

Series W20 and W30 Gauge Valves

Sight glass visual level indicators

Application

The Series W20 is a one-piece chamber general purpose, rugged flat glass gauge for mid-range pressure temperature applications. Standard construction includes a solid one-piece chamber machined from carbon steel with carbon steel covers, toughened glass, and plated carbon steel bolts and nuts. All metal parts are rustproofed, and a recessed gasket seat prevents movement, insuring leak-free service.

Features

- Available in 9 standard glass sizes
- Constructed with multiple vision slots for longer size requirements
- Toughened molded glass is resistant to thermal and mechanical shock and made in accordance with BS 3463, DIN 7081
- Quality assurance testing: All gauges are hydrostatically tested to 1.5 times the rated pressure at 100°F (38°C)
- Materials conform to NACE MR0175 specifications
- Replaces industry standard level gauges
- Series W20 Sight Glass and W30 Gauge Valve assemblies available

Sight glass specifications (without gauge valves)

Size no. length codes 11 through 19
 Connections 1/2" FNPT Top-bottom, standard

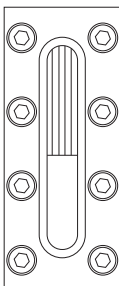
Types of glass:

Reflex or reflective type:

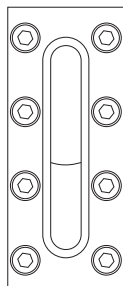
- Grooves pressed on the glass (helps visibility)
- Suitable for colorless or clean liquids
- For top level applications

Transparent type:

- Clearer surface (Mica protected)
- Suitable for non-colorless liquids, corrosive aggressive media
- For interface applications



Reflex glass type



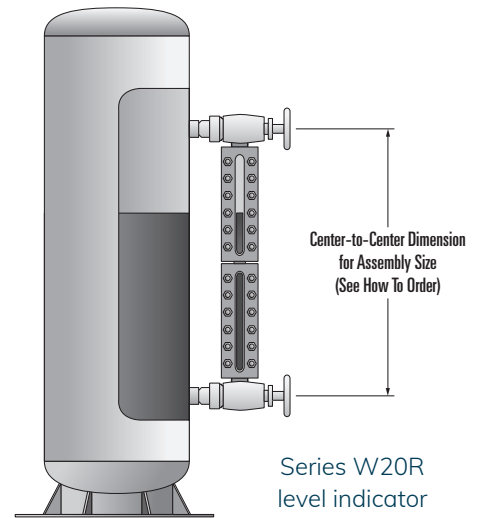
Transparent glass type



Single sight glass - Reflex style
 Size no. / Length code 12



W20 Sight glass assembled with W30 Gauge valves - Transparent style



Series W20R level indicator and W30 Gauge valve plain assembly

W20 Model code

Determining the model code - Important: Please have center-to-center dimension available before selecting model code.

Example given: Model W20-25RB 2400

- Series W20 Sight Glass with visible length of 17.25" and total length of 18.75".
- Reflex style glass.
- Set of W30 gauge valves with 1/2" male NPT process connections and 1/2" NPT Sight Glass connections.
- 24.00" center-to-center assembled.



A

SIZE NO. / LENGTH CODE	
Code	Code
*	Select from Table 1 below based on your desired Center-to-Center Dimension. If your Center-to-Center dimension is longer than the Max Allowable Assembly, select the next Size No. / Length Code.

B

TYPE OF GLASS	
Code	Type
R	Reflex or Reflective
T	Transparent

C

GAUGE VALVE TYPE AND SIZE		
Code	Process Connection	Sight Glass Connection
A	No Gauge Valves (1/2" FNPT Glass Connections)	
B	1/2" MNPT Valve	1/2" NPT Glass
C	1/2" MNPT Valve	1/2" Union Glass
D	3/4" MNPT Valve	1/2" NPT Glass
E	3/4" MNPT Valve	1/2" Union Glass

D

ASSEMBLY CENTER-TO-CENTER	
Code	Dimension
-	No Gauge Valves
*	Final Center-to-Center dimension. Will determine the Size No. of Sight Glass selected

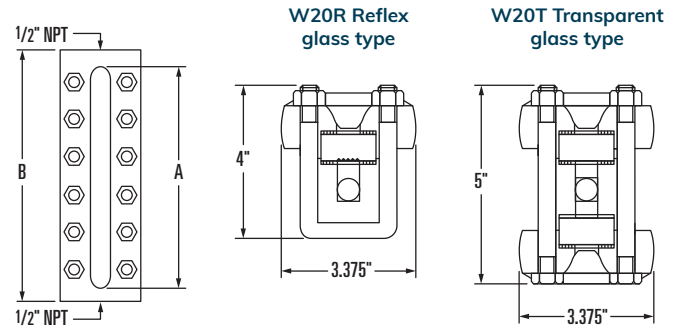
W20 Model code

Standard visible length

TABLE 1: SIZE NO. / LENGTH CODE TABLE						
Size No/ Length code	(A) Visible Length (in.)	(B) Overall Length (in.)	Weight (lbs.)		Max Allowable Assembly Center-to-Center Dim per Size No.*	
			Reflex	Trans.	NPT Glass (in.)	Union Glass (in.)
11	3.75	5.25	8	12	8.75	12.00
12	4.75	6.25	9	14	9.75	13.00
13	5.75	7.25	11	17	10.75	14.00
14	6.75	8.25	12	17	11.75	15.00
15	7.88	9.38	14	21	12.88	16.13
16	9.13	10.63	16	24	14.13	17.38
17	10.13	11.75	18	27	15.13	18.50
18	11.88	13.38	20	30	16.88	20.13
19	12.63	14.13	21	32	17.63	20.88
23	13.00	14.50	22	33	18.00	21.25
24	15.00	16.50	25	38	20.00	23.25
25	17.25	18.75	28	43	22.25	25.50
26	19.75	21.25	32	49	24.75	28.00
27	22.00	23.50	35	54	27.00	30.25
28	25.25	26.75	40	61	30.25	33.50
29	26.75	28.25	43	64	31.75	35.00
36	30.38	31.88	48	73	35.38	38.63
37	33.75	35.25	53	80	38.75	42.00
38	38.63	40.13	60	92	43.63	46.88
39	40.88	42.38	64	97	45.88	49.13
47	45.50	47.00	70	107	50.50	53.75
48	52.00	53.50	80	122	57.00	60.25
49	55.00	56.50	85	129	60.00	63.25
57	57.25	58.75	87	134	62.25	65.50
58	65.38	66.88	100	152	70.38	73.63
59	69.13	70.63	106	161	47.13	77.38
68	78.75	80.25	121	182	83.75	87.00
69	83.24	84.75	127	193	88.25	91.50
78	92.13	93.63	144	212	97.13	100.38
79	97.38	98.88	148	226	102.38	105.63
88	105.50	107.00	165	242	110.50	113.75
89	111.50	113.00	173	258	116.50	119.75
98	118.88	120.38	185	272	123.88	127.13
99	125.63	127.13	193	276	130.63	133.88

All information stated above is approximate and is given for guidance only.
 *Assemblies shipped as individual components unless otherwise requested.

Dimensional data



Pressure temperature

Temp. (°F).	REFLEX GAUGES								
	Length Code								
	1	2	3	4	5	6	7	8	9
	Pressure (psi)								
100	2988	2901	2727	2611	2495	2350	2219	2103	2002
200	2828	2727	2596	2466	2350	2219	2089	2002	1900
300	2654	2538	2437	2321	2205	2089	1973	1871	1755
400	2466	2350	2248	2132	2031	1929	1813	1711	1610
500	2263	2161	2060	1958	1856	1755	1653	1552	1450
600	2031	1944	1857	1755	1668	1552	1479	1378	1305
750	1653	1595	1494	1407	1305	1247	1160	1044	1001

Temp. (°F).	TRANSPARENT GAUGES								
	Length Code								
	1	2	3	4	5	6	7	8	9
	Pressure (psi)								
100	2002	1856	1755	1595	1508	1349	1247	1102	1001
200	1755	1784	1668	1552	1436	1305	1175	1059	957
300	1769	1668	1552	1450	1334	1218	1102	1001	899
400	1682	1581	1465	1349	1247	1146	1044	928	856
500	1537	1450	1349	1247	1160	1044	957	856	754
600	1349	1276	1175	1102	1015	928	856	754	682
750	1102	1059	1001	899	856	754	696	609	551

W30 Features and model code

Application

Series W30 gauge valves are recommended for use with WellMark's Series W20 visual level indicators and are compatible with all industry standard, armored flat-glass liquid level gauges. Plain / union and union / union connections make for easy installation and removal.

Features

- Equipped with stainless steel ball check upstream of the seat to shut off flow in case of Level Indicator glass breakage.
- Indicator union connection to allow top and bottom connected Indicators to be rotated to any angle visibility and allows for easy Indicator removal.
- Gauge valve and drain connections are offset from the vessel connection centerline for easier Indicator glass cleaning.
- Materials meet NACE MR0175 specifications.

Specifications

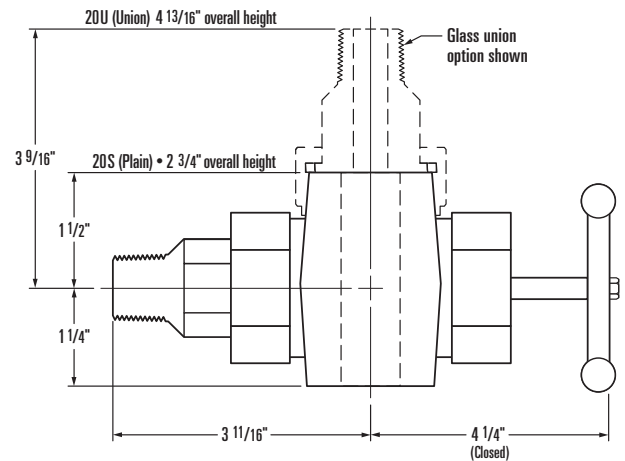
Sight glass connection 1/2" NPT or Union
 MNPT process connection 1/2" and 3/4" MNPT

Determining the model code

Example given: Standard Model W30P1, Series W30 gauge valve with 1/2" process connecton and 1/2" NPT glass connection.



Dimensional data



W30P1



GAUGE VALVE CONNECTIONS		
Code	Process Connection	Sight Glass Connection
W30P1	1/2" MNPT Valve	1/2" NPT Glass
W30U1	1/2" MNPT Valve	1/2" Union Glass
W30P2	3/4" MNPT Valve	1/2" NPT Glass
W30U2	3/4" MNPT Valve	1/2" Union Glass

Note: Sold in pairs only.

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