

# SERIES 23 Subsea



## PIEZORESISTIVE PRESSURE TRANSMITTERS ABSOLUTE AND DIFFERENTIAL PRESSURE

These piezoresistive transmitters have been designed for precision applications in subsea environments for pressures ranging from 50 to 1360 bar A or 1 to 500 bar DP, liquids or gas. External case pressure allowed is up to 1400 bar.

- **Series 23** Male pressure port ( DP female port )  
Accuracy 0,5%FS, optional 0,1 and 0,2%FS



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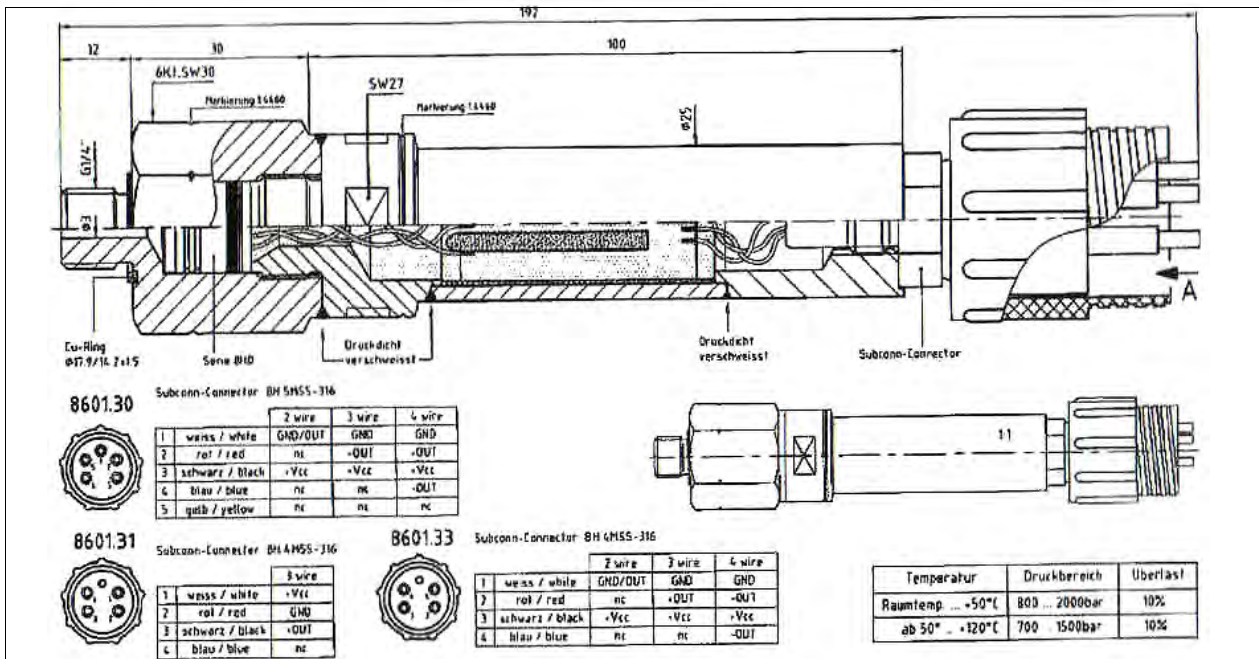
- **A Complete Range**  
Absolute and differential for wet/wet applications.  
13 nominal pressure ranges. Current or voltage output.

- **Flexibility**  
A modular concept uses the selection of off-the-shelf capsules, allowing a customised production. Numerous options and variants are available, fully adapted to the customer's requirements: Mechanical and electrical interface, ports, signal outputs, materials in media contact, oil filling, oxygen-compatibility, special features, flameproof- and intrinsically safe versions.

- **Reliability / Quality**  
These transmitters use the highly stable KELLER Series 10 capsules, proven in millions of applications throughout the world. Each capsule is subjected to severe tests and calibration procedures. The transmitters are manufactured and tested according to ISO 9001 / EN 29001.

The type of the transmitter is defined according to the reference pressure:

- **PAA-23** Absolute Pressure Transmitter (Zero at 0 bar abs.)
- **PA-23** Sealed Gauge Pressure Transmitter (Zero at 1 bar abs.)



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## SPECIFICATIONS

### PRESSURE RANGES (FS) IN BAR

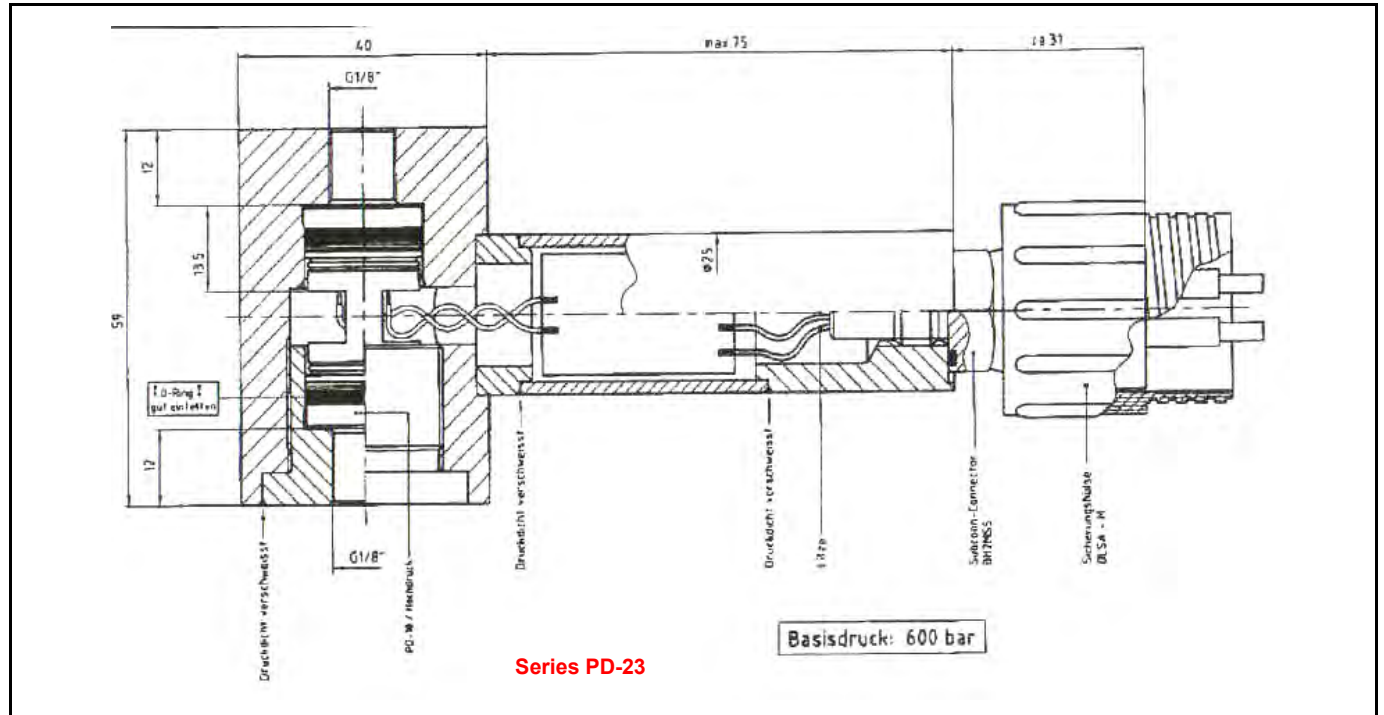
PD-23	1	2	5	10	20	50	100	200	400	600		
PAA-23						50	100	200	400	600	1000	1360
PA-23						50	100	200	400	600	1000	1360
Overpressure	3	4	10	20	40	100	200	300	600	900	1100	1500
Overpressure Ref.-Side PD	2	3	7	15	25							
PD, static line pressure	200 ----- -200    100 - 1000 bar dependant on application											

Linearity (1)+Hysteresis+Repeatability	±0,2%FS typ., ±0,5%FS max.	(1) best straight line, based zero
Storage-/Operating Temperature	-40...100°C	
Compensated Temperature Range	-10...80°C	
Temperature Coefficients...	<b>OF ZERO, IN %FS/°C</b>	<b>OF SENSITIVITY, IN %/°C</b>
· Range > 1 bar	0,005 typ.    0,01 max.	0,02 max.
Stability	0,1%FS typ.    0,2%FS max.	

Signal Output / Type	<b>4...20 mA / 2-WIRE</b>	<b>0...20 mA / 3-WIRE</b>	<b>0...10 V / 3-WIRE</b>
Supply	10...30 VDC	10...28 VDC	13...28 VDC
Load Resistance (R <sub>L</sub> )	(U-10V)/0,02A	(U-5V)/0,02A	> 5 k
Electrical Connection	Subcon BH series or MC series		
Pressure Connection	See drawings front page		
Material in Media Contact	Stainless steel 316L (DIN 1.4435), or hastelloy C276 option, viton		
Protection	IP68 external case pressure up to 600 bar ( 1400 bar on 1360 bar sensors )		
Insulation	> 100 MΩ@50 V		
Endurance	> 10 million cycles 0...100%FS at 25°C		
Frequency Response	1 kHz (5 kHz option)		

### OPTIONS

Linearity. Specifications	±0,1 and ±0,2%FS or any customer requirement
Materials in Contact with Media	Hastelloy C, monel, platinum, nickel, tantalum, gold-plated
Oil Filling	Fluorized oil (O <sub>2</sub> -compatible), olive-oil, low temperature oil



Subject to alterations