# Diaphragm-Type Sanitary Gauge Type M932.25 - Dry Case Type M933.25 - Liquid Filled Case

WIKA Datasheet M93X.25

# **Applications**

- Pharmaceutical Industry
- Biotechnology
- Food & Beverage

## Standard Features

#### Design

External, flush diaphragm with Tri-Clamp<sup>®</sup> connection, requires hydraulic fluid to transmit pressure to instrument. Unit is autoclaveable when dry case and polysulfone window are specified.

#### **Process Connection**

3/4" & 1" Tri-Clamp® per ASME BPE, Type A

Pressure Ranges 1,200 psi maximum, limited by installed clamp rating

#### **Operating Temperature**

Media: +10°F to 100°C(standard) (>100°C available - consult factory) Stainless steel case with vent plug Ambient: +10°C to 60°C

Gauge Size 21/2", lower mount

Dial White aluminum with black lettering

Accuracy (Ref. 73°F) ±2/1/2% full span (ASME B40.100, Grade A)

**Available Options** (Connections, materials, etc.): See Selection Guide on page 3

**Temperature Error (Ref. 73°F)** ±1.3 psi / 18°F (10°C)



Fig. left M93X.25 Sanitary Gauge Fig. right Clean Steam Assembly

Wetted Parts 316L SS, electro-polished  $RA \le 15 \mu in$  (except weld seam)

### System Fill (FDA Approved)

Glycerine, 99.7%: Non-vacuum applications Mineral Oil, Neobee M20, 350cST Food Grade Silicon Oil

Material Identification and Heat Numbers Engraved in seal body or gauge case

#### **Case Material** Polished stainless steel case with vent plug and stainless steel polished ring

Window Standard polycarbonate Polysulfone available (with dry case & weep holes)

Serial Number Engraved on back of case

Pointer Black aluminum

WIKA Datasheet M93X.25 3/2017

To determine the effects of temperature and response time in a specific application, contact the factory for an **Application Questionnaire**. The information provided will allow WIKA to accurately model your application parameters using computer simulation techniques.



Page 1 of 3

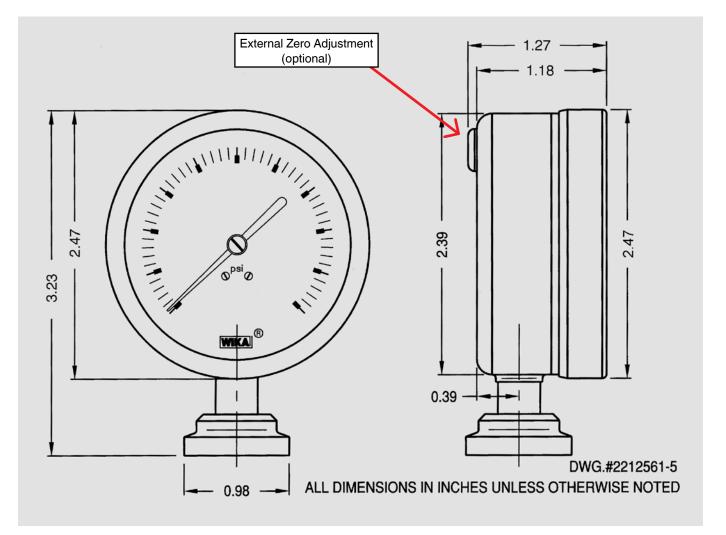
#### Documentation

Calibration Conformance Report supplied with each assembly (not a direct substitute for NIST certificate). Material Conformance documents supplied with each assembly (not a substitute for 3.1 material certificate)

#### **Available Options**

See selection guide (over) Glyerine case fill External zero adjust Autoclaveable (dry case only, weepholes) Clean steam assembly with integral cooling element EPDM gasket (consult factory)

To determine the effects of temperature and response time in a specific application, contact the factory for an *Application Questionnaire*. The information provided will allow WIKA Technical Support to accurately model your application parameters using state-of-the-art computer simulation techniques.



		M93X.25 Sel	lection (	Guide					
Field	Code	Description - 21/2" Gauge with Diaphragm	Field		Description - 21/2" Gauge with Diaphragm				
no.		Seal - all SST Internals	no.	Code	Seal - all SST Internals				
		Pressure Range		Wetted Parts Material					
	C030	-30 inHg 30 psi Compound range		ES	Electropolished 316L SS				
	C060	-30 inHg 60 psi Compound range			(1.4435) Ra $\leq$ 15 µin (except for weld seam				
	C100	-30 inHg 100 psi Compound Range		HC	Hastelloy C276 (2.4819)				
	C160	-30 inHg 160 psi Compound Range	4	XX	Other - consult factory				
	P030	30 psi Gauge pressure range		System Fill					
	P060	60 psi Gauge pressure range		07	KN7 - Glycerine 99.7% USP (1000 cst) - FDA 21 CFR 182.1320 (see note 1)				
	P100	100 psi Gauge pressure range							
	P160	160 psi Gauge pressure range		59	KN59 - Neobee M20				
	P200	200 psi Gauge pressure range			- FDA 21 CFR 172.856, 174.5				
	P300	300 psi Gauge pressure range			KN92 - Mineral Oil LubePharm (23 cst)				
	P400	400 psi Gauge pressure range		92	- FDA 21 CFR 172.878, 178.3620 (a); USP, EP				
	P600	600 psi Gauge pressure range		93	KN93 - Silicone Oil DC200 (350 cst food				
PX PC PK PB	XXXX	Other - consult factory			grade)				
		Pressure Units			- FDA 21 CFR 173.340				
	PX	PSI - Single scale	5	XX	Other - consult factory				
	PC	PSI outside / KG/CM <sup>2</sup> inside in red			Window Material				
	PK	PSI outside / KPA inside in red		LPC	Polycarbonate				
	PB	PSI outside / BAR inside in red	6	LPS	Polysulfone				
	SP	Special scale		Options (see note 2)					
		Process Connection		FGL	Glycerine case fill - change model # to				
	75	3/4" Tri-Clamp <sup>®</sup> connector			M933.25				
	10	1" Tri-Clamp <sup>®</sup> connector		ХМТ	Material Certificate 3.1 EN10204 (metal only) (see note 3)				
3	XX	Other - consult factory		WSS	Instrument tag, Stainless steel				
				DZA	External Zero Adjust				
otes:		available for vacuum & compound pressure measurement		CE1	Integral cooling element (Tmax 300°F, clean steam assembly)				

1) Glycerine (07) is not available for vacuum & compound pressure measurement

ranges or autoclave design. Consult factory for exceptions.

2) List options in alphabetical order at the end of the configuration code.

3) All product under this model series is provided with calibration protocol, electro-

polished finish, and material based information report as standard.

4) Autoclave design requires Polysulfone window (WPS) and dry gauge case (932.25).

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Order Code:	1	2		3	4	Ę	5	6		7

\*Additional order details

NOTE: If gauge is to be used in Autoclave, order a dry case and polysulfone window.

Specifications given in this price list represent the state of engineering at the time of printing. Modifications may take place and the specified materials may change without prior notice.

WIKA Datasheet M93X.25 3/2017

#### Ordering information

Pressure gauge model / Nominal size / Scale range / Size of connection / Optional extras required. Specifications and dimensions given in this leaflet represent the state of engineering at the time of printing. Modifications may take place and materials specified may be replaced by others without prior notice.





Autoclave design, case with 2 weep holes

NIST - Certificate of Calibration

XAC

XNI

7

(see note 4)

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