

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 ² 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:	PLUS! ™ 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)
PLUS! ™	-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 ²)	Overpressure Protection (in bar or kg/cm ²)	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	75	300%
40	100	250%
Positive Pressure Range (in bar or kg/cm ²)	Overpressure Protection (in bar or kg/cm ²)	Overpressure Protection (% of full scale value)
-1 to 0,6	2,5	417%
-1 to 1	4	400%
-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	72	300%
-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	7500	300%
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	7,5	300%
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	700	350%
250	800	320%
300	900	300%
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
Dial Size											
100	100 mm		100								
160	160 mm										
Model											
T6500	Solid front stainless steel pressure gauge			T6500							
Wetted Parts Material											
S	Stainless steel 316L (1.4404) tube and socket				S						
Case Filling											
D	Dry case					D					
L	Liquid filled case										
Process Connection											
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										
Connection Location											
L	Lower							L			
Range											
See table RANGES on page 2									10BR		
Retard option											
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

ORDERING CODE	EXAMPLE:	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!**[™] Performance (Not available with Halocarbon filling)
 NZ **PLUS!**[™] 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[™] Retroreflective Dial (100 mm and dry case only)

Continued at page 5



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

ORDERING CODE	EXAMPLE	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

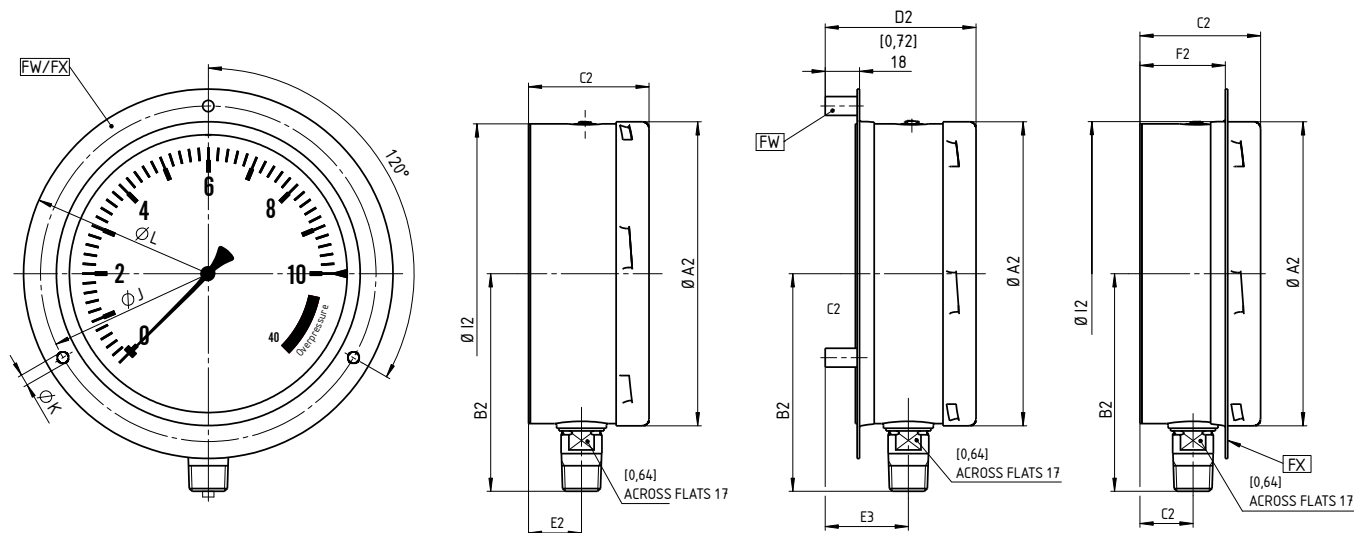


All stainless steel high overpressure process gauge solid front Model T6500-XRA

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

