



mm FDRF605 Series

Description

These sensors are intended for non-contact measuring and checking of position, displacement, dimensions, surface profile, deformation, vibrations, sorting and sensing of technological objects as well as for measuring levels of liquid and bulk materials.

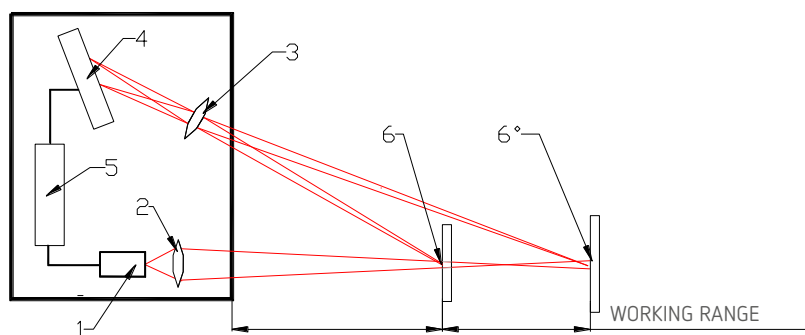


The series includes 4 sensors with the measurement range, from 50 to 500 mm and the base distance from 25 to 105 mm.

Custom-ordered configurations are possible with parameters different from those shown below.

Features

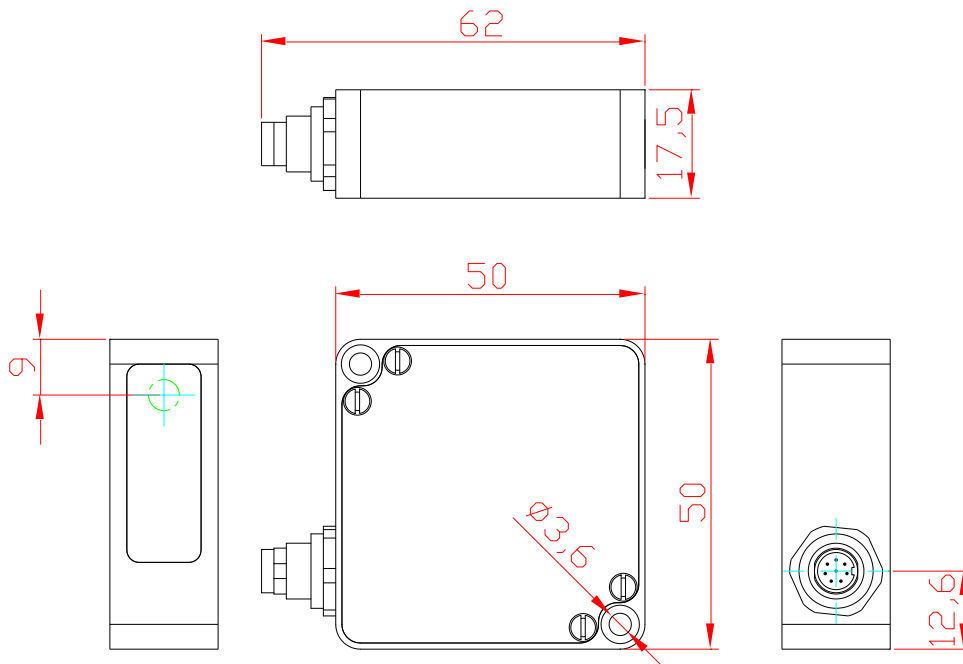
- Ultra-compact design for space-saving installations
- Value model for high-volume applications



Technical data

FDRF605-	25/50	45/100	65/250	105/500
Base distance X, mm	25	45	65	105
Measurement range, mm	50	100	250	500
Linearity, %	±0.1 of the range			
Resolution, %	0.02 of the range			
Temperature drift	0,02% of the range/ °C			
Max. sampling frequency, Hz	2000			
Light source	red semiconductor laser, 660 nm wavelength			
Output power, mW	≤0,95 mW			
Laser safety Class	2 (IEC60825-1)			
Output interface	digital	RS232 (max. 460,8 kbit/s) or RS485 (max. 460,8 kbit/s)		
	analog	4...20 mA (≤500 Ω load) or 0...10 V		
Synchronization input	2,4 – 5 V (CMOS, TTL)			
Logic output	programmed functions, NPN: 100 mA max; 40 V max for output			
Power supply, V	24 (9 ...36)			
Power consumption, W	1,5..2			
Environment resistance	Enclosure rating	IP67 (for sensors with cable connector only)		
	Vibration	20g/10...1000Hz, 6 hours, for each of XYZ axes		
	Shock	30 g / 6 ms		
	Operation temperature, °C	-10...+60		
	Permissible ambient light, lx	7000		
	Relative humidity	35-85%		
Storage temperature, °C	-20...+70			
Housing material	aluminum			
Weight (without cable), gram	60			

■ Dimensions (in mm)



■ Ordering information

FDRF605-X/D-SERIAL-ANALOG-IN-AL- CC(R)-M

Symbol	Description
X	Base distance (beginning of the range), mm
D	Measurement range, mm
SERIAL	Type of serial interface: RS232 - 232, or RS485 - 485
ANALOG	Attribute showing the presence of 4...20 mA (I) or 0...10V (U)
IN	Trigger input (input of synchronization) presence
AL	Programmed signal, which has triple purpose. It can be used as <ol style="list-style-type: none"> 1) logical output; 2) line of mutual synchronization of two and more sensors 3) line of hardware zero setting
CC(R)	Cable gland - CG, or cable connector - CC (Binder 702, IP67) Note 1: R option – robot cable
M	Cable length, m

Example. FDRF605-105/500-232-I-IN-CG-3 – base distance – 105 mm, range – 500 mm, RS232 serial port, 4...20mA analog output, trigger input is available, cable gland, 3 m cable length.