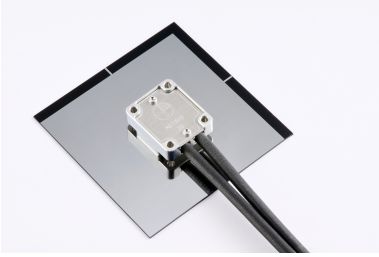

METIRIO® 2D

The **METIRIO**® 2D is an innovative and easy-to-use two-dimensional incremental optical encoder.
With its nanometer resolution and high bandwidth, **METIRIO** ® 2D enables ultra-accurate two-dimensional motion control – ideal for applications where even the smallest deviations along a travel axis must be monitored and corrected in real time.
The light and robust design made of aluminum is optimized for a compact integration to external systems. Available mounting adapters and screws fit without increasing its footprint.
The customized cable is manufactured according to UL AWM Style 20963 to ensure the highest industry standards such as drag chain compatibility.
The **METIRIO**® 2D Readhead is terminated with a D-SUB 15 male connector, providing differential analog signals and I2C-Interface pins. The optional interpolation module provides a BiSS-C Interface and typical ABZ quadrature signals. The electrical and optical specifications are the same as for the base **METIRIO** Readhead. **METIRIO** 2D, a powerful two-dimensional encoder that fulfills the same high-end specifications as its linear counterpart. Dimensions: 26.3 x 15.1 x 6.2 mm

	Key Benefits
Compact Size [mm]	15.0 x 11.2 x 6.2
Low Current Consumption [mA]	20
Position Resolution [nm]	0.4 (@ 20 mm/s)
High Speed [m/s]	10
Central Wavelength [nm]	850 (Invisible)
	Electrical Data
Supply Voltage VDD [V]	3 to 5.5
Output Position Signal (sine) [Vpp]	1
Output Reference Signal (square) [VDD]	RS485
Bandwidth (f3dB) [kHz]	500
ESD Susceptibility (HBM) [kV]	4 at each pin
Startup Time [µs]	150

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SmarAct GmbH | Schuette-Lanz-Strasse 9 | 26135 Oldenburg | Germany T: +49 441 – 800 879 0 | Email: info-de@smaract.com

Digital Interface	TWI
	Environment
Operating temperature range [°C]	0 - 80
Humidity (40 °C) [%]	80 non-condensing
Vibration EN 60068-2-6	500 m/s2, 2000 Hz
Shock EN 60068-2-27	1000 m/s2, 11 ms
	Scale Compatibility
Grating Type	reflective
Scale Pitch [µm]	20
Scale Type	2D, grid type
Allowed Working Distances [mm]	1.2 mm (standard)
	General
Weight [g]	1.1

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