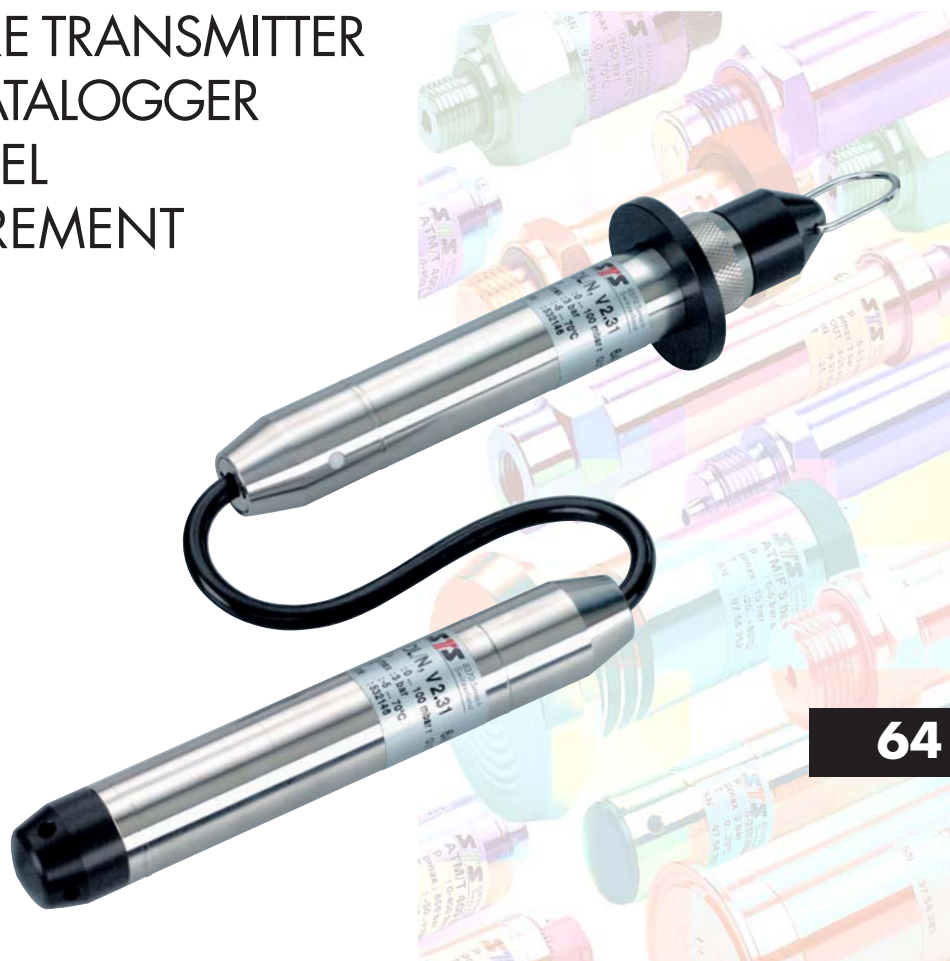


PRESSURE TRANSMITTER WITH DATALOGGER FOR LEVEL MEASUREMENT DL/N

**64**

Features

- Piezoresistive measuring element
- Pressure ranges from 0...1 m to 0...250 m water gauge
- Calibration available for all common pressure units e.g. mWS, mWC etc.
- Temperature measurement (option)
- Measuring interval programmable from 2 s to 24 h
- Non volatile data memory for 130'000 values
- Long life battery
- Datatransfer to a PC/Notebook/Pocket PC
- Various accessories available

Typical applications

Recording of level measurement in

- Ground water
- Bore holes
- Waste water
- Reservoirs
- Lakes, rivers
- Sewage treatment plant

Specifications

Pressure range	[mH2O]	1 ... 5	> 5 ... 20	> 20 ... 250
Overpressure		3 bar	3 x FS (min. 3 bar)	3 x FS
Accuracy ¹⁾	[± % FS]	≤ 0.25	≤ 0.1	≤ 0.1
Thermal shift	[± % FS/°C]			
Zero	-5...50°C	0.06	0.03	0.015
Span	-5...50°C	0.015	0.015	0.015
Temperature range ²⁾			-5...50°C	

¹⁾ Zero based non-conformity according to DIN 16086, including hysteresis and repeatability

²⁾ Other temperature range on request

Datalogger

Measurand	Pressure, pressure and temperature (temperature as option)
Resolution	Pressure < 0.01% FS Temperature 0.1°C
Real time clock	Quartz clock with date, timer functions
Data memory	130'000 measurement values - non volatile, data kept in memory even without battery - each measurement value is correlated with time and date
Interface	RS232C (V24, three wire)
Identification	Serial number and user definable description
Power supply	Lithium battery 3.6V - battery changeable by user

Configuration and Data Transfer

PC-Program for Configuration and Data Transfer

System Requirements	IBM compatible Notebook or PC, Windows 95/98/NT/2000/XP or Pocket PC with Windows CE 2002 or higher	
Data Transfer	- data transfer of last measurement period - data transfer for a defined time-period - the data will be represented in a txt-file or in a graph	- data transfer of all data
Configuration	- storage rate - sampling rate - time and date - description - timer (start/stop) - depth to water - tare - storage threshold value - density of the medium	storage interval of records time between two records (e.g. name of location) the actual pressure value can be set to the real value (option) the density-setting will affect the level range (option)
Data Format	Data are stored in ASCII format and may be read with programs like Excel, Lotus or similar	

Electromagnetic compatibility

	Standard	Level	Typical interferences
Emission:			
EN 61000-6-3	Generic emission standard		
EN 55022	Emission, class B		
Immunity:			
EN 61000-4-2	Generic immunity		
EN 61000-4-2	Electrostatic discharge	4kV contact, 8kV air	
EN 61000-4-3	Radiated electro-magnetic field	10V/m, 80-1000 MHz, 80% AM 1kHz	Cellular phones, radio sets
EN 61000-4-3	Radiated electro-magnetic field (GSM)	10V/m, 950 MHz, 200Hz on/off	Digital portable phones
EN 61000-4-4	Fast transients (burst)	2 kV	Motors, valves
EN 61000-4-6	Conducted radio-frequency	10V, 0.15-80 MHz, 80% AM 1kHz	Cellular phones, radio sets
EN 61000-4-5	Surge		



The pressure transmitter DL fulfils the emission and immunity requirements described in the EMC directive EM 61000.

Ordering Information

64 X . XXXX . 0761 . XX . X

Type	DL/N	64						
Pressure Type	Gauge	1						
	Absolute	2						
Pressure range⁶⁾	0... 1.0 mH2O							
	0... 1.6 mH2O							
	0... 2.5 mH2O							
	0... 4.0 mH2O							
	0... 6.0 mH2O							
	0... 10 mH2O							
	0... 16 mH2O							
	0... 25 mH2O							
	0... 40 mH2O							
	0... 60 mH2O							
	0... 100 mH2O							
	0... 160 mH2O							
	0... 250 mH2O							
	Special calibration							
Version	level transmitter screwed on, closed (absolute) ¹⁾	(Fig. 1a)	2	49				
	level transmitter screwed on, open (absolute) ¹⁾	(Fig. 1b)	2	50				
	housing for pipe mounting, closed ^{1) 2)}	(Fig. 2a/4)		57				
	housing for pipe mounting, open ^{1) 2)}	(Fig. 2b/4)		58				
	housing for pipe mounting, screwed on, closed ^{1) 2) 3)}	(Fig. 3a/5)		72				
	housing for pipe mounting, screwed on, open ^{1) 2) 3)}	(Fig. 3b/5)		73				
Cable	PE cable ^{4) 7)}							
	PUR cable ⁴⁾							
	Teflon cable ⁴⁾							
Electrical connection	Connector RSF 4, 4-pin ⁸⁾			07				
Interface	RS232C			61				
Accuracy	≤ ± 0.25% FS (for pressure ranges ≤ 500 mbar)					1		
	≤ ± 0.1 % FS (for pressure ranges > 500 mbar)					2		
Temperature range	-5...50°C ⁵⁾						4	
Options	Ballast weight						B	
	Electronic packed in gel:	Gauge pressure					C	
		Absolute pressure					D	
	Temperature measurement						E	
	Flood protection	(Fig. 6)					I	
	Version titanium						K	
	Special oil filling in the TD: ASEOL Food							G
		Halocarbon						H
	Seals:	Viton (standard)						U
		EPDM						S
		Kalrez						T
Special options						Z		

¹⁾ Version for pipe mounting, minimum diameter 2"

²⁾ Please specify the size of the thrust-ring (e.g. 2" or 4.5")

³⁾ Gauge version for cable length > 50m

⁴⁾ Please specify the required cable length and media

⁵⁾ Other temperature ranges on request

⁶⁾ mWS, mWC etc. available

⁷⁾ Suitable for drinking water (food approved)

⁸⁾ Data transfer cable not included, 2m (ordering code VART009)
5m (ordering code VART211)

Dimensions

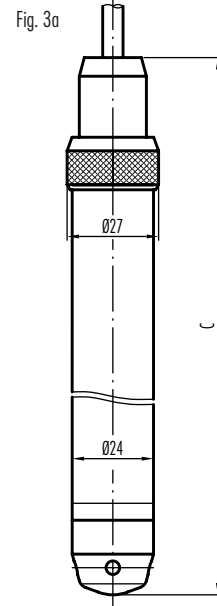
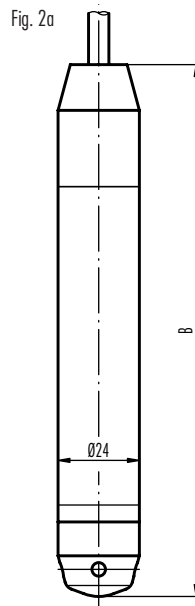
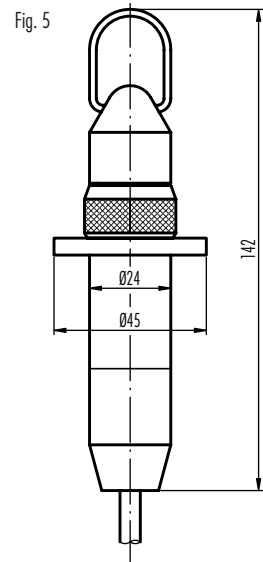
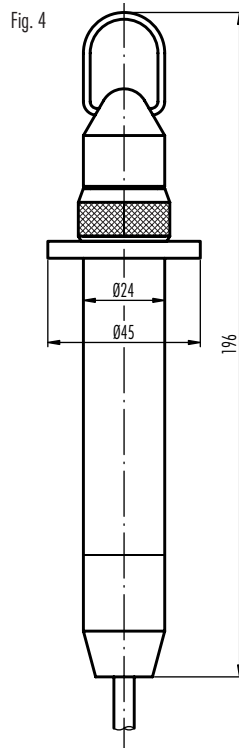
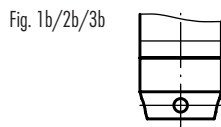
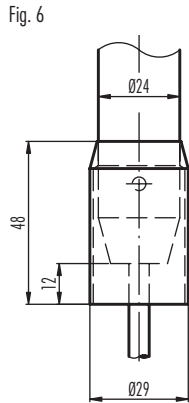
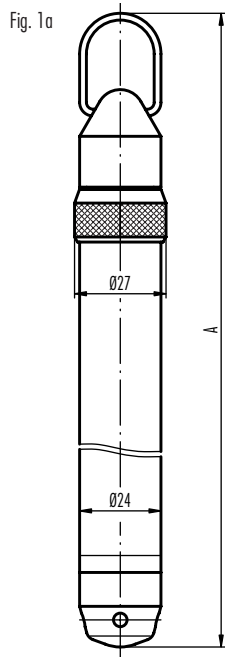


Fig. 4 Battery housing
Fig. 3a/3b Battery built into the transmitter housing

Version	Front	Fig.	Length	Weight [g]	Length ³⁾	Weight ³⁾ [g]
absolute	closed	1a	A=288	260		
	open	1b	A=284	260		
gauge	closed	2a	B=157	195	B=244	425
	open	2b	B=153	195	B=240	425
	closed	3a	C=259.5	300		
	open	3b	C=255.5	300		

³⁾ with ballast weight

Specifications may change without notice.

DED029A Release 08/2003

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