

## Type M93X.3A

#### Standard Features

Design: All-welded construction in full compliance with 3A third party standards and meets the most rigorous biopharmaceutical specifications. This assembly has all the advantages of the 23X.50 series mechanical gauge (ASME B40.100 & EN 837-1) and WIKA combines it with a superior designed Tri-Clamp® diaphragm seal.

Process Connection: 1½" to 4" Tri-Clamp®

Ranges: Vacuum, compound and positive pressure up to 1,500 psi (limited by installation clamp rating)

Operating Temp: 25°F to 300°F (-4°C to +149°C)

Gauge Size: 2½" or 4"- lower and back mount

Case Fill: Glycerine (optional)

Dial: White aluminum with black lettering

Accuracy: 2½": ±2/1/2% of span, 4": ±1.0% of span
Case Material: 304 SS electropolished case with
vent plug and stainless steel electropolished

twist lock bayonet ring **Window:** Polycarbonate

Pointer: Black aluminum, adjustable
Serial Number: Engraved in back of case
System Fill: Glycerine, non-vacuum application
mineral oil, vacuum and compound range applications

## **Gauge Features**

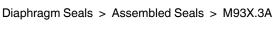
- All-welded design
- ≤ 20 Ra electropolished
- Engraved material identification and serial number
- Manufacturer calibration report
- FDA-approved system fill fluids
- Meets 3A sanitary criteria

### **Available Options**

- Autoclavable (dry case with weep holes, polysulfone window only)
- Hastelloy C276 wetted parts"
- Cherry Burrell I-Line, APC connections



M93X.3A Selection Guide				
Field no.	Code			
1		Dial Size		
	25	2½" Gauge case		
	40	4.0" Gauge case		
		Pressure Range		
	V000	-30 inHg0 Vacuum		
	C030	-30 inHg 30 psi Compound Range		
	C060	-30 inHg 60 psi Compound Range		
	C100	-30 inHg 100 psi Compound Range		
	C160	-30 inHg 160 psi Compound Range		
2	P015	015psi Gauge pressure range		
	P030	030 psi Gauge pressure range		
	P060	060 psi Gauge pressure range		
	P100	0100 psi Gauge pressure range		
	P160	0160 psi Gauge pressure range		
	P200	0200 psi Gauge pressure range		
	P300	0300 psi Gauge pressure range		
	P400	0400 psi Gauge pressure range		
	P600	0600 psi Gauge pressure range		
	XXXX	Other - consult factory		
3		Pressure Units		
	PX	PSI - Single scale		
	PC	PSI outside / Kg/cm² inside in red		
	PK	PSI outside / KPA inside in red		
	PB	PSI outside / BAR inside in red		
	SP	Special scale		



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Field no.	Code				
4		Connector Location			
	LM	Lower mount			
	BK	Center back mount (2½") or Lower back mount (4.0")			
5		Diaphragm Seal Design			
	22	Tri-Clamp®			
	57F	Cherry Burrell - I-Line Female			
	57M	Cherry Burrell - I-Line Male			
	58	APC			
	XX	Other - consult factory			
		Process Connection <sup>6</sup>			
	10	1.0 " connector			
6	15	1.5 " connector			
	20	2.0 " connector			
	25	2.5 " connector			
	30	3.0 " connector			
	40	4.0 " connector			
		Wetted Parts Material			
7	ES	Electropolished 316L SS (1.4435) Ra ≤ 20 μin			
	MO	Monel 400 (2.4360)			
	HC	Hastelloy C276 (2.4819)			
	XX	Other - consult factory			
		System Fill			
8	07	KN7 - Glycerine 99.7% USP (1000cSt) <sup>1</sup> FDA 21 CFR 182.1320			
	59	KN59 - Neobee M20 FDA 21 CFR 172.856, 174.5			
	92	KN92 - MINERAL OIL Lubepharm (23cSt) FDA 21 CFR 172.878, 178.3620(a): USP, EP			
	93	KN93 - DC200 SILICONE OIL (350cSt Food Grade) FDA 21 CFR 173.340			
	XX	Other - consult factory			

M93X.3A Selection Guide							
Field no.	Code	de delection duide					
	Window Material						
9	LPC	Polycarbonate					
	LPS	Polysulfone					
		Options <sup>2</sup>					
	FGL	Glycerine case fill - change model # to M933.3A					
	XEP	Wetted parts electro-polished w/ certificate <sup>4</sup>					
	XMT	Material Certificate 3.1 EN10204 (metal only) <sup>4</sup>					
	WSS	Instrument TAG, stainless steel					
	RS6	Restrictor, SS 0.6 orifice					
10	RS3	Restrictor, SS 0.3 orifice					
	CE1	Integral Cooling Element Tmax 300°F					
	CE2	2" Cooling element <sup>3</sup>					
	CE4	4" Cooling Element - (Tmax +500°F)					
	XAC	Autoclave design, case with 2 weep holes <sup>5</sup>					
	XNI	NIST Certificate of Calibration per 3.1 EN10204					
	XXX	Other - consult factory					

#### Notes:

- 1) Glycerine (07) is not available for vacuum & compound pressure measurement ranges. Consult factory for exceptions.
  2) List options in alphabetical order at the end of the configuration code.
  3) Cooling elements are welded to the diaphragm seal
  4) All product under this model series is provided with calibration protocol, destroyelish finish and material based information report on a tondard.

- electropolish finish, and material based information report as standard. Documentation per 2.2 EN10204
- Autoclave design requires polysulfone window (LPS) and dry gauge case (M932.3A).
- Size limitation for Cherry Burrel and APC both available in 1.5" and 2".

Order Code:



\*Additional order details