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Monitor Pipe Networks

with the DK680 Data Logger for Pressure or Temperature

The DK680 is a robust data logger for measuring pressure in gases or water, and optionally also for measuring temperature.
When monitoring pressure in pipe networks the device can detect short-term fluctuations as well as long-term changes in pressure thanks to a sampling interval between 8 Hz and 24 hours.

Application

· Pipe network analysis
· Interference analysis in pipe networks
· Leakage tests
· Pipe network monitoring
· Function monitoring in air pressure systems

Features
Robust pressure data logger
3x optional, programmable inputs e. g. for temperature, voltage/current, pulse count
Direct measurements on LCD
Excellent measuring accuracy
Large memory capacity for up to 4 million readings
USB port
Sampling interval programmable from 8 Hz to 24 hrs
Battery life up to 8 years
Stop when full or continous logging
LED indicator for alarm conditions

Measurements, Storage, Analysis

The data logger is powered by two standard lithium batteries and can operate continuously up to 8 years depending on the selected sampling interval.

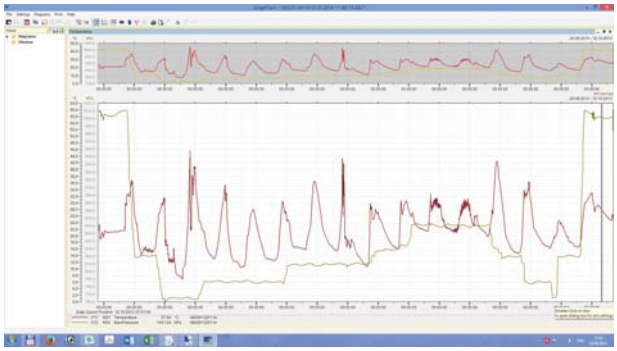
The display shows the current readings as well as the battery condition. It also indicates whether the device is currently logging or not.
An LED signals the exceedance of preset alarm thresholds.

By default, the model features a pressure sensor with G1/8 inch thread; 1/4 and 1/2 inch threading adapters are included in delivery.
Three additional inputs can optionally be provided (option -3S) for use with external transmitters (e. g. temperature, pulse (water flow meter)), pressure probes or analog signals. Driesen+Kern offers a range of suitable probes and sensors.

A Certificate of Calibration from our laboratory is supplied with every sensor. DAkkS certificates can be delivered on request.

Analysis Software InfraLog light

The Software InfraLog for Windows basic allows you to set parameters, start the logger, download data as well as export readings to a CSV file type for later use with MS Excel or similar applications. InfraLog light also offers substantial graphic functions (zoom in, readings at the cursor etc.) and the option to combine several series of measurements in a single diagram.



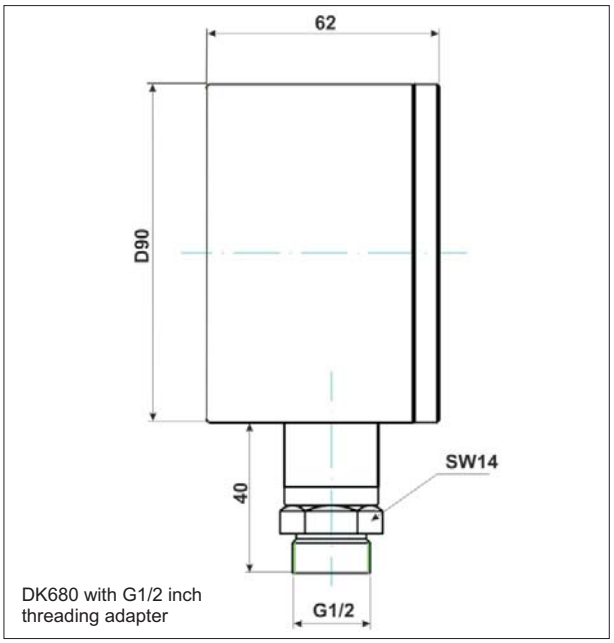
External Probes suitable for the DK680

DS-325 Temperature Probe
D=4mm, L=100mm
For air and water temperature

ES-325 Screw-In Probe
For air and water temperature
D=4mm, L=30mm
M8 outside thread

PSENSE-650 Pressure Probe
Additional external pressure probe available as Level Probe or Screw-In Probe with G1/2 inch screw thread

(Measuring ranges as correspond with internal sensor)



DK680 with G1/2 inch threading adapter

Sensors and Inputs

	Range	MB	Resolution	Accuracy
Absolute pressure:	0...1bar 0...4bar 0...10bar 0...25bar 0...100bar	1 4 10 25 100	0.005%	0.1 % [1]
Gauge pressure:	0...100mbar 0...250mbar 0...1bar 0...4bar	0,1 0,25 1 4	0.005%	0.1 % [1]
Temperature (internal):	- 20..+70°C		0.01°C	+/- 0.3°C
Temperature (external):	-40..+120°C		0.01°C	+/- 0.3°C

[1] optionally enhanced measuring accuracy is +/-0,05%

Specifiactions

Single-ended Voltage Signals

Range (mV)	0-10	0-20	0-50	0-100	0-1V	0-2.5	0-5V	0-10V
Resolution (µV)[3]	0.58	0.58	0.76	1.54	15.4	38.9	76.9	154
Input impedance (MOhm)	2.5	2.5	2.5	2.5	2.5	0.1	0.1	0.1
Accuracy	0.1% of selcted measuring range							

Current

Range (mA)	0 - 24mA
Resolution (µA)	0.36 µA
Input impedance	10 Ohm
Accuracy	0.1% of selcted measuring range

Voltage signals from 0...1V can be fed in with the DKC-S standard cable. Signals of up to 24V can be connected using the DKC-U cable.
Measuring current signals requires the DKC-I cable.

Pulse (potential-free)

Range	0...65.000 pulses / interval	0...100 Hertz
Resolution	1 Pulse / 1 Hz	1 Pulse / 1 Hz
Accuracy	1 Pulse / 1 Hz	1 Pulse / 1 Hz

Pulse (voltage pulse, max. 24V)

Range	0...65.000 pulses / interval	0...1300 Hertz
Resolution	1 Pulse / 1 Hz	1 Pulse / 1 Hz
Accuracy	1 Pulse / 1 Hz	

Potential-free signals with a low level <0.5VDC and a high level between 2 and 3 VDC can be connected using the included standard cable DKC-S.
Higher singals of up to 24V can be measured using the DKC-P cable.

Operating range (Logger): -20...+70°C
Dimensions: d=90mm, h=65mm
Battery life: 8 years @ 1 minute
200 days @ 1 second
37 days @ 8 Hz

Interval: 8 Hz....24 hrs.
Housing material:
Data logger POM, IP65
Sensor V4A
Memory capacity: 4 million readings

Included in delivery:
Data logger, threading adapter for 1/4" and 1/2",
2x batteries, Software InfraLog for Windows -basic-,
USB cable, User Guide on USB flash drive, Declaration of Conformity

Optionally available: 3 additional inputs for external sensors.

Software *InfraLog -light or enhanced, Certificate of Calibration*, carrying case, wall holder, set of seals

Order Codes for the DK680 = DK680-S-MA-MB-RF

S = 0 no additional external inputs (default)
3S with 3 additional inputs
MA = A Absolute pressure
R Gauge pressure
MB = Measuring range (see specifications)
RF = 0 no internal humidity/temperature sensor
1 internal humidity/temperature sensor