Grade	ULSI 3N5	ULSI PLUS 4N5				
Purity, %	99.95	99.995	Metals, ppbw			
Oxygen	≤100 ppmv	≤6 ppmv	Al	≤1	Mn	≤1
Nitrogen	≤250 ppmv	≤10 ppmv	Cd	≤1	Ni	≤1
Carbon Dioxide	≤50 ppmv	≤15 ppmv	Ca	≤1	Mg	≤1
Total Hydrocarbons	≤3 ppmv		Cr	≤1	K	≤2
Methane		≤3 ppmv	Cu	≤1	Na	≤5
Water	≤3 ppmv	≤1 ppmv	Fe	≤5	Zn	≤1
Iron Pentacarbonyl	≤1 ppmv	≤0.5 ppmv	Pb	≤1		
Hydrogen		≤1 ppmv				

- A lot analysis is provided for each order. Individual analysis is also available upon request.
- For gas phase impurities, a metal analysis is performed periodically.
- Pneumatic valves and JIS connections are available upon request.

NOTE: Aluminum cylinders with brass valves are the recommended package for CO. ULSI PLUS will only be provided in a QY package.

	Internal Volume	Liters	46.4	43.8	29.5
ER	Cylinder Sizes >>	QY	QB	QH/QX	
CYLIND	Content	m³	6.9	4.96	3.3
	Content	ft³	244	175	118
	Cylinder Pressure*	psig	2,216	1,650	1,650

<sup>\* @</sup> NTP

	DOT Shipping Name	Shipping Name Carbon Monoxide, compressed		UN 1016	Shipped as
DOT Classification  DOT Label	DOT Classification	2.3 Poison Gas Hazard Zone D	ECCN#	1C980	Camanagad
	(Gas Poisonous by Inhalation)	LOOK II	10000	Compressed	
	DOT Label	INHALATION HAZARD FLAMMABLE GAS	Harmonized #	2811.29.0000	Gas

DATA	Specific Volume	0.86 m³/kg		
L D/	@NTP	13.8 ft³/lb		
<u>S</u>	CAS No	630-08-0		
HNIC	CGA/DISS/JIS	350/724/W22-14L		
Ĕ	Molecular Weight	28.01 g/mol		

Critical Temperature	-140.2°C	-220.4°F
Critical Pressure	35.7 atm	507.5 psia

NTP = 21°C or 70°F and 101.3 kPa or 1 atm

		Nominal Diameter (OD)xHeight*		Material of	Construction
Cylinder	Treatment	cm	Inches	Cylinder	Valve
QY	ULTRA-LINE®	25x132/136/145	10x52/53.5/57	Aluminum	SS/Brass
QB	ULTRA-LINE II®	23x130/134/143	9x51/52.5/56	CS	SS
QH/QX	ULTRA-LINE ®	20x122/126/135	8x48/49.5/53	Aluminum	SS/Brass

<sup>\*</sup>Height is reported as the distance from the bottom of the cylinder to the cylinder neck/ center of the valve outlet/ top of the handwheel CS: Carbon Steel SS: Stainless Steel

 $\triangle$  WARNING: This product can expose you to chemicals including Carbon Monoxide, which is known to the State of California to cause birth defects or other reproductive harm. For more information go to www.P65Warnings.ca.gov.

