

Certified according to DIN EN ISO 9001

## Technical Datasheet



## ZHA Series Aluminium Gear Flow Meters

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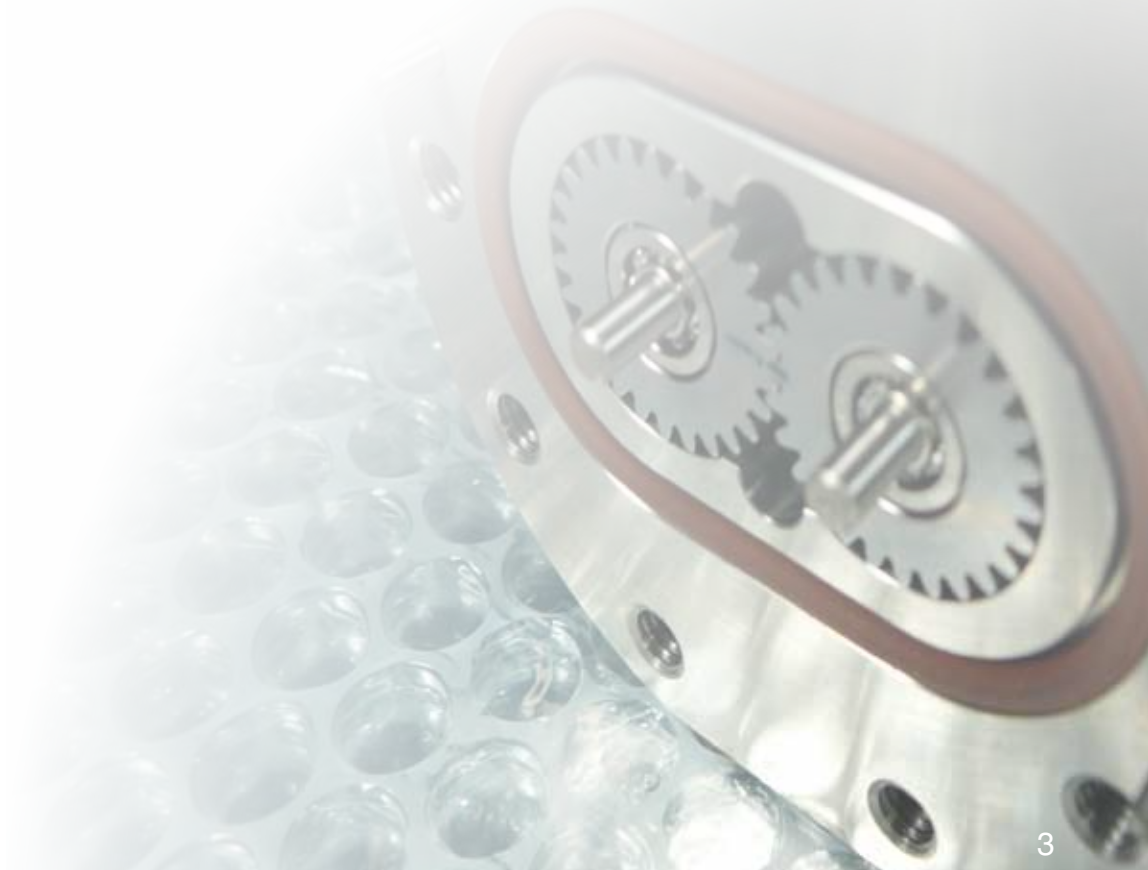
**Technical Data**

ZHA Type	Measuring range, ltr./min			K-factor, pulses/ltr.	Pressure, bar	Weight, kg
ZHA 01/2	0.02	to	3	28,000	315	0.30
ZHA 02	0.1	to	7	8,400	315	0.38
ZHA 03	0.5	to	25	3,480	315	0.50
ZHA 04	0.5	to	70	950	315	4.00
ZHA 05	5	to	150	268	250	12.7
ZHA 06	20	to	500	106	250	16.8

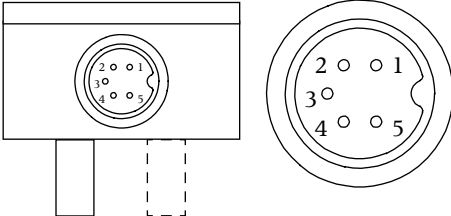
\* Complete part no. depends on pickup and O-ring.

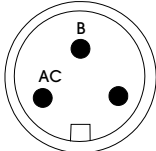
**Materials**

- Housing: ..... high-strength aluminium ALCuMgPb
- Gears: ..... stainless steel as per DIN 1.4122/AISI 303 or  
 ..... 1.4460/AISI 329 (special)
- Shafts, bearings: ..... stainless steel
- O-ring: ..... viton or teflon



Pickups

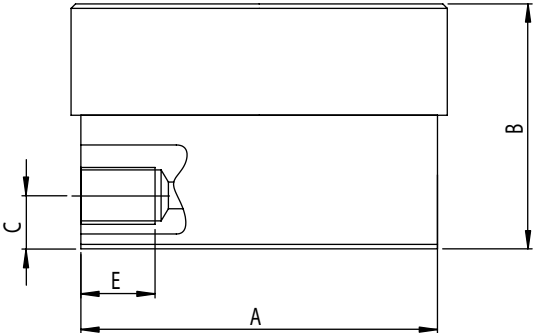
VHE and VHD for ZHA 01/2 to ZHA 04		
	VHE Single Hall Effect Sensor	VHD Dual Hall Effect Sensor
Supply voltage	12 to 30 VDC, max. 10 mA	12 to 30 VDC, max. 10 mA
Frequency range	1 to 3,000 Hz	1 to 3,000 Hz
Output	Square wave signal	Square wave signal double measuring frequency and reverse-flow detection
Output impedance	approx. 470 Ω	approx. 470 Ω
Temperature range	0 up to +70°C	0 up to +70°C
Electrical connection	5-pin plug 1 = Supply voltage 2 = Output signal 3 = 0V/GND 4 = nc 5 = nc	5-pin plug 1 = Supply voltage 2 = Output signal 1 3 = 0V/GND 4 = Output signal 2 5 = nc
		

IG 03 H for ZHA 05 to ZHA 06	
Minimum frequency	1 Hz
Maximum frequency	1 kHz
Output signal	squarewave pulses positive, 0.8 V below supply voltage
Pin connection	<p>A = 12-24 V B = 0 V C = signal</p> 
Output impedance	approx. 470 Ω
Supply voltage	12-24 DC, max. 10 mA
Ambient temperature	0 to +75 °C during operation, -30 to +90 °C during storage

**Dimensional Drawings (mm)**

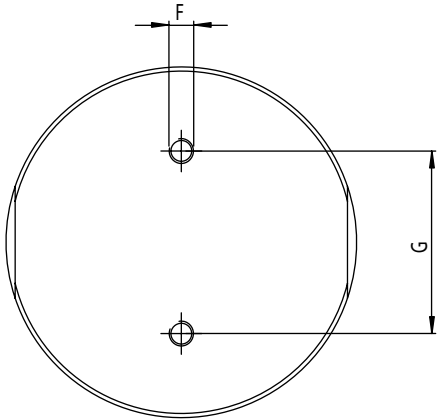
ZHA 01/2 to ZHA 05

*Side view*



Type	A	B	C	D	E
ZHA 01/2	72	55 KN/KL 49.7 81/DX	12	G 1/4"; 1/4" NPT KN	16; 13 KN
ZHA 02	80.5	55	12	G 1/4"; 1/4" NPT KN	16; 13 KN
ZHA 03	80.5	67	13	G 1/2"; 1/2" NPT KN	16; 17 KN
ZHA 04	121	107	19	G 1/2"; 3/4" NPT KN; G 3/4" A5	16
ZHA 05	170	133	22.5	G 1"	18

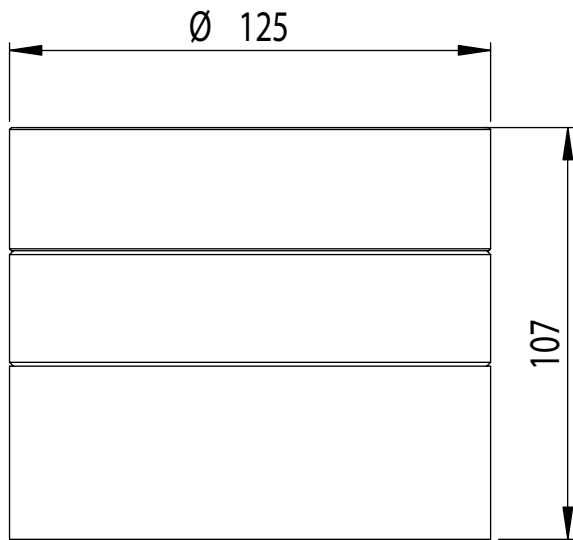
*Bottom view*



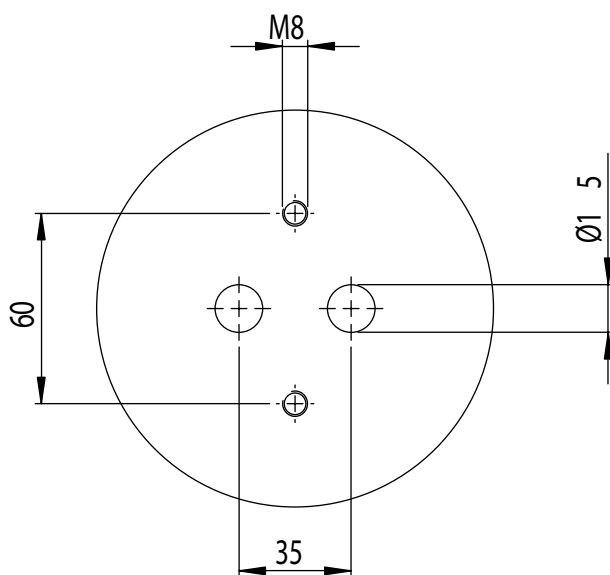
Type	G	F
ZHA 01/2	44	M6
ZHA 02	44	M6
ZHA 03	44	M6
ZHA 04	60	M8
ZHA 05	100	M8

ZHA 04 KB

Side view

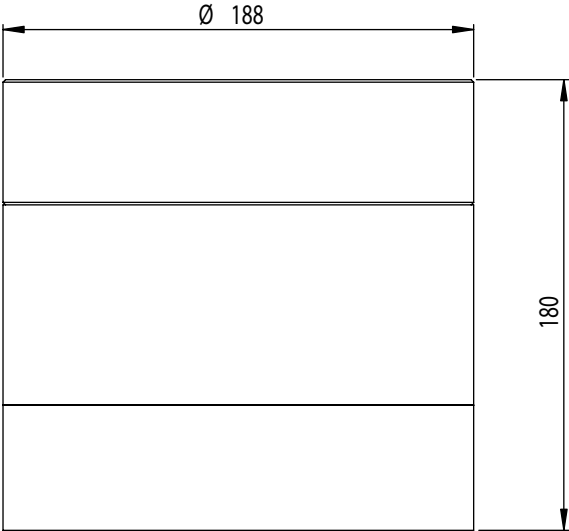


Bottom view

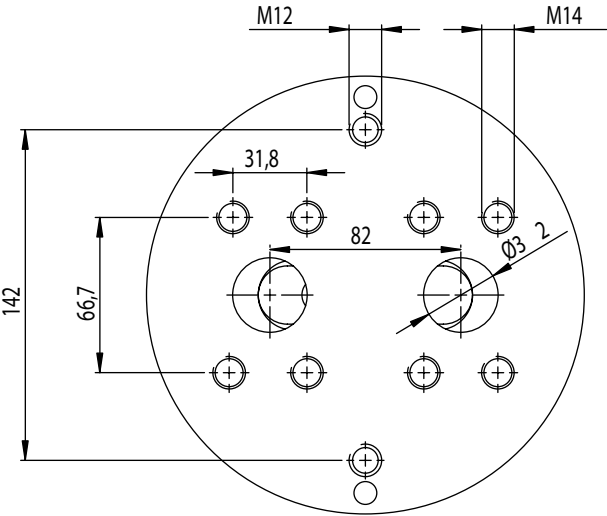


ZHA 06

Side view



Bottom view  
bottom in- and outlet only



## Contact worldwide

**KEM-Headquarter**

Liebigstraße 2  
D-85757 Karlsfeld  
T. +49 8131 5 93 91 - 0  
F: +49 8131 9 26 04  
info@kem-kueppers.com

**KEM-Office West**

Im Langen Hahn 44  
D-58515 Lüdenscheid  
T. +49 2351 9 78 80  
F: +49 2351 9 78 83 1  
kem-west@kem-kueppers.com

**KEM-Office South**

Dahlienweg 35  
D-73765 Neuhausen  
T. +49 7158 98 56 82  
F: +49 7158 98 56 83  
kem-sued@kem-kueppers.com

**Denmark**

E. Eberhardt ApS  
Bygstubben 6  
DK-2950 Vedbæk  
T. +45/45/89 33 66  
info@eeberhardt.dk

**Norway**

Flow Teknikk as  
Olav Brunborgsv. 27, Postboks 244  
N-1377 Billingstad  
T. +47/66/77 54 00  
mail@flow.no

**Singapore**

Polyquip Engineering Pte Ltd  
Blk 20 Woodlands Link #08-12  
Woodlands East Industrial Est.  
SGP- 738733 Singapur  
T. +65/6753/79 97  
sales@polyquip.com.sg

**China**

KEM China  
Mr. Xiao Tianxiang  
Rm.2429, JinYuan Office Building, No. 36,  
CN- BeiYuan Road, Beijing 100012  
T. +86/10/52 00 37 38  
Shaw@kem-kueppers.com

**Poland**

Newtech Engineering  
ul. Sowinskiego 3  
PL-4-100 Gliwice  
T. +48/32/237 61 98  
newtech@newtech.com.pl

**Slovakia**

Bibus SK, s.r.o.  
Priemysel'na 4  
SK-949-01 Nitra  
T. +421/377/41 25 25  
gyenes@bibus.sk

**Finland**

Wexon Oy  
Juhanilantie 4  
FI-01740 Vantaa  
T. +358/9/29 04 40  
wexon@wexon.com

**Portugal**

Contimetra Departamento Indústria  
R. Braamcamp 88-40 Dt0  
P-1269-020 Lisboa  
T. +351/213/86 05 00  
contimetra@contimetra.com

**Spain**

Ortrat S.L.  
Calle La Sofora 13 + 15  
ES-28020 Madrid  
T. +349/1/57 91 60 6  
ortrat@ortrat.es

**United Kingdom & Eire**

KEM Küppers UK  
2 Highfield Drive  
Ickenham Uxbridge  
UB10 8AL England  
T. +44/1895/23 35 52  
hans.rader@kueppers.co.uk

**Russia**

Michael Dueck  
Industrievertretungen und Vertrieb  
St.-Vither-Str. 12  
D-50171 Kerpen  
T. +49/2237/67 91 88  
info@m-dueck.de

**Taiwan**

Yuden Electric Co.,Ltd  
Taiwan Headquarter  
5F, No.121, Li De ST, JHONGHE TAIPEI  
COUNTY 235, Taiwan ROC  
T. +886/2/82 21 29 58  
sales@yuden.com.tw

**Hong Kong Area**

Asia Technology and Instrument Ltd.  
Unit 5, 9/F., Free Trade Centre  
49 Tsun Yip Street, Kwun Tong  
HK-Kowloon  
T. +85/227/16 55 56  
ati@ati.com.hk

**Sweden**

Pentronic AB  
SE-590 93 Gunnebobruk  
T. +46/490/25 85 00  
info@pentronic.se

**United States of America**

AW-LAKE Company  
Electronics for Instrumentation  
8809 Industrial Dr.  
Franksville, WI 53126, USA  
T. +1/262/88 49 80 0  
sales@aw-lake.com

**Italy**

Ingg. Vigo e Cova SAS  
Piazzale Segrino 6/a  
I-20159 Milano  
T. +39/02/668 82 02  
vigo.cova@vigocova.com

[www.kem-kueppers.com](http://www.kem-kueppers.com)  
[info@kem-kueppers.com](mailto:info@kem-kueppers.com)