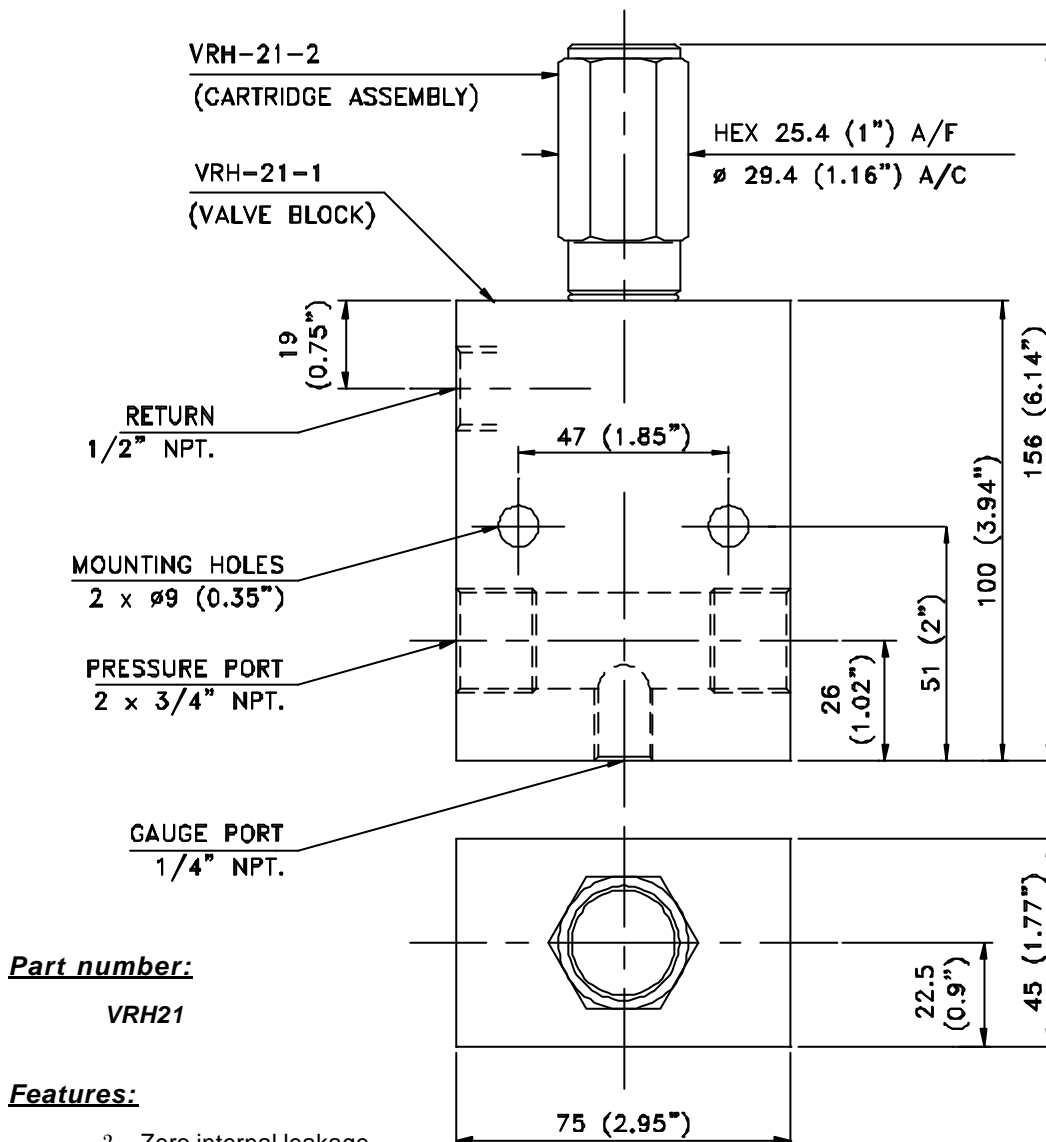


## 11. PRESSURE CONTROL VALVES

### 11.1 RELIEF VALVE SPECIFICATIONS



**Part number:**

VRH21

**Features:**

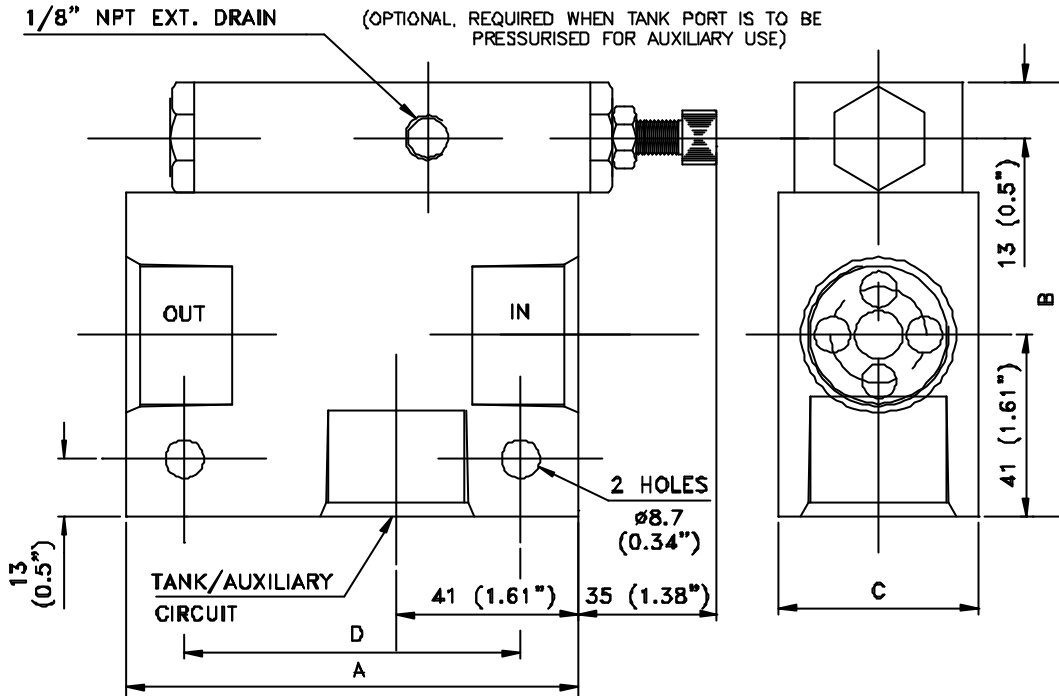
- ? Zero internal leakage.
- ? Tamper resistant setting

**Specifications:**

Weight	2.4 kg (5.3 lbs)
Construction	All steel
Maximum working pressure	23MPa (3300 psi) factory preset Other settings available on request
Fluid media	Mineral oil
Viscosity range	ISO 32 to 46 (SUS 140-230)
Temperature range	-30°C to +100°C (-22°F to +212°F)

Specifications are subject to change without prior notice due to product improvements.

## 11.2 UNLOADING VALVE SPECIFICATIONS



Model	Dimensions in mm (in.)					Flow in l/min. (usgpm)	
	A	B	C	D	Ports	Min.	Max.
VU-1	95 (3.7")	89 (3.5")	38 (1.5")	70 (2.9")	3/4" NPT	16 (4.25)	130 (35)
VU-4	101 (4.1")	98 (4.0")	45 (1.8")	70 (2.9")	SAE 16	75 (20)	225 (60)

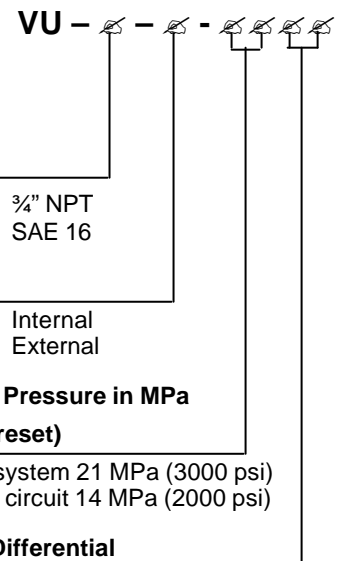
### Features:

- ? Zero internal leakage.
- ? Power beyond option available.
- ? Built-in check valve

### Specifications:

Weight (VU-1)	2.0kg (4.4 lbs)
Weight (VU-4)	2.5kg (5.5 lbs)
Construction	All steel
Maximum working pressure	21MPa (3000 psi)
Fluid media	Mineral oil
Viscosity range	ISO 32 to 46 (SUS 140-230)
Temperature range	-30°C to +100°C (-22°F to +212°F)
Pressure ratio	80% (loading to unloading)

### Ordering Code

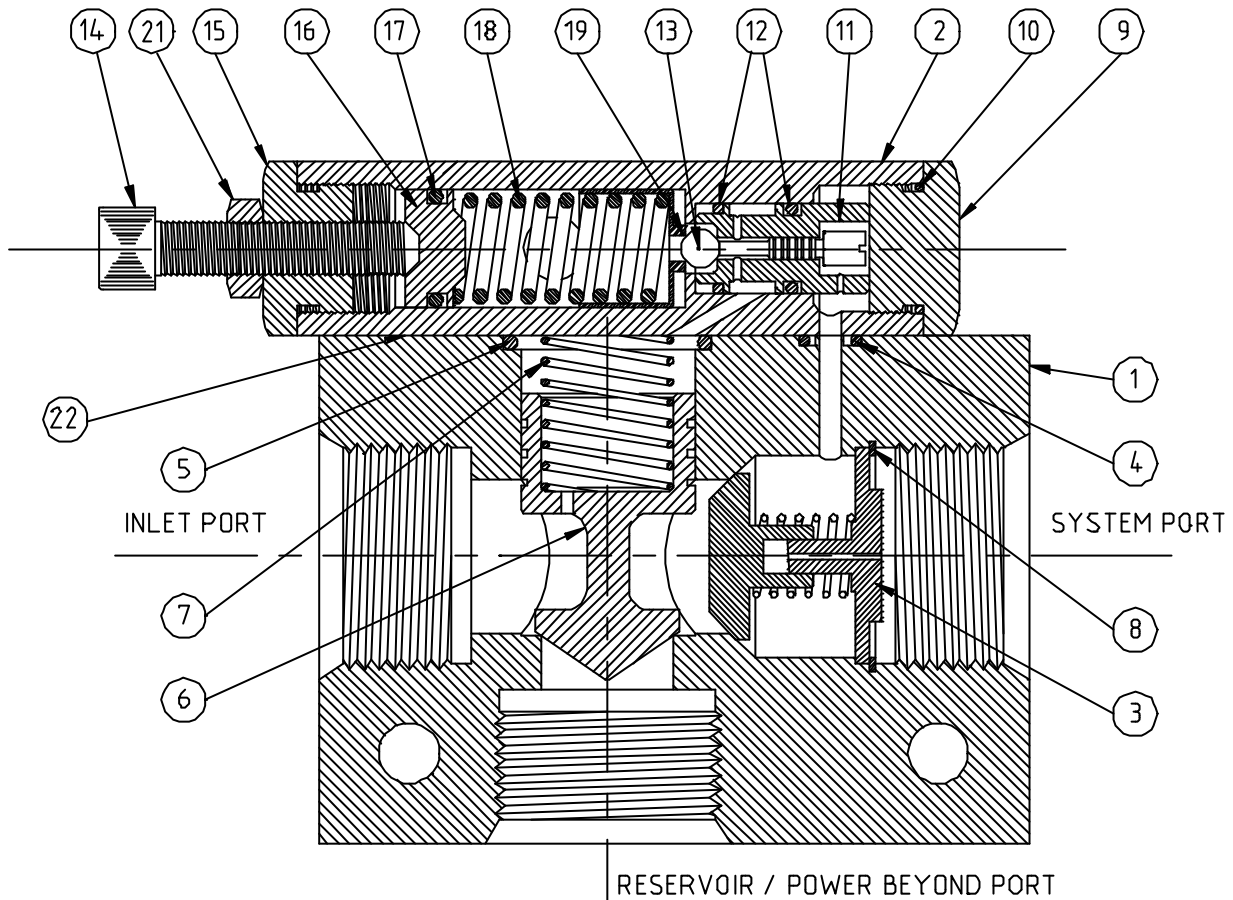


If pump is dedicated to starting system, specify internal drain to simplify piping (eg. VU-1-I-2180). If return port is to feed and auxiliary circuit (power beyond) specify external drain (eg. VU-1-E-2180).

**Caution:** If pump is below minimum flow rate specified the valve might malfunction and operate as a relief valve instead, causing the system to overheat.

Specifications are subject to change without prior notice due to product improvements.

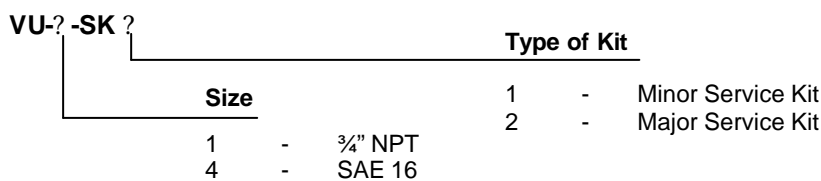
### 11.3 UNLOADING VALVE SERVICE KITS



Item	Description	Qty in Valve	Qty in Service Kit	
			Major S/K	Minor S/K
2	Head	1	1	
3	Check valve assembly	1	1	1
4	O-ring	2	2	2
5	O-ring	1	1	1
6	Main poppet	1		
7	Poppet spring	1	1	1
9	Plug	1	1	
10	O-ring	1	1	1
11	Cartridge	1	1	

Item	Description	Qty in Valve	Qty in Service Kit	
			Major S/K	Minor S/K
12	O-ring	2	2	2
13	Ball	1	1	
14	Adjusting screw	1	1	
15	Retainer	1	1	
16	Guide	1	1	
17	O-ring	1	1	1
18	Spring	1	1	
19	Piston	1	1	

**Part numbers:**



Specifications are subject to change without prior notice due to product improvements.