

Technical Datasheet



WT.02 / WI.02

Local Converter with Interface

Description

The local converters type WT.02 / WI.02 are passive 4-20 mA sensors with carrier-frequency-input stage (WT.02) or inductive input stage (WI.02).

The carrier frequency converters WT.02 are recommended for low flow due to the low lower cut off frequency (typically < 0,5 Hz).

The inductive converters WI.02 are recommended for higher medium temperatures (up to 150°C).

In addition to the analogue output the sensors provide a galvanically isolated open collector output, which can be used either as a switch or frequency output. The frequency output is freely scaleable. This scaleable output allows for a calibration to the volume flow independent of the type of flow meter.

The W*.02 have an interface integrated in the M12 sensor plug. The interface adapter and remote software KEM »EasyControl« allow for programming the operating parameters and to read the input frequency and temperature.

Both analogue and frequency output can be linearized with up to 10 points. When ordered with a flow meter the W*.02 output will be adjusted to this meter.

Besonderheiten

- Temperature compensation of the linearisation (various characteristic curves)
- Adjustment of operation mode
- Built in Interface
- Linearization of Current and Frequency Output

Accessories ¹⁾

CON.USB.WT:	USB-adapter for W*.02 with output plug to loop through the analogue and frequency output. In the remote mode the W*.02 can be powered via the USB interface or via an external power supply.
Easy Control:	Remote software for WINDOWS®, VISTA and 7 (for WINDOWS® XP SP3 or N.NET-framework is required).

¹⁾ Other adapters and drivers on request.

Technical data

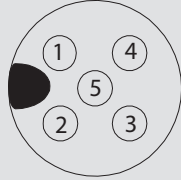


Analogue signal

Type	4-20 mA, 2-wire (passive)
Resolution	5 µA
Supply voltage	12-30 V, regulated
Allowable load	(UB -12 V) / 20 mA, max. 800 Ω
Operating modes	ON (frequency proportional current) OFF (supply current 4 mA independent of frequency)

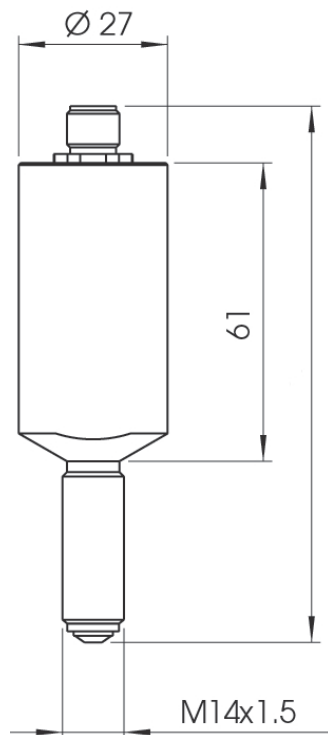
Digital output

Type	Open Collector, potential free
Protective resistor	1.600 Ω
Frequency range	1-5.000 Hz
Operating modes	OFF (frequency output disabled) 1:1 (output frequency = input frequency) CORR (scaleable output frequency) SW (switch output)

Further specifications

Measuring frequency	WT: 1-3,000 Hz (typ. 0.5 up to 5,000 Hz) WI: 7-3,000 Hz (typ. 5 up to 5,000 Hz)
Response time	250 ms (for input frequencies > 5 Hz)
Temperature drift	< 100 ppm/K
Connectorr	M12; 5-pin 1 = +I 2 = -I 3 = emitter (digital ground) 4 = collector (frequency output) 5 = remote input 
Ambient temperature	-40°C bis +70°C (Ex-version -40°C up to +50°C)
Medium temperature	-40 to +120°C (WT.02) with a distance of at least 25 mm between flow meter and electronic housing -40 to +150°C (WI.02) with a distance of at least 65 mm between flow meter and electronic housing, form: K + R: Medium temperature -40 °C up to 120 °C
Dimensions	see drawing L = 117 mm (form K, R) L = 156 mm (form L)
Material	stainless steel
Protection class	IP 65
Ex-approval	 II 2G Ex ia IIC T4  II 3G Ex nA IIC T4

Dimensional drawing (mm)



Ordering Information

	W	X.	02	-	X	-	X
Carrier-Frequency			T				
Inductive			I				
For ZHM 02 up to 04 and HM-Series					K		
For ZHM 05 up to 07					L		
For ZHM 01, 01/1 up to 1/3, SRZ-Series and LFM					R		
ATEX Zone 1: II 2G Ex ia IIC T4							Ex
ATEX Zone 2: II 3G Ex nA IIC T4							Exn

Safety-Related Data

$U_i = 30V$

$I_i = 120\text{ mA}$

$P_i = 850\text{ mW}$

KEM Headquarter

Liebigstraße 5
85757 Karlsfeld
Deutschland

T. +49 8131 59391-0
F. +49 8131 92604

info@kem-kueppers.com

KEM Service & Repairs

Wetzeller Straße 22
93444 Bad Kötzing
Deutschland

T. +49 9941 9423-0
F. +49 9941 9423-23

info@kem-kueppers.com

*More distributors & partners can be found at:
www.kem-kueppers.com*