



ILW DISPLACER: TYPE A1

Level Transmitter for liquid

Applications

Restrictor transmitter for the measurement of level, volume or mass as well as density, concentration or interface in liquid media.

Independently of pressure, temperature, conductivity, dielectric, foam or steam. For use in the ex zone.

Measuring Principle

The measuring procedure is based on the principle of the Archimedes: A body dives into liquid, a lift strength retroacts on the body. This lift strength is measured by a sensor and handled by a microprocessor.

Options

A output signal 4-20mA and HART as standard. As option other strain gages converters, digital interfaces like profibus, or RS232/485 are possible.

Byside the compact standard design ILW-T and the separate version ILW-S there are also different high temperature versions available. Various material combinations are provided.



- 2-wire Ex i, ATEX
- Simple, durable measuring system
- No moving parts
- HART ® compatibly
- No electronics in the product area
- Display of level, volume or mass, density, concentration or interface

Measuring-Sensor ILW-N

Range	200mm...20m
Density range	0.1...5.0kg/l
Temperature media	-40...+300°C *1
Temperature ambiente	-20...+56°C
Hysteresis	< 0.05% F.S.
Measuring accuracy	< 0.05%
Nominal characteristic	0.7...1.0 mV/V 2/5kΩ, 15V max.
Process connection	Thread, Flange
Nominal pressure	16 / 40 / 64 bar *1
Material sensor	StSt316L or Hastelloy C
Material displacer	StSt316L, Hastelloy C PVC, PP, PTFE, Halar, PVDF



Sensor "N"



Transmitter compact "T"



Transmitter separately "S"

Measuring-Transmitter ILW-T or ILW-S

Output signal	4-20mA, 2-wire
Communication	HART, 850Ω
Bürde	270...850Ω
Temperature ambiente	-20...+56°C
Display	-10...+56°C
Linearisation	<±0.05% F.S.
Measuring rate	0.65/sec.
Measuring accuracy	<±0.1%
Resolution Density	<±0.1g/l
Temperature influence	<±0.06%/°K
Power supply	18..30 VDC, Ex i
Material housing	Aluminium, Acryl
Protections class	IP65

Certification

Ex-Class sensor	II 1/2 GEx ia II T6, (Zone 0/1)
Ex-Class Transmitter	II 2(1) G EEx ia II T6, (Zone 1/0)
ATEX	SNCH 01, 3262 X
CE	0499
Gasgroup	IIA, IIB, IIC
Temperature	T1...T6
EMV	EN 50081-2, EN 50082-2

*1 Note: For medium temperature <+120°C: NP = Operating pressure; For >+120°C ... +300°C: NP x 0.8 = Operating pressure; For >+300°C: NP x 0.64 = Operating

CODES FOR TRANSDUCER AND TRANSMITTER

KIW

Type	
ILW displacement transmitter	ILW
Transmitter electronics	
ILW-N, without transducer, including 5 m cable (request other cable dimensions separately)	N
ILW-T, compact transducer with local display in aluminium housing, 4-20 mA	T
ILW-S, separate transducer with display in aluminium housing and mount, 4-20 mA	S
Material	
316L stainless steel	01
Hastelloy C	02
Application	
Level	F
Volume	V
Weight	M
Interfacial layer measurement	T
Density measurement	D
Concentration	K
Range of weighing device	
6 kg	06
10 kg	10
15 kg	15
Sealing (Probe/Head)	
Gylon / Gylon	G
Viton / Gylon	V
Kalrez / Kalrez	K
Spiroflex / Spiroflex	S
Welded / Spiroflex	W
Process connection	
G 1" thread (in accordance with ATEX regulations)	G
DIN 2526 flange, B shape	B
DIN 2526 flange, C shape	C
ANSI B16.5 flange, RF	A
DIN 2526 flange, nut - DIN 2512 shape	N
DIN 2526 flange, spring - DIN 2512 shape	F
Nominal value of process connection	
G 1" thread	0
DIN DN25, 1" ANSI, flange	1
DIN DN50, 2" ANSI, flange	2
DIN DN80, 3" ANSI, flange	3
DIN DN100, 4" ANSI, flange	4
Spezial	X
Nominal pressure of process connection (*1 Note)	
PN16	1
PN40	2
PN64 (welded version only)	3
150lbs.	6
300lbs.	7
600lbs.	8
900lbs (welded version only)	9
Suspension device	
Chain, stainless steel 1.4401	KET
Suspension device can be rotated, stainless steel St-St316L	DR1
Suspension device can be rotated, Hastelloy C22	DR2
Suspension device can be rotated, Hastelloy C276	DR3
High temperature extension	
Vertical high-temperature extension 125 mm, 100 ... 150°C medium, (<+120°C: ND = Operating pressure)	HV1
Vertical high-temperature extension 250 mm, 150 ... 250°C medium, (>+120°C ... +300°C: ND x 0.8 = Operating pressure)	HV2
Vertical high-temperature extension 350 mm, 250 ... 300°C medium, (>+300°C: ND x 0.64 = Operating pressure)	HV3
Option	
Side installation	HZT

CODES FOR DISPLACER

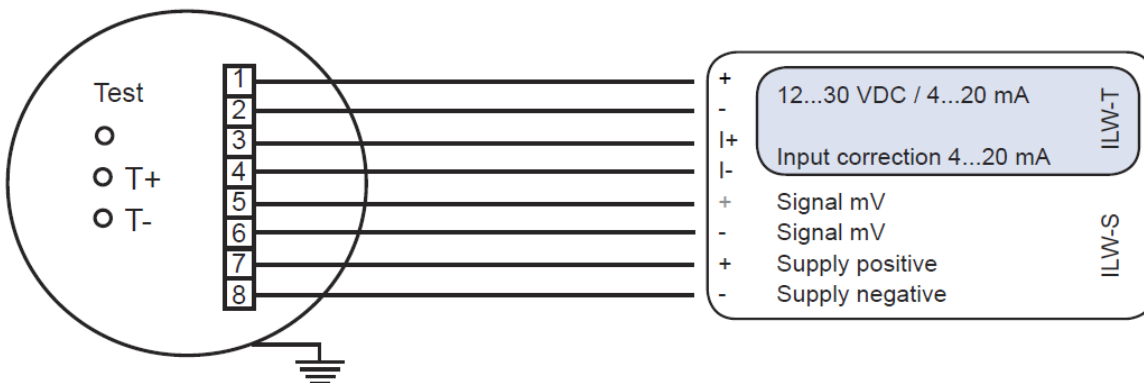
Displacer	
1-part	T1
2-part	T2
3-part	T3
4-part	T4

Displacer Material	
Stainless steel StSt316L (max. 300°C, 64 bar), Ex-Zone 0	01
Hastelloy C22 (max. 300°C, 64 bar), Ex-Zone 0	02
Halar conductive (max. 150°C, 16 bar) on StSt316L, Ex-Zone 0	04
PVC (max. 60°C, 6 bar), Ex-Zone 1	06
PP (max. 80°C, 6 bar), Ex-Zone 1	07
PVDF (max. 140°C, 6 bar), Ex-Zone 1	08
PTFE leitfähig (max. 150°C, atm.) Ex-Zone 0	09

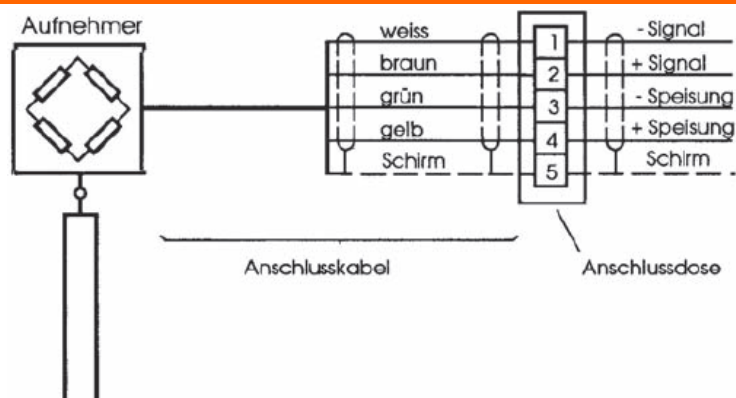
Displacer Length mm	
All materials in mm	XXXXX

Connection wire for separate version ILW-N and ILW-S (max. 50 m with connection box)	ILW CABLE	xx m
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CONNECTION TRANSMITTER ILW-T AND ILW-S

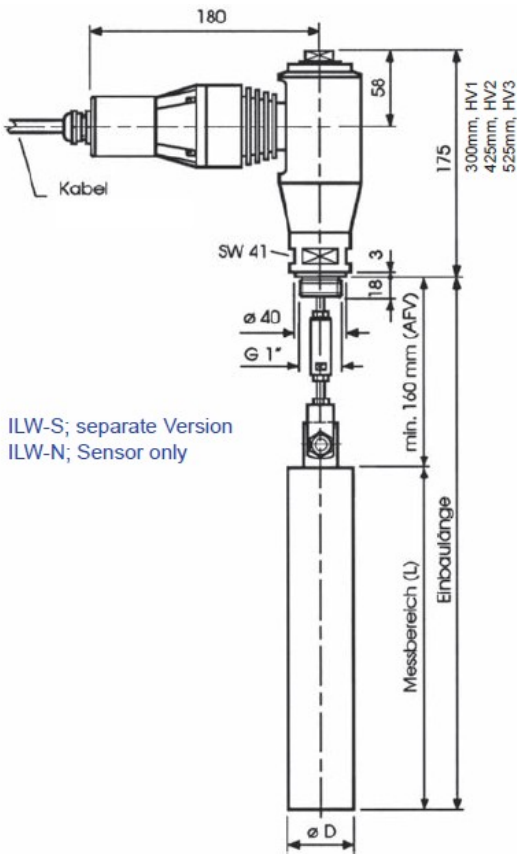


CONNECTION SENSOR- TRANSMITTER ILW-N



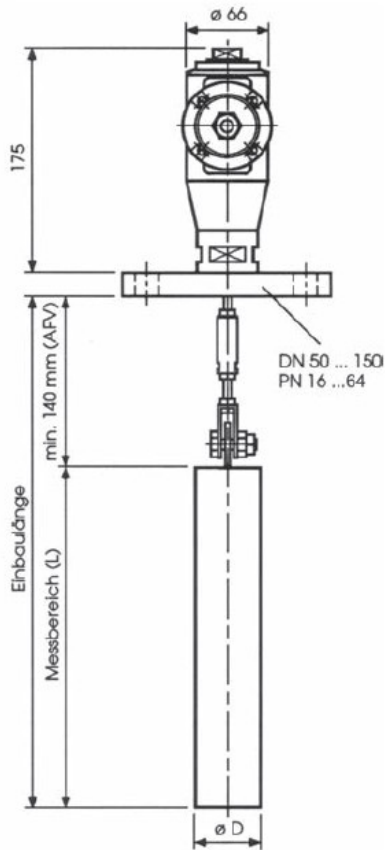
DIMENSIONS

KIW

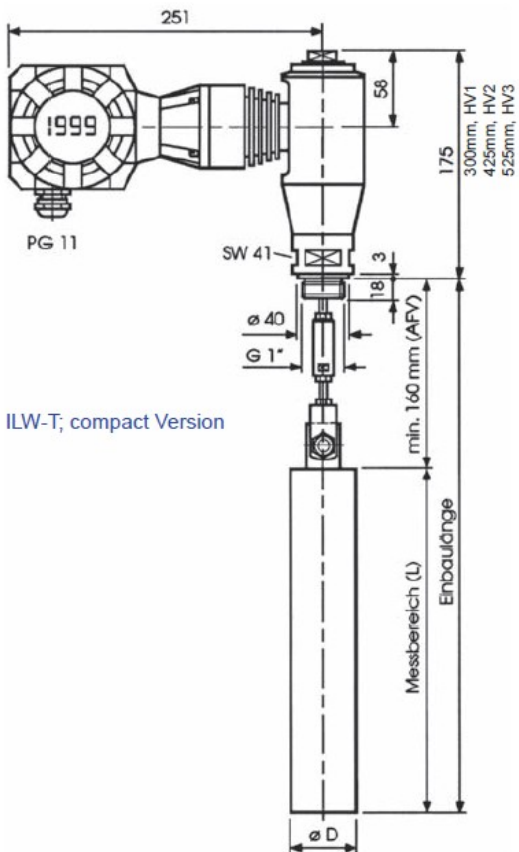
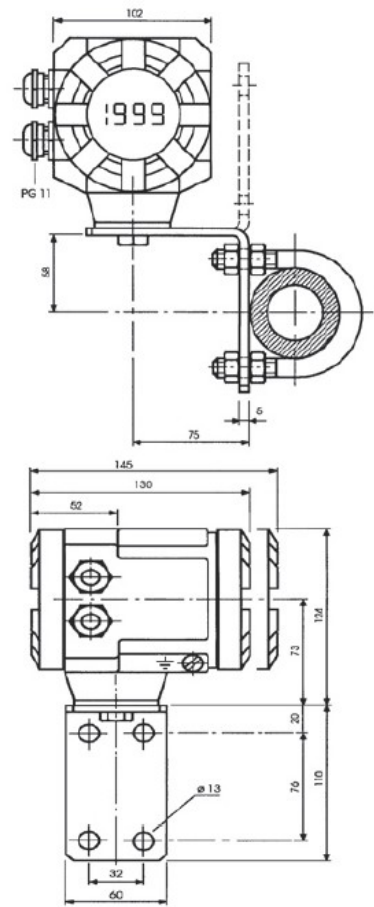


ILW-S; separate Version
ILW-N; Sensor only

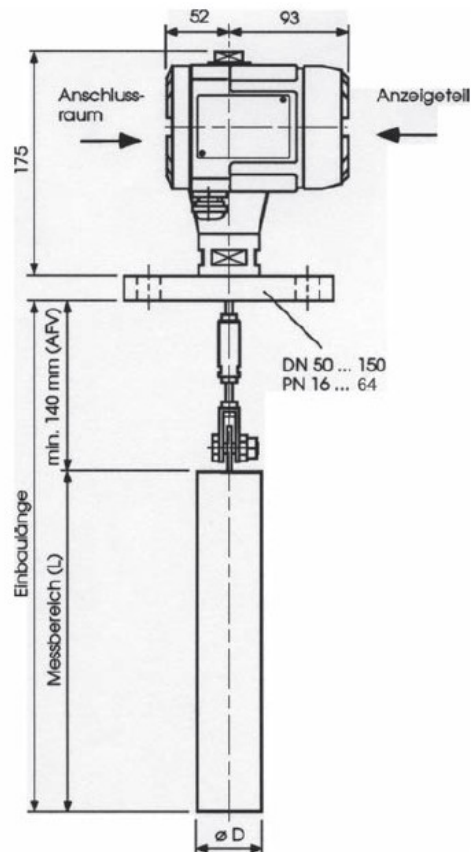
Version with thread



Version with flange



ILW-T; compact Version



- Installation
- Customised training
- Telephone support
- Service contracts
- On site support by our service engineers
- Remote access diagnostic facility: All machines are connected via phone line to KIW's service department



For further information please do not hesitate to visit our website www.kiw.com.au or contact us on:

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