

MARYLAND METRICS: -- OLFLEX TECHNICAL DATA

INFORMATION ON CONVERTING FROM PG TO METRIC THREADS

Why are we converting?

As of December 31, 1999 the safety standard VDE 0619 and the therein referenced standards DIN 46319 for metric dimensions and DIN 46320 for PG dimensions were withdrawn.

The new standard DIN EN 50262 became valid as of January 1, 2000.

The new standard defines the new metric sizes and governs the new safety requirements. Dimension specifications for key dimensions, jaw spans, etc. are not laid down.

CONSEQUENCES OF THE CONVERSION

The PG system may be utilized in the transition period up until January 3, 2001. From this date, the utilization of PG housings and screw fittings should be dispensed with in new developments, since there will be no conformity declaration and no CE identification will be possible. PG articles may be procured for spare parts purposes.

WHAT WILL BE CONVERTED

ASSIGNMENT

PG/ M

PG	M
7	12
9	16
11	20
13.5	
16	25
21	
29	32
36	40
42	50
48	63

The ten dimensions PG 7/9/11/13.5/16/21/29/36/42/48 will be replaced by eight metric dimensions M12/16/20/25/32/40/50/63

US and British comparative sizes for cables and lines

In the US, sizes of copper conductors for high current and telecommunication purposes are usually stated in AWG numbers. The following comparisons apply:

AWG	Diameter mm	Section mm ²	AWG	Diameter mm	Section mm ²
500	17.96	253	16	1.29	1.31
350	15.03	177	18	1.024	0.823
250	12.70	127	20	0.813	0.519
4/0	11.68	107.2	22	0.643	0.324
3/0	10.40	85	24	0.511	0.205
2/0	9.27	67.5	26	0.405	0.128
1/0	8.25	53.5	28	0.320	0.0804
1	7.35	42.4	30	0.255	0.0507
2	6.54	33.6	32	0.203	0.0324
4	5.19	21.2	34	0.160	0.0200
6	4.12	13.3	36	0.127	0.0127
8	3.26	8.37	38	0.102	0.00811
10	2.59	5.26	40	0.079	0.00487
12	2.05	3.31	42	0.064	0.00317
14	1.63	2.08	44	0.051	0.00203

CABLE OUTER DIAMETERS FOR PG & NPT

PG SIZE	CABLE O.D.: MINIMUM TO MAXIMUM	NPT SIZE
11	.312 IN. TO .435 IN.	1/2"
13.5	.393 IN. TO .550 IN.	1/2"
16	.393 IN. TO .630 IN.	1/2"
21	.550 IN. TO .825 IN.	3/4"
29	.750 IN. TO 1.10 IN.	1"
36	.945 IN. TO 1.42 IN.	1 1/4"
42	1.34 IN. TO 1.69 IN.	1 1/2"

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CROSS REFERENCE GUIDE FOR AWG (AMERICAN WIRE GAUGE) TO mm²

AWG	mm ²
30	0.05
28	0.08
26	0.14
24	0.25
22	0.34
21	0.38
20	0.50
18	0.75
18 (UL)	1.0
17	1.0
16	1.5
14	2.5
12	4
10	6
8	10
6	16
4	25
2	35
1	50
2/0	70
3/0	95
4/0	120
300MCM	150
350MCM	185
500MCM	240
600MCM	300
750MCM	400
1,000MCM	500

Maryland Metrics P.O.Box 261 Owings Mills, MD 21117 USA
phones: (410)358-3130 (800)638-1830 faxes: (410)358-3142 (800)872-9329
internet: <http://mdmetric.com> e-mail: sales@mdmetric.com

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PG GLAND SIZES FOR MULTI-WIRE CABLES

Wire Size: AWG 20: 0.5mm ²								
# of Wires	Cable Dia. (mm)	PG	PG	PG	PG	PG	PG	PG
2	5.7 - 8.7	9						
3	6 - 9	9	11					
4	6.7 - 9.7	9	11	13.5	16			
5	7.2 - 10.2	9	11	13.5	16			
6	7.6 - 10.6	9	11	13.5	16			
7	8 - 10.6	9	11	13.5	16			
8	9.4 - 12.8	9	11	13.5	16			
10	9.4 - 12.8	9	11	13.5	16			
12	9.7 - 12.9	9	11	13.5	16			
14	10.2 - 13.4		11	13.5	16			
16	10.7 - 13.9		11	13.5	16			
21	12.3 - 15.1			13.5	16	21		
24	13.5 - 16.7			13.5	16	21		
30	14.3 - 17.5				16	21		
35	16 - 18.6					21		
40	16.6 - 19.2					21		
52	19.2 - 21.6					21	29	
61	20.3 - 23.1					21	29	
80	22.9 - 25.7						29	36
100	26.4 - 29.6						29	36

Wire Size: AWG 18: 0.75mm ²									
# of Wires	Cable Dia. (mm)	PG	PG	PG	PG	PG	PG	PG	
2	6.8 - 9.8	9	11						
3	7.2 - 9.7	9	11	13.5					
4	7.9 - 10.3	9	11	13.5	16				
5	8.9 - 10.9	9	11	13.5	16				
6	8.9 - 12.3	9	11	13.5	16				
7	9.6 - 12.3	9	11	13.5	16				
8	10.4 - 13.8		11	13.5	16				
9	10.7 - 13.9		11	13.5	16				
10	10.4 - 13.8		11	13.5	16				
12	10.7 - 13.9		11	13.5	16				
15	12.3 - 13.5			13.5	16				
18	13 - 16.2			13.5	16	21			
21	13.6 - 16.8			13.5	16	21			
25	15.9 - 18.5				16	21			
32	17.1 - 19.7						21	29	
40	19 - 21.4						21	29	
50	21.3 - 24.1						21	29	
61	22.6 - 25.4						21	29	36
80	26.1 - 29.3							29	36
100	29.4 - 33								36

Wire Size: AWG 16 to 18: 1 mm ²									
# of Wires	Cable Dia. (mm)	PG	PG	PG	PG	PG	PG	PG	
2	7.1 - 10.1	9	11						
3	7.5 - 10.1	9	11						
4	8.4 - 10.7	9	11	13.5					
5	9.2 - 11.4	9	11	13.5	16				
6	9.2 - 12.6	9	11	13.5	16				
7	9.2 - 12.6	9	11	13.5	16				
8	11 - 14.4		11	13.5	16	21			
9	11.8 - 15.2		11	13.5	16	21			
10	11 - 14.4		11	13.5	16	21			
12	11.8 - 14.6		11	13.5	16	21			
14	12.4 - 15.2			13.5	16	21			
16	13 - 16.2			13.5	16	21			
18	13.7 - 16.9			13.5	16	21			
20	14.4 - 17.6				16	21			
24	16.5 - 19.1					21	29		
25	16.9 - 19.5					21	29		
34	19.4 - 21.8					21	29		
48	22 - 24.8					21	29		
56	23.2 - 26					21	29	36	
61	24.5 - 27.2						29	36	
80	27.7 - 30.9							36	
100	31.8 - 35.2							36	42

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Wire Size: AWG 16: 1.5mm ²									
# of Wires	Cable Dia. (mm)	PG	PG	PG	PG	PG	PG	PG	PG
2	8 - 11	9	11	13.5	16				
3	8.7 - 11	9	11	13.5	16				
4	9.7 - 11.8	9	11	13.5	16				
5	10.8 - 13		11	13.5	16				
6	10.8 - 14.2		11	13.5	16				
7	10.8 - 14.2		11	13.5	16				
8	13.2 - 16.6			13.5	16	21			
11	13.6 - 16.8			13.5	16	21			
12	17.6 - 16.8			13.5	16	21			
14	14.4 - 17.6				16	21			
16	15.8 - 18.4				16	21			
18	16.6 - 19.2					21	29		
20	17.4 - 20					21	29		
25	20.2 - 23					21	29		
32	23.8 - 24.5						29	36	
34	22.6 - 25.4						29	36	
42	25.8 - 29						29	36	
50	27 - 30.2						29	36	
56	27.8 - 31						29	36	
61	28.6 - 31.8							36	
80	33 - 36.4							36	42
90	34.6 - 37.6							36	42
100	37.8 - 41.4								42

Wire Size: AWG 12 to 14: 2.5mm ²									
# of Wires	Cable Dia. (mm)	PG	PG	PG	PG	PG	PG	PG	PG
2	9.8 - 12.8	9	11	13.5	16				
3	10.6 - 13.4		11	13.5	16				
4	11.7 - 14.4		11	13.5	16				
5	13 - 16.4			13.5	16	21			
6	13.3 - 16.7			13.5	16	21			
7	13.3 - 16.7			13.5	16	21			
8	17.4 - 20.8					21	29		
11	18 - 20.6					21	29		
16	20.6 - 23.4					21	29		
18	21.7 - 24.5						29	36	
25	26.4 - 29.6							29	36
34	31.3 - 33.1								36 42
50	37 - 39.4								42
61	39 - 41.5								42

Wire Size: AWG 10 to 12: 4 mm ²							
# of Wires	Cable Dia. (mm)	PG	PG	PG	PG	PG	PG
2	10.7 - 14.1	11	13.5	21			
4	13 - 16.4		13.5	21			
5	14.3 - 17.7			21			
7	16.2 - 19.6			21	29	36	
11	Ca.- 24.5					29	36

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