

50 YEARS PROTECTING LIVES AND PROPERTY



CONTROL DEVICES

I. Weighing devices

II. Other devices

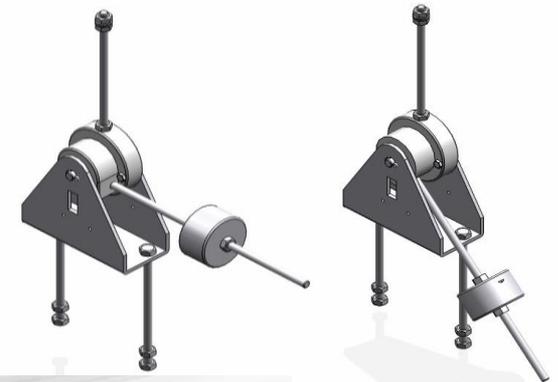
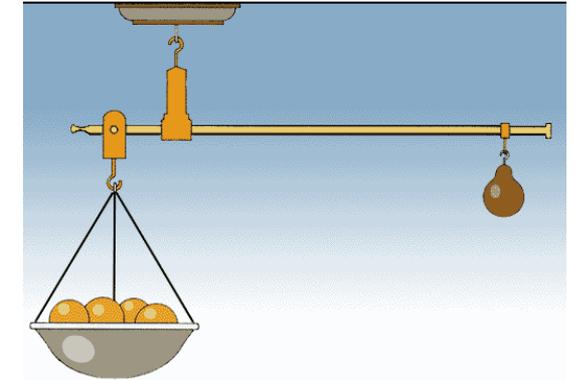
III. Pressure control

- Low pressures switches
- Gauges with electric contact

IV. Comparative

- Advantages
- Uses

- Direct weight measurement
 - Working principle: steelyard or Roman balance
 - Regardless of agent
 - Guaranteed behavior in adverse conditions
 - Finished system, ready to use
- ✓ 100% reliability
- ✓ extremely precise system



“ON” POSITION =
FILLED CYLINDER

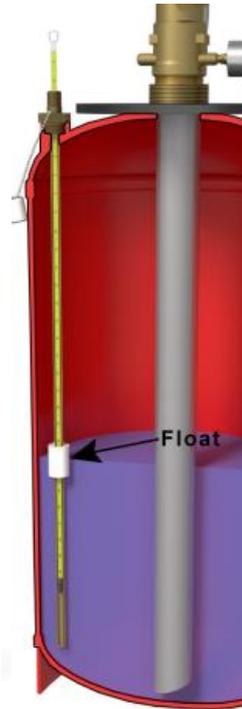
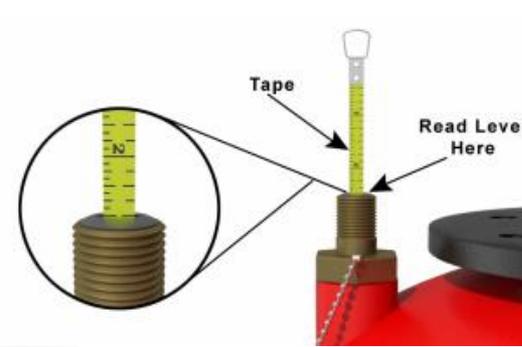
“OFF” POSITION =
EMPTY CYLINDER

- Ready-to-use
- Features
 - Cylinder hangs from a steel structure
 - Electric signal to fire control panel (optional, highly recommended)
 - Extremely precise system: 0% to 5%. Re-adjustable
 - Weight limit: up to 567kg (~265L)
- Use (stock)
 - All agents
 - THE ONLY effective control device for HFC-23 and CO2 systems (self-pressurized agents)



- **Liquid level indicator**

- In contact with the agent → Leakages
- Installed when cyl is empty
- No signal to fire panel
- Weight determination by graph

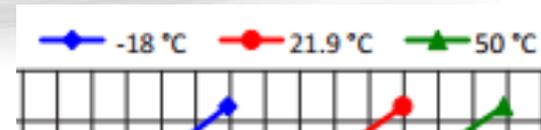
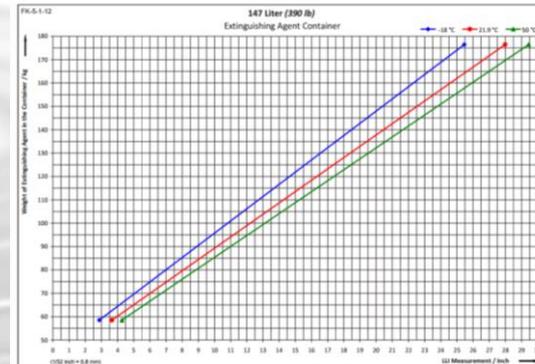


Minimax

- » Novec 1230 at 25 bar only
- » VdS approved
- » 280 / 390 / 500 lbs only

Fike

- » HFC-227ea and HFC-125
- » FM / UL / ULC approved
- » 44, 61, 88, 153, 267 and 423 L (100, 150, 215, 375, 650 and 1.000 lbs.)



- Agent measurement comparison

MECHANICAL WEIGHING DEVICE

Indirect measurement, contactless

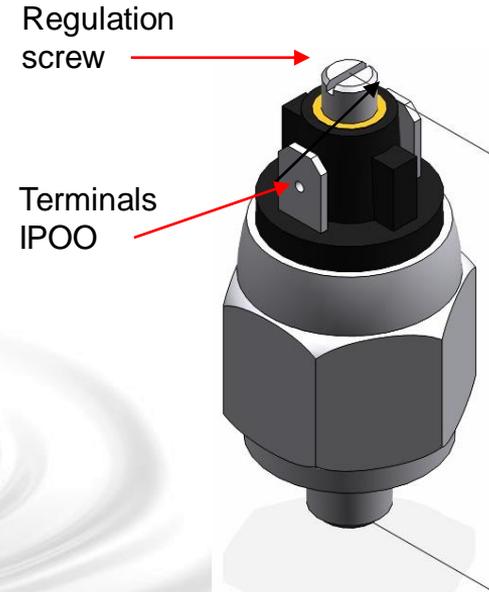
- ✓ No leakages
- ✓ Cyl. can be charged or empty (new systems or adaptations of existing ones, regardless of type)
- ✓ Customized answer: 0% to 5%
- ✓ Signal to fire panel (optional)
- ✓ SIEX-WD: **full approvals**: VdS, UL, FM
- ✗ Weigh limit: up to 567,9 Kg (gross weight, 415 Kg of agent)

LIQUID LEVEL INDICATOR (LLI)

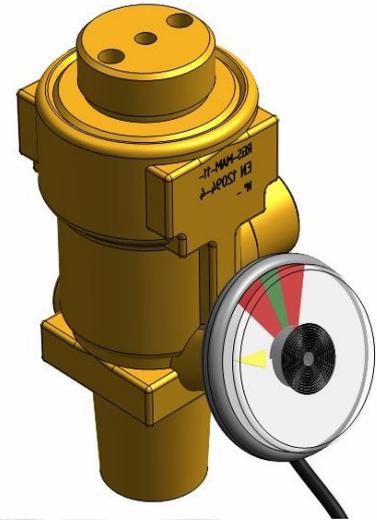
Direct measurement, in contact with agent

- ✗ Possible leakages
- ✗ Installed with cyl. empty only
- ✗ Cyl must include **specific port**
- ✗ **Visual check only**
- ✗ Chart required: pressure, temperature
- ✗ Measurement is **not precise**

- Approvals: VdS, UL, FM
- Use (stock)
 - HFCs agents + VdS or UL / FM approval
 - Inert gases + UL / FM approval
 - Do NOT use: Novec, HFC-23, CO₂,
- Features
 - Assembled on the cylinder valve
 - Re-adjustable, even with charged cyl.
 - Options: NC / NO / Commutable
 - Classified atmospheres: Standard / Explosion proof



- Approvals: VdS, UL, FM
- Use (stock)
 - Inert gases + Vds
 - Do NOT use: (Novec), HFC-23, CO₂,
- Features
 - Assembled on the cylinder valve
 - Non-adjustable
 - Classified atmospheres: Standard / Explosion proof



COMPARATIVE: SIEX APPROVALS

- Weighing device
 - The only reliable system, 24/365 (electric shutdown)
 - Regardless of the agent
 - Weight limit

- Low pressure switch
 - Indirect measure: pressure
 - Re-adjustable in-place
 - Electric signal to fire panel

- Gauge w/ contacts
 - Indirect measure: pressure
 - Provides visual check
 - Electric signal to fire panel

	WEIGHING DEVICE		LOW PRESSURE SWITCH		PRESSURE GAUGE W/ CONTACTS	
	VdS	UL / FM	VdS	UL / FM	VdS	UL / FM
FM-200	✓	✓	✓	✓		
HFC-125	✓	/	✓	/		/
HFC-23	✓	/	⊘	/	⊘	/
Novec	✓	/		/	✓	/
IG-541	✓	✓		✓		✓
IG-55	✓	✓		✓		✓
IG-100	✓	✓		✓		✓
IG-01	✓	✓		✓		✓
C02	✓	✓	⊘	⊘	⊘	⊘
Kitchens	✓	/	✓	/		/
“propellent” (N ₂ cyl)	✓	✓		✓	✓	

COMPARATIVE: COMPETITORS

	WEIGHING DEVICE		LOW PRESSURE SWITCH		PRESSURE GAUGE with CONTACTS		LIQUID LEVEL INDICATOR
	VdS	UL / FM	VdS	UL / FM	VdS	UL / FM	
Siex	✓	✓	✓	✓	✓	✓	
Minimax	✓	no					✓ (VdS)
Siemens	✓	no					
Fike		no					✓ (FM / UL / ULC)
Pyro-chem		no					✓
G & S Brandschutz	CO ₂ low pressure	no					
Gottschalk Feuerschutzanlagen	CO ₂ high pressure	no					



QUESTIONS?

Thank you for your time