

LOPER

LNG OVER-PRESSURE REGULATOR POWERING PRODUCTIVITY THROUGHOUT THE WORLD

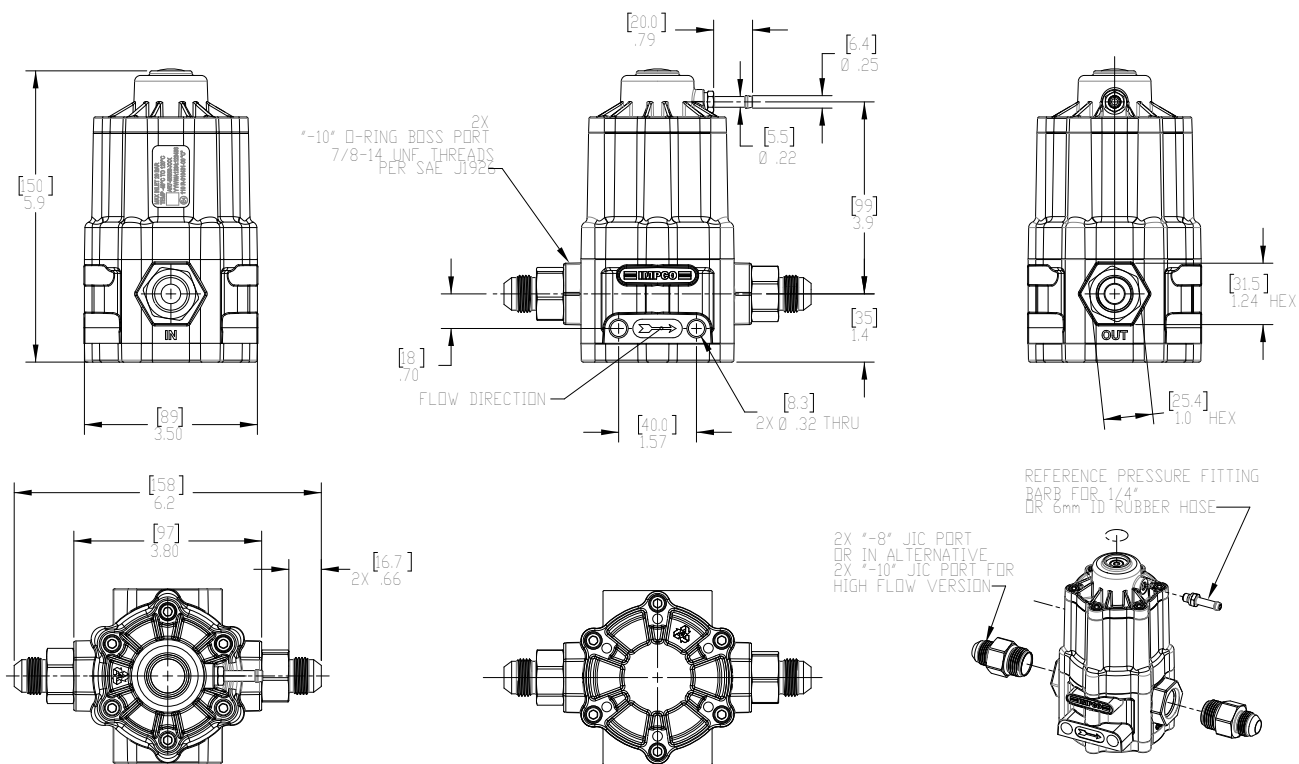
Key Features

- Ideal for use in on-road and off-road applications
- Stainless steel components for continued operation at cryogenic temperatures:
 - SS diaphragm (bellows) retains full functionality at sub-zero levels
 - SS plunger body and all springs stay working at sub-zero levels
- MAP (Manifold Absolute Pressure) reference fitting is built into the design
- Retains steadier output than competitive models:
 - pressure balanced plunger design maintains outlet pressure vs. flow (droop) performance as inlet pressure varies
- Designed for operation with fuel temperatures of -40°C to 120°C with excursions to -60°C
- Flexibility for a range of applications with outlet pressure setting range from 3.8-9.0 bar_g (55-130 psi_g) depending on model
- Robust design validated through rigorous testing



SPECIFICATIONS

LOPER	
GENERAL INFORMATION	
MOUNTING	Underhood, chassis or engine installation acceptable
DESIGN	Single stage stainless steel bellows style regulator
BODY MATERIAL	Aluminum die casting
FUEL TYPE	Natural Gas
PERFORMANCE	
OPERATING TEMPERATURE RANGE	-40°C to 120°C (-40°F to 248°F)
INLET PRESSURE	Nominal: 11 bar _g (160 psi _g) - Maximum working: 20 bar _g (290 psi _g)
OUTLET PRESSURE	Outlet pressure: 3.8-9 bar _g (55-130 psi _g) depending on model Standard setting: 4.7 bar (69 psi) > MAP at 5 g/s N ₂ flow Lockup: <0.7 bar (10 psi) rise above outlet pressure set point Drop: <0.5 bar (7 psi) from 5 g/s to 40 g/s N ₂ flow (-10JIC port model) Hysteresis: 0.3 bar (4 psi) typical
DURABILITY	4.6 million flow cycle
CORROSION / HUMIDITY	144 hours salt spray @ 23°C - 96 hours @ 33 to 36°C
VIBRATION	Sine 15 g from 10 Hz to 2000 Hz, 8 h x axis Shock 50 g
INTERNAL LEAKAGE	Controlled by lock-up pressure specification
EXTERNAL LEAKAGE	<15 cc/hr (<15 cm ³ /hr)
FILTRATION	100 microns screen integrated into inlet fitting
BOOST REFERENCING	Yes, 1:1 ratio
BURST PRESSURE	>2.5 times max working pressure: 50 bar _g (725 psi _g) @ 23°C (73°F)
PRESSURE RELIEF VALVE	None. External unit required.
MASS	1.4 kg (3.2 lbs) without fuel inlet or outlet fittings
EXCESSIVE TORQUE	150% of rated installation torque for 15 minutes
APPROVALS	
CERTIFICATIONS	ISO 15500, ISO 12614, R110



ISO 9001:2008 registered
ISO 14001:2004 registered