

Model 624ES gauge/absolute with direct mount seal for beverage application

- **Base accuracy : $\pm 0.075\%$**
- **Reliable inductive sensing system coupled with the very latest digital technologies**
 - ensures high performance at all process conditions
- **Mechanical process interfaces complete of process spud**
- **HART 4-20 mA, Profibus PA, FF versions with plug-and-play electronics replacement**
 - provides interchangeability for upgrading transmitter
- **Local snap calibration and full management via hand terminal or PC-running software**
- **HART®, Profibus PA, FF communications**
 - allows integration with standard process bus
- **CoMeter display option**
 - offers HART Configuration capabilities combined with local indication
- **Ecoefficient life cycle**
 - ensures low environmental impact in compliance with LCA assessment to ISO 14040 standard



***The all new 600T Series transmitter
The first choice pressure transmitter is
now an even bigger choice***

GENERAL DESCRIPTION

Model 624ES detailed in this specification sheet integrates a direct mount seal on the positive side, having the negative side reference at atmospheric or vacuum pressure, respectively for gauge or absolute measurements.

The integral seal is available in 1 1/2 in diaphragm size specifically designed for beverage industry applications, providing a flush diaphragm to the process.

The seal integral to the transmitter has a 6 holes flange, to match the weld process spud.

FUNCTIONAL SPECIFICATIONS

Range and span limits

Sensor code	Upper Range Limit (URL)	Lower Range Limit (LRL) 624ES with direct mount seal	Turndown ratio (TD)		
			Normal	Extended	Maximum
D	160 kPa 1600 mbar 642 inH ₂ O	0.07 kPa abs 0.7 mbar abs 0.5 mmHg	10	20	60
E	600 kPa 6 bar 87 psi	0.07 kPa abs 0.7 mbar abs 0.5 mmHg	10	20	60
F	2400 kPa 24 bar 348 psi	0.07 kPa abs 0.7 mbar abs 0.5 mmHg	10	20	60

Span limits

Maximum span = URL

Minimum recommended span = URL/TD extended

(can be further turndown to URL/TD maximum at no stated performances)

Zero suppression and elevation

Zero and span can be adjusted to any value within the range limits detailed in the table as long as:

- calibrated span ≥ minimum span

Damping

Selectable time constant : 0, 0.25, 0.5, 1, 2, 4, 8 or 16 sec.

Electromagnetic compatibility (EMC)

Comply with EN 50081-2 for emission and EN 50082-2 for immunity requirements and test; CE marking.

Turn on time

Operation within specification in less than 2 sec. with minimum damping.

Insulation resistance

> 100 MΩ @ 1000 Vdc (terminals to earth)

Temperature limits °C (°F)

• Process

Silicone oil or DC97-9120 filling : -40 and +150°C (-40 and 302°F)

• Ambient

Operating limits : -40 and +85 (-40 and +185)

Lower ambient limit for LCD indicators: -20°C (-4°F)

Upper ambient limit for CoMeter : +70°C (+158°F)

• Storage

Lower limit: -50°C (-58°F); -40°C (-40°F) for LCD indicators

Upper limit: +120°C (+248°F); +85°C (+185°F) for LCD indicators

Overpressure limits (without damage to the transmitter)

• Lower : 0.07 kPa abs, 0.7 mbar abs, 0.5 mmHg

• Upper (transmitter sensor limit or flange / fitting rating of the seal, whichever is less)

- model 624ES

sensor code D, E, F : 14 MPa, 140 bar, 2030 psi

- beverage seal (S6K)

- 1 1/2 in size : 4 MPa, 40 bar, 580 psi

Proof pressure

The transmitter meets SAMA PMC 27.1 requirements and can be exposed without leaking to line pressure of up to 28 MPa, 280 bar, 4000 psi or two times the flange/fitting rating of the seal, whichever is less

ELECTRICAL CHARACTERISTICS AND OPTIONS

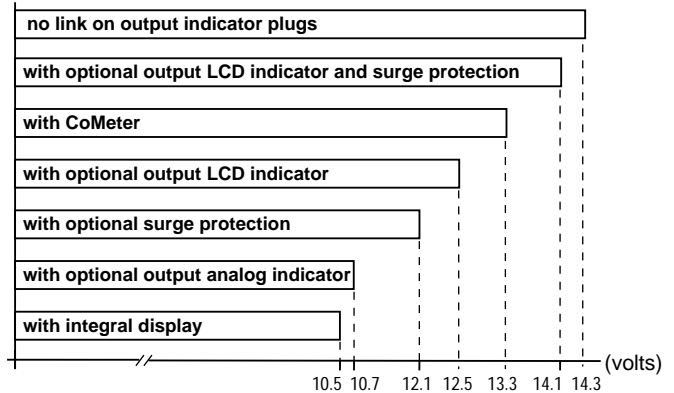
• HART digital communication and 4 to 20 mA output

Power Supply

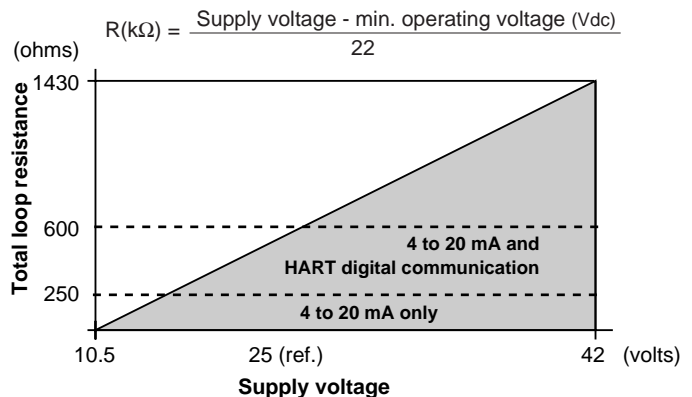
The transmitter operates from 10.5 to 42 Vdc with no load and is protected against reverse polarity connection (additional load allows operations over 42 Vdc).

For EEx ia and intrinsically safe (FM, CSA and SAA) approval power supply must not exceed 30 Vdc.

MINIMUM OPERATING VOLTAGES



Load limitations - 4-20 mA and HART total loop resistance :



Optional indicators

• Output meter (user adjustable)

- LCD : 3 1/2-digit with 10 mm (3/8 in) high, 7-segment characters. Engineering unit labels are provided. LCD output meter may be calibrated within the range -1999 to +1999 with a span adjustable between 100 and 3998 units. (Display of decimal point, if required, is switch selectable)

- analog : 36 mm (1.4 in) scale on 90°

- **Integral display**

- LCD: 4-digit with 8 mm. (5/16 in) high, 9-segment alphanumeric characters.

User-definable display mode with HART communication :

- process variable in engineering units, or
- percent of range, or
- process variable in engineering units and percent of range alternating every 3 seconds, or
- process variable in engineering units and digital output (4 to 20 mA) alternating every 3 seconds.

Factory selectable display mode with 4 to 20 mA output :

- percent of range
- percent of range and 4 to 20 mA output alternating every 3 seconds

Display also indicates diagnostic messages.

- **CoMeter**

- 5-digit LCD (± 99999 counts programmable) with 7.6 mm. high (3 in), 7-segment numeric characters plus sign and digital point
- 10-segment LCD bargraph display (10% per segment)
- 7-digit LCD with 6 mm. high (2.3 in), 14-segment alphanumeric characters.

Optional surge protection

Up to 2.5 kV (5 kA discharge current) of 8 μ s rise time/20 μ s decay.

Output signal

Two-wire 4 to 20 mA dc, user-selectable for linear or square root output, power of 3/2 or 5/2, 5th order or two 2nd order switching point selectable programmable polynomial output.

HART® communication provides digital process variable (% , mA or engineering units) superimposed on 4 to 20 mA signal, with protocol based on Bell 202 FSK standard.

Output current limits (to NAMUR standard)

Overload condition

- Lower limit : 3.8 mA dc
- Upper limit : 20.8 mA dc

Transmitter failure mode (to NAMUR standard)

The output signal can be user-selected to a value of 3.6 or 21.6 mA on gross transmitter failure condition, detected by self-diagnostics.

In case of CPU failure the output is driven <3.6 mA or >21.6 mA.

- **Profibus PA output**

Power supply

The transmitter operates from 10.5 to 32 Vdc with no polarity. For EEx ia approval power supply must not exceed 15 Vdc. Intrinsic safety installation according to FISCO model.

Current consumption

- operating (quiescent) : 10.5 mA
- communicating : 20.5 mA
- fault current limiting : 16 mA max.

Output signal

Physical layer in compliance to IEC 1158-2/EN 61158-2 with transmission to Manchester II modulation, at 31.25 kbit/sec.

Output interface

Profibus PA communication according to Profibus DP50170 Part 2/DIN 19245 part 1-3 compliant to Profiles 3.0 Class A & B for pressure transmitter; ident. number 052B HEX.

Output update time : 25 ms

Function blocks

2 analog input, 1 transducer, 1 physical

Optional indicator

Integral display

- LCD : 4 digit characters, displaying process variable in engineering units or as percentage value.
- Display also indicates diagnostic messages.

Transmitter failure mode

On gross transmitter failure condition, detected by self-diagnostics, the output signal can be driven to defined conditions, selectable by the user as safe, last valid or calculated value.

- **FOUNDATION fieldbus output**

Device type

Link Active Scheduler (LAS) capability implemented

Power supply

The transmitter operates from 9 to 32 Vdc with no polarity. For EEx ia approval power supply must not exceed 24 Vdc. Intrinsic safety installation according to FF application guide

Current consumption

- operating (quiescent) : 10.5 mA
- communicating : 20.5 mA
- fault current limiting : 16 mA max.

Output signal

Physical layer in compliance to IEC 1158-2/EN 61158-2 with transmission to Manchester II modulation, at 31.25 kbit/sec.

Function blocks/execution period

2 standard Analog Input blocks / 25 msec. max (each)
1 standard PID block / 70 msec. max.

Additional blocks

Transducer block, 1 standard Resource block,
1 custom Pressure with calibration block

Number of link objects : 25

Number of VCRs : 24

Output interface

FOUNDATION fieldbus digital communication protocol to standard H1, compliant to specification V. 1.4; FF registration IT011000.

Optional indicator

Integral display

- LCD : 4 digit characters, displaying process variable in engineering units or as percentage value.
- Display also indicates diagnostic messages.

Transmitter failure mode

The output signal is "frozen" to the last valid value on gross transmitter failure condition, detected by self-diagnostics which also indicate a BAD conditions. If electronic failure or short circuit occur the transmitter consumption is electronically limited at a defined value (16 mA approx), for safety of the network.

PERFORMANCE SPECIFICATIONS

Stated at ambient temperature of 23°C ± 3K (75°F ± 5), relative humidity of 50% ± 20%, atmospheric pressure, mounting position with vertical diaphragm and zero based range for transmitter with isolating diaphragms in AISI 316L ss and silicone oil fill and HART digital trim values equal to 4-20 mA span end points, in linear mode.

Unless otherwise specified, errors are quoted as % of span. Some performance data are affected by the actual turndown (TD) as ratio between Upper Range Limit (URL) and calibrated span. IT IS RECOMMENDED TO SELECT THE TRANSMITTER SENSOR CODE PROVIDING THE TURNDOWN VALUE AS LOWEST AS POSSIBLE TO OPTIMIZE PERFORMANCE CHARACTERISTICS.

Accuracy rating

% of calibrated span, including combined effects of terminal based linearity, hysteresis and repeatability.

For fieldbus versions SPAN refer to analog input function block outscale range

- ± 0.075% for TD from 1:1 to 10:1

- ± 0.0075% × $\frac{\text{URL}}{\text{Span}}$ for TD from 10:1 to 20:1

Optional indicators accuracy

- integral display (microprocessor driven) : no error
- analog output meter : ± 2% full scale deflection
- LCD output meter : ± 0.1% of calibrated span ± 1 unit
- CoMeter
 - digital : ± 0.10% of max span (16 mA) ± 1 digit
 - analog (bargraph) : 10%

Operating influences

Temperature effects

per 20 K (36°F) ambient temperature change on transmitter sensor between the limits of -20°C to +65°C (-4 to +150°F)
- 1 1/2in beverage seal : ± (0.15% URL + 0.15% span)

Multiply by 1.5 the above coefficients for 20K (36°F) change between the limits of -40 to -20°C (-40 to 4°F) and of +65 to +85°C (+150 to 185°F)

per 20 K (36°F) process temperature change on seal diaphragm between the process operating temperature limits of -25 to 120°C (-13 to 248°F)
- 1 1/2in beverage seal : 0.2 kPa, 2 mbar, 0.8 inH₂O

Multiply by 1.5 the above values for 20K (36°F) change between the limits of -40 to -25°C (-40 to -13°F) and of +120 to +150°C (+248 to 302°F)

The total zero temperature error is the combination of the two above effects, as applicable due to application temperatures.

Optional LCD output meter ambient temperature

per 1 K (1.8°F) change between the limits of -20 and +80°C (-4 and +176°F)
Total effect : ± (0.0002 × span units + 0.1) of reading.

Optional CoMeter ambient temperature

Total reading error per 20K (36°F) change between the ambient limits of -20 and +70°C (-4 and +158°F):
± 0.15% of max span (16 mA).

Supply voltage

Within voltage/load specified limits the total effect is less than 0.005% of URL per volt.

Load

Within load/voltage specified limits the total effect is negligible.

Radio frequency interference

Total effect : less than 0.10% of span from 20 to 1000 MHz and for field strengths up to 30 V/m when tested with shielded conduit and grounding, with or without meter. Meets IEC 801.

Common mode interference

No effect from 100 V rms @ 50 Hz, or 50 Vdc.

Series mode interference

No effect from 1 V rms @ 50 Hz.

PHYSICAL SPECIFICATIONS

(Refer to ordering information sheets for variant availability related to specific model or versions code)

Materials

Process isolating diaphragms (*)

AISI 316 L ss

Process connection (*)

AISI 316 L ss.

Gaskets (*)

Ethylene-propylene (on request)

Sensor housing : AISI 316 L ss

Sensor fill fluid

Silicone oil (DC200)

Seal fill fluid

Silicone oil (DC200), DC 97-9120 PHARMA B-GRADE

Electronic housing and covers

Barrel version
- Low-copper content aluminium alloy with baked epoxy finish;
- AISI 316 L ss.

Covers O-ring: Buna N.

Local zero and span adjustments:

Glass filled polycarbonate plastic (removable)

Tagging

AISI 316 ss data plate attached to the electronics housing.

Calibration

- Standard: at maximum span, zero based range, ambient temperature and pressure
- Optional: at specified range and ambient conditions; or at operating temperature.

Optional extras

Output indicator:

plug-in rotatable type, LCD or analog.

Standard LCD output meter scale is 0 to 100% linear; special linear scale to specified range and engineering unit is available. Standard analog output meter scale is 0 to 100% linear or 0 to 10 square-root; special graduation is available.

Supplemental customer tag

AISI 316 ss tag screwed/fastened to the transmitter for customer's tag data up to a maximum of 20 characters and spaces on one line for tag number and tag name, and up to a maximum of 3 spaced strings of 10 characters each for calibration details (lower and upper values plus unit). Special typing evaluated on request for charges.

Surge protection (not available with Profibus PA and FF output) Material traceability

Environmental protection

Wet and dust-laden atmospheres

The transmitter is dust and sand tight and protected against immersion effects as defined by IEC 529 (1989) to IP 67 (IP 68 on request) or by NEMA to 4X or by JIS to C0920

Hazardous atmospheres

With or without output meter/integral display

ATEX/BASEEFA approval

- EC-Type Examination Certificate no. BAS 99ATEX 1180
- (HART)

II 1 GDT50°C, EEx ia IIC T6/T5 (-40°C ≤ Ta ≤ +40°C)
T95°C, EEx ia IIC T4 (-40°C ≤ Ta ≤ +85°C)

- (FOUNDATION Fieldbus)

II 1 GD T70°C, EEx ia IIC T4 (-40°C ≤ Ta ≤ +60°C)

- EC-Type Examination Certificate no. BAS 00ATEX 1241
- (PROFIBUS-PA)

II 1 GD T70°C, EEx ia IIB T4 (-40°C ≤ Ta ≤ +60°C)

TYPE "N"/EUROPE :

ATEX/BASEEFA type examination

- Design compliance by Certificate no. BAS 01ATEX 3380X
- (HART)

II 3 GDT50°C, EEx nL IIC T5 (-40°C ≤ Ta ≤ +40°C)
T95°C, EEx nL IIC T4 (-40°C ≤ Ta ≤ +85°C)

- (FOUNDATION Fieldbus)

II 3 GD T70°C, EEx nL IIC T4 (-40°C ≤ Ta ≤ +60°C)

- Design compliance by Certificate no. BAS 01ATEX 3384X
- (PROFIBUS-PA)

II 3 GD T70°C, EEx nL IIB T4 (-40°C ≤ Ta ≤ +60°C)

FLAMEPROOF/EUROPE:

ATEX/CESI approval;

- EC-Type Examination Certificate no. CESI 00 ATEX 035
II 1/2 GD T80°C, EEx d IIC T6 (-40°C ≤ Ta ≤ +70°C)
T95°C, EEx d IIC T5 (-40°C ≤ Ta ≤ +85°C)

CANADIAN STANDARDS ASSOCIATION
and FACTORY MUTUAL :

- Explosionproof: Class I, Div. 1, Groups A, B, C, D
- Dust ignitionproof : Class II, Div. 1, Groups E, F, G
- Suitable for : Class II, Div. 2, Groups F, G; Class III, Div. 1, 2
- Nonincendive: Class I, Div. 2, Groups A, B, C, D
- Intrinsically safe: Class I, II, III, Div. 1, Groups A, B, C, D, E, F, G

STANDARDS AUSTRALIA (SAA)

TS/WCA Approval (HART only)

- Conformity Certificate no. AUS Ex 3117X

Ex d IIC T5 (Tamb +85°C)/T6 (Tamb +70°C) Class 1 Zone 1;
Ex ia IIC T4 (Tamb +85°C)/T5 (Tamb +55°C) T6 Class 1 Zone 0

Process connections

Beverage seal (mod. S6K)

- 1 1/2in flush diaphragm with integral 6 holes flanged connection to process welded spud

Electrical connections

Two 1/2 NPT or M20x1.5 or PG 13.5 or 1/2 GK threaded conduit entries, direct on housing; straight or angle Harting HAN connector and one plug, on request.

Terminal block

- HART version
Three terminals for signal/external meter wiring up to 2.5 mm² (14 AWG) and three connection points for test and communication purposes.
- Fieldbus versions
Two terminals for signal wiring (bus connection) up to 2.5 mm² (14 AWG)

Grounding

Internal and external 6 mm² (10 AWG) ground termination points are provided.

Mounting position

Transmitter can be mounted in any position.

Electronics housing may be rotated to any position. A positive stop prevents over travel.

Mass (without options)

3 kg approx (5 lb) according to specified options; add 1.5 kg (3.4 lb) for AISI housing.
Add 650 g (1.5 lb) for packing.

Packing

Carton

(*) Wetted parts of the transmitter.

CONFIGURATION

• **Transmitter with HART communication and 4 to 20 mA Standard configuration**

Transmitters are factory calibrated to customer's specified range. Calibrated range and tag number are stamped on the tag plate. If a calibration range and tag data are not specified, the transmitter will be supplied with the plate left blank and configured as follows:

- Engineering Unit: Specify code option
- 4 mA: Zero
- 20 mA: Upper Range Limit (URL)
- Output : Linear
- Damping: 1 sec.
- Transmitter failure mode: Upscale
- Software tag characters: Blank
- Optional LCD output indicator : 0 to 100.0% linear

Any or all the above configurable parameters, including Lower range-value and Upper range-value which must be the same unit of measure, can be easily changed using the HART hand-held communicator. The transmitter database is customized with specified flange type and material, O-ring and drain/vent materials and meter code option.

Custom configuration (option)

The following data may be specified in addition to the standard configuration parameters:

- Descriptor : 16 alphanumeric characters
- Message: 32 alphanumeric characters
- Date: Day, month, year
- Damping: Seconds

• **Transmitter with Profibus PA communication**

Transmitters are factory calibrated to customer's specified range. Calibrated range and tag number are stamped on the tag plate. If a calibration range and tag data are not specified, the transmitter will be supplied with the plate left blank and configured as follows:

- Measure Profile: Pressure
- Engineering Unit: kPa
- Output scale 0%: Lower Range Limit (LRL)
- Output scale 100%: Upper Range Limit (URL)
- Output : Linear
- Hi-Hi Limit : Upper Range Limit (URL)
- Hi Limit : Upper Range Limit (URL)
- Low Limit : Lower Range Limit (LRL)
- Low-Low Limit : Lower Range Limit (LRL)
- Limits hysteresis: 0.5% of output scale
- PV filter: 0 sec.
- Address (settable by local key): 126
- Tag : 32 alphanumeric characters

Any or all the above configurable parameters, including Lower range-value and Upper range-value which must be the same unit of measure, can be easily changed by a PC running the configuration software Smart Vision with DTM for 600T or 600T template for Siemens Simatic PDM System. The transmitter database is customized with specified flange type and material, O-ring and drain/vent materials and meter code option.

Custom configuration (option)

The following data may be specified in addition to the standard configuration parameters:

- Descriptor : 32 alphanumeric characters
- Message: 32 alphanumeric characters
- Date: Day, month, year
- PV filter: Seconds

• **Transmitter with FOUNDATION fieldbus communication**

Transmitters are factory calibrated to customer's specified range. Calibrated range and tag number are stamped on the tag plate. If a calibration range and tag data are not specified, the transmitter will be supplied with the plate left blank and configured as follows:

- Measure Profile: Pressure
- Engineering Unit: kPa
- Output scale 0%: Lower Range Limit (LRL)
- Output scale 100%: Upper Range Limit (URL)
- Output : Linear
- Hi-Hi Limit : Upper Range Limit (URL)
- Hi Limit : Upper Range Limit (URL)
- Low Limit : Lower Range Limit (LRL)
- Low-Low Limit : Lower Range Limit (LRL)
- Limits hysteresis: 0.5% of output scale
- PV filter time: 0 sec.
- Tag : 32 alphanumeric characters

Any or all the above configurable parameters, including the range values, can be changed using any host compliant to FOUNDATION fieldbus. The transmitter database is customized with specified flange type and material, O-ring and drain/vent materials and meter code option.

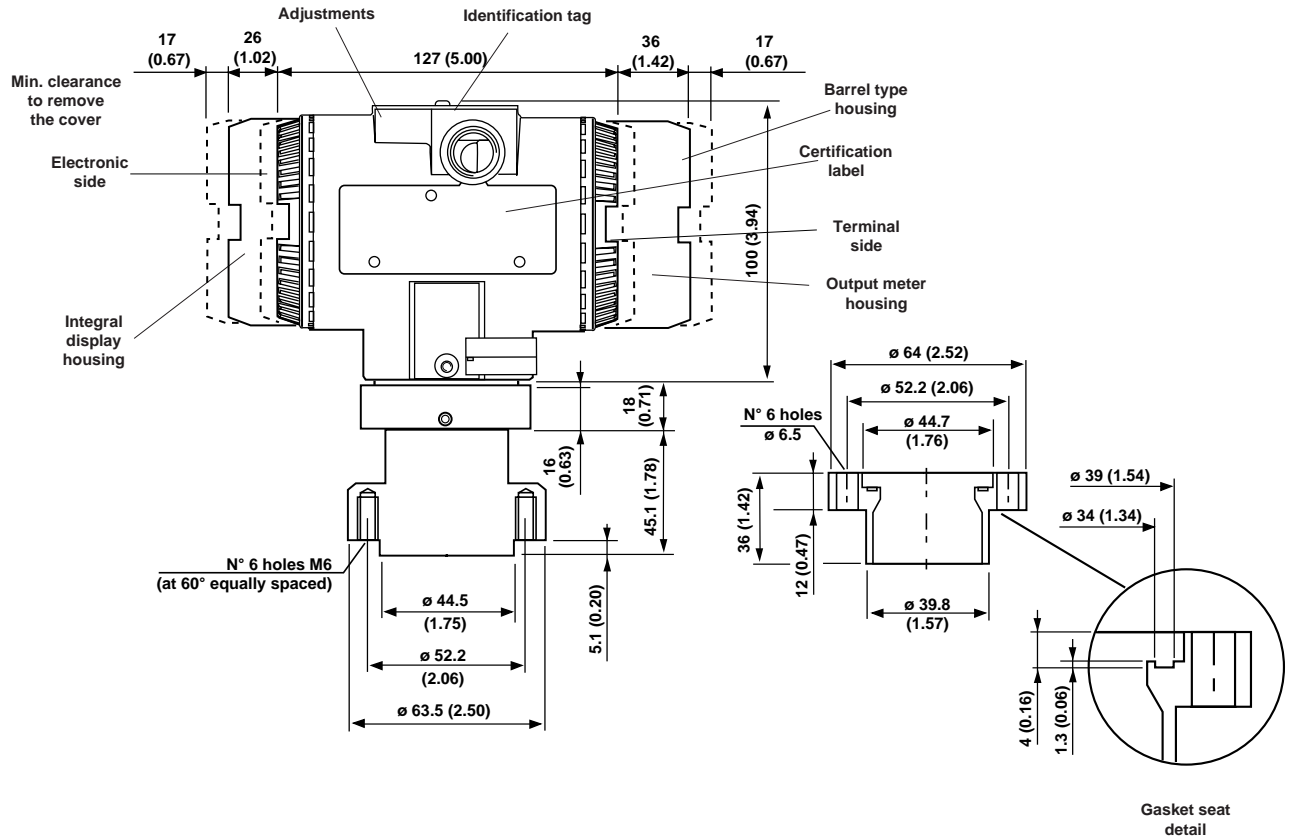
Available engineering units of pressure measure are :

Pa, kPa, MPa
inH2O@4°C, mmH2O@4°C, psi
inH2O@20°C, ftH2O@20°C, mmH2O@20°C
inHg, mmHg, Torr
g/cm², kg/cm², atm
mbar, bar

MOUNTING DIMENSIONS

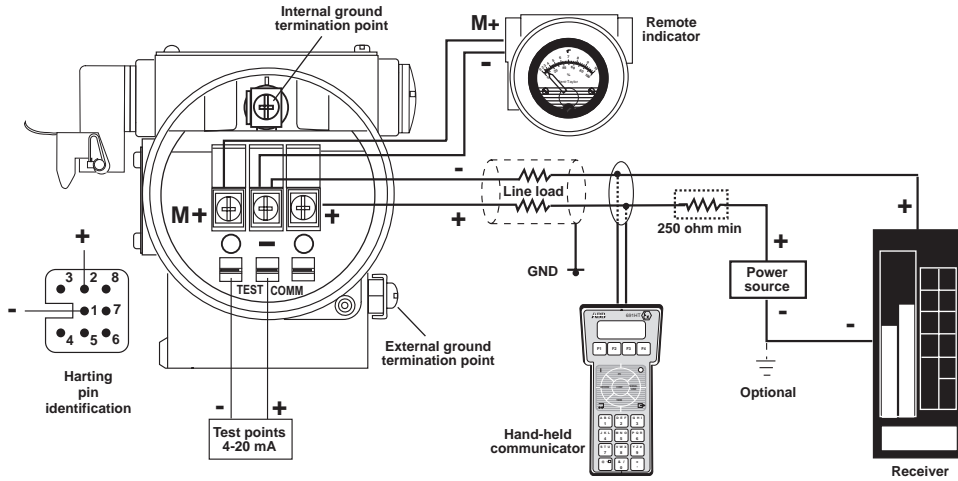
(not for construction unless certified)

- 624ES with beverage seal S6K - 1 1/2in size to 6 holes flanged spud



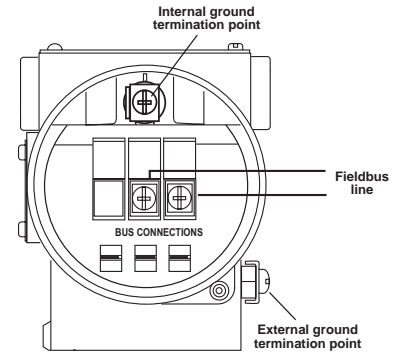
ELECTRICAL CONNECTIONS

• HART Version



HART hand-held communicator may be connected at any wiring termination point in the loop, providing the minimum resistance is 250 ohm. If this is less than 250 ohm, additional resistance should be added to allow communications.

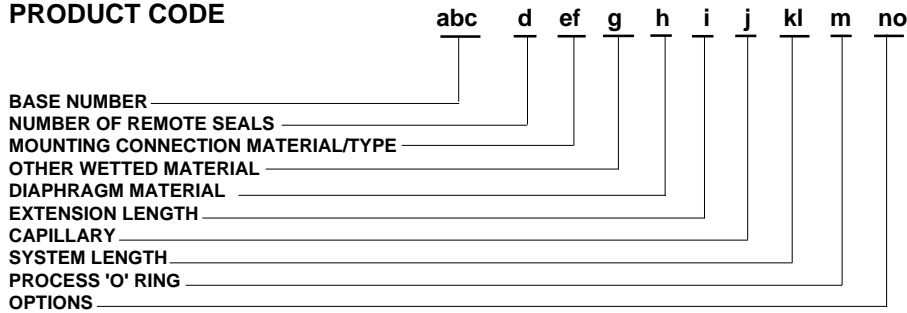
• FIELDBUS Versions



ORDERING INFORMATION model S6K direct mount seal for beverage application

Select one character or set of characters from each category and specify complete catalog number, in addition to the 624ES transmitter code

PRODUCT CODE



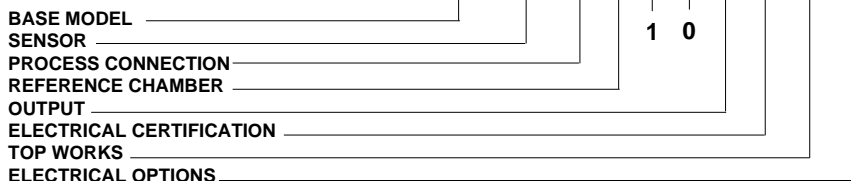
Character	Description	Code
abc	BASE NUMBER - 1st to 3rd characters Beverage application seal	S6K
d	NUMBER OF REMOTE SEALS - 4th character One for direct mount	0
ef	MOUNTING CONNECTION MATERIAL/TYPE - 5th and 6th characters AISI 316 L ss 1 1/2 in ANSI / integral 6 holes flanged connection to process weld spud	5Z
g	OTHER WETTED MATERIAL - 7th character Same as diaphragm material	0
h	DIAPHRAGM MATERIAL - 8th character AISI 316 L ss	2
i	EXTENSION LENGTH - 9th character None	0
j	CAPILLARY - 10th character Fill fluid Silicone oil (DC 200) DC 97 - 9120 PHARMA B-GRADE	A Q
kl	SYSTEM LENGTH m (feet) - 11th and 12th characters 0 (direct mount)	00
m	PROCESS 'O' RING - 13th character None Ethylene propylene (suitable for application with potable water and such)	0 8
no	OPTIONS - 14th and 15th characters None Spud for 1 1/2 in version connection	00 N4

ORDERING INFORMATION model 624ES Transmitter with direct mount seal S6K

Select one character or set of characters from each category and specify complete catalog number.
Refer to supplementary code and specify another number for each transmitter if additional options are required.

PRODUCT CODE

abcde fg h i j k l m n op



abcde	BASE MODEL - 1st to 5th characters	Code
	Pressure transmitter with integral direct mount seal	624ES

f	SENSOR Span limits - 6th character		
	8 and 160 kPa	80 and 1600 mbar	32 and 642 inH ₂ O
	30 and 600 kPa	0.3 and 6 bar	4.35 and 87 psi
	120 and 2400 kPa	1.2 and 24 bar	17.4 and 348 psi
			D
			E
			F

g	7th character Diaphragm material	Fill fluid	
	AISI 316 L ss	Silicone oil	0

h	PROCESS CONNECTION - 8th character	
	All-welded direct mount seal, Beverage (to be coded separately as S6K)	P

i	REFERENCE CHAMBER (negative) - 9th character	
	At atmospheric pressure for gauge measurement	B
	At vacuum for absolute measurement	W

j	10th character	
	Use code	1

k	11th character	
	Use code	0

l	12th character OUTPUT	
	HART digital communication and 4 to 20 mA	G
	Profibus PA communication	P
	FOUNDATION Fieldbus Communication	F

m	ELECTRICAL CERTIFICATION - 13th character	
	General Purpose	1
	ATEX Group II Category 1/2 GD - Flameproof EEx d CESI approval	F
	ATEX Group II Category 1 GD - Intrinsic Safety EEx ia BASEEFA approval	L
	ATEX Group II Category 3 GD - Type of protection "N" EEx nL design compliance	N
	Factory Mutual (FM) and Canadian Standard Association (CSA) approvals (only with 1/2" NPT and M20 electrical connection)	8
	Intrinsic Safety and Flameproof to Standards Australia SAA approval Ex ia IIC T6/T5/T4 + Ex d IIC T6/T5 (Note)	W

Note : not available with output code P and F at position "l"

■ Compliance to NACE class II bolting, according to specification MR0175, latest revision

ORDERING INFORMATION model 624ES Transmitter with direct mount seal S6K

TOP WORKS - 14th character

n	Housing material	Electrical connection	
Aluminium alloy (Barrel version)		1/2" NPT	1
		M20 x 1.5 (CM 20)	2
		Pg 13.5	3
		1/2" GK	4
		Harting HAN connector - straight entry (Note 1, 2)	5
		Harting HAN connector - angle entry (Note 1, 2)	6
AISI 316 L ss (Barrel version)		1/2" NPT	A
		M20 x 1.5 (CM 20)	C
		Pg 13.5	D
		1/2" GK	F

Note 1 : requires certification code 1 at position "m"

Note 2 : not available with output code P and F at position "l"

ELECTRICAL OPTIONS - 15th character

o	Internal meter type	
	None	1
	Digital LCD output indicator linear 0-100%, user scalable (Note)	3
	Digital LCD output indicator linear scale (specify range and engineering units) (Note)	5
	Analog output indicator linear 0-100% scale (Note)	7
	Analog output indicator, special graduation (to be specified for linear scale) (Note)	9
	Digital LCD integral display	A
	Digital LCD integral display and digital LCD output indicator linear 4-20 mA (Note)	C
	Digital LCD integral display and analog output indicator linear 0-100% scale (Note)	E
	Programmable signal meter and HART configurator (CoMeter) (Note)	P
	Programmable signal meter and HART configurator (CoMeter) and digital LCD integral display (Note)	R

Note : not available with output code P and F at position "l"

16th character

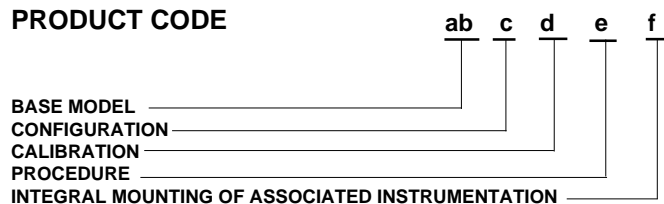
p	Electrical options	Labels language	
Standard terminal block		English	1
		German	2
		Italian	7
Surge protector (Note)		English	3
		German	4
		Italian	8
Terminal block for external meter (Note)		English	5
		German	6
		Italian	9

Note : not available with output code P and F at position "l"

ORDERING INFORMATION

Select one character or set of characters from each category and specify complete catalog number in addition to each transmitter code, if required.

PRODUCT CODE



ab	BASE MODEL - 1st to 2nd characters	Code
	Supplementary code	SC

c	CONFIGURATION - 3rd character	
	Standard - Pressure = kPa; Temperature = deg. C	1
	Standard - Pressure = inH2O/psi (@ 20°C); Temperature = deg. F	2
	Standard - Pressure = inH2O/psi (@ 4°C); Temperature = deg. F	3
	Standard - Pressure = inH2O/psi (@ 20°C); Temperature = deg. C	4
	Standard - Pressure = inH2O/psi (@ 4°C); Temperature =- deg. C	5
	Custom	C

d	CALIBRATION - 4th character			
	Calibration range	Calibration		
	Standard (max span = 0 to URL)	Reference temperature	None	1
		Operating temperature	Yes (3 copies)	2
			None	3
			Yes (3 copies)	4
	At specified range	Reference temperature	None	5
		Operating temperature	Yes (3 copies)	6
			None	7
			Yes (3 copies)	8

e	5th character		
	PROCEDURE	Material traceability	
	None	None	0
		To EN10204 - 3.1.B (certificates for flanges, adapters, diaphragms)	A
		To EN10204 - 2.1 (declaration for instrument)	B

f	INTEGRAL MOUNTING OF ASSOCIATED INSTRUMENTATION - 6th character	
	None	0



The Company's policy is one of continuous product improvement and the right is reserved to modify the specifications contained herein without notice.

SS/624ES-BEV Rev. 2

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