IGP10, IGP20 Intelligent Gauge Pressure Transmitters
IAP10 Intelligent Absolute Pressure Transmitter

- IGP10 for compact light weight and direct-to-process mounting (bracket optionally available)
- IGP20, bracket mounted, for lower ranges, more material options, and vacuum service
- Field-proven silicon strain gauge technology
- Corrosion-resistant epoxy finish
- Accuracy to ± 0.07 % of span
- Ambient temperature effects to ± 0.2 % URL per 55 °C (100 °F) change
- Intelligent FOXCOM & HART / 4 to 20 mA version or economical 4 to 20 mA version
- LCD Indicator / Pushbutton Configurator to set zero, span, display units, etc. Optional on Digital / 4 to 20 mA version, Standard on 4 to 20 mA version



These Intelligent, two-wire transmitters provide precise, reliable, measurement of gauge or absolute pressure, and transmit a 4 to 20 mA output signal with a superimposed HART/ FOXCOM digital signal for remote configuration and monitoring.

IGP10 Span, Range and Overrange Limits
IAP10 Span, Range and Overrange Limits

Span Limits Code	Span Limits			Range Limits			Maximum Overrange		
	kPa	psi	bar (kg/cm²)	kPa	psi	bar (kg/cm²)	kPa	psi	bar (kg/cm²)
C	7 & 210	1 & 30	0.07 & 2.1	0 & 210	0 & 30	0 & 2.1	310	45	3.15
D	70 & 2100	10 & 300	0.7 & 21	0 & 2100	0 & 300	0 & 21	3100	450	31.5
E	700 & 21000	100 & 3000	7 & 210	0 & 21000	0 & 3000	0 & 210	31000	4500	315

IGP20 Span, Range and Overrange Limits

Span Limits Code	Span Limits			Range Limits			Maximum Overrange		
	kPa	psi	bar (kg/cm²)	kPa	psi	bar (kg/cm²)	kPa	psi	bar (kg/cm²)
B	0.87 & 50	0.125 & 7	0.0087 & 0.5	–50 & 50	–7 & 7	–0.5 & 0.5	25000	3625	250
C	7 & 210	1 & 30	0.07 & 2.1	–100 & 210	–14.7 & 30	–1 & 2.1	25000	3625	250
D	70 & 2100	10 & 300	0.7 & 21	–100 & 2100	–14.7 & 300	–1 & 21	25000	3625	250
E	700 & 21000	100 & 3000	7 & 210	–100 & 21000	–14.7 & 3000	–1 & 210	25000	3625	250

Temperature Limits

	Fill fluid Flourinert	Fill fluid Silicone
Ambient:	–29 to 85 °C (–20 to 185 °F)	–40 to 85 °C (–40 to 185 °F)
Sensor:	–29 to 121 °C (–20 to 250 °F)	–46 to 121 °C (–50 to 250 °F)

Accuracy (Includes Linearity, Hystersis, and Repeatability)

Electronics Version	Configured Output Signal	Accuracy in % of Calib. Span
-D & -T	Digital 4 to 20 mA	± 0.07 ± 0.1
-I	4 to 20 mA	± 0.2

Ambient Temperature Effect

Total effect for a 55 °C (100 °F) change within Normal Operating Conditions limit is:

Electronics -D, -T: ± 0.2 % of URL

Electronics -I: ± (0.2 % of URL + 0.1 % of span)

For complete specifications, refer to Product Specification Sheet PSS 2A-1C13 B

Model Codes IGP10

Intelligent Direct Connected Gauge Pressure Transmitter **IGP10**

Electronics Versions and Output Signal
- Intelligent; Digital FoxCom and/or 4 to 20 mA dc, Configurable . . . -D
- Intelligent; Digital HART and 4 to 20 mA . . . -T
- 4 to 20 mA Analog Output, Explosionproof and Intrinsically Safe . . . -I

Structure Code - Process Connection, Sensor, and Fill Fluid

Process Connection Mat'l	Sensor	Fill Fluid	
316L ss	Co-Ni-Cr	Silicone	20
316L ss	Co-Ni-Cr	Fluorinert	21
316L ss	316L ss	Silicone	22
316L ss	316L ss	Fluorinert	23

Span Limits - Absolute or Gauge Pressure Units, as Applicable

MPa	psi	bar or kg/cm²	
0.007 and 0.21	1 and 30	0.07 and 2.1	C
0.07 and 2.1	10 and 300	0.7 and 21	D
0.7 and 21	100 and 3000	7 and 210	E

Conduit Connection
- 1/2 NPT Conduit Connection, Both Sides . . . 1
- PG 13.5 Conduit Connection, Both Sides (available only with Electrical Safety Codes E & N . . . 2

Electrical Safety (See Electrical Safety Specifications Section)
- **CENELEC** Certified Intrinsically Safe, ia . . . E
- **CSA** Certified . . . N
- **EUROPEAN** Ex, N, IIC. Nonsparking . . . C
- **FM** Approved . . . F
- **SAA** Certified, EEx, d, IIC . . . A

Options

Mounting Bracket Set
- Painted Steel Bracket with Plated Steel Bolts . . . M1
- Stainless Steel Bracket with Stainless Steel Bolts . . . M2

Digital Indicator with Pushbuttons (standard equipment on IGP10-I)
- Digital Indicator, Pushbuttons, and Window Cover (for Electr Version D & T only) . . . -L1

Vent Screw and Block & Bleed Valve
- Vent Screw in Process Connection for IGP10/IAP10; or in High Side Process Cover for IGP20 . . . V1
- Block and Bleed Valve, Carbon Steel . . . V2
- Block and Bleed Valve, 316 ss . . . V3
- Block and Bleed Valve, 316 ss Body w/Monel Trim (NACE Approved) . . . V4

Conduit Thread Adapters
- Hawke-Type 1/2 NPT Cable Gland for use with Conduit Connection Code "1" . . . A1
- Plastic PG 13.5 Connector for use with Conduit Connection Code "2" (available only with Electrical Safety Codes E & N) . . . A2
- M20 Connector for use with Conduit Connection Code "1" . . . A3

Electronics Housing Features
- External Zero Adjustment . . . Z1
- Custody Transfer Lock and Seal . . . Z2
- External Zero Adjustment and Custody Transfer Lock and Seal . . . Z3

Factory Configuration
- Digital Output (4 to 20 mA Default if not selected) . . . C1
- Full Factory Configuration (Requires Configuration Form to be filled out) . . . C2

Miscellaneous Optional Selections
- G 1/2 B Manometer Process Connection (Not Available with Option "-V1") . . . G
- R 1/2 Process Connection (1/2 NPT to R 1/2 Adapter) . . . R
- Five Year Warranty . . . W
- Supplemental Customer Tag (Stainless Steel Tag wired onto Transmitter) . . . T

Model Codes IGP20

Intelligent Bracket-Mounted Gauge Pressure Transmitter							**IGP20**					
Electronics Versions and Output Signal												
Digital, FOXCOM, or 4 to 20 mA dc, Software Selectable								D				
Digital, HART/4 to 20 mA								T				
4 to 20 mA								I				
Structure Code - Process Cover, Sensor Material, and Sensor Fill Fluid												
Hi-Side Cover	**Sensor Material**		**Fill Fluid**									
Steel	Co-Ni-Cr		Silicone						10			
Steel	Co-Ni-Cr		Fluorinert						11			
Steel	316L ss		Silicone						12			
Steel	316L ss		Fluorinert						13			
Steel	Hastelloy C		Silicone						16			
Steel	Hastelloy C		Fluorinert						17			
316 ss	Co-Ni-Cr		Silicone		Value Package				20			
316 ss	Co-Ni-Cr		Fluorinert						21			
316 ss	316L ss		Silicone						22			
316 ss	316L ss		Fluorinert						23			
316 ss	Hastelloy C		Silicone						26			
316 ss	Hastelloy C		Fluorinert						27			
Hastelloy C	Hastelloy C		Silicone						46			
Hastelloy C	Hastelloy C		Fluorinert						47			
Span Limits (Differential Pressure Units)												
kPa	psi		mbar		inH_2O		mmHg					
0.87 and 50	0.125 and 7		8.7 and 500		3.5 and 200		6.5 and 375			B		
MPa	psi		bar or kg/cm^2		inH_2O		mmHg					
0.007 and 0.21	1 and 30		0.07 and 2.1		28 and 840		52 and 1550			C		
0.07 and 2.1	10 and 300		0.7 and 21							D		
0.7 and 21	100 and 3000		7 and 210							E		
Process Connector Type (Material Same as Process Cover Material)												
None, Cover tapped for 1/4 NPT											0	
1/4 NPT											1	
1/2 NPT											2	
Rc 1/4											3	
Rc 1/2											4	
1/2 Schedule 80 Welding Neck											6	
Conduit Connection												
1/2 NPT Conduit Connection, Both Sides												1
PG 13.5 Conduit Connection, Both Sides (available only with Electrical Safety Codes E & N)												2
Electrical Safety (See Electrical Safety Specifications Section for Description)												
CENELEC Certified Intrinsically Safe, ia												E
CENELEC Certified Flameproof, d												D
CSA Certified, ia, d, and n												C
EUROPEAN Ex, N, IIC. Nonsparking												N
FM Approved, ia, d, and n												F
SAA Certified, EEx, d, IIC												A
Options												
Mounting Bracket Set												
Painted Steel Bracket with Plated Steel Bolts												M1
Stainless Steel Bracket with Stainless Steel Bolts												M2
Indicator with Internal Pushbuttons (Standard equipment on Electr. Version I)												
Digital Indicator, Pushbuttons, and Window Cover, for Electr. Version D & T only												L1
DIN 19213 Construction, used with Process Connector Code 0 and 316 ss Covers Only(b)												
Single Ended Process Cover with M10, B7 Steel Bolting												D1
Double Ended Process Cover with M10, B7 Steel Bolting (Blind Kidney Flange on Back)(c)(d)												D2
Single Ended Process Cover with 7/16 in, B7 Steel Bolting												D3
Double Ended Process Cover with 7/16 in, B7 Steel Bolting (Blind Kidney Flange on Back)(c)(d)												D4
Cleaning and Preparation												
Unit Degreased - (Not for Oxygen/Chlorine) (Available only with Structu-re Codes having Silicone)												X1
Cleaned and Prepared for Oxygen Service (Available only withStructure Codes having Flourinert and not available with carbon steel process covers)												X2
Cleaned and Prepared for Chlorine Service (Available only with Structure Codes having Flourinert and not available with carbon steel process covers) (Includes 17-4 ss bolts; do not specify option B2												X3
Bolting for Process Covers and Process Connectors												
316 ss Bolts and Nuts (Maximum upper range limit pressure 150 bar or 2175 psi)												B1
17-4 ss Bolts and Nuts												B2

(continued on next page)

Model Codes IGP20 (continued)

Options (continued)	
Conduit Thread Adapters	
Hawke-Type 1/2 NPT Cable Gland (for use with 1/2 NPT Conduit Connection Code 1)	A1
Plastic PG 13.5 Connector (for use with PG 13.5 Conduit Connection Code 2) (available only with Electrical Safety Codes E & N)	A2
M20 Connector (for use with 1/2 NPT Conduit Connection Code 1)	A3
Electronics Housing Features	
External Zero Adjustment	Z1
Custody Transfer Lock and Seal	Z2
External Zero Adjustment and Custody Transfer Lock and Seal	Z3
Factory Configuration	
Digital Output (4 to 20 mA Default if not selected) (Electr. Version D only)	C1
Full Factory Configuration (Requires Configuration Form)	C2
Ermeto Connectors	
Steel, Connecting 6 mm Tubing to 1/4 NPT Process Connector	E1
Steel, Connecting 12 mm Tubing to 1/2 NPT Process Connector	E2
316 ss, Connecting 6 mm Tubing to 1/4 NPT Process Connector	E3
316 ss, Connecting 12 mm Tubing to 1/2 NPT Process Connector	E4
Miscellaneous Optional Selections	
Vent Screw In Side of Process Cover	V
Five Year Warranty	W
Supplemental Customer Tag	T

(a) Refer to PSS 2A-1Z9 E for option descriptions, and for additional optional features and accessories not listed in Model Code.
(b) See Functional Specifications section for pressure deratings when certain DIN 19213 versions are specified.
(c) Temperature limits derated to 0 and 60°C (32 and 140°F).
(d) Mounting Set option is not available.

Model Codes IAP10

Intelligent Direct Connected Absolute Pressure Transmitter	**IAP10**							
Electronics Versions and Output Signal								
Digital FOXCOM or 4 to 20 mA dc, Software Selectable	-D							
Digital HART and 4 to 20 mA	-T							
4 to 20 mA Analog Output	-I							
Structure Code - Process Connection, Sensor, and Fill Fluid								
Process Connection Mat'l	**Sensor**	**Fill Fluid**						
316L ss	Co-Ni-Cr	Silicone. . Val. Pkg.	20					
316L ss	Co-Ni-Cr	Fluorinert	21					
316L ss	316L ss	Silicone	22					
316L ss	316L ss	Fluorinert	23					
Span Limits - Absolute or Gauge Pressure Units, as Applicable								
MPa	**psi**	**bar or kg/cm²**						
0.007 and 0.21	1 and 30	0.07 and 2.1		C				
0.07 and 2.1	10 and 300	0.7 and 21		D				
0.7 and 21	100 and 3000	7 and 210		E				
Conduit Connection								
1/2 NPT Conduit Connection, Both Sides					1			
PG 13.5 Conduit Connection, Both Sides (available only with Electrical Safety Codes E & N					2			
Electrical Safety (See Electrical Safety Specifications Section)								
CENELEC Certified Intrinsically Safe, ia						E		
CSA Certified						C		
EUROPEAN Ex, N, IIC. Nonsparking						N		
FM Approved						F		
SAA Certified, EEx, d, IIC						A		
Options								
Mounting Bracket Set								
Painted Steel Bracket with Plated Steel Bolts							M1	
Stainless Steel Bracket with 316 ss Bolts							M2	
Indicator with Pushbuttons (standard equipment on IGP10-I)								
Digital Indicator, Pushbuttons, and Window Cover (for Electr Version D & T only)								-L1
Vent Screw and Block & Bleed Valve								
Vent Screw in Process Connection for IGP10/IAP10; or in High Side Process Cover for IGP20							V1	
Block and Bleed Valve, Carbon Steel							V2	
Block and Bleed Valve, 316 ss							V3	
Block and Bleed Valve, 316 ss Body w/Monel Trim (NACE Approved)							V4	
Conduit Thread Adapters								
Hawke-Type 1/2 NPT Cable Gland for use with Conduit Connection Code "1"							A1	
Plastic PG 13.5 Connector for use with Conduit Connection Code "2" (available only with Electrical Safety Codes E & N)							A2	
M20 Connector for use with Conduit Connection Code "1"							A3	
Electronics Housing Features								
External Zero Adjustment							Z1	
Custody Transfer Lock and Seal							Z2	
External Zero Adjustment and Custody Transfer Lock and Seal							Z3	
Factory Configuration								
Digital Output (4 to 20 mA Default if not selected)							C1	
Full Factory Configuration (Requires Configuration Form to be filled out)							C2	
Miscellaneous Optional Selections								
G 1/2 B Manometer Process Connection (Not Available with Option "-V1")							G	
R 1/2 Process Connection (1/2 NPT to R 1/2 Adapter)							R	
Five Year Warranty							W	
Supplemental Customer Tag (Stainless Steel Tag wired onto Transmitter)							T	