Pressure and level transmitters

MCS19 Metal Pressure Sensor Element, Bridge Output

Model MCS19

Metal pressure sensor element for gauge, absolute or sealed gauge measurement from 0 ... 0.5 to 50 MPa, with 1.5–2mV/V output, standard ±0.25 %FS non-linearity and 10^8 cycle life.



Output
≤ ±0.2mV/V

Frequency
> 1kHz

Features

- Metal Coalesce System sensing technology
- Excitation 2–10VDC
- Standard, Class A and Class B grades
- Working temperature up to -65°C ~ 175°C (Class B)
- Compatible with 17-4PH stainless steel

Applications

Aerospace and marine, Petrochemical engineering, Coal mining, Hydraulic systems, Industrial automation

Specifications

Specification	
Standard range	0 ... 0.5, 1, 2, 5, 10, 20 or 50 MPa
Pressure type	Gauge, Absolute, Sealed gauge
Over pressure	2X
Burst pressure	≥ 20X
Excitation	2–10VDC
Zero output	≤ ±0.2mV/V
Output sensitivity	1.5–2mV/V
Non-linearity (standard)	±0.25 %FS
Non-linearity (class a)	±0.10 %FS
Non-linearity (class b)	±0.10 %FS
Hysteresis (standard)	±0.10 %FS
Hysteresis (class a)	±0.05 %FS

Hysteresis (class b)	±0.02 %FS
Repeatability (standard)	±0.10 %FS
Repeatability (class a)	±0.05 %FS
Repeatability (class b)	±0.02 %FS
Input / output impedance	480 Ω ~ 800 Ω; > 1600 Ω (Class A)
Response frequency	> 1kHz
T.C. zero	≤ 0.01; 0.005 (Class A); 0.0025 (Class B) % FS/°C
T.C. span	≤ 0.01; 0.005 (Class A); 0.0025 (Class B) % FS/°C
Long-term stability	<0.05%F.S./Y
Working temperature	-40°C ~ 125°C; -55°C ~ 150°C (Class A); -65°C ~ 175°C (Class B)
Compensation temperature	-40°C ~ 125°C; -50°C ~ 150°C (Class A)
Storage temperature	-50°C ~ 125°C
Insulation resistance	≥ 2G Ω @ 250V
Insulation strength	≥ 250VAC; ≥ 500VAC (Class A); ≥ 1000VAC (Class B)
Pressure cycle life	10^8 times (25°C)
Applicable media	Compatible with 17-4PH SS

Ordering and support

Pricing, samples, lead time and custom versions: dwinsales@163.com, +86 181 0280 8901.

Guangzhou Dwin Technology Co., Ltd., 4th Floor, Building 2, No. 4 Xingye Road, Xiaowu Second Industrial Zone, Dongyong Town, Nansha District, Guangzhou, China. Specifications are typical values and may change without notice; confirm critical values with DWIN before design-in. Revision 2026-11.