

DR3721 High-Performance

DIGITAL DIFFERENTIAL PRESSURE GAUGE | PRODUCT DATASHEET

■ PRODUCT OVERVIEW

The DR3721 Differential Pressure Gauge integrates a high-stability piezoresistive differential pressure core with a dedicated, premium transmitter conditioning circuit. Housed in a fully sealed, robust stainless steel enclosure, it delivers high static pressure resistance (up to 20MPa) with externally adjustable zero and full-scale calibration. Engineered with superior electromagnetic shielding and comprehensive surge safeguards, this instrument guarantees uncompromising accuracy and extreme stability across volatile industrial processes.



Key Features

- High static pressure rating (20 MPa) with short-circuit & reverse polarity protection.
- Integrated professional 3-level lightning and industrial surge mitigation.
- Fully certified for Hazardous Areas: Complies with GB3836.1-2010 and GB3836.4-2010.
- Premium EMC Architecture: Certified to EN61000-6-2 and EN61000-6-4 standards.

Target Applications

- Oil, Gas, Petrochemical and refining complexes.
- Power plants, steam boilers, and heavy utilities infrastructure.
- Municipal water supply management and deep hydrological exploration.
- High-pressure hydraulic stations and industrial OEM machinery integration.

■ TECHNICAL SPECIFICATIONS

Metrological, Environmental & Mechanical Parameters	
Pressure Measurement Range	0 ~ 10 kPa ... 3.5 MPa
Maximum Static Operating Pressure	20 MPa
Instrument Linearity & Accuracy	±0.25% FS / ±0.5% FS
Zero Temperature Drift Coefficient	≤ 100 kPa: 0.03% FS/°C > 100 kPa: 0.02% FS/°C
Full-Scale Thermal Drift Coefficient	≤ 100 kPa: 0.03% FS/°C > 100 kPa: 0.02% FS/°C
Static Pressure Influence Error	0.05% FS per 100 kPa
Long-Term Signal Stability	±0.2% FS / Year
Fluid Media Compatibility	Gases & liquids non-corrosive to 316L SS and Fluororubber (Viton)
Temperature Profiles	Compensated: 0°C to +50°C Operating & Storage: -30°C to +70°C
Wetted Materials / Core Element	Isolating Diaphragm: 316L Stainless Steel Process Port: 316L SS
Enclosure Housing & Protection	304 Stainless Steel (Standard) IP65 Ingress Protection Rating



■ ORDERING MATRIX & NOMENCLATURE

Model Code Element	Option Code	Technical Parameter Details	Material Configuration
Base Instrument Model	DR3721	Digital Differential Pressure Gauge	Stainless Steel Structure
Pressure Range Selector	-[0 ~ X] Unit	X: Custom calibration span (10kPa to 3.5MPa)	Specify KPa or MPa unit
Accuracy & Output Level	0.2	±0.2% Full Scale (Premium Linearity)	-
	0.5	±0.5% Full Scale (Standard)	-
Mechanical Metallurgy	M1	Diaphragm: 316L SS Process Port: 316L SS	Housing Shell: 304 SS
	M2	Diaphragm: 316L SS Process Port: 316L SS	Housing Shell: 316L SS
Process Connection Thread	C1	NPT 1/4" Male (Standard Thread)	Tapered Connection
	C2	NPT 1/4" Female (Standard Thread)	Tapered Connection
	C3	NPT 1/2" Male	Tapered Connection
	C4	NPT 1/2" Female	Tapered Connection
	C5	M20 * 1.5 Male (Metric Standard)	Parallel Connection
	C6	M20 * 1.5 Female (Metric Standard)	Parallel Connection
	C7	Customized Thread Request	Engineering Confirmation Required

Standard Nomenclature Code Example:

DR3721 - [0~100]kPa - 0.5 - M1 - C2

Configured Parameters: DR3721 gauge base, 0 to 100 kPa range, ±0.5% FS accuracy, M1 metallurgy structure (316L SS core, 304 SS housing), fitted with an NPT 1/4" Female process connection thread.