Precision pressure recorder
Model PY803R

Applications

- Field Calibration Alternative Chart Recorder
- Pressure Safety Valve (PSV) Testing
- Hydrostatic Testing of Pipelines
- Leak Testing
- Wellhead Monitoring Field

Special features

- Measuring ranges : -1 … 25,00 bar
- Accuracy: up to 0.02 % F.S
- Record up to 100,000 pieces of data
- Large 6-digit digital display
- Automatic temperature 0 ~ 50 degrees compensation function
- Seamless switching between batteries and adapters, suitable for a variety of environments
- USB data export, data can be permanently saved

**PY 803R pressure recorder**

Description

PY803R high precision pressure recorder is mainly used for pressure recording in different environments. The product can record 100,000 readings, the storage capacity in similar products is relatively large, power interruption data will not be lost. It can be connected by USB, and the data can be exported to EXCEL table by simple operation with mouse.

It can also be used as a pressure standardizer to complete the calibration of a variety of pressure instruments such as general pressure gauges, precision pressure gauges, etc.

Specifcations

| Basic information	
Pressure types	
Gauge pressure	-1 … 2,500 bar
Accuracy	0.02%FS , 0.025 %FS , 0.05 % FS , 0.1 % FS
Temperature compensation	-10…50 °C
Units	
Pressure	bar ,mbar, Pa, kPa, MPa, PSI, kg/cm², mmH2O, mmHg, inHg
Display	
Type	Multifunctional LCD, 6 digit, with background lighting
Functions	Bar Graph, Pressure Units, Pressure Measurement, Min/Max, Overpressure Indication 120 % of Full Scale Pressure (F.S)
Process connection	
Thread	1/4NPT, 1/2NPT, G1/2, G1/4,Others can be customized
Material	316L
Power supply	
Battery type	3x 1.5 V AA and 9vdc external adapter power supply,Explosion-proof type built-in one 14500 disposable lithium battery
Battery operation	8,000 h
Interface	RS 232 port
Recording interval	2s~24 hours
Recording mode	pressure, time, unit
Storage capacity	100,000 pressure data
Baud rate	9600
Operating system	WinXP, Win7,Win10,Win11
Housing	
Dimensions	Ø 100 mm, D=37 mm H=132 mm with protection cap
protective cover	Gray Silicone Protective Case
Ambient conditions	-20…70°C with air humidity ≤95%r.h.
Weight	450 g

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Overall dimensions(mm)
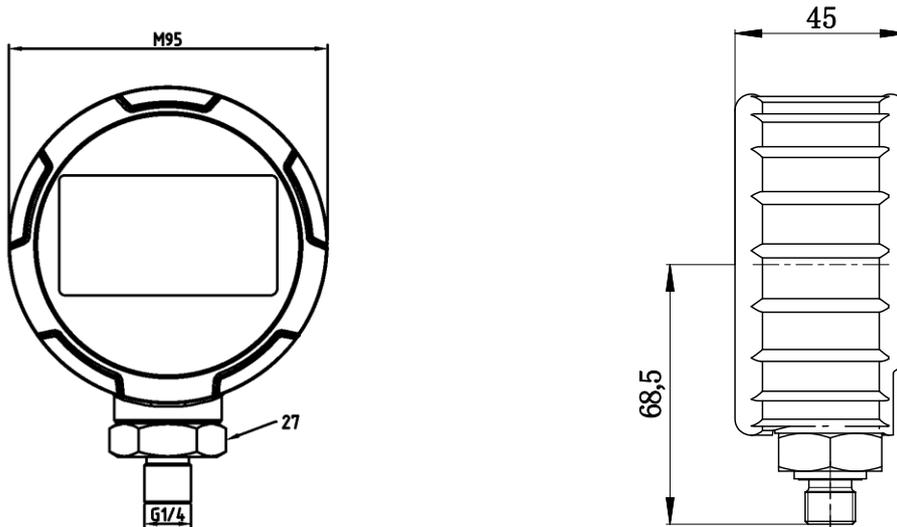
Process connections
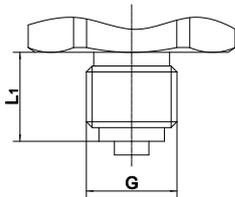
G	L_1	Standard
G1/4 B	13	
G3/8 B	16	EN 837
G1/2 B	20	
M20×1.5	20	
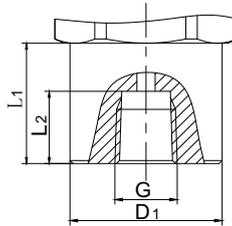
G	D_1	L_1	L_2	Standard
NPT1/8	Φ25	20	12	
NPT1/4	Φ25	20	14	ANSI/ASME B1.20.1
NPT1/2	Φ25	25	19	
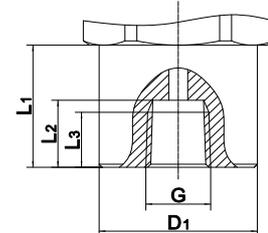
G	D_1	L_1	L_2	L_3	Standard
G1/8	Φ25	20	10	7.5	EN 837
G1/4	Φ25	20	13	10	
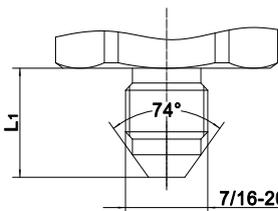
G	L_1	Standard
7/16-20 UNF-74°cone	14	SAE J514 E
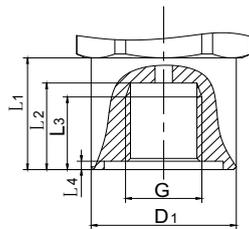
G	D_1	L_1	L_2	L_3	L_4	Standard
G1/4	Φ25	20	15.5	13	1.5	ISO 1179-1
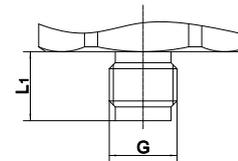
G	L_1	Standard
G1/8 B	10	EN 837
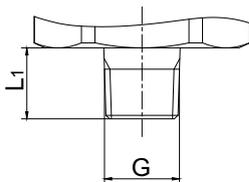
G	L_1	Standard
NPT1/8	10	
NPT1/4	13	ANSI/ASME B1.20.1
NPT1/2	19	
R1/4	13	
R3/8	15	ISO 7
R1/2	19	
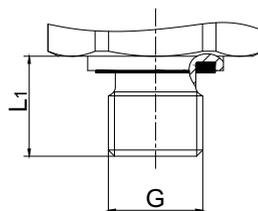
G	L_1	Standard
G1/4 A	14	
G3/8 A	14.5	ISO 1179-2
G1/2 A	17	
M12×1.5	14	
M14×1.5	14	ISO 9974-2
M20×1.5	16.5	

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Measuring ranges,gauge pressure

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
GP0.16	0…0.16	0.05(0.1,0.2)	Gas/Liquid	4X
GP 0.25	0…0.25	0.05(0.1,0.2)	Gas/Liquid	4X
GP 0.4	0…0.4	0.05(0.1,0.2)	Gas/Liquid	3X
GP 0.6	0…0.6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 1	0…1	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 1.6	0…1.6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 2.5	0…2.5	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 4	0…4	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 6	0…6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 10	0…10	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 16	0…16	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 25	0…25	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 40	0…40	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 60	0…60	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 100	0…100	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 160	0…160	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 250	0…250	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 400	0…400	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 600	0…600	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
GP 1000	0…1000	0.05(0.1,0.2)	Gas/Liquid	3X
GP 1600	0…1600	0.05(0.1,0.2)	Gas/Liquid	2X
GP 2000	0…2000	0.05(0.1,0.2)	Gas/Liquid	1.5X
GP 2500	0…2500	0.05(0.1,0.2)	Gas/Liquid	1.5X

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Measuring ranges,absolute pressure

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
AP 0.25	0…0.25	0.05(0.1,0.2)	Gas	4X
AP 0.4	0…0.4	0.05(0.1,0.2)	Gas	3X
AP 0.6	0…0.6	0.05(0.1,0.2)	Gas	3X
AP 1	0…1	0.02(0.05,0.1,0.2)	Gas	3X
AP 1.6	0…1.6	0.02(0.05,0.1,0.2)	Gas	3X
AP 2.5	0…2.5	0.02(0.05,0.1,0.2)	Gas	3X
AP 4	0…4	0.02(0.05,0.1,0.2)	Gas	3X
AP 6	0…6	0.02(0.05,0.1,0.2)	Gas	3X
AP 10	0…10	0.02(0.05,0.1,0.2)	Gas	3X
AP 16	0…16	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
AP 25	0…25	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
AP 40	0…40	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
AP 60	0…60	0.02(0.05,0.1,0.2)	Gas/Liquid	3X

Measuring ranges,differential pressure

Overview pressure ranges				
Type	pressure ranges(mbar)	Accuracy (± of full scale value)	media	Burst Pressure
DP2.5	-2.5…2.5	0.1(0.2)	Gas	5X
DP 10	-10…10	0.05(0.1,0.2)	Gas	4X
DP 20	-20…20	0.05(0.1,0.2)	Gas	3X
DP 50	-50…50	0.02(0.05,0.1,0.2)	Gas	4X
DP 100	-100…100	0.02(0.05,0.1,0.2)	Gas	3X

Technical datasheet
V1. 5/ 3/2025

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Measuring ranges,vacuum and +/- measuring ranges

Overview pressure ranges				
Type	pressure ranges(bar)	Accuracy (± of full scale value)	media	Burst Pressure
VP -0.25	-0.25…0.25	0.05(0.1,0.2)	Gas/Liquid	3X
VP -0.4	-0.4…0.4	0.05(0.1,0.2)	Gas/Liquid	3X
VP -0.6	-0.6…0.6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 0	-1…0	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP0.6	-1…0.6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 1	-1…1	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 1.6	-1…1.6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 2.5	-1…2.5	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 4	-1…4	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 6	-1…6	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 10	-1…10	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 40	-1…40	0.02(0.05,0.1,0.2)	Gas/Liquid	3X
VP 60	-1…60	0.02(0.05,0.1,0.2)	Gas/Liquid	3X

Note:
The compensation temperature for 0.02 %FS is 20 ± 5 °C. The compensation temperature for 0.05 % FS is 0-50 °C. If the pressure is less than 100 mbar, the measuring medium is Gas. For pressures greater than 100 mbar, the measuring medium is Liquid or Gas.

Order code					
model	Accuracy	Pressure ranges	Unit	Process connection	Power supply
PY 803R	A002(0.02%F.S) A005(0.05%F.S) A010(0.1%F.S)	Table of reference measuring ranges	bar psi MPa kg/cm² kPa mbar mmHg mmHO inHg Pa	1/4NPT 1/2NPT G1/2 M20*1.5 G1/4 Other	N:3*1.5V AA batteries L: one 14500 disposable lithium battery
Example order number	PY803R-A002-GP10(0…10)bar-1/4NPT -N				

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ARIPY-DCS conffguration software

The model PY803R digital pressure gauges,the ARIPY-DCS conffguration software is also available.With the help of the software, the instruments can be easily conffgured, either via the USB connection.The conffguration includes, for example, setting the indication unit, min./max values and other menu settings.The software also enables the conffguration, control and storage of logger operations.

■ Conffguring the instrument
■ Conffguring logger sequences with the PY 803R
■ Downloading log ffles from the PY 803R
■ Download the logger protocols as a XLS ffle

Minimum system requirements	
Processor	Intel® Pentium® 4 or AMD Athlon® 64
Software	■ Microsoft® Windows® XP with Service Pack 3 ■ Windows® 7 with Service Pack 1 ■ Windows® 8 ■ Windows® 10
Storage	1 GB RAM and 1 GB free hard disc space (no installation possible on portable ffash storage media)
Display	1024 x 768 pixel screen resolution (1280 x 800 pixel recommended) with 16-bit colour depth and 256 MB VRAM

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