

# GR-1/1C

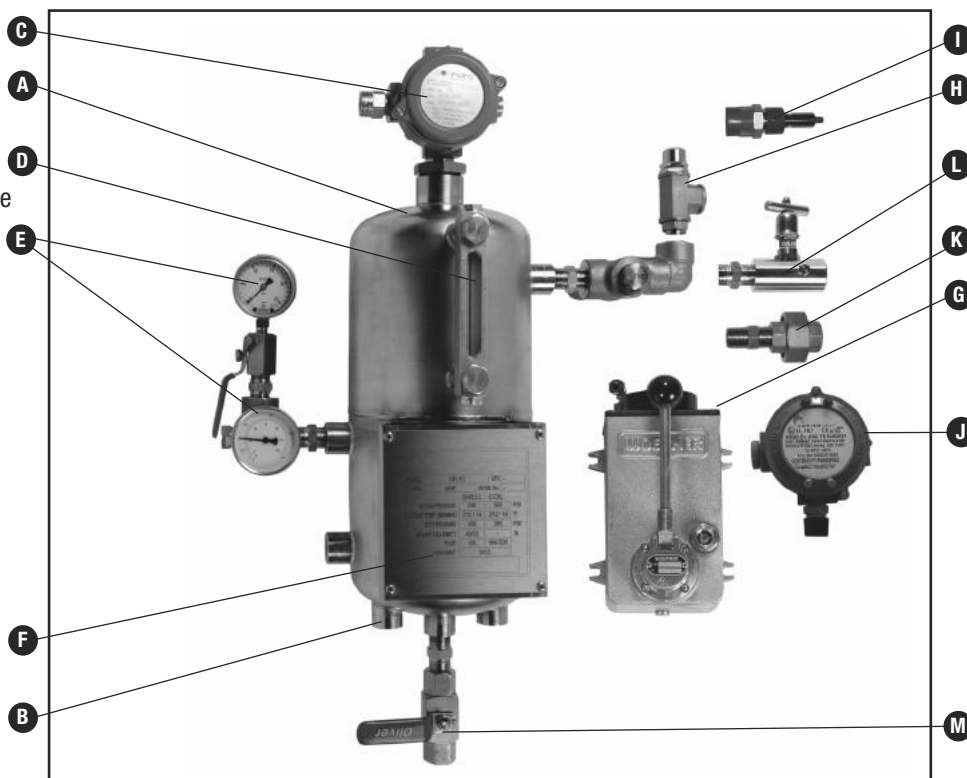
## RESERVOIRS

Technical Specification

- A – Reservoir
- B – Internal Cooling Coil (GR-1C)
- C – Level Switch
- D – Offset Level Gauge
- E – Pressure/Temperature Gauge Assembly
- F – Name Plate
- G – Hand Pump
- H – Safety Relief Valve
- I – Quick Connector
- J – Pressure Switch
- K – Orifice Union
- L – Nitrogen Isolation Valve
- M – Drain Valve

### Non Stocked Options

- Fin Tube Air Cooler (not shown)
- Support Stand (not shown)
- Circulation Pump (not shown)
- 3in1 Wireless Monitoring Device (not shown)



NOTE: Hand pump and pressure switch are panel mounted. Panel is not shown. Instrument mounting varies depending on the option selected.

### Design Features/Benefits

These general industry reservoirs provide buffer/barrier fluid to a dual seal arrangement. Key features:

- 316/L stainless steel pressure reservoir without internal cooling coil (GR-1) or with internal cooling coil (GR-1C)
- Design pressure: 16.3 bar g (236 psig), @100°C (212°F)
- Minimum design temperature: -10°C (14°F)
- Sight level gauge
- 1/2" NPT reservoir terminations
- Reservoir Capacity: 8 litre (2.2 US gallons) nominal
- CE mark in accordance with Pressure Equipment Directive (PED) 97/23/CE provided to countries within the European Community
- Welding in accordance with ASME VIII (welders qualified to ASME IX)
- Many options available including:
  - Nitrogen isolation valve (for pressurized seals)
  - Orifice union (for unpressurized seals)

### Option Variants

- Pressure gauge ranges
- Compatibility with variable barrier/buffer fluid types
- Electrical instruments suitable for:
  - Eexi circuits or Eexd (ATEX)
  - Explosion proof (UL/CSA)

### Materials of Construction

- Reservoir: 316/L stainless steel
- Level gauge: aluminium body, buna O-ring
- Tube and fittings: 316/L stainless steel
- Cooling coil: 316/L stainless steel (GR-1C only)

### Applications

- Automotive
- Chemical processing
- Power generation
- Pharmaceutical
- Pulp and paper
- Water treatment

# GR-1/1C

## RESERVOIRS

### Option Codes

PRESSURE RANGE			
Working Pressure	Pressure Gauge Range	Pressure Switch Range	Code
0-6 bar g (0-100 psig)	0-10 bar g (0-150 psig)	0-6 bar g (0-100 psig)	A
6-16.3 bar g (100-236 psig) max	0-25 bar g (0-360 psig)	6-20 bar g (100-300 psig)	B

BARRIER/BUFFER FLUID TYPE		COOLING COIL	
	Code		Code
Mineral Oil – Max viscosity 20cst	M	Without Cooling Coil	N
Water – Water/Glycol & Ethylene/Glycol	W	With Cooling Coil	C
Barrier/Buffer Fluid to be specified	X		

ELECTRICAL ENVIRONMENT TYPE			
Electrical Protection	Code	Electrical Certification	Code
Explosion Proof – switches Eexd, circulating pump Eexe	F	UL/CSA	U
Eexi – for intrinsically safe circuits (ATEX only)	I	ATEX WITH PED	A
Not Applicable – no electrical equipment on system	N	ATEX WITHOUT PED	S

EQUIPMENT OPTIONS	
Level gauge and pressure gauge (with brass parts) included. For pressure gauge with stainless steel parts, select option ***32	
Pressure/Temperature Gauge Instrument Assembly	****1
Hand Pump Refilling Unit	****2
Low Level Switch	****4
Safety Relief Valve – 11-25 bar g (165-300 psig)	****8
Circulation Pump (non stocked option)	***16
Pressure Gauge – Range follows pressure range selection	***32
Fin Tube Air Cooler (non stocked option)	***64
Support Stand (non stocked option)	**128
Nitrogen Isolating Valve (pressurized seals)	**256
Orifice Union (unpressurized seals)	**512
Pressure Switch	*1024
Quick Connector	*2048
Drain Valve	*4096
3in1 Wireless Pressure/Temperature/Level Device (non stocked option) See Note 3	*8192

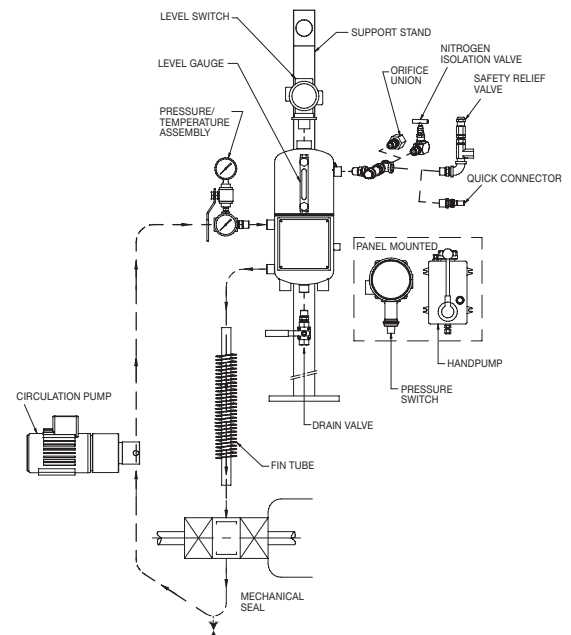
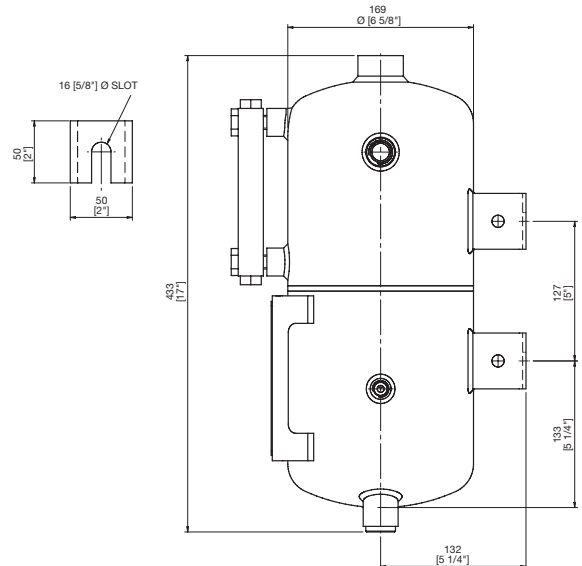
To specify equipment options add together each component code for the items to give a total figure. The total preceded by any spare spaces making up the 5 digits, should be inserted in the options section of the order code eg. /\*1168

(UL/CSA)/(ATEX WITH PED)/(ATEX WITHOUT PED)  
 Electrical Protection  
 Without/With Cooling Coil  
 Barrier/Buffer Fluid Type  
 Pressure Range

Order code GR1/ \* \* \* \* /\*\*\*\*\*

### GR-1 Series Typical Arrangement

**NOTE:** Instrument mounting is indicative only and may vary depending on the options selected



#### NOTES

1. Electrical connection is M20 (ATEX) or 3/4" NPT (UL/CSA)
2. Barrier/buffer fluid supply and return connections will be shipped with plastic plugs. All other connections will have metallic plugs
3. 3in1 initial installation requires installation of wireless network