

## Data Sheet

# All stainless steel high overpressure process gauge solid front

## Model T6500-XRA

According to EN 837-1

### FEATURES

- Overpressure to 400% of full scale value (option XRA)
- Solid front all welded stainless steel case
- 100 mm and 160 mm case size
- Weatherproof protection IP66/IP67 (NEMA 4X) rating
- ATEX approval **CE** Ex II 2 GD c
- Optional arctic ambient temperature -70°C to +70°C
- Dry, liquid filled or **PLUS!**™ Performance option

### TYPICAL USES

- Offshore oil rigs
- Chemical and petrochemical plants
- Machine equipment
- Food and beverage industry
- Pulp and paper
- Power plants



T6500=XRA  
100mm



### SPECIFICATIONS

Accuracy:	Class 1; 1 % Full scale
Sizes:	100 mm or 160 mm
Ranges:	0 to 40 bar; 15 to 600 psi kPa, MPa, kg/cm <sup>2</sup> see tables at page 2
Process Connection Location:	Lower
Process Connection Size:	1/4 NPT Male, 1/2 NPT Male, G 1/4 B Male, G 1/2 B Male
Case Style:	T6500: Solid front with full rear blowout back
Movement:	Adjustable
Window Material:	Safety glass or polycarbonate
Dial:	Aluminum, white background, black figures and intervals
Pointer:	Aluminum
Weather Protection:	Dry: IP66 and NEMA 4X Liquid filled: IP66/67 and NEMA 4X Hermetically sealed case: IP66/67 and NEMA 4X
Dampening Options:	<b>PLUS!</b> ™ Performance, throttle screw, dampeners, snubbers and fill fluids
Mounting:	Stem and surface
Approvals:	ATEX II 2 GD c IIC Tx for hazardous areas (File No. 35134582 at notified body 0044, TÜV NORD CERT) CE (Conformité Européenne) EAC (EurAsian Conformity) CRN (Canadian Registration Number)
Weight:	100 mm: 0,9 kg (dry), 1,2 kg (liquid filled) 160 mm: 1,2 kg (dry), 2,0 kg (liquid filled)

### WETTED COMPONENTS

Bourdon Tube	Process Connection	Joints
316L (1.4404) St.st.	316L (1.4404) St.st.	Welded

### KEY BENEFITS

- Overpressure up to 400% of full scale value for superior safety
- Protects when sudden pressure surge occurs at start-up or during process pressure spikes

### NON-WETTED COMPONENTS

Case	Ring	Back Cover
304 (1.4301) St.st.	304 (1.4301) St.st.	304 (1.4301) St.st.
optional: 316L (1.4404) St.st.	optional: 316L (1.4404) St.st.	optional: 316L (1.4404) St.st.

### MIN./MAX. TEMPERATURE LIMITS

VERSION	AMBIENT	PROCESS	STORAGE
Dry	-40 °C bis 70 °C (-40 °F bis 158 °F)	-40 °C bis 200 °C (-40 °F bis 392 °F)	-40 °C bis 70 °C (-40 °F bis 158 °F)
<b>PLUS!</b> ™	-40 °C bis 70 °C (-40 °F bis 158 °F)	-40 °C bis 100 °C (-40 °F bis 212 °F)	-40 °C bis 70 °C (-40 °F bis 158 °F)
Glycerine	-7 °C bis 70 °C (19 °F bis 158 °F)	-7 °C bis 70 °C (19 °F bis 158 °F)	-20 °C bis 70 °C (-4 °F bis 158 °F)
Silicone	-40 °C bis 70 °C (-40 °F bis 158 °F)	-40 °C bis 93 °C (-40 °F bis 200 °F)	-40 °C bis 70 °C (-40 °F bis 158 °F)
Halocarbon®	-40 °C bis 70 °C (-40 °F bis 158 °F)	-40 °C bis 93 °C (-40 °F bis 200 °F)	-40 °C bis 70 °C (-40 °F bis 158 °F)
ATEX	-40 °C bis 60 °C (-40 °F bis 140 °F)	according Tx and limit of liquid filling	-40 °C bis 60 °C (-40 °F bis 140 °F)
Low Temp Silicone	-70 °C bis 70 °C (-94 °F bis 158 °F)	-70 °C bis 93 °C (-94 °F bis 200 °F)	-70 °C bis 70 °C (-94 °F bis 158 °F)

## All stainless steel high overpressure process gauge solid front Model T6500-XRA

### PRESSURE RANGE TABLE

#### BAR & KG/CM2 - RANGES

Positive Pressure Range (in bar or kg/cm <sup>2</sup> )	Overpressure Protection (in bar or kg/cm <sup>2</sup> )	Overpressure Protection (% of full scale value)
1	4	400%
1,6	6	375%
2,5	10	400%
4	16	400%
6	25	417%
10	40	400%
16	50	313%
25	80	320%
40	100	250%
Positive Pressure Range (in bar or kg/cm <sup>2</sup> )	Overpressure Protection (in bar or kg/cm <sup>2</sup> )	Overpressure Protection (% of full scale value)
-1 to 1	4	400%
-1 to 0,6	2,5	417%
-1 to 1,5	6	400%
-1 to 3	12	400%
-1 to 5	20	400%
-1 to 9	36	400%
-1 to 15	50	333%
-1 to 24	80	333%
-1 to 39	100	256%



#### KPA - RANGES

Pressure Range (in kPa)	Overpressure Protection (in kPa)	Overpressure Protection (% of full scale value)
100	400	400%
160	600	400%
250	1000	400%
400	1600	400%
600	2500	400%
1000	4000	400%
1600	5000	313%
2500	8000	320%
4000	10000	250%

#### MPA - RANGES

Pressure Range (in MPa)	Overpressure Protection (in MPa)	Overpressure Protection (% of full scale value)
0,1	0,4	400%
0,16	0,6	400%
0,25	1	400%
0,4	1,6	400%
0,6	2,5	400%
1	4	400%
1,6	5	313%
2,5	8	320%
4	10	250%

#### PSI - RANGES

Pressure Range (in psi)	Overpressure Protection (in psi)	Overpressure Protection (% of full scale value)
15	60	400%
20	80	400%
30	120	400%
60	240	400%
100	400	400%
120	480	400%
160	600	400%
200	625	313%
300	1000	333%
400	1000	250%
500	1250	250%
600	1500	250%



## All stainless steel high overpressure process gauge solid front Model T6500-XRA

ORDERING CODE		EXAMPLE:	100	T6500	S	D	15	L	10BR	XRA	XC3
<b>Dial Size</b>											
100	100 mm		100								
160	160 mm										
<b>Model</b>											
T6500	Solid front stainless steel pressure gauge			T6500							
<b>Wetted Parts Material</b>											
S	Stainless steel 316L (1.4404) tube and socket				S						
<b>Case Filling</b>											
D	Dry case					D					
L	Liquid filled case										
<b>Process Connection</b>											
02	1/4 NPT male										
03	3/8 NPT male										
04	1/2 NPT male										
09	9/16-18 UNF-2B Aminco										
13	G 1/4 B male										
14	G 3/8 B male										
15	G 1/2 B male						15				
16	M20x1,5 male										
25	1/4 NPT female										
EJ	7/16-20 UNF-3A 37° Flare										
KJ	PF 1/4 B parallel pipe male (JIS B 0202)										
KN	PF 1/2 B parallel pipe male (JIS B 0202)										
KP	PF 3/8 B parallel pipe male (JIS B 0202)										
KQ	R 1/2 DIN EN 10226-1 (1/2 BSPT / JIS B 0203)										
KR	R 3/8 DIN EN 10226-1 (3/8 BSPT / JIS B 0203)										
RF	9/16-18 UNF for 3/8 O.D. tubing										
<b>Connection Location</b>											
L	Lower							L			
<b>Range</b>											
See table RANGES on page 2									10BR		
<b>Retard option</b>											
RA	Retard scale (Standard option; Add XRA behind the measurement range for ordering a retard scale, see example order code above)									XRA	

Continued at page 4



## All stainless steel high overpressure process gauge solid front Model T6500-XRA

<b>ORDERING CODE</b>	<b>EXAMPLE:</b>	100	T6500	S	D	15	L	10	BR	XRA	XC3
----------------------	-----------------	-----	-------	---	---	----	---	----	----	-----	-----

**Options (If choosing an option(s) must include a "X")**

### Agency Approval

ATEX ATEX approval Ex II 2 GD c IIC Tx  
 EAC Custom declaration according Eurasian Conformity

### Case Material

YW Case and ring material stainless steel 316L

### Case And Ring

BQ Wall mounting bracket  
 FF Front flange on bayonet ring (Not for dial size 160 mm)  
 FW Wall mounting flange  
 FX Front flange tack welded to case

### Connection

TU Throttle plug  
 WP No throttle plug in dry or liquid filled cases

### Liquid filling

GQ White oil  
 GR Glycerine 99,5%  
 GV Silicone  
 GX Halocarbon  
 QC Low temperature silicone for ambient temperature up to -70°C, includes Fluorosilicone sealing (For 100 mm T6500 only)  
 LJ Field fillable

### Dial options

CS Combination range / Dual scale  
 DN Dial calibrated at angle other than vertical (Information is required by the customer)  
 E6 Dial pin in 6 o'clock position  
 SS Special Scale (Information is required by the customer)

### Movement

LL **PLUS!**<sup>™</sup> Performance (Not available with Halocarbon filling)  
 NZ **PLUS!**<sup>™</sup> Performance silicone free (Not for execution L (liquid filled))  
 VS Underload range stop up to -1 bar

### Pointer

MP Adjustable micrometer pointer

### Window

PD Polycarbonate window  
 EP Maximum pointer and polycarbonate window  
 EQ Minimum Pointer and polycarbonate window  
 SH Red set hand stationary and polycarbonate window  
 D3 DuraVis<sup>™</sup> Retroreflective Dial (100 mm and dry case only)

**Continued at page 5**



## All stainless steel high overpressure process gauge solid front Model T6500-XRA

<b>ORDERING CODE</b>	<b>EXAMPLE</b>	T6500	S	D	15	L	10	BR	XRA	XC3
----------------------	----------------	-------	---	---	----	---	----	----	-----	-----

**Material Origin**

WO Western origin of all wetted parts

**Assembly**

MO Instrument assembled to accessory

MO1 Instrument assembled to diaphragm seal

**Cleaning**

6B Cleaned for gaseous Oxygen or other strong oxidizing agents

6W Cleaned "free of oil and grease" (no Oxygen service)

MF Free from Mercury contamination

YF Cleaned silicone free product

**Marking And Tagging**

DA Dial marking printed on dial (Information is required by the customer)

NH Stainless steel tagging wired (Information is required by the customer)

NH1 Extra large stainless steel tagging, wired (120 x 30 x 1 mm) (Information is required by the customer)

**Material Certificate**

CD2 Certificate according to EN 10204 2.2

C3 Certificate according to EN 10204 3.1

C3

CD5 Certificate according to NACE for Oilfields MR0175 / ISO 15156-2015 and for Refineries MR0103 / ISO 17945-2015

MQ Positive material certificate (PMI)

**Test Certificate**

C4 CD-4 calibration certificate

C43 CD-4 calibration certificate option according to DIN EN 10204/3.1

HY Hydrostatic pressure test

ML Mass spectrometer leak test

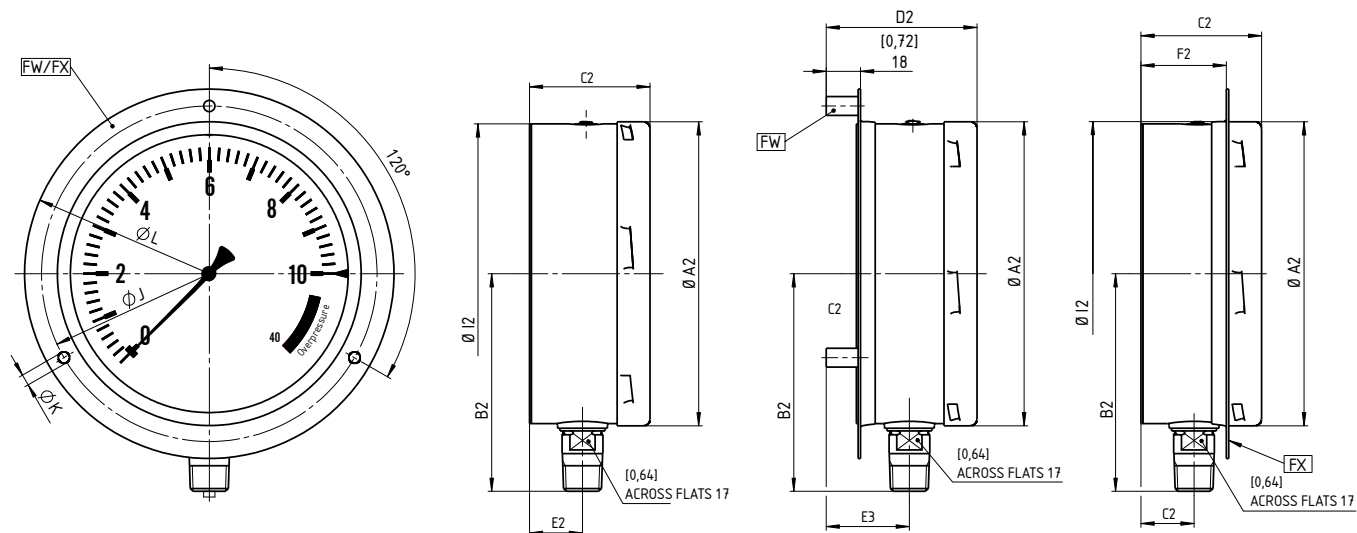


## All stainless steel high overpressure process gauge solid front Model T6500-XRA

### GENERAL DIMENSIONS IN MM [INCH]

For reference only, consult Ashcroft for specific dimensional drawings

#### ■ Case option FW, FX



**T6500 - CASE OPTIONS FW & FX**

DIAL SIZE	MEASURES	A	B	C2	D2	E2	E3	F2	I2	J	K	L
100 mm	mm [inch]	101 [3,97]	85 [3,36]	61 [2,38]	74 [2,91]	26 [1,02]	39 [1,55]	42 [1,63]	102 [4,00]	118 [4,65]	6 [0,24]	132 [5,20]
160 mm	mm [inch]	161 [6,35]	115 [4,54]	64 [2,52]	80 [3,15]	28 [1,11]	44 [1,74]	45 [1,78]	162 [6,36]	178 [7,01]	6 [0,24]	196 [7,72]

#### ■ Case option FF

