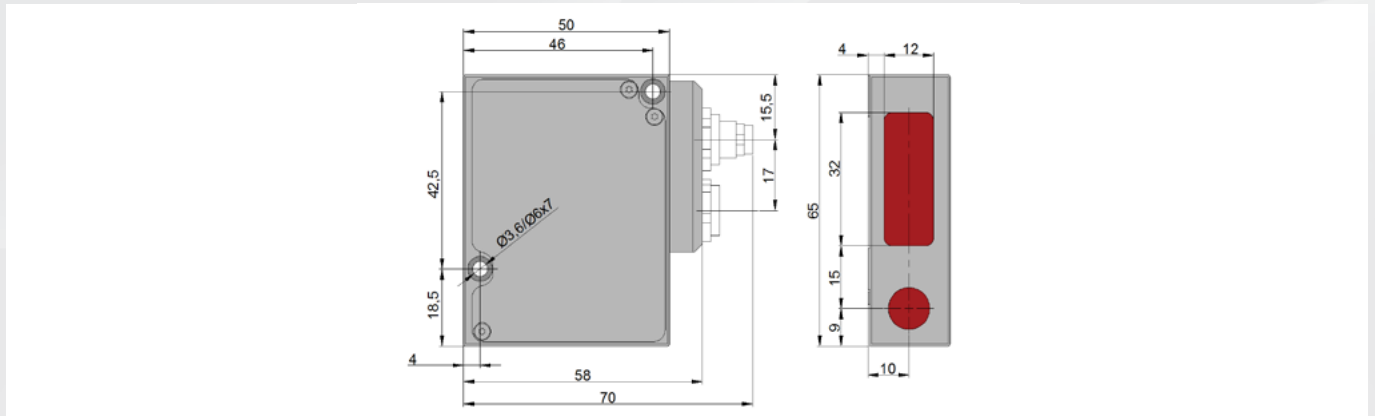


### BASIC TECHNICAL DATA

RF603HS-		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		15	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		2	5	10	15	25	30	50	100	250	500	750	1000	1250
Max. measurement frequency, kHz		60, 120, 180												
Linearity, %		$\pm 0.1$ (60 kHz), $\pm 0.2$ (120 kHz), $\pm 0.3$ (180 kHz) of the range												
Resolution, %		0.01 (60 kHz), 0.02 (120 kHz), 0.04 (180 kHz) of the range												
Temperature drift		0,02% of the range/°C												
Light source		red semiconductor laser, 660 nm wavelength or UV semiconductor laser 405 nm wavelength (BLUE version)												
Output power		$\leq 0,95$ mW			$\leq 4,8$ mW				$\leq 70$ mW					
Laser safety Class		2 (IEC60825-1)			3R (IEC60825-1)				3B (IEC60825-1)					
Output interface		Parameterization		RS232 or RS485										
		Data transfer		Ethernet (UDP)										
		Analog		0...10 V										
Synchronization input		2,4 – 5 B (CMOS, TTL)												
Logic output		programmed functions, NPN: 100 mA max; 40 V max for output												
Power supply, V		9...36												
Power consumption, W		4,8												
Environment resistance		Enclosure rating		IP67										
		Vibration		20g/10...1000Hz, 6 hours, for each of XYZ axes										
		Shock		30 g / 6 ms										
		Operation temperature, °C		-10...+60, (-30...+60 for the sensors with in-built heater), (-30...+120 for the sensors with in-built heater and air cooling housing)										
		Permissible ambient light, lx		30000										
		Relative humidity		5-95% (no condensation)										
Storage temperature, °C		-20...+70												
Housing material		aluminum												
Weight (without cable)		110 gram												

## OVERALL DIMENSIONS

Sensors are equipped by cable gland or connector.



## EXAMPLE OF DESIGNATION WHEN ORDERING

RF603HS(BLUE).F-X/D(R)-SERIAL-ANALOG-IN-AL-CC(R)(90)-M-H-P-B

Symbol	Description
(BLUE)	Blue (405 nm) laser option
F	Maximal sampling frequency, 60 or 120 or 180 kHz
X	Base distance (beginning of the range), mm
D	Measurement range, mm
(R)	Round shape laser spot option
SERIAL	The type of serial interface: (RS232 and Ethernet) – 232-ET or (RS485 and Ethernet) – 485-ET
ANALOG	Attribute showing an analog output presence 0...10V ( U )
IN	User programmed signal, which has several purposes: 1) Trigger input (input of synchronization) 2) Encoder _A input
AL	User programmed signal, which has several purposes. It can be used as 1) logical output (indication of run-out beyond the range); 2) line of mutual synchronization of two and more sensors 3) line of hardware zero setting 4) hardware laser switch ON/OFF 5) Encoder_B input 6) status line input 7) input for Ethernet restart
CC(90X)(R)	Cable gland - CG, or cable connector - CC (Binder 712, IP67) <b>Note 1:</b> 90(X) option – angle cable connector <b>Note 2:</b> R option – robot cable
M	Cable length, m
H	Sensor with in-built heater
P	Sensor with protect air cooling housing
B	Sensor with spray guard
<b>Example.</b> RF603HS.60-140/100R-232-ET-U-IN-AL-24-CCR90A-3 – 60kHz sampling frequency, base distance – 140 mm, range – 100mm, round shape laser spot, RS232 and Ethernet serial port, 0...10V analog output, trigger input and AL input are available, cable connector, angle type, position "A", robot cable, 3 m cable length.	