

ST 2000 Gauge and Absolute Pressure Transmitters

34-ST-03-78 3/2003

PRODUCT SPECIFICATION AND MODEL SELECTION GUIDE

Function

The ST2000 Pressure Transmitters is a series of two-wire microprocessor-based, 4-20 mA instruments. The thick film ceramic sensor can measure gauge or absolute pressure with ranges of 0.2 to 460 bar. (3 to 6700 psi) Electronics provides automatic temperature compensation, software linearization and displays the sensor temperature. Parameters can be adjusted digitally. The 4 digit LCD indicator, displays the measured reading, either in engineering units (bar or psi) or percentage.



ST2000 Pressure Transmitters

MODELS

GAUGE ↗

Model #	NOMINAL RANGE Bar/(psi)	RANGE LIMITS (min./max.) bar/(psi)	SPAN (min./max.) bar/(psi)	OVERPRESSURE Max. bar/(psi)
STG20F	0-2/(0-30)	-1 to 2.3/(-14.5 to 33)	0.2 to 3.3/(3 to 47)	7/(100)
STG20G	0-5/(0-70)	-1 to 5.75/(-14.5 to 83)	0.5 to 6.75/(7 to 98)	12/(174)
STG20H	0-10/(0-145)	-1 to 11.5/(-14.5 to 166)	1 to 12.5/(14.5 to 181)	25/(362)
STG20K	0-20/(0-300)	-1 to 23/(-14.5 to 333)	2 to 24/(30 to 348)	50/(725)
STG20L	0-50/(0-725)	-1 to 57.5/(-14.5 to 833)	5 to 58.5/(72.5 to 848)	120/(1740)
STG20M	0-100/(0-1450)	-1 to 115/(-14.5 to 1667)	10 to 116/(145 to 1682)	250/(3620)
STG20N	0-200/(0-2900)	-1 to 230/(-14.5 to 3335)	20 to 231/(290 to 3350)	500/(7250)
STG20P	0-400/(0-5800)	-1 to 460/(-14.5 to 6701)	40 to 461/(580 to 6686)	600/(8700)

ABSOLUTE ↗

Model #	NOMINAL RANGE Bar/(psi)	RANGE LIMITS (min./max.) bar/(psi)	SPAN (min./max.) bar/(psi)	OVERPRESSURE Max. bar/(psi)
STA201	0-2/(0-30)	0 to 2.3/(0 to 33)	0.2 to 2.3/(3 to 33)	7/(100)
STA202	0-5/(0-70)	0 to 5.75/(0 to 83)	0.5 to 5.75/(7 to 83)	12/(74)
STA203	0-10/(0-145)	0 to 11.5/(0 to 165)	1 to 11.5/(14.5 to 165)	25/(362)

GENERAL SPECIFICATIONS

Output signal	4-20mA (two wire)
Supply voltage	11.1-30 Vdc
Display	4 digit LCD with 18,5 mm high characters 5 symbols (bar, mbar, psi, %, sec) + sensor temp
Damping	Digital damping adjustable from 0 to 51 seconds

OPERATING CONDITIONS

Temperature	Ambient : -20 to +80°C (-4 to +176°F) Process fluid : -20 to +80°C/130°C with diaphragm (-4 to +176°F/266°F) Handling and Storage : -20 to +90°C (-4 to +194°F) LCD contrast : -10 to +65°C (+14°F to +149°F)
Humidity	0 to 100%RH

PERFORMANCES *

Accuracy	±0,2% of calibrated span or URL, whichever is greater (includes linearity, hysteresis and repeatability)
Thermal effect	Zero: ±0,02%/ °C of Span Span: ±0,02%/ °C of Span
Supply voltage effect	Negligible between 11.1 and 30 Vdc

*within temperature range 0 to 60 °C (+32°F to +140°F)

PHYSICAL and APPROVAL

Wetted Parts	Alumina, 316SS, Viton or Kalrez
Electronic Housing	Low copper aluminum, epoxy resin coated
Environmental protection	IP66 IEC Against dust, sand, sea water- Tropicalization DIN 50.015
Process connections	1/2" ANSI B2.1 (NPT-F), G 1/2" UNI / ISO 228/I, 1/2" ANSI B2.1 (NPT-M), G 1/2" UNI / ISO 228/I, G 1" UNI / ISO 228/I, Union nut 65x1/6, Union nut 78x1/6, Clamp 1 1/2", Clamp 2"
Electrical connections	1/2 inch (NPT) and cable gland PG13,5 for 7 to 12 mm
Wiring terminal	Accept up to 1.5mm - 14AWG
Mounting	Direct on process pipe, electronic housing rotation adjustment
Net weight	0,85 Kg (1.87 lbs)
EMC conformity	89/336/EEC directive
Electrical classification	Intrinsic safety certification INERIS 00.E5010X Ex ia IIB, T6, T5, T4 suitable for Zone 0 groups IIA, IIB

Model Selection Guide (34-ST-16-58)

ST 2000 Smart Transmitter Gauge & Absolute Pressure

Model Selection Guide Without Price Data

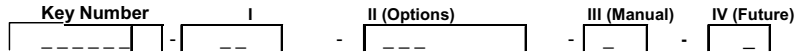
Model Selection Guide
34-ST-16-57 Issue 1

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Instructions

- Select the desired Key Number. The arrow to the right marks the selection available.
- Make one selection from each table, I and II, using the column below the proper arrow.

A dot denotes unrestricted availability. A letter denotes restricted availability.
Restrictions follow Table II.



KEY NUMBER						Selection	Availability
	Nominal Range bar/(psi)	Min Span bar/(psi)	Max Span bar/(psi)	LRL / URL* bar/(psi)	Over Pressure Limit bar/(psi)		
GAUGE	0-2/(0-30)	0.2/(3.0)	3.3/(47)	-1 to 2.3/(-14.5 to 33)	7/(100)	STG20F	↓
	0-5/(0-70)	0.5/(7)	6.75/(98)	-1 to 5.75/(-14.5 to 83)	12/(174)	STG20G	↓
	0-10/(0-145)	1/(14.5)	12.5/(181)	-1 to 11.5/(-14.5 to 166)	25/(362)	STG20H	↓
	0-20/(0-300)	2/(30)	24/(348)	-1 to 23/(-14.5 to 333)	50/(725)	STG20K	↓
	0-50/(0-725)	5/(72.5)	58.5/(848)	-1 to 57.5/(-14.5 to 833)	120/(1740)	STG20L	↓
	0-100/(0-1450)	10/(145)	116/(1682)	-1 to 115/(-14.5 to 1667)	250/(3620)	STG20M	↓
	0-200/(0-2900)	20/(290)	231/(3350)	-1 to 230/(-14.5 to 3335)	500/(7250)	STG20N	↓
	0-400/(0-5800)	40/(580)	461/(6686)	-1 to 460/(-14.5 to 6671)	600/(8700)	STG20P	↓
ABS	0-2/(0-30)	0.2/(3.0)	2.3/(33)	0 to 2.3/(0 to 33)	7/(100)	STA201	↓
	0-5/(0-70)	0.5/(7)	5.75/(83)	0 to 5.75/(0 to 83)	12/(174)	STA202	↓
	0-10/(0-145)	1/(14.5)	11.5/(165)	0 to 11.5/(0 to 165)	25/(362)	STA203	↓

* LRL = Lower Range Limit / URL = Upper Range Limit

TABLE I - METER BODY

Material of Wetted Parts	Sensor	Body	O-Ring Material	V _ K _	• • • •
	Alum. Oxide	AISI 316	Viton		
	Alum. Oxide	AISI 316	Kalrez		
Process	Type	Diaphragm	Max. Temp °C/(°F)	_ A _ B _ C _ 1 _ 2 _ 3 _ 4 _ 5 _ 6 _ 7 _ 8	• •
Connection	1/2 ANSI B2.1 (NPT-F)	Alum. Ox.	80/(176)		
	1/2 ANSI B2.1 (NPT-F)	AISI 316	130/(266)		
	1/2 ANSI B2.1 (NPT-M)	AISI 316	130/(266)		
	G 1/2 UNI / ISO 228/I	Alum. Ox.	80/(176)		
	1/2 ANSI B2.1 (NPT-M)	Alum. Ox.	80/(176)		
	G 1/2 UNI / ISO 228/I	AISI 316	130/(266)		
	G 1 UNI / ISO 228/I	AISI 316	130/(266)		
	Union nut 65 x 1/6	AISI 316	130/(266)		
	Union nut 78 x 1/6	AISI 316	130/(266)		
	Clamp 1 1/2"	AISI 316	130/(266)		
	Clamp 2"	AISI 316	130/(266)		

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Model Selection Guide (34-ST-16-58), cont.

TABLE II Options

			Selection		
Calibration		Conformance Certificate	1	—	• •
		Calibration Certificate	2	—	• •
Mounting Bracket		None	—	0	• •
		Mounting Bracket for 2" pipe	—	M	• •
Approval Body	Approval Type	Location or Classification			
INERIS	Intrinsically Safe	EEx ia IIB, T6, T5, T4 suitable for Zone 0 groups IIA, IIB	—	1	• •

STAx
STGxx

TABLE III Manulas

			Selection		
Manulas		English	0		• •
		French	1		• •
		Italian	2		• •
		German	3		• •
		Spanish	4		• •

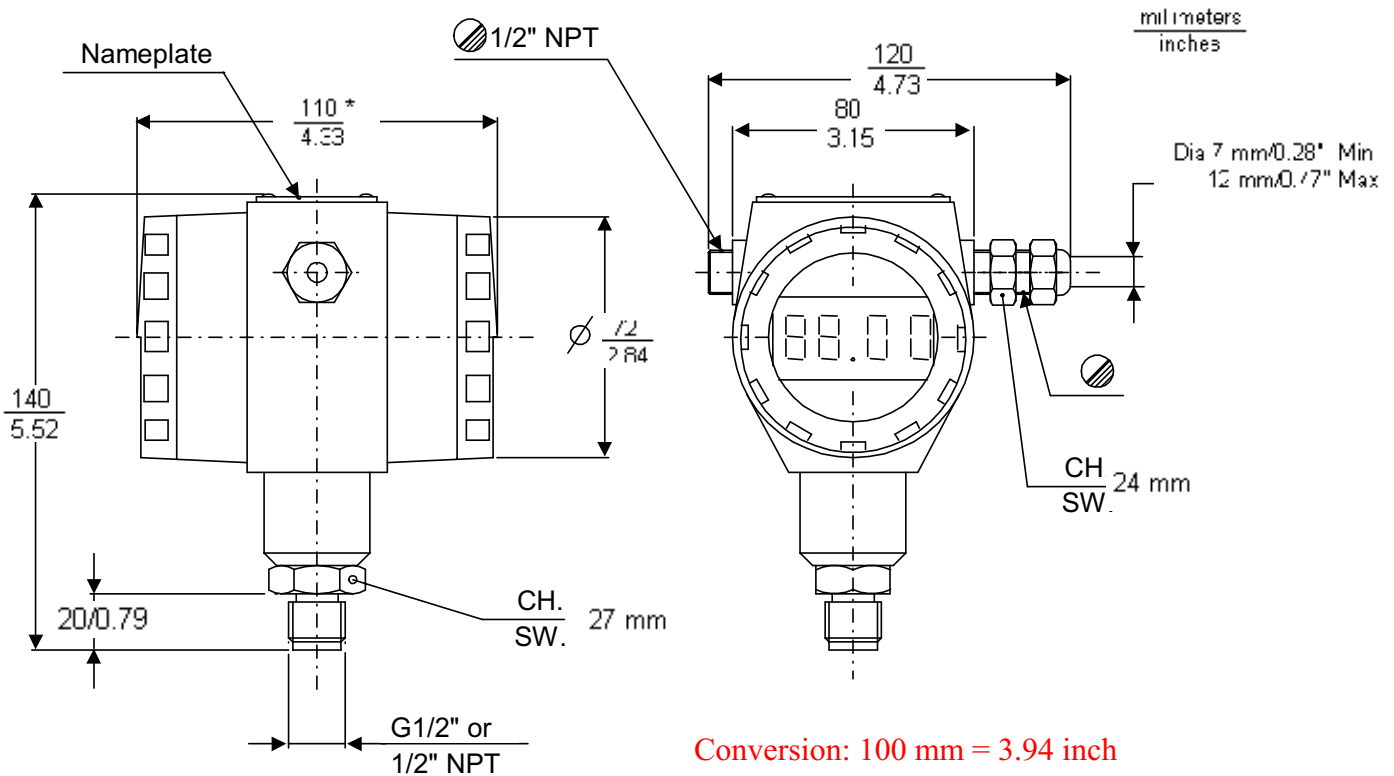
TABLE IV Future

			Selection		
Special			0		• •

RESTRICTIONS

Restriction Letter	Table	Available Only With		Not Available With	
		Selection	Table	Selection	
a			I	STG20M, STG20N, STG20P	

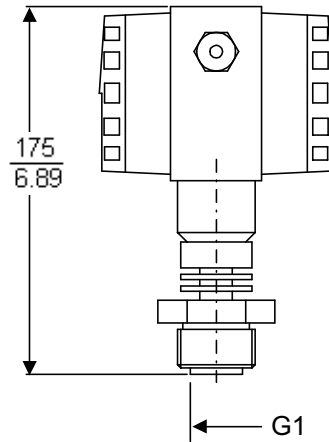
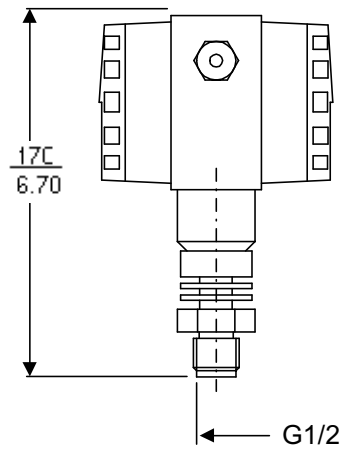
DIMENSIONS



* 100 mm Clearance to remove cover (both ends)

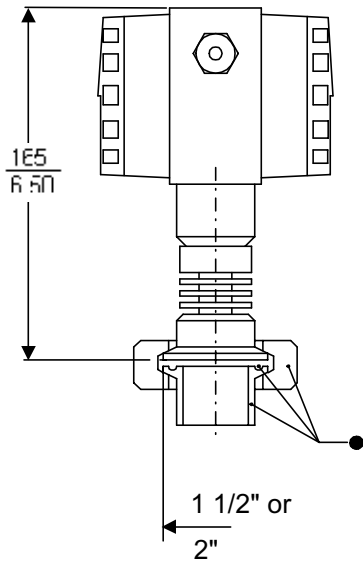
DIMENSIONS

Conversion: 100 mm = 3.94 inch

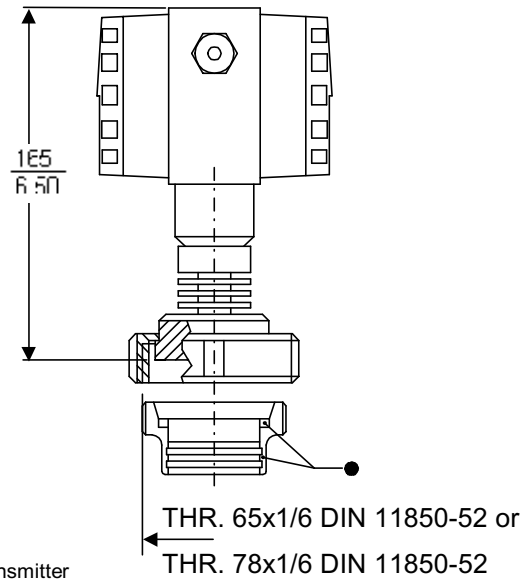


millimeters
inches

Flush Connections

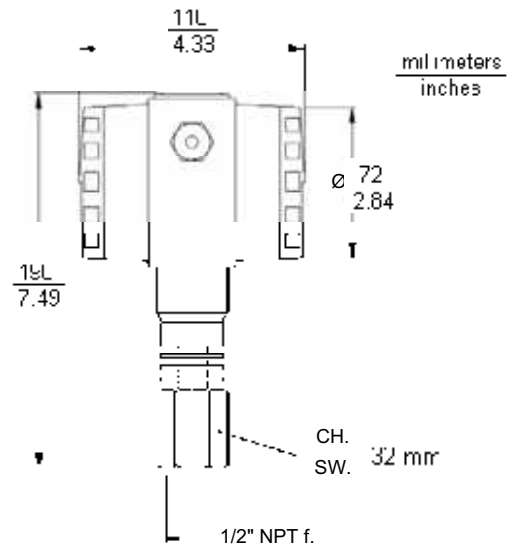
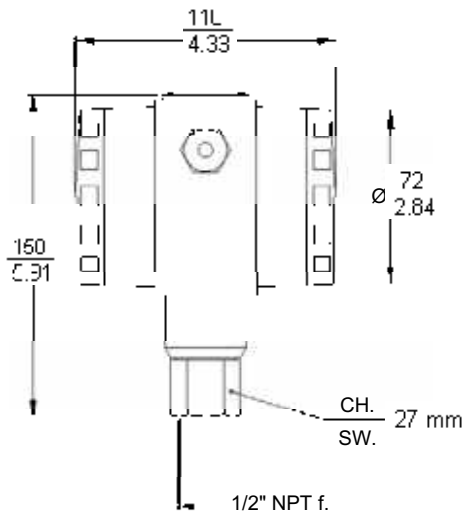


Tri-Clamp Connection

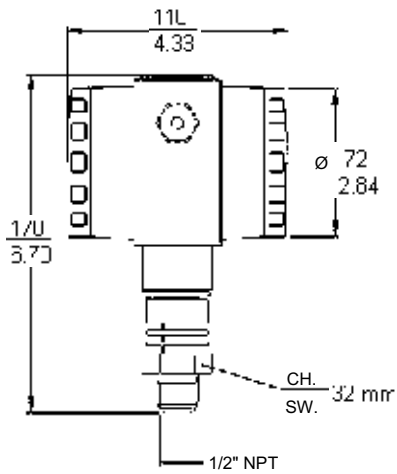


Sanitary Connection

DIMENSIONS



Conversion: 100 mm = 3.94 inch



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