

DATA SHEET | ENGLISH



Industry 4.0 ready IO-Link sensor with TFT touch screen and a new, innovative operating concept.

Ultra-compact design for use in the tightest of spaces.

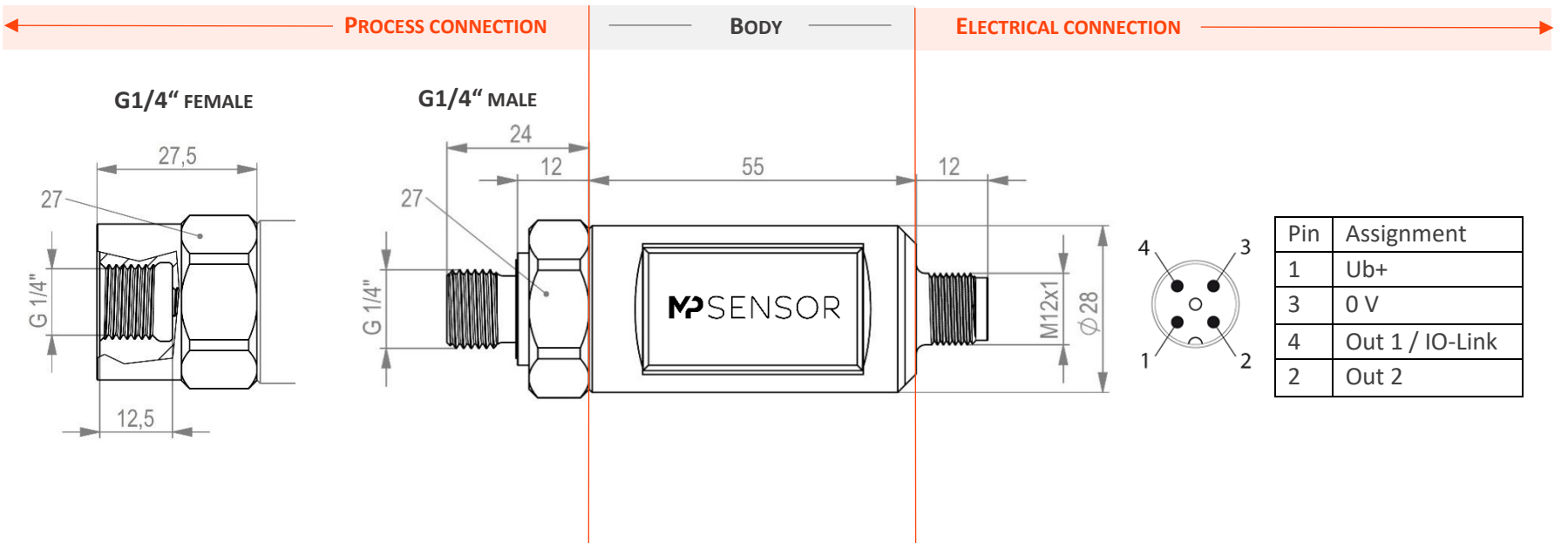
Fully configurable outputs (switching output / analog / IO-Link).

Extended display and diagnostics options through 160x80px display.

Virtual, dual scroll wheel.



(up to ≤150 bar)



General data	
Display	0,96" TFT touch display, breakproof installation
Switching status display	1x color indication per OUT
IO-Link status display	color display
Protection class rating	IP65 / IP67 / IP68
Protection level	III
Expected lifetime	100 Mio. load changes
Pressure type	relative pressure
Measuring cell type	ceramic
MTTF (40°C)	478 years (continuous operation)

Ordering information

Process connection		MP510 - X 1 3 X - XXX	
G1/4"M (male, standard)	1		
G1/4"F (female)	5		
Sealings		Pressure range*	
NBR (=standard)	1	0...10 bar	010
FKM	2	0...16 bar	016
EPDM	3	0...25 bar	025
		0...40 bar	040
		0...100 bar	100
		0...250 bar	250
		0...400 bar	400
		0...600 bar	600

*more pressure ranges available on request, UL certified only up to ≤150 bar

Electrical data	
Electrical connection	Connector M12x1, 4-pole
Operating voltage	9...30 VDC (13...30 VDC for analog output) (UL: class 2 source only)
Current consumption [Ub]	< 30 mA
Short-circuit / reverse polarity prot.	yes / yes
Output	
Out 1 (Pin 4)	PNP/NPN/PP or IO-Link
Out 2 (Pin 2)	PNP/NPN/PP or analog (0-10V / 1-10V / 4-20mA)
Max. output current	max. 200 mA per output
Output voltage	Ub – 2,0V
Response time	< 3 ms
Accuracy	
Total accuracy (23°C)	± 0,5% FS (LP)
max. temperature error (-25...+80°C)	± 1,5% FS (<100bar); ± 2,5% (≥100bar)
Long-term drift	≤ 0,1% FS / a
Programming options	
Outputs	Switching/re-switching points; start/end value for analog output; hysteresis/window mode; normally closed/ normally open contact; switch-on/switch-off delay
Display	Display mode (simple / detail. / off); color behavior; rotation; brightness; update rate; screen lock
Measuring value	Units; Damping; Resolution
Diagnosis	
Pressure peaks	Counter, adjustable threshold, reset
Counters	Switching operations; load changes; operating hours; starting cycles

Materials (wetted parts)	
Material fluid connection	stainless steel 1.4404
Material measuring cell	ceramic Al ₂ O ₃ 96%
Material seals	see ordering information
Materials (non-wetted parts)	
Material housing	stainless steel 1.4301
Material display	glass (breakproof installation)
Sealing display	PE
Mechanical data	
Wrench size pressure connection	27
Weight	191g (G1/4"M); 244g (G1/4"F)
Pressure range	
Measuring range* [bar]	10 16 25 40 100 250 400 600
Overload press.** [bar]	20 40 40 100 150 375 500 750
Burst pressure** [bar]	35 60 60 140 300 500 650 900
*more measuring ranges available on request, UL certified only up to ≤150 bar	
** increased overload resistance available on request	
Operating conditions	
Operating temperature	Operation: -25°...+80°C Fluid: -25°...+100°C Storage: -30°...+85°C
Range of application	Fluid group 2 media only
EMC / interference immunity	EN61000-6-2 and EN61326-2-3
EMC / interference emission	EN61000-6-4 and EN61326-2-3
Vibration resistance	DIN EN 60068-2-6: 20G, 10-2000 Hz, XYZ
Shock resistance	DIN EN 60068-2-27: 50G, 11ms, XYZ
UL approval	E511277