More Precision

MICRO-EPSILON

optoNCDT ILR3800-100

Powerful laser distance sensor

- Compact and small sensor design allows easy installation in numerous environments
- Very high signal stability on various surfaces
- Easy OEM customization through configurable ME software
- Optionally available with heating unit (ILR3800-100-H) or IO-Link (ILR3800-100-IO)

Model			ILR3800-100	ILR3800-100-H	ILR3800-100-IO
Measuring range [1]	Black 6 %	Start of measuring range	0.05 m		
		End of measuring range	30 m		
	Gray 40 %	Start of measuring range	0.05 m		
		End of measuring range	70 m		
	White 80 %	Start of measuring range	0.05 m		
		End of measuring range	100 m		
	Reflector film	Start of measuring range	35 m		
		End of measuring range	150 m		
Measuring rate			20 Hz		
Resolution			0.1 mm		
Linearity			<± 1mm		
Repeatability [2]			< 300 μm		
Temperature compensation			-10 ...+50 °C	-40 … +65 °C	-10 ...+50 °C
Light source			Semiconductor laser < 1 mW, 655 nm (red)		
Typ. service life			50,000 h		
Laser class			Class 2 in accordance with DIN EN 60825-1: 2022-07		
Permissible ambient light			50,000 lx		
Supply voltage			10 … 30 VDC	24 … 30 VDC	10 … 30 VDC
Power consumption			< 1.5 W (24 V)	< 10 W (24 V)	< 1.5 W (24 V)
Signal input			Trigger		-
Digital interface			RS422 / USB/ PROFINET/ EtherNet/IP [3]		IO-Link 1.1; process data, parameter set up and diagnostics
Analog output			4 ... 20 mA (16 bit, freely scalable within the measuring range)		-
Connections			Supply/signal: M12 screw/plug connection 8-pin A-coded		Supply/signal: 12 pin M4 screw/plug connection
Mounting			Screwing and adjustment on sensor base plate		
Temperature range	Storage		-25 … +70 °C (non-condensing)		
	Operation		-10 … +50 °C (non-condensing)	-40 … +65 °C (non-condensing)	-10 … +50 °C (non-condensing)
Control and indicator elements			2x LED for power, signal strength		

[1] Depends on target reflectivity, ambient light influences and atmospheric conditions
[2] Measurement frequency of 20 Hz, moving average 10
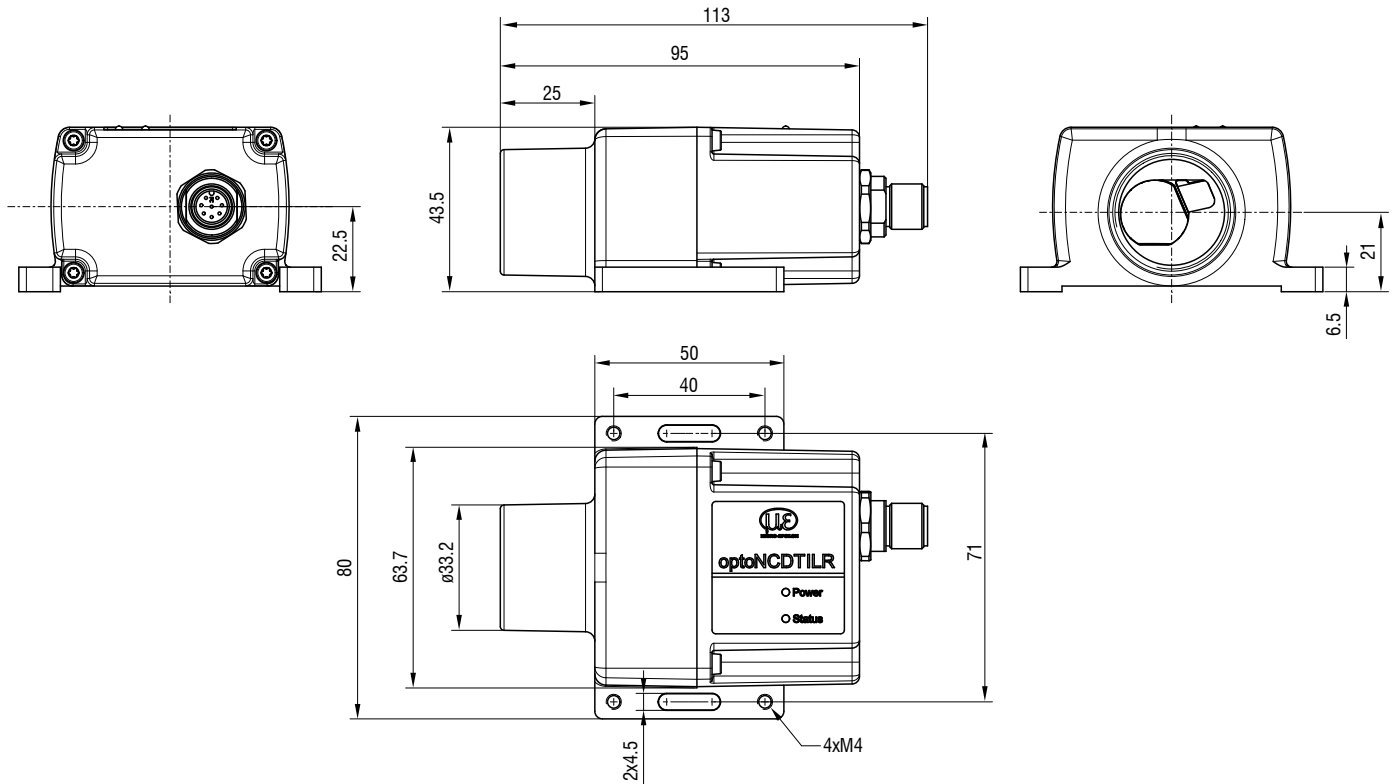[3] Connection via interface module (see accessories)

PRELIMINARY

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Dimensions:

(Dimensions in mm, not to scale)