

## Description

Moore Industries' rugged and compact IPH Field-Mount Current-to-Pressure (I/P) Transmitter is designed specifically for extended duty in harsh field environments.

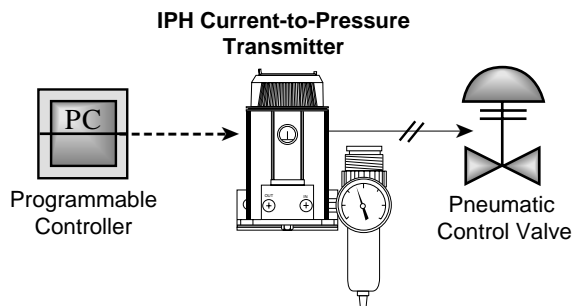
The 2-wire (loop-powered) IPH accepts a 4-20mA input from a DCS, PLC or PC-based control system. It converts the current signal to a pneumatic signal (3-15psig, 0.2-1 Bar, 20-100 kPa, etc.) to provide precise proportional control of valves, actuators, and other pneumatically-controlled devices. Reverse pneumatic outputs (15-3psig, 1-0.2 Bar, 100-20 kPa, etc.) are also available.

The IPH is available with an optional coalescing filter/regulator that combines an air filter and miniature supply line regulator with a pressure gauge that reads in both psi (0-60) and Bars (0-4).



*Exceptionally compact, the IPH's versatile mounting bracket provides quick installation, in any position (vertical or horizontal), on a surface or a 2-inch pipe.*

**Figure 1.** The IPH converts a current signal to a pneumatic signal so that a DCS, PLC, or PC-based control system can precisely control a pneumatic valve or actuator.



## Features

- Perfect for harsh field environments.** Meeting NEMA 4X and IP65 requirements, the IPH is watertight, dust-tight, and resistant to corrosion and chemicals.
- Saves installation costs.** Use the IPH to reduce costs by running electrical wiring instead of fragile and expensive pneumatic tubing to remote pneumatic devices.
- Mounts in any position.** The IPH's superior electromechanical design allows it to be mounted in any position without affecting performance.\*
- Vibration resistant.** Featuring an advanced high-technology sensor, the IPH operates flawlessly even when mounted next to a valve or similar high-vibration equipment.
- RFI/EMI protection.** Special circuit and housing designs protect against the harmful and unpredictable effects of radio frequency and electromagnetic interference.

\*For NEMA4X and IP65 Installations, the unit must be mounted vertically or within 45 degrees of vertical.

## Specifications

<p><b>Performance Accuracy:</b> Less than 0.5% of span including the combined effects of linearity, hysteresis, and repeatability-defined as independent linearity per SAMA standard PMC 20.1-1973. (For 3-27psig, error will not exceed 1% of span)</p> <p><b>Step Response:</b> 0.3 seconds into 100ml (6 cu. in.) at 90% of output span</p> <p><b>Supply Pressure Effect:</b> Maximum 0.3%/1.4psig (0.3%/0.1BAR)</p> <p><b>Air Consumption:</b> 0.1 SCFM (dead-ended)</p> <p><b>Air Capacity:</b> 1.4 SCFM maximum</p>	<p><b>Performance (continued)</b></p> <p><b>Maximum Input:</b> 150% of input span without damage</p> <p><b>RFI/EMI Effect:</b> With field strengths of 10 volts per meter, at frequencies of 20-1000MHz, less than ±0.1% of span change (standard)</p> <p><b>Mounting Position Effect:</b> Negligible, unit mounts in any position, but should be calibrated in final orientation</p> <p><b>Ambient Temperature Range:</b> -40 to +60°C (-40 to +140°F)</p> <p><b>Effect:</b> Less than ±0.1% of input span per °C over range (0.005%/°F)</p>	<p><b>Adjustments Zero:</b> Multiturn screw adjusts zero to ±3% of span</p> <p><b>Span:</b> Multiturn potentiometer fully adjustable to 100% of output span</p> <p><b>Connections Pneumatic:</b> 1/4-inch NPT female for both supply air and output air. Air supply also has an additional (normally plugged) port for optional filter/regulator (-FR1 option)</p> <p><b>Electrical:</b> WDNS and WDNA, 1/2-inch NPT female; WDMS and WDMA, M20 x 1.5 female</p> <p><b>Weight</b> 2 lbs., 3 oz. (993 grams)</p>
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## Ordering Information


Unit	Input	Output*	Supply Pressure	Options	Housing
IPH Current-to-Pressure Transmitter	4-20MA into 260 ohms, nominal input impedance	3-15PSIG	20PSI	-FR1 Coalescing filter, miniature supply line regulator and pressure gauge that reads psi (0-60) and Bars (0-4) -ISF FM certified -ISC CSA certified -ISE PTB certified -NE BASEEFA certified -ISCN NEPSI certified	WDNS Aluminum body with PBT polyester cover; NPT pneumatic and NPT electrical entry ports WDNA Aluminum body with aluminum cover; NPT pneumatic and NPT electrical entry ports WDMS Aluminum body with PBT polyester cover; NPT pneumatic and metric electrical entry port WDMA Aluminum body with aluminum cover; NPT pneumatic and metric electrical entry ports  <b>NOTE:</b> Add "P" suffix to the model housing designator for 2-inch pipe mounting hardware (e.g., WDNSP, WDMSP)
		3-27PSIG	35PSI		
		15-3PSIG	20PSI		
		20-100KPA	140KPA		
		.2-1BAR	1.4BAR		
		.2-1KGC/M2	1.4KGC/M2		
*The unit's output must match the supply pressure to its right.					

**When ordering, specify:** Unit / Input / Output / Supply Pressure / Option [Housing]

**Model number example:** IPH / 4-20MA / 3-15PSIG / 20PSI / -FR1 [WDNS]

### Certifications

**Factory Mutual Research (FMR) - FM Global**  
 **Intrinsically Safe –**  
 Class I, II, III, Division 1, Groups A, B, C, D, E, F, G.  
**Non-Incendive –**  
 Class I, Division 2, Groups A, B, C, D.  
**Suitable For Use In:**  
 Class II, Division 2, Groups F & G;  
 Class III, Division 2.  
 T6@60°C Max. Operating Amb. Temp.  
 Enclosure Protection: **NEMA 4X; IP65.**

**Canadian Standards Association (CSA-Int'l)**  
 **Intrinsically Safe –**  
 Class I, Division 1, Groups A, B, C, D;  
 Class II, Division 1, Groups E, F, G; Class III.  
 T6@60°C Max. Operating Amb. Temp.  
 Enclosure Type 4X, IP65.



**NEPSI-China**  
**Intrinsically Safe – Ex ia IIC.**

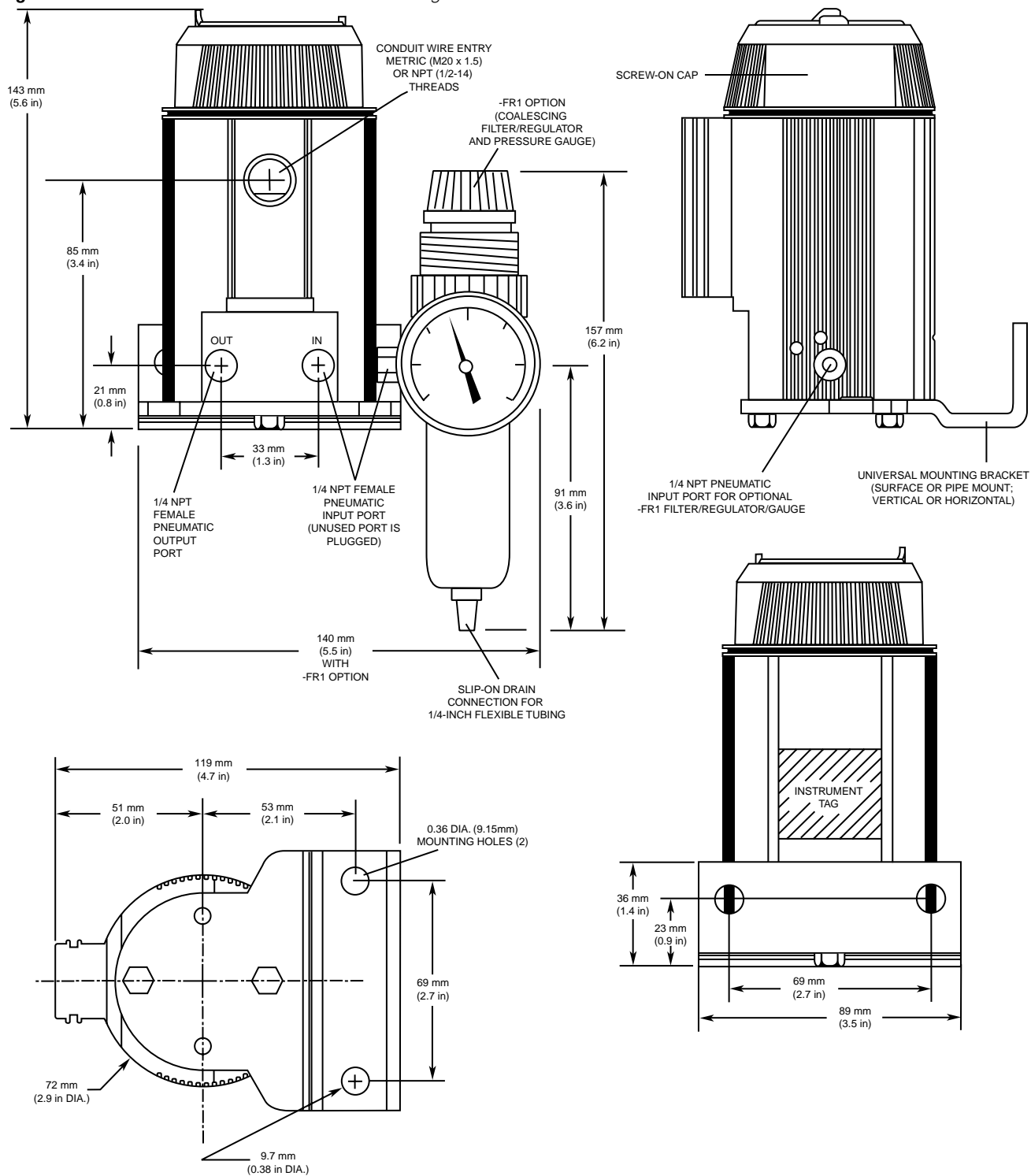


**European CENELEC Approvals:**  
**HSE-EECS/BASEEFA:**  
**Type N/CENELEC – Ex N IIC; T6@60°C**  
**PTB – Transducer is Intrinsically Safe:**  
 EEx ia IIC; T6@60°C Max. Operating Amb. Temp.



**CE Conformant –**  
 EMC Directive 89/336/EEC  
 EN 50081-2, 1993 and EN 50082-2, 1995

**Figure 2.** IPH Current-to-Pressure Transmitter Housing Dimensions



# IPH

Field-Mount  
Current-to-Pressure Transmitter



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