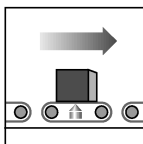
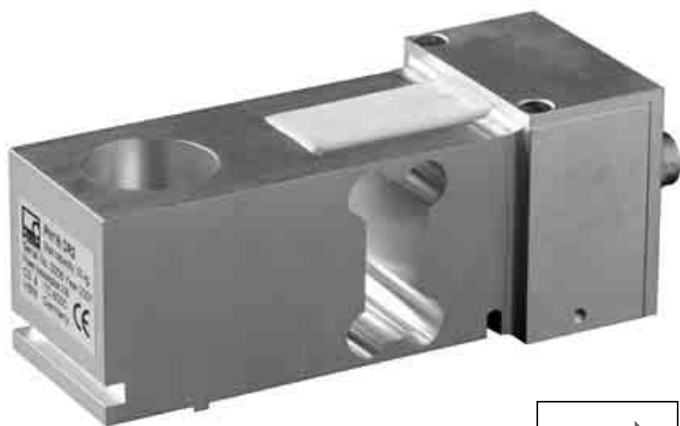


PW18i

Digital load cell for dynamic weighing



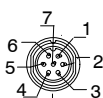
Special features

- 2 limit switches with hysteresis
- Dosing functionalities
- High overload limits
- Protection class IP67
- Fast digital filtering and scaling of the measured value
- Trigger function (external or level trigger)
- Legal for trade certification according to OIML R60 / R76, 3000d (in preparation)

Dimensions (in mm; 1 mm= 0.03937 inches)

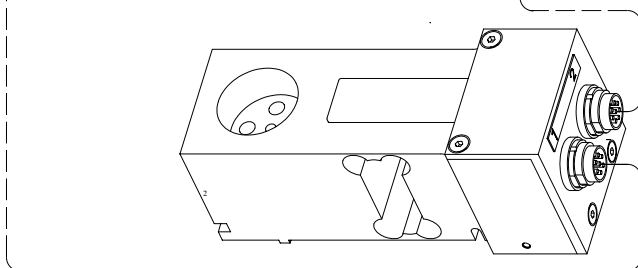
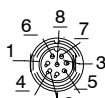
Plug 1

PIN	Cable (Access.)	RS-485	RS-232
1	green	RA	-
2	gray	RB	RxD
3	blue	TA	TxD
4	black	TB	-
5	red	+UB1	+UB1
6	white	GND1	GND1
7	yellow	Trigger	Trigger



Plug 2

PIN	Cable 2	Limit-function	Dosing-function
1	blue	OUT 1	Limit value 1
2	green	OUT 2	Limit value 2
3	black	OUT 3	Ready
4	gray	OUT 4	Alarm
5	red	+UB2	
6	white	GND2	
7	yellow	IN1	Trigger
8	brown	IN2	Tare



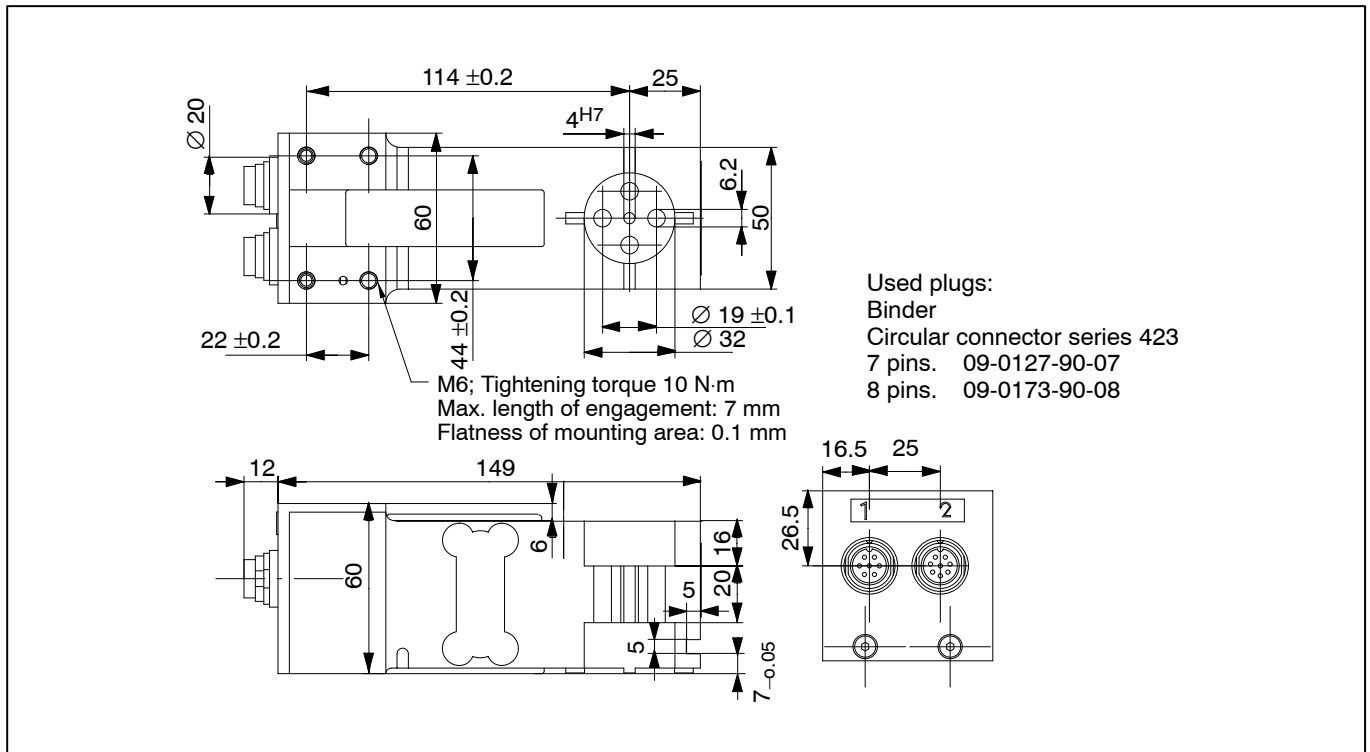
Specifications

PW18i Load Cell Standard version	– with RS 485– 4–wire	PW18iSR5	– with RS 232	PW18iSR2		
PW18i Load Cell with limit switches	– with RS 485– 4–wire	PW18iLR5	– with RS 232	PW18iLR2		
PW18i Load Cell with dosing function	– with RS 485– 4–wire	PW18iDR5	– with RS 232	PW18iDR2		
Accuracy class according to OIML R60		C3				
Max. capacity (E_{max})	kg	5	10	20	50	75
Min. load cell verification interval (v_{min})	g	0.5	1	2	5	7.5
Min. application range (3000d)	kg	1.5	3	6	15	22.5
Max. platform size (Length x Width)	mm	400 x 400			600 x 500	
Max. number of load cell verification intervals (n_{LC})		3000				
Apportionment factor (p_{LC})		1				
Temperature effect on sensitivity ^{1) 2)} (0°C...+40°C)	%/10 K	± 0.0250				
Temperature effect on zero signal ²⁾	%/10 K	± 0.0200				
Hysteresis error ^{1) 2)}	%	± 0.0166				
Nonlinearity ^{1) 2)}	%	± 0.0166				
Creep (30 min.)	%	± 0.0166				
Eccentric loading error acc. to OIML R76	%	± 0.0233				
Safe load limit (max. 20 mm eccentricity)	% of E_{max}	300				
Permiss. dynamic load (max. 50 mm eccentricity)	% of E_{max}	70				
Deflection at max. capacity	mm	< 0.15				
Power supply:						
Supply voltage UB1 (DC)	V	+ 6 ... +30				
Power consumption	W	≤ 2				
Switch-on current	A	0.3				
Resolution of meas. signal (1 Hz Filter)	Bit	20				
Measuring rate	1/s	4 ... 600				
Adjustable cut-off frequency of the digital filters:						
Filtermode 0	Hz	40 ... 0.25				
Filterm. 1 (response time 62 ... 365 ms)	Hz	18 ... 2.5				
Baud rate	Baud	1200; 2400; 4800; 9600; 19200; 38400				
Max. number of bus members		90				
Asynchronous serial interface (plug 1)						
RS-485, 4 wire, max. cable length	m	500				
RS-232, max. cable length	m	15				
Trigger input (plug 1)						
Max. input voltage	V	0 ... +12				
Low-level	V	0 ... 1				
High-level	V	3 ... 12				
Input resistance	kΩ	10				
Control inputs (optional, plug 2)		isolated, reference potential GND2				
Max. input voltage	V	0 ... +30				
Low-level	V	0 ... 6				
High-level	V	10 ... 30				
Input resistance	kΩ	> 3				
Control outputs (optional, plug 2)		isolated, reference potential GND2				
External supply voltage UB2	V	+11 ... +30				
Max. current of one output	A	< 0.5				
Accumulated current of all outputs	A	< 1.0				
High-level	V	> (UB2–1 V)				
Nominal temperature range	°C [°F]	–10 ... +40 [+14...104]				
Service temperature range	°C [°F]	–10 ... +50 [+14...122]				
Storage temperature range	°C [°F]	–25 ... +75 [–13...167]				
EMC – requirements		EN 45501, OIML R76				
Protection class according to EN 60529		EN 61326–1/Tab. 4, equipment of class B				
Connectors		EN 61326/A1, Tab. A1, equipment in industrial areas IP 67 BINDER circular connectors series 423 7 pins 09-0127-90-07 8 pins 09-0173-90-08				
Material		Aluminum				
Weight, approx..	kg	0.8				

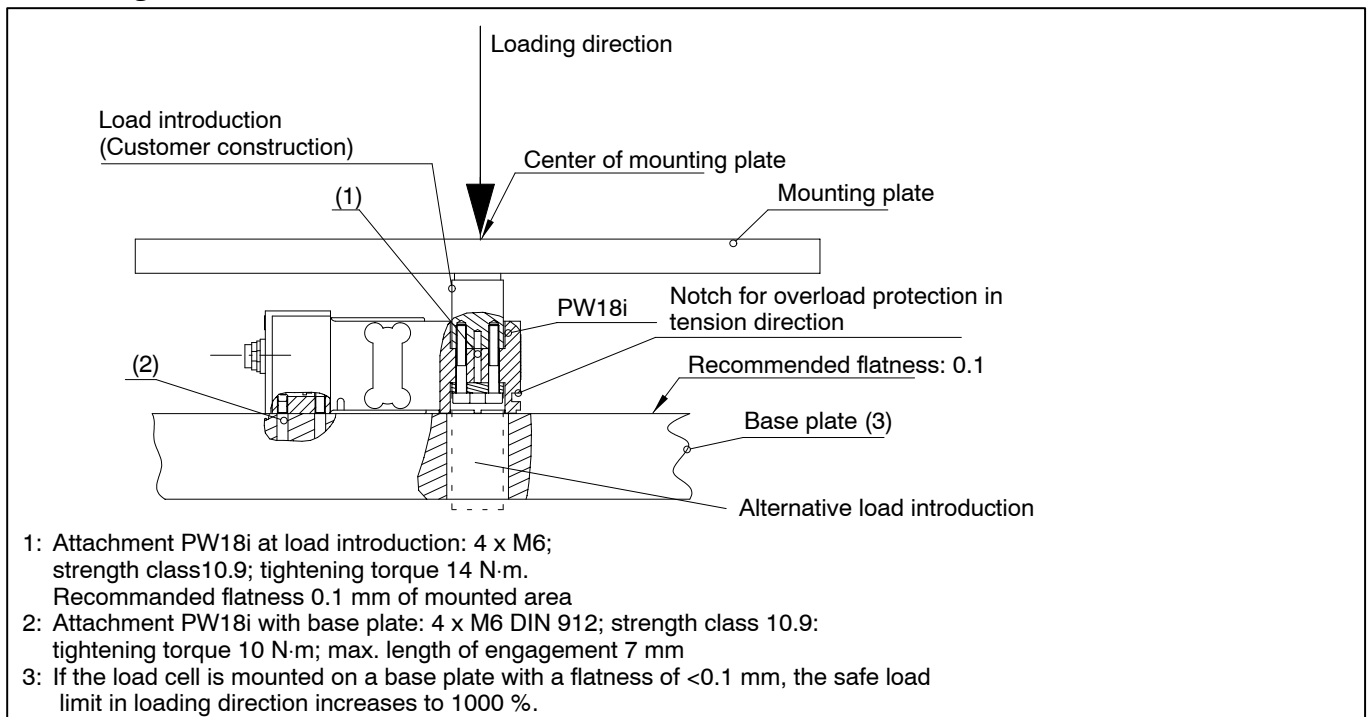
3) The values can be exceeded in individual cases. The resulting errors of TK_C , nonlinearity and hysteresis don't exceed the maximum permissible errors of OIML R 60 with $p_{LC} = 1$.

4) All relative errors are related to the output signal at max. capacity.

Dimensions (in mm; 1mm = 0.03937 inches)



Mounting hints



Accessories (to be ordered separately):

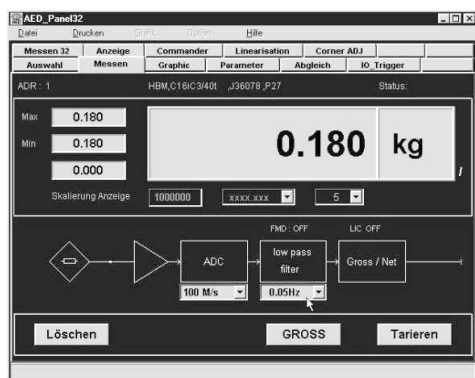
1. Connection cable for PW18i

Material: TPE, Ø7 mm, Plug / free ends

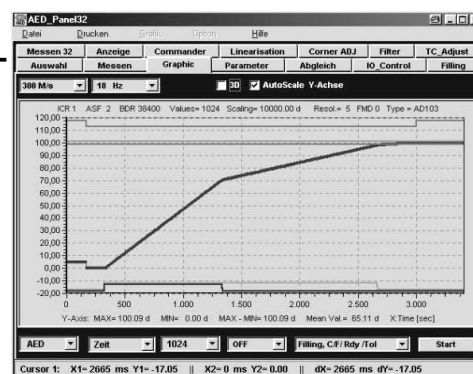
Length	3 m	6 m	12 m
Cable 1 (7-cores) (Communication)	1-Kab147-3	1-KAB147-6	1-KAB147-12
Cabel 2 (8-cores) (Control functions, necessary for versions with limit switches and dosing functions only)	1-Kab148-3	1-KAB148-6	1-KAB148-12

2. PC–Software AED Panel 32

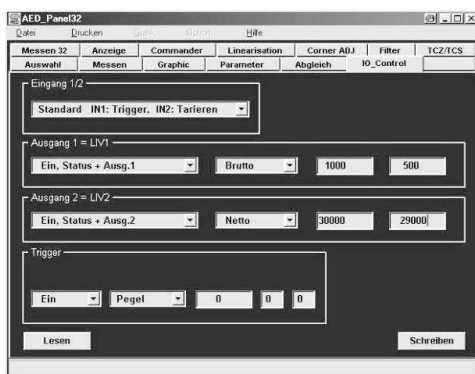
- Documentation of mechanics and electronics
- Documentation of the command codes
- Software package for parameter setting and dynamic analysis of the weighing system



- Selection of the measuring rate
- Selection of the digital filters
- Selection of the baud rate
- Configuration of the interface



- Selection of the dosing parameters
- Graphical display of the dosing process



- Selection of the limit value
- Parameter setting of the external or internal trigger function (delay and measuring time)
- Evaluation of resonance frequencies of the weighing system (Fourier–analysis)
- Data recording and filing

3. Interface converter SC 232/422B (see separate data sheet)

- Conversion of RS-232 to RS-422/-485 (4–wire)
- Galvanic separation
- High EMC–security
- Incl. plug-in power supply unit and connection cable to the PC

Modifications reserved.

All details describe our products in general form only. They are not to be understood as express warranty and do not constitute any liability whatsoever.

Hottinger Baldwin Messtechnik GmbH

Im Tiefen See 45, D-64293 Darmstadt, Germany
Tel.: +49 6151 8030; Fax: +49 6151 803 9100
E–mail: support@hbm.com www.hbm.com



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