



The Dutch Accreditation Council RvA, by law appointed as the national accreditation body for The Netherlands, hereby declares that accreditation has been granted to:

## **TRESCAL Zoetermeer B.V. Technical Operations Zoetermeer**

The organisation has demonstrated to be able to generate technical valid results in a competent way and work according to a management system.

This accreditation is based on an assessment against the requirements as laid down in EN ISO/IEC 17025:2017.

The accreditation covers the activities as specified in the authorized annex bearing the registration number.

The accreditation is valid provided that the organisation continues to meet the requirements.

The accreditation with registration number:

**K 052**

is granted on 12 September 1989

This declaration is valid until

**1 March 2026**

The board of the Dutch Accreditation Council,  
on its behalf,

  
mr. J.A.W.M. de Haas

of **TRESCAL Zoetermeer B.V.**  
**Technical Operations**

This annex is valid from: **17-02-2022 to 01-03-2026**

Replaces annex dated: **zie T06**

HCS code	Measured quantity, Range	Frequency	CMC <sup>1</sup>	Remarks	Location
TF 0 0	Time and Frequency				
TF 2 1	Frequency				ZTM
	100 kHz		$1 \cdot 10^{-11} \cdot f$	Measurement measuring time $\tau \geq 1000$ s	
	1 MHz		$1 \cdot 10^{-11} \cdot f$		
	5 MHz		$1 \cdot 10^{-11} \cdot f$		
	10 MHz		$1 \cdot 10^{-11} \cdot f$		
	0.1 Hz – 1 Hz		12 $\mu$ Hz	Measurement. Generation measuring time $\tau \geq 20$ s	
	1 Hz – 10 Hz		12 $\mu$ Hz		
	10 Hz – 100 Hz		12 $\mu$ Hz – 1.2 $\mu$ Hz		
	100 Hz – 1 kHz		1.2 $\mu$ Hz		
	1 kHz – 10 kHz		1.2 $\mu$ Hz		
	10 kHz – 100 kHz		1.2 $\mu$ Hz		
	100 kHz – 1 MHz		1.2 $\mu$ Hz – 12 $\mu$ Hz		
	1 MHz – 10 MHz		12 $\mu$ Hz – 0.12 mHz		
	10 MHz – 100 MHz		0.12 mHz – 1.2 mHz		
	100 MHz – 1 GHz		1.2 mHz – 12 mHz		
	1 GHz – 3 GHz		12 mHz – 14 mHz		
	3 GHz – 27.5 GHz		1.2 Hz		
TF 2 2	Time interval			Measurement	ZTM
	100 ps – 1 ns		$1.2 \cdot 10^{-9} \cdot T$		
	1 ns – 10 ns		$1.2 \cdot 10^{-9} \cdot T$		
	10 ns – 100 ns		$1.2 \cdot 10^{-9} \cdot T$		
	100 ns – 1 $\mu$ s		$1.2 \cdot 10^{-9} \cdot T$		
	1 $\mu$ s – 10 $\mu$ s		$1.2 \cdot 10^{-9} \cdot T$		
	10 $\mu$ s – 100 $\mu$ s		$1.2 \cdot 10^{-9} \cdot T$		
	100 $\mu$ s – 1 ms		$1.2 \cdot 10^{-9} \cdot T$		
	1 ms – 10 ms		$1.2 \cdot 10^{-9} \cdot T$		

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HCS code	Measured quantity, Range	Frequency	CMC <sup>1</sup>	Remarks	Location
	10 ms – 100 ms		$1.2 \cdot 10^{-8} \cdot T - 1.2 \cdot 10^{-6} \cdot T$		
	100 ms – 1 s		$1.2 \cdot 10^{-6} \cdot T - 1.2 \cdot 10^{-5} \cdot T$		
	1 s – 10 s		$1.2 \cdot 10^{-5} \cdot T - 1.2 \cdot 10^{-4} \cdot T$		
TF 2 2	Time interval			Measurement	
	0.1 $\mu$ s – 100 ms		$1 \cdot 10^{-6} \cdot T + 10$ ns	Equipment with separated electrical start and stop inputs.	
	100 ms – 1 s		$1 \cdot 10^{-5} \cdot T + 10$ ns		
	1 s – 10 s		$1 \cdot 10^{-4} \cdot T + 10$ ns		

HCS code	Measured quantity, Instrument, Measure	Range	CMC <sup>2</sup>	Remarks	Location
OQ 0 0	Optical quantities				
OQ 1 3	Optical system properties				ZTM
	Optical wavelength	1511 – 1542 nm	0.2 pm	Generation of wavelength with a wavelength reference cell, fixed wavelengths	
		840 – 860 nm	0.4 pm	Generation of wavelength in combination with a reference wavelength meter	
		1270 – 1650 nm	0.4 pm	Measurement of wavelength with a reference wavelength meter	
		840 – 860 nm	0.4 pm	Measurement of wavelength with a reference wavelength meter	
		1270 – 1650 nm	0.4 pm	Measurement of wavelength with an optical spectrum analyser	
		600 – 1530 nm	300 pm		
		1530 – 1570 nm	50 pm		
		1570 – 1750 nm	300 pm		

<sup>2</sup> Calibration and Measurement Capability (CMC): Demonstrated measurement uncertainty, with coverage probability of 95%, in a given measurement point or measurement range. Measurement uncertainty,  $U$ , is calculated according to EA-4/02 "Evaluation of the Uncertainty of Measurement in Calibration".