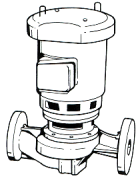


JOB:	REPRESENTATIVE:	
UNIT TAG:	ORDER NO.:	DATE:
ENGINEER:	SUBMITTED BY:	DATE:
CONTRACTOR:	APPROVED BY:	DATE:



4x4x9.5B

Series e-80

In-Line Mounted Centrifugal Pumps

SPECIFICATIONS

FLOW _____ HEAD _____

HP _____ RPM _____

VOLTS _____

CYCLE _____ INPUT PHASE _____

ENCLOSURE _____

APPROX. WEIGHT _____

SPECIALS _____

MATERIALS OF CONSTRUCTION

Stainless Steel Fitted

MAXIMUM WORKING PRESSURE

- 175 psi (12 bar) with 125# ANSI flange drilling
- 250 psi (17 bar) with 250# ANSI flange drilling (requires 80-S)
- 300 psi (21 bar) W.P. with 250# ANSI flange drilling (Requires -S and EPR-Silicon Carbide-Silicon Carbide Seal)

MOUNTING

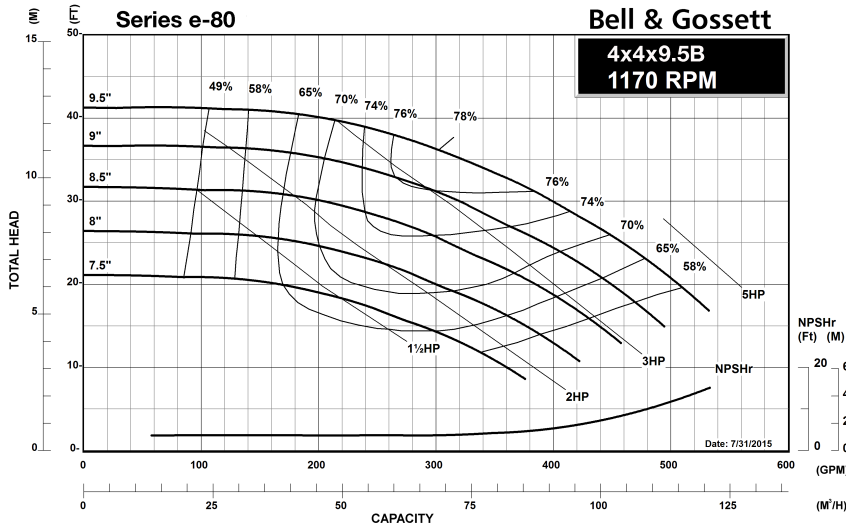
- In-Line Piping
- Flange Supports

PUMP VARIABLE SPEED CONTROL

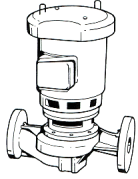
- Integrated Technologic® Sensorless Control (ITSC)
- Integrated Technologic® (IT)
 - External input by others
 - Pressure Sensor(s)
 - Differential Pressure Sensor(s)
 - Flow Sensor(s)
- By Others

TYPE OF SEAL

- F Standard Seal w/ Flush Line (Buna-Carbon/Ceramic)
- S Stuffing Box construction w/ Flushed Mechanical Single Seal (EPR-Tungsten Carbide/Carbon)
- PF Stuffing Box Construction w/ Flushed Packing (Graphite Impregnated PTFE)



JOB:	REPRESENTATIVE:	
UNIT TAG:	ORDER NO.:	DATE:
ENGINEER:	SUBMITTED BY:	DATE:
CONTRACTOR:	APPROVED BY:	DATE:



4x4x9.5B

Series e-80

In-Line Mounted Centrifugal Pumps

SPECIFICATIONS

FLOW _____ HEAD _____

HP _____ RPM _____

VOLTS _____

CYCLE _____ INPUT PHASE _____

ENCLOSURE _____

APPROX. WEIGHT _____

SPECIALS _____

MATERIALS OF CONSTRUCTION

Stainless Steel Fitted

MAXIMUM WORKING PRESSURE

- 175 psi (12 bar) with 125# ANSI flange drilling
- 250 psi (17 bar) with 250# ANSI flange drilling (requires 80-S)
- 300 psi (21 bar) W.P. with 250# ANSI flange drilling (Requires -S and EPR-Silicon Carbide-Silicon Carbide Seal)

MOUNTING

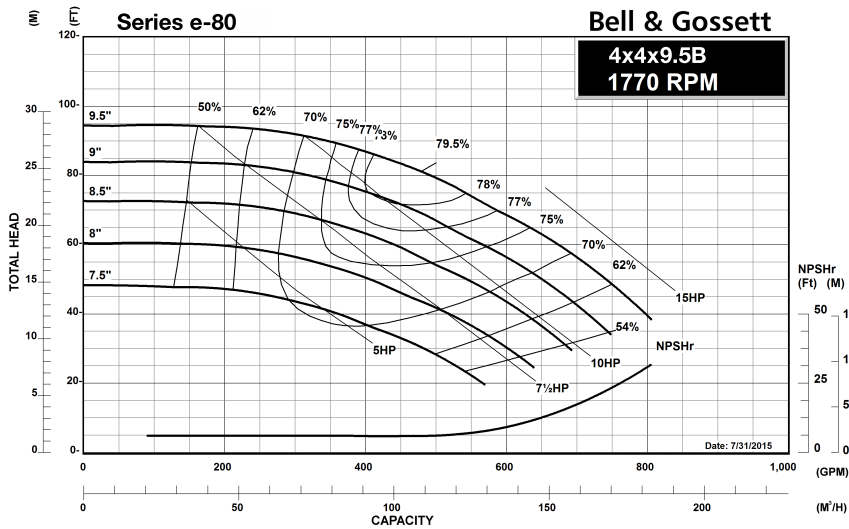
- In-Line Piping
- Flange Supports

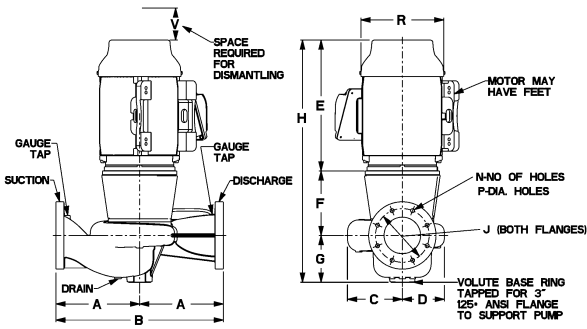
PUMP VARIABLE SPEED CONTROL

- Integrated Technologic® Sensorless Control (ITSC)
- Integrated Technologic® (IT)
 - External input by others
 - Pressure Sensor(s)
 - Differential Pressure Sensor(s)
 - Flow Sensor(s)
- By Others

TYPE OF SEAL

- F Standard Seal w/ Flush Line (Buna-Carbon/Ceramic)
- S Stuffing Box construction w/ Flushed Mechanical Single Seal (EPR-Tungsten Carbide/Carbon)
- PF Stuffing Box Construction w/ Flushed Packing (Graphite Impregnated PTFE)





4x4x9.5B Series e-80 Centrifugal Pump Submittal - In-Line Piping

DIMENSIONS - Inches (mm)

STANDARD SEAL

MOTOR FRAME	A	B	C	D	E (max)	F	G	H (max)	125# ANSI			250# ANSI			R	S (Max)*	V (min)	Suct/Disch Gauge Taps (NPT)	Drain Tap (NPT)
									J	N	P	J	N	P					
									182JM	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	15.31 (389)					
184JM	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	15.31 (389)	5.13 (130)	7.25 (184)	27.69 (703)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (298)	11.75 (298)	1.00 (25)	5.00 (127)	0.25	0.25
213JM	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	19.25 (489)	5.13 (130)	7.25 (184)	31.62 (803)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
215JM	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	19.25 (489)	5.13 (130)	7.25 (184)	31.62 (803)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
254JM	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	24.13 (613)	6.13 (156)	7.25 (184)	37.50 (952)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (432)	17.00 (432)	-	5.00 (127)	0.25	0.25

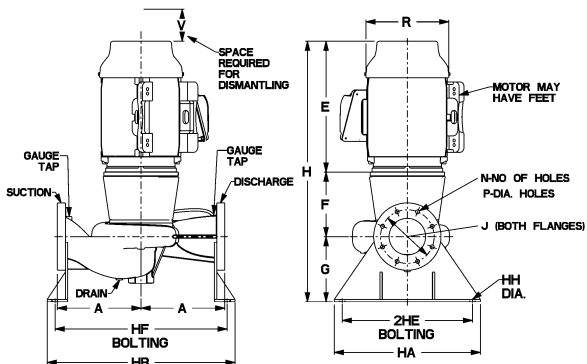
STUFFING BOX

MOTOR FRAME	A	B	C	D	E (max)	F	G	H (max)	125# ANSI			250# ANSI			R	S (Max)*	V (min)	Suct/Disch Gauge Taps (NPT)	Drain Tap (NPT)
									J	N	P	J	N	P					
									182JP	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	15.31 (389)					
184JP	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	15.31 (389)	8.25 (210)	7.25 (184)	30.81 (783)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (298)	11.75 (298)	1.00 (25)	5.00 (127)	0.25	0.25
213JP	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	19.25 (489)	9.00 (229)	7.25 (184)	35.50 (902)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
215JP	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	19.25 (489)	9.00 (229)	7.25 (184)	35.50 (902)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
254JP	12.50 (318)	25.00 (635)	6.51 (165)	7.94 (202)	24.13 (613)	9.00 (229)	7.25 (184)	40.37 (1026)	7.50 (191)	8 (19)	0.75 (19)	7.88 (200)	8 (22)	0.88 (432)	17.00 (432)	-	5.00 (127)	0.25	0.25

Dimensions are subject to change. Not to be used for construction purposes unless certified.

NOTE: For Single phase Motors add 1" to dimensions E & H.

*Dimensions are for ODP Motors. For TEFC add S dimension to dimensions E & H.



4x4x9.5B Series e-80 Centrifugal Pump Submittal - Flange Support Mounting

DIMENSIONS - Inches (mm)

STANDARD SEAL

MOTOR FRAME	A	HF BOLTING	HB	2HE BOLTING	HA	HH DIA	E (max)	F	G	H (max)	125# ANSI			250# ANSI			R	S (Max)*	V (min)	Suct/Disch Gauge Taps (NPT)	Drain Tap (NPT)
											J	N	P	J	N	P					
182JM	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	15.31 (389)	5.13 (130)	7.25 (184)	27.69 (703)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (298)	11.75 (298)	1.00 (25)	5.00 (127)	0.25	0.25
184JM	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	15.31 (389)	5.13 (130)	7.25 (184)	27.69 (703)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (298)	11.75 (298)	1.00 (25)	5.00 (127)	0.25	0.25
213JM	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	19.25 (489)	5.13 (130)	7.25 (184)	31.62 (803)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
215JM	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	19.25 (489)	5.13 (130)	7.25 (184)	31.62 (803)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
254JM	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	24.13 (613)	6.13 (156)	7.25 (184)	37.50 (952)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (432)	17.00 (432)	-	5.00 (127)	0.25	0.25

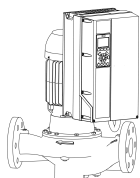
STUFFING BOX

MOTOR FRAME	A	HF BOLTING	HB	2HE BOLTING	HA	HH DIA	E (max)	F	G	H (max)	125# ANSI			250# ANSI			R	S (Max)*	V (min)	Suct/Disch Gauge Taps (NPT)	Drain Tap (NPT)
											J	N	P	J	N	P					
182JP	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	15.31 (389)	8.25 (210)	7.25 (184)	30.81 (783)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (298)	11.75 (298)	1.00 (25)	5.00 (127)	0.25	0.25
184JP	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	15.31 (389)	8.25 (210)	7.25 (184)	30.81 (783)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (298)	11.75 (298)	1.00 (25)	5.00 (127)	0.25	0.25
213JP	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	19.25 (489)	9.00 (229)	7.25 (184)	35.50 (902)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
215JP	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	19.25 (489)	9.00 (229)	7.25 (184)	35.50 (902)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (356)	14.00 (356)	-	5.00 (127)	0.25	0.25
254JP	12.50 (318)	26.66 (677)	30.16 (766)	21.50 (546)	25.00 (635)	0.88 (22)	24.13 (613)	9.00 (229)	7.25 (184)	40.37 (1026)	7.50 (191)	8 (19)	0.75 (200)	7.88 (22)	8 (22)	0.88 (432)	17.00 (432)	-	5.00 (127)	0.25	0.25

Dimensions are subject to change. Not to be used for construction purposes unless certified.

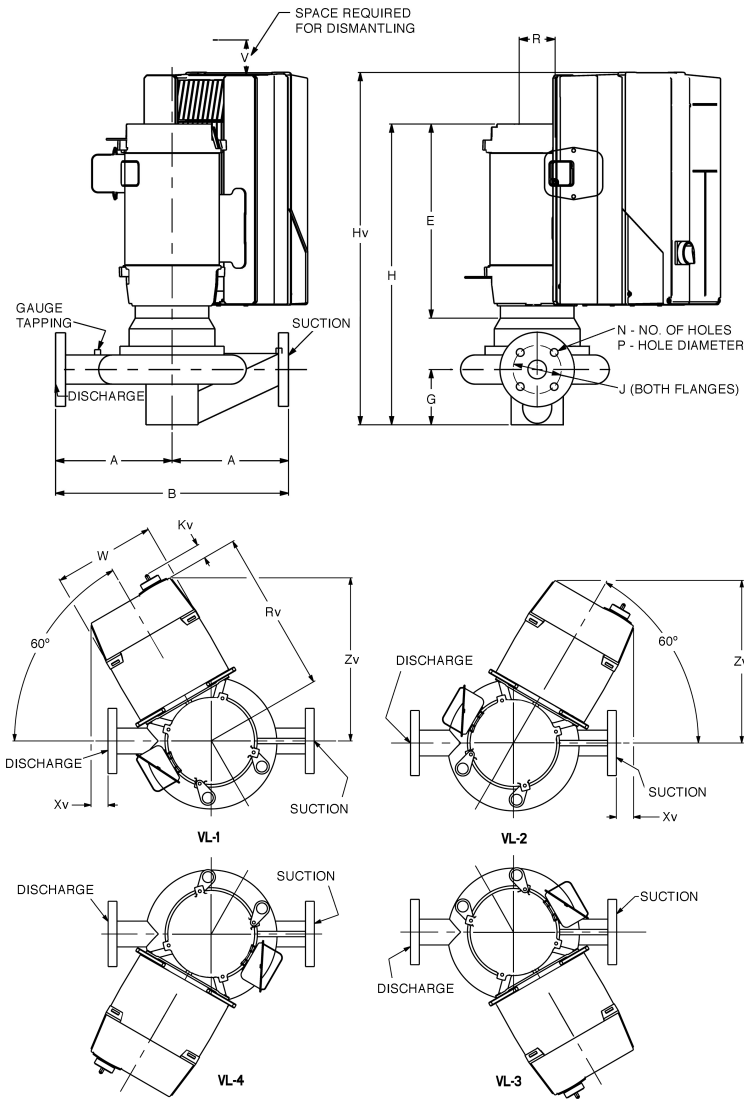
NOTE: For Single phase Motors add 1" to dimensions E & H.

*Dimensions are for ODP Motors. For TEFC add S dimension to dimensions E & H.



4x4x9.5B Series e-80 In-Line Mounted Centrifugal Pumps With Integrated Technologic® Control

TECHNOLOGIC STANDARD FEATURES	
CONTROL METHOD WITH INTEGRATED TECHNOLOGIC® SENSORLESS CONTROL (ITSC)	Factory configured for sensorless operation.
CONTROL METHOD WITH INTEGRATED TECHNOLOGIC® (IT)	Field configurable for sensor by others, building management system input, or optional sensor(s) provided.
ENCLOSURE	NEMA 12 (same as IP55 & UL type 12)
POWER DISCONNECT SWITCH	Included standard. Fused Disconnect Switch optional with three phase input voltage.
HARMONIC SUPPRESSION	Integrated non-saturating dual DC link reactors provide better harmonic performance than a 5% AC line reactor.
COOLING	Fan-cooled through temperature controlled and easy replacement.
AMBIENT TEMPERATURE RATING	14°F to 113°F (-10°C to 45°C)
COMMUNICATION PROTOCOLS	BACnet, Modbus RTU, N2 Metasys, FLN Apogee
ANALOG INPUTS	2 configurable for either voltage (0 to 10VDC) or current(0/4 to 20mA)
ANALOG OUTPUTS	1 (0/4 to 20mA) up to 500 ohm load accurate to 1% of full scale
DIGITAL INPUTS	4 (0 to 24VDC), NPN or PNP, 0 to 24VDC, on 5 msec scan interval, Up to 2 can be configured as pulse inputs.
DIGITAL OUTPUTS	2 (0 to 24VDC), 40mA max current, configurable as pulse outputs.
RELAY OUTPUTS	2 programmable, 240VAC or 400VAC up to 2 A
MINIMUM CONTROL HEAD	_____ ft (default set to 40% of design head if not unknown)



Series e-80 4x4x9.5B

B-139.20

In-Line Mounted Centrifugal Pumps
With Integrated Technologic® Control

DIMENSIONS - Inches (mm)							STUFFING BOX						
STANDARD SEAL													
MOTOR FRAME	VFD	Rv	Zv	W	Hv	Xv	MOTOR FRAME	VFD	Rv	Zv	W	Hv	Xv
182JM	A5	12.78125 324.64375	13.1875 334.9625	9.5 241.3	30.71875 780.25625	2.4375 61.9125	182JP	A5	12.78125 324.64375	13.1875 334.9625	9.5 241.3	33.84375 859.63125	2.4375 61.9125
	B1	15.07125 382.80975	14.7875 375.6025	9.5 241.3	31.71875 805.65625	4.0375 102.5525		B1	15.07125 382.80975	14.7875 375.6025	9.5 241.3	34.84375 885.03125	4.0375 102.5525
184JM	A5	12.78125 324.64375	13.1875 334.9625	9.5 241.3	30.71875 780.25625	2.4375 61.9125	184JP	A5	12.78125 324.64375	13.1875 334.9625	9.5 241.3	33.84375 859.63125	2.4375 61.9125
	B1	15.07125 382.80975	14.7875 375.6025	9.5 241.3	31.71875 805.65625	4.0375 102.5525		B1	15.07125 382.80975	14.7875 375.6025	9.5 241.3	34.84375 885.03125	4.0375 102.5525
213JM	A5	13.531 343.6874	13.828125 351.234375	9.5 241.3	34.078125 865.584375	2.0625 52.3875	213JP	A5	13.531 343.6874	13.828125 351.234375	9.5 241.3	37.953125 964.009375	2.0625 52.3875
	B1	15.844 402.4376	15.844 402.4376	9.5 241.3	35.671875 906.065625	0.875 22.225		B1	15.844 402.4376	15.844 402.4376	9.5 241.3	39.546875 1004.490625	0.875 22.225
	B2	15.844 402.4376	15.844 402.4376	9.5 241.3	41.411875 1051.861625	0.875 22.225		B2	15.844 402.4376	15.844 402.4376	9.5 241.3	45.286875 1150.286625	0.875 22.225
215JM	A5	13.531 343.6874	13.828125 351.234375	9.5 241.3	31.234375 793.353125	2.0625 52.3875	215JP	A5	13.531 343.6874	13.828125 351.234375	9.5 241.3	36.734375 933.053125	2.0625 52.3875
	B1	15.844 402.4376	15.844 402.4376	9.5 241.3	34.140625 867.171875	0.875 22.225		B1	15.844 402.4376	15.844 402.4376	9.5 241.3	38.265625 971.946875	0.875 22.225
	B2	15.844 402.4376	15.844 402.4376	9.5 241.3	39.880625 1012.967875	0.875 22.225		B2	15.844 402.4376	15.844 402.4376	9.5 241.3	44.005625 1117.742875	0.875 22.225
	C1	17.814 452.4756	19.044 483.7176	12.1 307.34	41.900625 1064.275875	4.075 103.505		C1	17.814 452.4756	19.044 483.7176	12.1 307.34	46.025625 1169.050875	4.075 103.505
254JM	B1	16.828125 427.434375	16.703125 424.259375	9.5 241.3	40.375 1025.525	0.375 9.525	254JP	B1	16.828125 427.434375	16.703125 424.259375	9.5 241.3	43.25 1098.55	0.375 9.525
	B2	16.828125 427.434375	16.703125 424.259375	9.5 241.3	44.835 1138.809	0.625 15.875		B2	16.828125 427.434375	16.703125 424.259375	9.5 241.3	47.71 1211.834	0.625 15.875
	C1	18.798125 477.472375	19.903125 505.539375	12.1 307.34	46.095 1170.813	3.825 97.155		C1	18.798125 477.472375	19.903125 505.539375	12.1 307.34	48.97 1243.838	3.825 97.155

NOTE: Drives with single phase input have three phase output and include three phase motors.
Kv=2 (50)

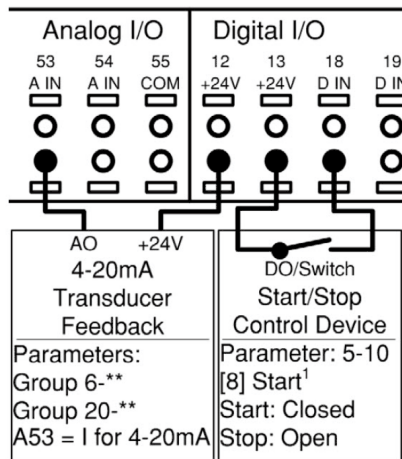


Pressure Sensor/Transmitter For Pumps with TECHNOLOGIC® Drives

FEATURES

- 4-20mA output
- 10-28 VDC supply voltage
- Operating Temperature -40 to 85°C (-40 to 185°F)
- Storage Temperature -40 to 100°C (-40 to 212°F)
- Enclosure IP-66 (housing only)
- High Strength Stainless Steel Construction
- No Oil, Welds or Internal O-rings
- Wide Operating Temperature
- Low Static and Thermal Errors
- Compatible with Wide Variety of Liquids and Gases
- EMI/RFI Protection
- UL/cUL 508 Approved (with housing)
- 1lb. (0.45 kg) approximate weight

TECHNOLOGIC ANALOG SENSOR WIRING



B&G PART NUMBERS

- S13203 Pressure range: 0-100 psi (0-689 kPa)
- S13204 Pressure range: 0-300 psi (0-2068 kPa)

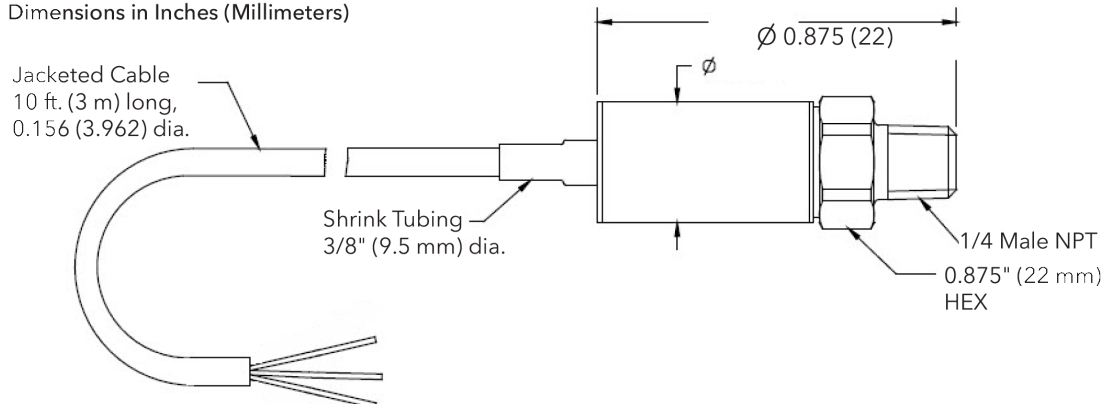
Consult factory for other ranges.

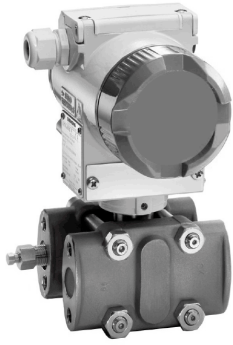
INSTALLATION CONSIDERATIONS

- Standard 24 AWG (0.61 mm dia.) 2 wire shielded cable located in a conduit separate from high voltage wiring
- 24 vdc power supplied from Technologic Controller

DIMENSIONAL INFORMATION

Dimensions in Inches (Millimeters)



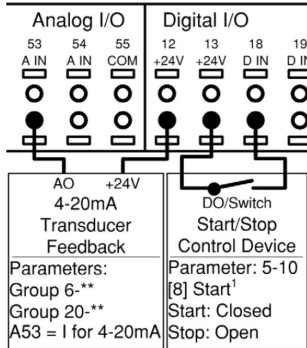


Differential Pressure Sensor/ Transmitter For Pumps with TECHNOLOGIC® Drives

FEATURES

- Relays reading to the Technologic controller up to 2000 ft. (610 m) away
- All wetted parts are 316 stainless steel
- Built-in RFI filter effective from 20 to 1000 MHz
- Withstands static pressures up to 2300 PSI (15858 kPa)
- 3 Valve bypass manifold (optional)
- 10 lbs. (4.5 kg) approximate weight

TECHNOLOGIC ANALOG SENSOR WIRING



B&G PART NUMBERS

- S100089 Pressure range: 0 - 40 psi (0 - 276 kPa)
- S100091 Pressure range: 0 - 70 psi (0 - 483 kPa)
- S100092 Pressure range: 0 - 100 psi (0 - 689 kPa)

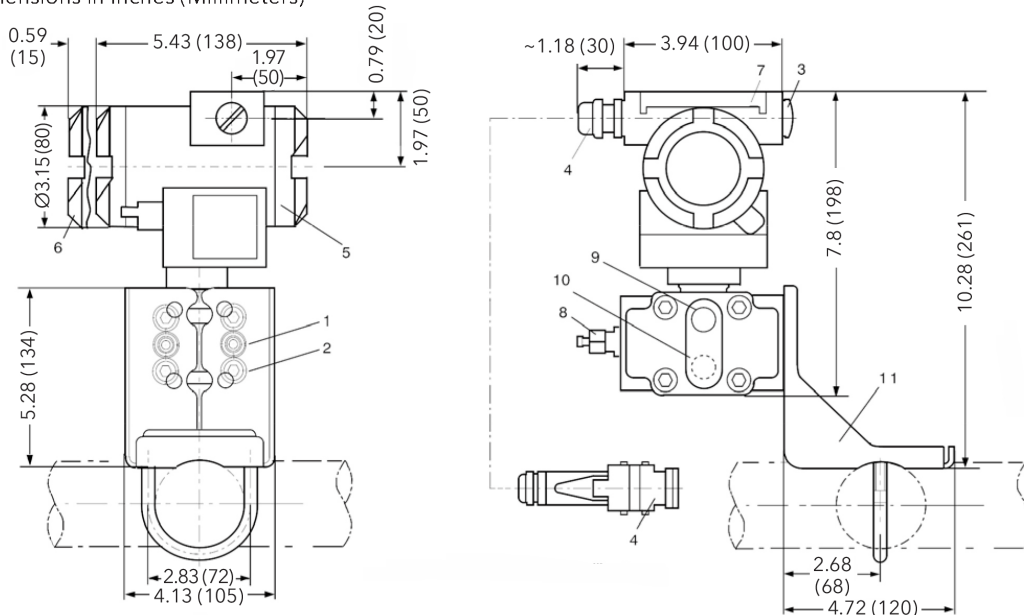
Consult factory for other ranges.

INSTALLATION CONSIDERATIONS

- Standard 18 AWG (1.194 mm dia.) 2 wire shielded cable located in a conduit separate from high voltage wiring
- 24 vdc power supplied from Technologic Controller for distance <2000 ft (610 m)

DIMENSIONAL INFORMATION

Dimensions in Inches (Millimeters)



- 1 Process connection 1/4-18NPT for absolute pressure (+) side
- 2 Mounting thread 7/16-20 UNF to EN 61518
- 3 Dummy plug
- 4 Electrical connection: Screwed gland 1/2-14 NPT
- 5 Connection side

- 6 Electronic side, no digital display
- 7 Access cover over magnetic pushbuttons
- 8 Sealing screw with vent shown (optional)
- 9 Side vent for measuring liquid
- 10 Side vent for measuring gas (supplement H02)
- 11 Mounting bracket (2 shackles, 4 nuts, 4 U-plates, 1 angle) made of steel



Flow Sensor/Transmitter For Pumps with TECHNOLOGIC® Drives

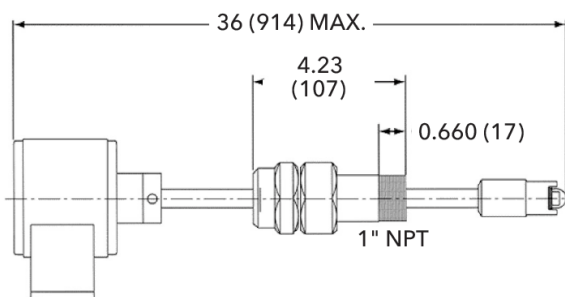
The rugged Bell & Gossett Flow Sensor/Transmitter precisely measures system flow and transmits a proportional 4 to 20 mA DC signal to the Technologic Controller for display or program calculations.

FEATURES

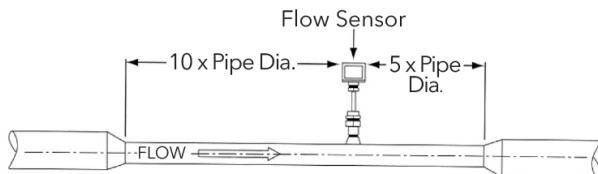
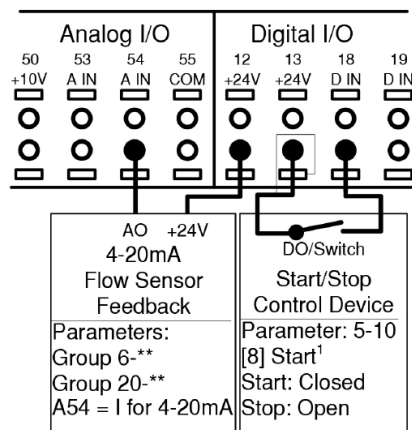
- Suitable for mounting in vertical pipe
- Suitable for mounting in horizontal pipe within 45° of top dead center
- Non-magnetically sensed, non-fouling paddle wheel
- NEMA 4X Transmitter Enclosure
- Maximum Pressure Ratings:
 - 1000 psi @ 100°F, 900 psi @ 200°F,
 - 750 psi @ 300°F (6895 kPa @ 38°C, 6205 kPa @ 93°C, 5171 kPa @ 149°C)
- Maximum Temperature Ratings:
 - Fluid - 300°F (149°C) continuous service
 - Electronics - 150°F (66°C)
- Optional software and cable available for field programming
- 9.9 lbs (4.5 kg) approximate weight

DIMENSIONAL INFORMATION

Dimensions in Inches (Millimeters)



TECHNOLOGIC ANALOG SENSOR WIRING



INSTALLATION CONSIDERATIONS

- Standard 18 AWG (1.194 mm dia.) gauge 3 wire shielded cable located in conduit separate from high voltage wiring
- 24 vdc power supplied from Technologic Controller
- Takes accurate readings and relays them to the Technologic Controller up to 2,000 ft. (610 m) away, when 10 pipe diameters upstream and 5 pipe diameters downstream of straight uninterrupted flow is present.

CALIBRATION CHART		
B&G Part No.	Pipe Size	Max. Flow
137411	3" Sch 40	250 gpm (16 l/sec)
137412	4" Sch 40	400 gpm (25 l/sec)
137413	6" Sch 40	850 gpm (54 l/sec)
137414	8" Sch 40	1750 gpm (110 l/sec)
137415	10" Sch 40	3150 gpm (199 l/sec)
137416	12" Sch 40	5000 gpm (315 l/sec)
137417	14" Sch 40	6400 gpm (404 l/sec)
137418	16" Sch 40	9100 gpm (574 l/sec)
137419	18" Sch 40	12400 gpm (782 l/sec)
137420	20" Sch 40	16500 gpm (1041 l/sec)

Consult factory for custom flow range calibration.