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Küppers Elektromechanik GmbH

Certified according to DIN EN ISO 9001

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 galvani-cally isolated open collector output, which can be used either as a switch or frequency output. The frequency output is freely scaleable. This scale-able 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 frequen-cy 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 ad-justed to this meter.

Features

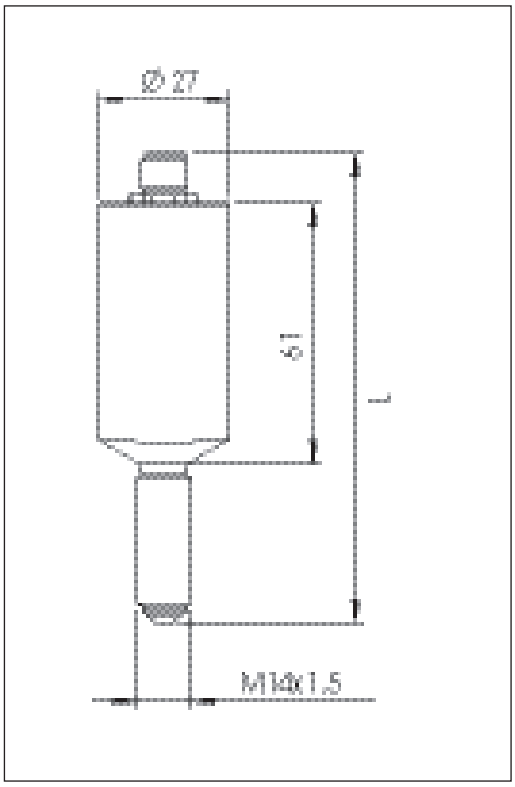
- Temperature measurement
- Temperature compensation of the linearisation (various characteristic curves)
- Adjustment of operation mode
- Built in Interface
- Linearization of Current and Frequency Output

Accessories	
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).
Other adapters and drivers on request.	

Technical Data

Analogue signal	
Type	4-20 mA, 2-wire (passive)
Resolution	5 µA
Supply voltage	12-30V, regulated
Allowable load	(UB -12V) / 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
Connection	M12; 5-pin 1 = +I 2 = -I 3 = emitter (digital ground) 4 = collector (frequency output) 5 = remote input
Ambient temperature	-40 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
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

Dimensional drawing (mm)



Ordering Information

W*.02-*.*.*

if blank = no option
Exn = for zone 2 3G

fif blank = no Ex approval
EX = Ex approval

K = for ZHM 02 to 04 and HM series
L = for ZHM 05 to 07
R = for ZHM 01, 01/1 to 1/3, SRZ-series and LFM

T = carrier-frequency
I = inductive

Identification

KEM Küppers Elektromechanik GmbH
CE 0123 Ex II 2G Ex ia IIC T4
BVS 09 ATEX E ...
W*.02-*.*.* Ser.Nr. ...
-40°C ≤ TA .≤ +50°C
Ui = 30V, Li = 120 mA, Pi = 850m W

Safety-Related Data

Ui = 30V
Ii = 120 mA
Pi = 850 mW

Contact

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