

Cylinder Valve Connections

Technical Information

DCATLAB01292XEN2

GAS OR GAS MIXTURE	FORMULA	SPECIFIC GRAVITY	CYLINDER PRESSURE/ VAPOR PRESSURE AT 20 °C	PROPERTIES	DIN 477		BS 341		CGA		NF	NEN
					Part 1: 1990 - Cylinder Connection up to 300 bar	Part 5: 2002 - Cylinder Connection up to 450 bar	Part-3: Cylinder Connection up to 250 bar	Part-3: Cylinder Connection from 250 up to 300 bar	V1: 2003: Cylinder Valve Connection THREADED	V1: 2003: Cylinder Valve Connection PIN INDEX (Yoke)	E 29-650: 1992 Cylinder Valve Outlet Connection	3268: 1984/C2 1986 Cylinder Valve Outlet Connection
Acetylene	C ₂ H ₂	0.906	18	f	3		2, 4, 18**		510+		A, H	LI2*
Ammonia	NH ₃	0.593	8.6	f, t, c	6		10		240	800	C	RU4
Argon	Ar	1.38	200/300	i	6	54	3	30	580		E	RU3
Air, compressed	AIR	1	200	o	13	56	3	31	346	950	B	RU6
Arsine	AsH ₃	2.718	14.1	f, t	1	-	4	-	350	-	E	LU4
Boron Trichloride	BCL ₃	4.045	0.37	t, c	8	-	6	-	660	-	K	RU4
Boron Trifluoride	BF ₃	2.32	68.9	t, c	8	-	6	-	330	-	P	RU4
Bromotrifluoromethane	CBrF ₃	2.37	14.4	o	6	-	6	-	660	-	C	RU1
Calibration Gas (non corrosive)++		-	150/200	o	14	-	3, 4*	-	500	973*		LU0, LU1 LU4*
Carbon Dioxide	CO ₂	1.53	57.3	o	6	-	8	-	320	940		RU1
Carbon Monoxide	CO	0.967	150	f, t	5	-	4	-	350	-	E	LU4
Chlorine	CL ₂	2.479	6.8	t, c	8	-	6, 14**	-	660	820	J	RU4
Chlorodifluoromethane (R22)	CHClF ₂	3.65	31	o	6	-	6	-	165*	-	E	RU1
Chloropentafluoroethane (R115)	C ₂ ClF ₅	5.49	8	o	5	-	6	-	165*	-	-	RU1
Cyclopropane	C ₃ H ₆	1.49	6.3	f	1	-	4	-	510	540	E	LU1
Deuterium	D ₂	0.139	100	f	1	-	4	-	350	-	E	LU1
Diborane	B ₂ H ₆	0.95	150	f, t	1	-	4	-	350	-	E	LU4
Ethane	C ₂ H ₆	1.05	37.7	f	1	-	4	-	350	-	E	LU1
Ethylene	C ₂ H ₄	0.975	68.6	f	1	-	4	-	350	900	E	LU1
Fluorine	F ₂	1.312	-	t, c	8	-	6, 14*	-	679	-	P	RU4
Helium	He	0.138	200/300	i	6	54	3	30	580	930	C	RU3
Hexafluoro Ethane	C ₂ F ₆	4.83	-	i	6	-	3	-	660*	-	-	-
Hydrogen	H ₂	0.0695	200/300	f	1	57	4	38	350	-	E	LU1
Hydrogen Bromide	HBR	2.71	20	t, c	8	-	6, 14	-	330	-	K	RU4
Hydrogen Chloride	HCL	1.266	42.6	t, c	8	-	6, 14**	-	330	-	K	RU4
Hydrogen Fluoride	HF	1.858	1.03	t, c	8	-	6	-	670*	-	K	RU4
Hydrogen Iodide	HJ	4.48	7.33	t, c	8	-	6, 14*	-	330	-	K	RU4
Hydrogen Sulfide	H ₂ S	1.19	18.2	f, t, c	5	-	15	-	330	-	E	LU4
Isobutane	IC ₄ H ₁₀	2.09	3.02	f	1	-	4	-	510	-	E	LU1
Isobutene	C ₄ H ₈	2.01	2.59	f	1	-	4	-	510	-	E	LU1
Krypton	Kr	2.90	200	i	6	-	3	-	580	-	C	RU3
Methane	CH ₄	0.555	200	f	1	-	4	-	350	-	E	LU1
Methylamine	CH ₃ N	1.11	3	f, t	1	-	11	-	705	-	E	LU4
Methyl Chloride	CH ₃ CL	1.771	4.1	f, t	1	-	7, 17**	-	510*	-	-	LU4
Methyl Mercaptan	CH ₃ S	1.7	1.7	f, t	1	-	7	-	330	-	E	LU4
Neon	Ne	0.696	200	i	6	-	3	-	580	-	C	RU3
Nitric Oxide	NO	1.04	50	t, c	8	-	14	-	660	-	-	RU4

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Nitrogen	N ₂	0.967	200/300	i	10	54	3	30	580	960	C	RU3
Nitrogen Dioxide	NO ₂	3	0.962	ox, t, c	8	-	14	-	660	-	P	RU4
Nitrogen Trifluoride	NF ₃	2.46	100	t	8	-	14	-	670*	-	K	-
Nitrous Oxide	N ₂ O	1.528	50.6	ox	11, 12**		13	-	326	910	G	RU1
Oxygen	O ₂	1.11	200/300	ox	9	59	3	32	540	870	F	RI2
Phosphine	PH ₃	1.18	34.6	f, t	1	-	4	-	350*	-	E	LU4
Propane	C ₃ H ₈	1.56	8.4	f	1	-	4	-	510*	-	E	LU1
Propylene (Propene)	C ₃ H ₆	1.48	10.3	f	1	-	4	-	510*	-	E	LU1
Silane	SiH ₄	1.11	86	f, t	1	-	4	-	510	-	E	LU4
Sulfur Dioxide	SO ₂	2.27	3.3	t, c	7	-	10.16	-	660	-	-	RU4
Sulfur Hexafluoride	SF ₆	5.13	22.1	i	6	-	6**	-	590	-	C	RU1
Synthetic Air	20% O ₂ / 80% N ₂	1	200/300	ox	9	56	3	31	346	950	B	RU6
Tetrafluoro Methane	CF ₄	3.05	up to approx. 137	i	6	-	3	-	580*	-	C	-
Trifluoro Methane R 23 (Fluoroform)	CHF ₃	2.44	41.8	o	6	-	6	-	660*	-	C	-
Xenon	Xe	4.56	up to approx. 33	i	6	-	3	-	580	-	C	RU3

Legend:

- f = flammable
- t = toxic
- c = corrosive
- i = inert
- o = other
- ox = oxidising
- + = Connection # depends on content and size of cylinder; check standard for other connections!
- ++ = Connection # depends on exact content of calibration gas; check standard for other connections or ask gas supplier for cylinder valve in use.
- * = Not binding - Please, ask gas supplier for cylinder valve in use.
- ** = For small capacity cylinders (lecture bottles).

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NATIONAL STANDARDS	THREAD
AFNOR / NFE 29-650: 1992	
TYPE C	SI 21.7 x 1.814 m
TYPE D	W 24.0 x 2.0
TYPE E	SI 21.7 x 1.814 LH m
TYPE F	SI 22.91 x 1.814 f
TYPE G	SI 26 x 1.5 f
TYPE H	W 22.91 x 1.814 LH f
TYPE J	W 25.4 x 3.175 m
TYPE K	W 27.0 x 2.0
TYPE L	W 27.0 x 2.0
TYPE M	W 27.0 x 2.0
TYPE P	W 27.0 x 2.0
BSI / BS 341-3: 2002 (up to 3626 psig / 250 bar)	
No. 2	G 5/8 LH f
No. 3	G 5/8 f
No. 4	G 5/8 LH f
No. 6	G 5/8 m
No. 7	G 5/8 LH m
No. 8	W 0.860" 14 TPI m
No. 10	G 1/2 m
No. 11	G 1/2 LH m
No. 13	W 11/16-20 TPI m
No. 14	G 3/8 m
No. 15	G 3/8 LH m
No. 16	G 1/4 m
No. 17	G 1/4 LH m
BSI / BS 341-3: 2002 (3626-4351 psig / 250-300 bar)	
No. 30	W 30 x 2 f
No. 31	W 30 x 2 f
No. 32	W 30 x 2 f
No. 38	W 30 x 2 LH f
CGA-V1: 2003*	
No. 110	0.3125"-32 UNF f
No. 170	9/16-18 UNF f
No. 180	5/8-18 UNF f
No. 240	3/8-18 NPT m
No. 296	0.803"-14 UNS f
No. 300	0.825"-14 NGO m
No. 320	0.825"-14 NGO m
No. 326	0.825"-14 NGO m
No. 330	0.825"-14 NGO LH m
No. 346	0.825"-14 NGO m
No. 350	0.825"-14 NGO LH m
No. 510	0.825"-14 NGO LH f
No. 540	0.903"-14 NGO m
No. 580	0.965"-14 NGO f
No. 590	0.965"-14 NGO LM f
No. 660	1.030"-14 NGO m
No. 670	1.030"-14 NGO LH m
No. 678	1.030"-14 NGO LH m
No. 679	1.030"-14 NGO LH m
No. 705	1.235"-14 UNS LH m

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NATIONAL STANDARDS	THREAD
DIN 477-1: 1990	
No.1	W 21.80 x 1/14 m LH
No.3	Connection with bracket
No.5	W 1 m LH
No.6	W 21.80 x 1/14 m
No.7	G 5/8 m
No.8	W 1 m LH
No.9	G 3/4 m
No.10	W 24.32 x 1/14 m
No.11	G 3/8 m
No.13	G 5/8 f
No.14	M 19 x 1.5 m LH
DIN 477-5: 2002	
No.54	W 30 x 2-Ø15.9/20.1
No.55	W 30 x 2-Ø15.2/20.8
No.56	W 30 x 2-Ø16.6/19.4
No.57	W 30 x 2LH-Ø15.2/20.8
No.58	W 30 x 2LH-Ø15.9/20.1
No.59	W 30 x 2-Ø17.3/18.7
No.60	W 30 x 2-Ø18.0/18.0
NEN 3268: 1984	
LU0	M 19 x 1.5 LH m
LU1	W 21.8 - 1/14 LH m
LU4	W 1" LH m
LI2	G 5/8 LH f
RI2	G 5/8 RH f
RU1	W 21.8 x 1/14 RH m
RU3	W 24.32 x 1/14 RH m
RU4	1" RH m
RU6	W 28.8 x 1/14 RH m
UNI 11144:2005 (up to 250 bar)	
1H, 1P (former UNI 4405)	W 20 x 1/14 m LH
2 (former UNI 4406, UNI 10751)	W 21, 7 x 1/14 m
3 (former UNI 4407)	W 30 x 1/14 m LH
4 (former UNI 4408)	W 1" x 1/8" m
5 (former UNI 4409)	W 21, 7 x 1/14 f
6 (former UNI 4410, UNI 10751)	W 30 x 1/14 m
7F (former UNI 4411-2 Acetylene)	G 5/8" f LH
7S (former UNI 4411-1 Acetylene)	Pinindex
8 (former UNI 4412)	W 24, 51 x 1/14 f
9 (former UNI 9097; UNI 10751)	G 3/8" A m
10	W 27 x 2 ISO 5145 m

LEGEND:

AFNOR - Association Française de Normalisation
 BS - British Standard (British Standards Institution)
 CGA - Compressed Gas Association - US Standard
 DIN - Deutsches Institut für Normung
 NEN - Nederlands Normalisatie-instituut
 NGO - National Gas Outlet (CGA only)
 UNI - Ente Nazionale Italiano di Unificazione
 LH - Left Hand
 RH - Right Hand
 f - Female
 m - Male

*For a complete numerical list of cylinder valve outlet connections (threaded or pin indexed / yoke), please reference CGA-V-1.



WARNING! Do not attempt to select, install, use or maintain this product until you have read and fully understood the *TESCOM Safety, Installation and Operation Precautions*.

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