

GO REGULATOR, INC.

A division of CIRCOR International, Inc.

HXR Series Insitu Temperature Compensating Pressure Regulators



The HXR Series Insitu pressure regulator was designed to offset the Joules-Thompson temperature effect. This effect is the cooling that occurs during a pressure drop as a gas passes through an orifice. With HXR Series, the cooling is offset by placing the pressure regulating orifice at the tip of the probe assembly in the process line. As a result, the pressure reduced sample gas passes through a section of the probe that has heat exchange fins. As the cooled sample gas flows through this section of the probe assembly, it is reheated by heat picked up from the warmer high pressure process gas flowing around the outside of the probe assembly, thus returning the sample to the original process line working temperature and also preventing the condensation of liquids in the sample.

Features & Specifications

- 316L stainless steel construction
- Prevents liquid carry over
- Insitu design allow for easy installation directly into process line
- Ensures a more representative and accurate sample analysis of process streams
- Electro polished body with better than 25 Ra finish in diaphragm cavity
- Bubble tight shutoff
- Maximum inlet working pressure is 3600 psig at maximum temperature
- Outlet pressures 0–10, 0–25, 0–50, 0–100, 0–250 and 0–500 psig
- Available in 1/2", 3/4", and 1" MNPT probe gland connections
- 70 micron filter
- Port sizes & configuration 1/4" FNPT – 3 low pressure ports situated 90° apart
- C_v flow coefficient 0.025
- Optional probe lengths available
- Optional gauge and relief valve

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HXR Series

How to Order

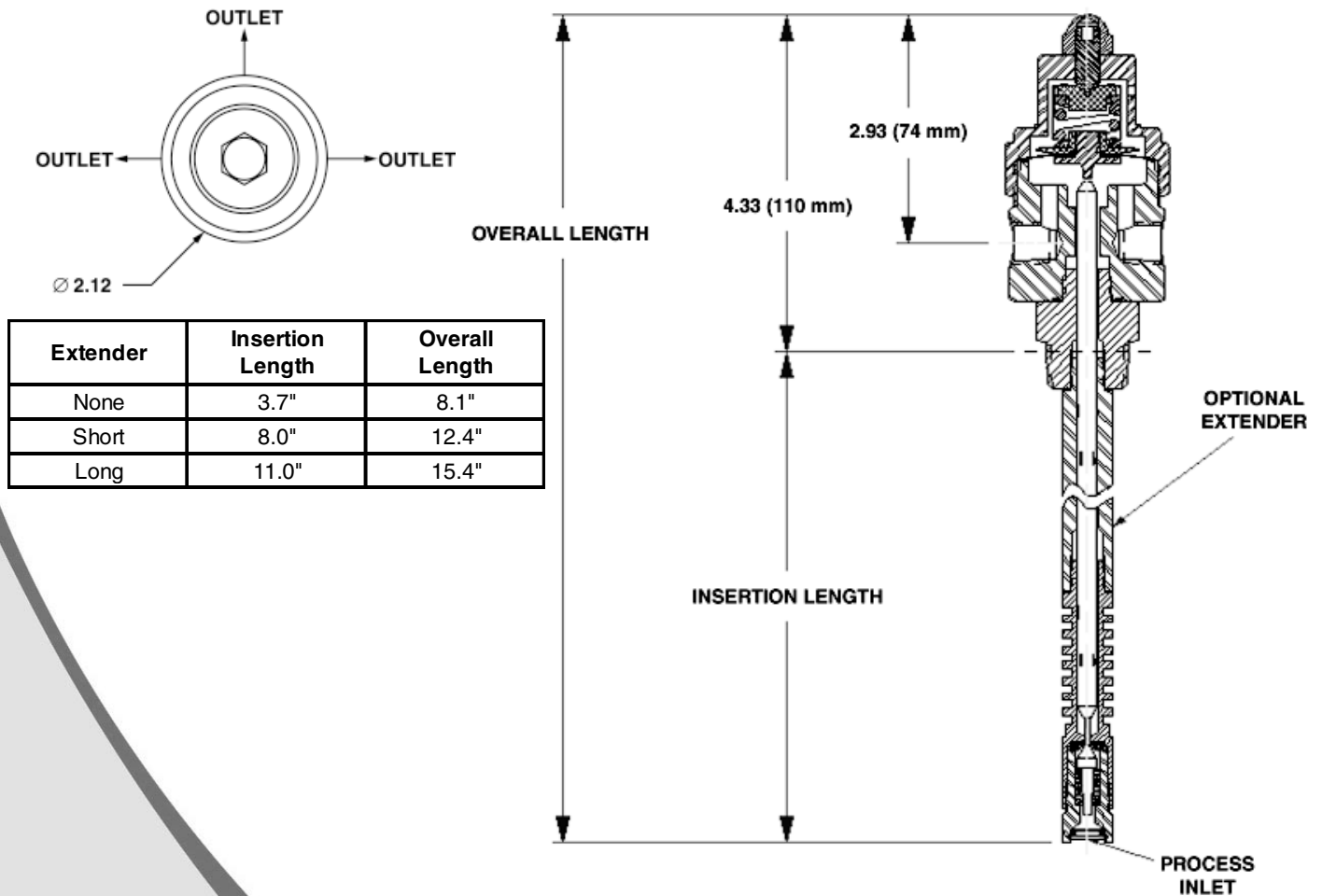
See page 3 for standard configurations. Consult factory for additional configurations.

Maximum Temperature & Operating Inlet Pressures

Seat Material	Maximum Temperature*	@	Maximum Operating Inlet Pressure
Tefzel®	150° F (66° C)	@	3600 psig (20.68 MPa)
High Density Teflon®	150° F (66° C)	@	3600 psig (20.68 MPa)
PCTFE (formerly Kel-F-81)	175° F (80° C)	@	3600 psig (20.68 MPa)
Polyimide	500° F (260° C)	@	3600 psig (20.68 MPa)
PEEK	500° F (260° C)	@	3600 psig (20.68 MPa)

Tefzel® and Teflon® are registered trademarks of DuPont Corporation.

Outline and Mounting Dimensions



HXR Temperature Compensating Regulator

1	S.S. 316L, Standard		Material of Body	
1	1/4" FNPT		Optional porting types	
1	<25 Ra		Surface Finish of Diaphragm Cavity	
	A	Tefzel	Seat Material	
	B	CF Teflon		
	C	Polyimide		
	H	PCTFE (formerly Kel-F 81)		
	Q	PEEK		
	1	3/4" MNPT	Mounting Thread	
	C	0 - 10 Psig	Outlet Range	
	D	0 - 25 Psig		
	E	0 - 50 Psig		
	G	0 - 100 Psig		
	I	0 - 250 Psig		
	J	0 - 500 Psig		
	1	Standard	Diaphragm Type	
	6	Tefzel Ring / SS	Diaphragm Liner/Backing	
	1	Standard, S.S.	Cap Assembly	
	0	No Extension (3.75" Ins. Length)		Insertion Length
	1	Short Extension (8.05" Ins. Length)		
	2	Long Extension (11.05" Ins. Length)		

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Material	1	Port Style	1	Cavity Finish	1	Seat Material		Mounting Thread		Outlet Range		Diaphragm Type	1	Diaphragm Material	6	Cap Assembly	1	Insertion length	
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