

The Mini CO₂ Separator

CO-0302SES



CO-0302SES is the smallest UBE CO₂ Separator which is 1 inch diameter (body part) and 380mm long suitable for lab scale testing.

Despite its miniature size, this module features UBE's cutting edge membrane technology for CO₂ separation. The module can handle up to 10NL/min* as the feed gas, meeting comprehensive requests for lab scale tests.

*Gas flow rate depends on operating conditions.



OPERATING CONDITIONS FOR CO-0302SES

Max Pressure	10 barg 145 psig
Max Use-Environment Temperature	60°C 140°F
Feed Gas Temperature	5 ~ 60°C 41 ~ 140°F
Feed Gas Oil Content	≤ 0.01 mgf /Nm ³ 0.008 ppm w/w
Feed Gas Relative Humidity	≤ 80%
Feed Gas Particle Size	≤ 0.01 μm

PRODUCT SPECIFICATIONS

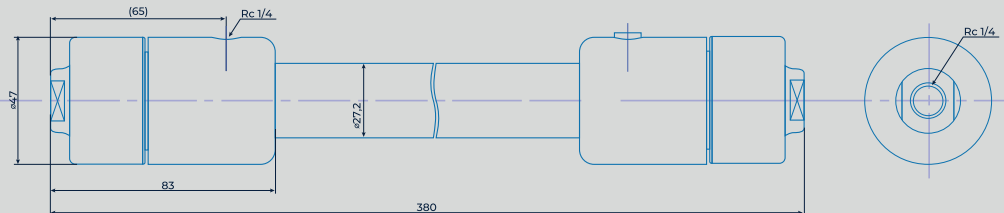
Hollow fiber	Polyimide Resin
Housing	Stainless Steel
Weight	1.7 kg (3.7 lb)

CONNECTIONS (Rc)

(ISO 7-1 / EN 10226-1)

Feed Inlet	1/4
Retentate Outlet	1/4
Permeate Outlet	1/4

DIMENSIONS



FEED GAS FLOW RATE [NL/min]

Feed Pressure [barg]	CH ₄ Purity [vol%] of retentate gas					
	99.9	99	98	97	96	95
5	1.02	1.32	1.53	1.67	2.00	2.17
7	1.83	2.33	2.83	3.17	3.67	4.00
10	3.00	4.33	5.17	6.00	6.83	7.67

RECOVERY OF CH₄ [%]

Feed Pressure [barg]	CH ₄ Purity [vol%] of retentate gas					
	99.9	99	98	97	96	95
5	66	74	78	80	82	84
7	72	79	83	85	87	88
10	77	84	87	89	90	91

Performances at 25°C (77°F)

Feed Gas Composition CH₄: CO₂ = 60 : 40

Recovery of CH₄ = CH₄ at retentate gas / CH₄ at feed gas

UBE CO₂ SEPARATOR FOR BIOGAS UPGRADING



BIOMETHANE PURIFIED UP TO 99.5%



HIGH SELECTIVITY, BIOMETHANE RECOVERY UP TO 99.8%



LOW ENERGY CONSUMPTION



COMPACT < REDUCED AMOUNT OF MEMBRANES



LONG LIFETIME



UBE Corporation

UBE