

Screw Plug Heaters

Type GRIN (Single End NPT Connection)
Type 2GRIN (Double End NPT Connection)
1/8", 1/4", 3/8", 1/2", 3/4" NPT

APPLICATIONS

45-75 Watts Per Square Inch

For heating clean water only in commercial and/or residential applications. Element life is sacrificed in favor of a low initial heater cost.

23-45 Watts Per Square Inch

Industrial water heating - many aqueous solutions which are compatible with Type 304 SS and Incoloy.

15-23 Watts Per Square Inch

For heat transfer oil, cleaners, high temperature air and gas heating.

12-15 Watts Per Square Inch

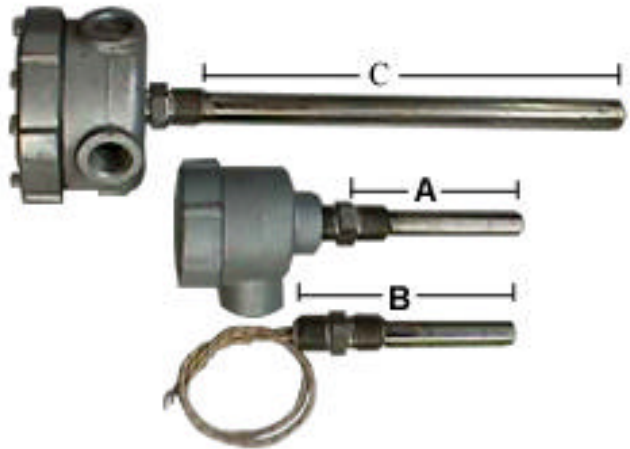
For lubricating oils, medium viscosity oils, high temperature air and gas heating.

6-12 Watts Per Square Inch

For #5 and #6 fuel oil heating, viscous materials, raw crude oil, residual oils, high temperature air and gas heating.

4-8 Watts Per Square Inch

For asphalt and other hard-to-heat substances, extra high temperature air and gas.



Type 2GRIN with Size 2 EP Enclosure
Type 2GRIN with Size 1 EP Enclosure
Type 2GRIN with No Enclosure

STANDARD FEATURES

Heating Element

- Type 304 Stainless Steel Sheath
- Flexible (unspliced) Leadwires
- Sealed Terminals

Screw Plug

- Solid Bar Stock Construction
- Type 304 Stainless Steel
- Precision Machined

Construction

- 100% Welded Heating Element

SPECIAL FEATURES

- ER1(2) Explosion Resistant Terminal Enclosure
- LT Moisture Resistant Terminal Enclosure
- K(J) Type K(J) Thermocouple attached to end disk for control or overheat protection.
- SS Type 316 Stainless Steel Screw Plug
- IS Incoloy 800 Sheath Material

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

45 to 75 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-A122-150D	1.875	2GRIN-A122-150D	2.250	37.5	120	65	0.25	1-1/4	1/8 in. NPT	0.22
GRIN-A202-250D	2.625	2GRIN-A202-250D	3.000	62.5	120	54	0.25	2	1/8 in. NPT	0.23
GRIN-A301-125	3.625	2GRIN-A301-125	4.000	125	120	65	0.25	3	1/8 in. NPT	0.15
GRIN-A401-200	4.625	2GRIN-A401-200	5.000	200	120	74	0.25	4	1/8 in. NPT	0.17
GRIN-A402-200	4.625	2GRIN-A402-200	5.000	200	240	74	0.25	4	1/8 in. NPT	0.17
GRIN-A602-300	6.625	2GRIN-A602-300	7.000	300	240	71	0.25	6	1/8 in. NPT	0.20
GRIN-A802-400	8.625	2GRIN-A802-400	9.000	400	240	71	0.25	8	1/8 in. NPT	0.24
GRIN-B201-100	2.750	2GRIN-B201-100	3.375	100	120	57	0.375	2	1/4 in. NPT	0.25
GRIN-B202-100	2.750	2GRIN-B202-100	3.375	100	240	57	0.375	2	1/4 in. NPT	0.25
GRIN-B211-100	2.875	2GRIN-B211-100	3.500	100	120	55	0.375	2-1/8	1/4 in. NPT	0.26
GRIN-B302-150	3.750	2GRIN-B302-150	4.375	150	240	52	0.375	3	1/4 in. NPT	0.28
GRIN-B301-200	3.750	2GRIN-B301-200	4.375	200	120	69	0.375	3	1/4 in. NPT	0.28
GRIN-B302-200	3.750	2GRIN-B302-200	4.375	200	240	69	0.375	3	1/4 in. NPT	0.28
GRIN-B401-250	4.750	2GRIN-B401-250	5.375	250	120	62	0.375	4	1/4 in. NPT	0.31
GRIN-B402-250	4.750	2GRIN-B402-250	5.375	250	240	62	0.375	4	1/4 in. NPT	0.31
GRIN-B401-300	4.750	2GRIN-B401-300	5.375	300	120	74	0.375	4	1/4 in. NPT	0.31
GRIN-B402-300	4.750	2GRIN-B402-300	5.375	300	240	74	0.375	4	1/4 in. NPT	0.31
GRIN-B441-300	5.250	2GRIN-B441-300	5.875	300	120	65	0.375	4-1/2	1/4 in. NPT	0.32
GRIN-B442-300	5.250	2GRIN-B442-300	5.875	300	240	65	0.375	4-1/2	1/4 in. NPT	0.32
GRIN-B502-200	5.750	2GRIN-B502-200	6.375	200	240	38	0.375	5	1/4 in. NPT	0.34
GRIN-B502-1000D	5.750	2GRIN-B502-1000D	6.375	250	120	48	0.375	5	1/4 in. NPT	0.44
GRIN-B501-300	5.750	2GRIN-B501-300	6.375	300	120	58	0.375	5	1/4 in. NPT	0.34
GRIN-B602-350	6.750	2GRIN-B602-350	7.375	350	240	55	0.375	6	1/4 in. NPT	0.36
GRIN-B801-600	8.750	2GRIN-B801-600	9.375	600	120	69	0.375	8	1/4 in. NPT	0.42
GRIN-B802-600	8.750	2GRIN-B802-600	9.375	600	240	69	0.375	8	1/4 in. NPT	0.42
GRIN-B901-500	9.750	2GRIN-B901-500	10.375	500	120	52	0.375	9	1/4 in. NPT	0.44
GRIN-B1001-500	10.750	2GRIN-B1001-500	11.375	500	120	46	0.375	10	1/4 in. NPT	0.47
GRIN-B1002-500	10.750	2GRIN-B1002-500	11.375	500	240	46	0.375	10	1/4 in. NPT	0.47
GRIN-B1001-600	10.750	2GRIN-B1001-600	11.375	600	120	54	0.375	10	1/4 in. NPT	0.47
GRIN-B1002-600	10.750	2GRIN-B1002-600	11.375	600	240	54	0.375	10	1/4 in. NPT	0.47
GRIN-B1001-800	10.750	2GRIN-B1001-800	11.375	800	120	72	0.375	10	1/4 in. NPT	0.47
GRIN-B1002-800	10.750	2GRIN-B1002-800	11.375	800	240	73	0.375	10	1/4 in. NPT	0.47
GRIN-B1202-1000	12.750	2GRIN-B1202-1000	13.375	1000	240	75	0.375	12	1/4 in. NPT	0.52
GRIN-B1442-1000	14.750	2GRIN-B1442-1000	15.375	1000	240	65	0.375	14	1/4 in. NPT	0.58
GRIN-B1802-1000	18.750	2GRIN-B1802-1000	19.375	1000	240	51	0.375	18	1/4 in. NPT	0.69
GRIN-C101-50	1.750	2GRIN-C101-50	2.375	50	120	65	0.5	1	3/8 in. NPT	0.35
GRIN-C202-150	2.750	2GRIN-C202-150	3.375	150	240	54	0.5	2	3/8 in. NPT	0.38
GRIN-C221-200	3.000	2GRIN-C221-200	3.625	200	120	74	0.5	2-1/4	3/8 in. NPT	0.39
GRIN-C301-250	3.750	2GRIN-C301-250	4.375	250	120	64	0.5	3	3/8 in. NPT	0.42
GRIN-C302-250	3.750	2GRIN-C302-250	4.375	250	240	64	0.5	3	3/8 in. NPT	0.42
GRIN-C402-250	4.750	2GRIN-C402-250	5.375	250	240	46	0.5	4	3/8 in. NPT	0.46
GRIN-C401-300	4.750	2GRIN-C401-300	5.375	300	120	56	0.5	4	3/8 in. NPT	0.46
GRIN-C402-300	4.750	2GRIN-C402-300	5.375	300	240	56	0.5	4	3/8 in. NPT	0.46
GRIN-C401-400	4.750	2GRIN-C401-400	5.375	400	120	74	0.5	4	3/8 in. NPT	0.46
GRIN-C402-400	4.750	2GRIN-C402-400	5.375	400	240	74	0.5	4	3/8 in. NPT	0.46

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

45 to 75 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-C501-350	5.750	2GRIN-C501-350	6.375	350	120	50	0.5	5	3/8 in. NPT	0.50
GRIN-C501-500	5.750	2GRIN-C501-500	6.375	500	120	72	0.5	5	3/8 in. NPT	0.50
GRIN-C502-500	5.750	2GRIN-C502-500	6.375	500	240	72	0.5	5	3/8 in. NPT	0.50
GRIN-C604-500	6.750	2GRIN-C604-500	7.375	500	480	59	0.5	6	3/8 in. NPT	0.53
GRIN-C631-500	7.125	2GRIN-C631-500	7.750	500	120	55	0.5	6-3/8	3/8 in. NPT	0.55
GRIN-C701-500	7.750	2GRIN-C701-500	8.375	500	120	50	0.5	7	3/8 in. NPT	0.57
GRIN-C702-500	7.750	2GRIN-C702-500	8.375	500	240	50	0.5	7	3/8 in. NPT	0.57
GRIN-C701-600	7.750	2GRIN-C701-600	8.375	600	120	60	0.5	7	3/8 in. NPT	0.57
GRIN-C702-600	7.750	2GRIN-C702-600	8.375	600	240	60	0.5	7	3/8 in. NPT	0.57
GRIN-C802-600	8.750	2GRIN-C802-600	9.375	600	240	52	0.5	8	3/8 in. NPT	0.61
GRIN-C802-700	8.750	2GRIN-C802-700	9.375	700	240	59	0.5	8	3/8 in. NPT	0.61
GRIN-C801-800	8.750	2GRIN-C801-800	9.375	800	120	69	0.5	8	3/8 in. NPT	0.61
GRIN-C1001-750	10.750	2GRIN-C1001-750	11.375	750	120	51	0.5	10	3/8 in. NPT	0.69
GRIN-C1002-750	10.750	2GRIN-C1002-750	11.375	750	240	51	0.5	10	3/8 in. NPT	0.69
GRIN-C1001-1000	10.750	2GRIN-C1001-1000	11.375	1000	120	68	0.5	10	3/8 in. NPT	0.69
GRIN-C1002-1000	10.750	2GRIN-C1002-1000	11.375	1000	240	68	0.5	10	3/8 in. NPT	0.69
GRIN-C1162-1000	12.500	2GRIN-C1162-1000	13.125	1000	240	56	0.5	11-3/4	3/8 in. NPT	0.75
GRIN-C1201-1200	12.750	2GRIN-C1201-1200	13.375	1200	120	67	0.5	12	3/8 in. NPT	0.77
GRIN-C1402-1000	14.750	2GRIN-C1402-1000	15.375	1000	240	48	0.5	14	3/8 in. NPT	0.85
GRIN-C1502-1500	15.750	2GRIN-C1502-1500	16.375	1500	240	66	0.5	15	3/8 in. NPT	0.88
GRIN-C1602-1500	16.750	2GRIN-C1602-1500	17.375	1500	240	61	0.5	16	3/8 in. NPT	0.93
GRIN-C1802-1700	18.750	2GRIN-C1802-1700	19.375	1700	240	62	0.5	18	3/8 in. NPT	1.00
GRIN-D201-200	3.125	2GRIN-D201-200	4.000	200	120	68	0.625	2	1/2 in. NPT	0.51
GRIN-D221-250	3.375	2GRIN-D221-250	4.250	250	120	73	0.625	2-1/4	1/2 in. NPT	0.54
GRIN-D222-250	3.375	2GRIN-D222-250	4.250	250	240	73	0.625	2-1/4	1/2 in. NPT	0.54
GRIN-D232-180	3.500	2GRIN-D232-180	4.375	180	240	49	0.625	2-3/8	1/2 in. NPT	0.55
GRIN-D242-280	3.625	2GRIN-D242-280	4.500	280	240	73	0.625	2-1/2	1/2 in. NPT	0.56
GRIN-D301-250	4.125	2GRIN-D301-250	5.000	250	120	51	0.625	3	1/2 in. NPT	0.58
GRIN-D302-250	4.125	2GRIN-D302-250	5.000	250	240	51	0.625	3	1/2 in. NPT	0.58
GRIN-D401-500	5.125	2GRIN-D401-500	6.000	500	120	74	0.625	4	1/2 in. NPT	0.64
GRIN-D402-500	5.125	2GRIN-D402-500	6.000	500	240	73	0.625	4	1/2 in. NPT	0.64
GRIN-D502-500	6.125	2GRIN-D502-500	7.000	500	240	57	0.625	5	1/2 in. NPT	0.70
GRIN-D602-500	7.125	2GRIN-D602-500	8.000	500	240	47	0.625	6	1/2 in. NPT	0.76
GRIN-D602-750	7.125	2GRIN-D602-750	8.000	750	240	70	0.625	6	1/2 in. NPT	0.76
GRIN-D802-1000	9.125	2GRIN-D802-1000	10.000	1000	240	68	0.625	8	1/2 in. NPT	0.88
GRIN-D1002-1000	11.125	2GRIN-D1002-1000	12.000	1000	240	54	0.625	10	1/2 in. NPT	1.00
GRIN-D1102-1000	12.125	2GRIN-D1102-1000	13.000	1000	240	49	0.625	11	1/2 in. NPT	1.06
GRIN-D1202-1500	13.125	2GRIN-D1202-1500	14.000	1500	240	67	0.625	12	1/2 in. NPT	1.12
GRIN-E221-200	3.312	2GRIN-E221-200	4.250	200	120	49	0.75	2-1/4	3/4 in. NPT	0.73
GRIN-E232-200	3.437	2GRIN-E232-200	4.375	200	240	49	0.75	2-3/8	3/4 in. NPT	0.74
GRIN-E341-300	4.562	2GRIN-E341-300	5.500	300	120	51	0.75	3-1/2	3/4 in. NPT	0.80
GRIN-E402-400	5.062	2GRIN-E402-400	6.000	400	240	49	0.75	4	3/4 in. NPT	0.84
GRIN-E402-500	5.062	2GRIN-E402-500	6.000	500	240	61	0.75	4	3/4 in. NPT	0.84
GRIN-E502-500	6.062	2GRIN-E502-500	7.000	500	240	47	0.75	5	3/4 in. NPT	0.93
GRIN-E602-750	7.062	2GRIN-E602-750	8.000	750	240	59	0.75	6	3/4 in. NPT	1.01

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

45 to 75 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-E702-1000	8.062	2GRIN-E702-1000	9.000	1000	240	66	0.75	7	3/4 in. NPT	1.10
GRIN-E802-1000	9.062	2GRIN-E802-1000	10.000	1000	240	57	0.75	8	3/4 in. NPT	1.18
GRIN-E1202-1400	13.062	2GRIN-E1202-1400	14.000	1400	240	52	0.75	12	3/4 in. NPT	1.52
GRIN-E1202-2000	13.062	2GRIN-E1202-2000	14.000	2000	240	74	0.75	12	3/4 in. NPT	1.52
GRIN-E1602-1800	17.062	2GRIN-E1602-1800	18.000	1800	240	49	0.75	16	3/4 in. NPT	1.86
GRIN-E1802-2000	19.062	2GRIN-E1802-2000	20.000	2000	240	49	0.75	18	3/4 in. NPT	2.03
GRIN-E2002-2300	21.062	2GRIN-E2002-2300	22.000	2300	240	52	0.75	20	3/4 in. NPT	2.20
GRIN-E2402-2550	25.062	2GRIN-E2402-2550	26.000	2550	240	47	0.75	24	3/4 in. NPT	2.54

23 to 45 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-A202-150D	2.625	2GRIN-A202-150D	3.000	37.5	120	33	0.25	2	1/8 in. NPT	0.23
GRIN-A202-200D	2.625	2GRIN-A202-200D	3.000	50	120	43	0.25	2	1/8 in. NPT	0.23
GRIN-A302-200D	3.625	2GRIN-A302-200D	4.000	50	120	26	0.25	3	1/8 in. NPT	0.25
GRIN-A302-300D	3.625	2GRIN-A302-300D	4.000	75	120	39	0.25	3	1/8 in. NPT	0.25
GRIN-A402-300D	4.625	2GRIN-A402-300D	5.000	75	120	28	0.25	4	1/8 in. NPT	0.27
GRIN-A401-100	4.625	2GRIN-A401-100	5.000	100	120	37	0.25	4	1/8 in. NPT	0.17
GRIN-A502-350D	5.625	2GRIN-A502-350D	6.000	87.5	120	25	0.25	5	1/8 in. NPT	0.29
GRIN-A501-120	5.625	2GRIN-A501-120	6.000	120	120	34	0.25	5	1/8 in. NPT	0.19
GRIN-A602-400D	6.625	2GRIN-A602-400D	7.000	100	120	24	0.25	6	1/8 in. NPT	0.30
GRIN-B122-150D	2.000	2GRIN-B122-150D	2.625	37.5	120	43	0.375	1-1/4	1/4 in. NPT	0.34
GRIN-B142-150D	2.250	2GRIN-B142-150D	2.875	37.5	120	32	0.375	1-1/2	1/4 in. NPT	0.35
GRIN-B202-250D	2.750	2GRIN-B202-250D	3.375	62.5	120	36	0.375	2	1/4 in. NPT	0.35
GRIN-B242-250D	3.250	2GRIN-B242-250D	3.875	62.5	120	27	0.375	2-1/2	1/4 in. NPT	0.35
GRIN-B302-300D	3.750	2GRIN-B302-300D	4.375	75	120	26	0.375	3	1/4 in. NPT	0.38
GRIN-B301-100	3.750	2GRIN-B301-100	4.375	100	120	34	0.375	3	1/4 in. NPT	0.28
GRIN-B302-100	3.750	2GRIN-B302-100	4.375	100	240	34	0.375	3	1/4 in. NPT	0.28
GRIN-B302-500D	3.750	2GRIN-B302-500D	4.375	125	120	43	0.375	3	1/4 in. NPT	0.38
GRIN-B402-400D	4.750	2GRIN-B402-400D	5.375	100	120	25	0.375	4	1/4 in. NPT	0.41
GRIN-B442-500D	5.250	2GRIN-B442-500D	5.875	125	120	27	0.375	4-1/2	1/4 in. NPT	0.42
GRIN-B502-400D	5.750	2GRIN-B502-400D	6.375	100	120	41	0.375	5	1/4 in. NPT	0.44
GRIN-B502-500D	5.750	2GRIN-B502-500D	6.375	125	120	24	0.375	5	1/4 in. NPT	0.44
GRIN-B501-150	5.750	2GRIN-B501-150	6.375	150	120	29	0.375	5	1/4 in. NPT	0.34
GRIN-B502-150	5.750	2GRIN-B502-150	6.375	150	240	29	0.375	5	1/4 in. NPT	0.34
GRIN-B502-750D	5.750	2GRIN-B502-750D	6.375	187.5	120	36	0.375	5	1/4 in. NPT	0.44
GRIN-B602-600D	6.750	2GRIN-B602-600D	7.375	150	120	24	0.375	6	1/4 in. NPT	0.46
GRIN-B602-750D	6.750	2GRIN-B602-750D	7.375	187.5	120	29	0.375	6	1/4 in. NPT	0.46
GRIN-B602-250	6.750	2GRIN-B602-250	7.375	250	240	39	0.375	6	1/4 in. NPT	0.36
GRIN-B701-250	7.750	2GRIN-B701-250	8.375	250	120	33	0.375	7	1/4 in. NPT	0.39
GRIN-B702-250	7.750	2GRIN-B702-250	8.375	250	240	33	0.375	7	1/4 in. NPT	0.39
GRIN-B702-300	7.750	2GRIN-B702-300	8.375	300	240	40	0.375	7	1/4 in. NPT	0.39
GRIN-B742-1000D	8.250	2GRIN-B742-1000D	8.875	250	120	31	0.375	7-1/2	1/4 in. NPT	0.50
GRIN-B80X-25	8.750	2GRIN-B80X-25	9.375	25	12	3	0.375	8	1/4 in. NPT	0.42
GRIN-B801-025	8.750	2GRIN-B801-025	9.375	25	120	3	0.375	8	1/4 in. NPT	0.42

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Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

23 to 45 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-B801-300	8.750	2GRIN-B801-300	9.375	300	120	34	0.375	8	1/4 in. NPT	0.42
GRIN-B802-300	8.750	2GRIN-B802-300	9.375	300	240	34	0.375	8	1/4 in. NPT	0.42
GRIN-B902-1000D	9.750	2GRIN-B902-1000D	10.375	250	120	25	0.375	9	1/4 in. NPT	0.54
GRIN-B902-400	9.750	2GRIN-B902-400	10.375	400	240	42	0.375	9	1/4 in. NPT	0.44
GRIN-B1002-400	10.750	2GRIN-B1002-400	11.375	400	240	36	0.375	10	1/4 in. NPT	0.47
GRIN-B1101-300	11.750	2GRIN-B1101-300	12.375	300	120	25	0.375	11	1/4 in. NPT	0.50
GRIN-B1202-600	12.750	2GRIN-B1202-600	13.375	600	240	45	0.375	12	1/4 in. NPT	0.52
GRIN-B1402-600	14.750	2GRIN-B1402-600	15.375	600	240	39	0.375	14	1/4 in. NPT	0.58
GRIN-B1502-700	15.750	2GRIN-B1502-700	16.375	700	240	44	0.375	15	1/4 in. NPT	0.61
GRIN-C122-125D	2.000	2GRIN-C122-125D	2.625	31.25	120	27	0.5	1-1/4	3/8 in. NPT	0.45
GRIN-C161-75	2.500	2GRIN-C161-75	3.125	75	120	34	0.5	1-3/4	3/8 in. NPT	0.37
GRIN-C231-120	3.125	2GRIN-C231-120	3.750	120	120	41	0.5	2-3/8	3/8 in. NPT	0.39
GRIN-C232-120	3.125	2GRIN-C232-120	3.750	120	240	41	0.5	2-3/8	3/8 in. NPT	0.39
GRIN-C242-300D	3.250	2GRIN-C242-300D	3.875	75	120	24	0.5	2-1/2	3/8 in. NPT	0.51
GRIN-C242-350D	3.250	2GRIN-C242-350D	3.875	87.5	120	28	0.5	2-1/2	3/8 in. NPT	0.51
GRIN-C242-500D	3.250	2GRIN-C242-500D	3.875	125	120	40	0.5	2-1/2	3/8 in. NPT	0.51
GRIN-C301-100	3.750	2GRIN-C301-100	4.375	100	120	25	0.5	3	3/8 in. NPT	0.42
GRIN-C301-125	3.750	2GRIN-C301-125	4.375	125	120	32	0.5	3	3/8 in. NPT	0.42
GRIN-C302-125	3.750	2GRIN-C302-125	4.375	125	240	32	0.5	3	3/8 in. NPT	0.42
GRIN-C342-500D	4.250	2GRIN-C342-500D	4.875	125	120	27	0.5	3-1/2	3/8 in. NPT	0.54
GRIN-C402-180	4.750	2GRIN-C402-180	5.375	180	240	34	0.5	4	3/8 in. NPT	0.46
GRIN-C402-750D	4.750	2GRIN-C402-750D	5.375	187.5	120	35	0.5	4	3/8 in. NPT	0.56
GRIN-C502-750D	5.750	2GRIN-C502-750D	6.375	187.5	120	27	0.5	5	3/8 in. NPT	0.60
GRIN-C501-200	5.750	2GRIN-C501-200	6.375	200	120	29	0.5	5	3/8 in. NPT	0.50
GRIN-C502-200	5.750	2GRIN-C502-200	6.375	200	240	29	0.5	5	3/8 in. NPT	0.50
GRIN-C542-750D	6.250	2GRIN-C542-750D	6.875	187.5	120	24	0.5	5-1/2	3/8 in. NPT	0.62
GRIN-C601-250	6.750	2GRIN-C601-250	7.375	250	120	29	0.5	6	3/8 in. NPT	0.53
GRIN-C601-300	6.750	2GRIN-C601-300	7.375	300	120	35	0.5	6	3/8 in. NPT	0.53
GRIN-C602-300	6.750	2GRIN-C602-300	7.375	300	240	35	0.5	6	3/8 in. NPT	0.53
GRIN-C802-300	8.750	2GRIN-C802-300	9.375	300	240	26	0.5	8	3/8 in. NPT	0.61
GRIN-C802-1500D	8.750	2GRIN-C802-1500D	9.375	375	120	32	0.5	8	3/8 in. NPT	0.71
GRIN-C802-400	8.750	2GRIN-C802-400	9.375	400	240	34	0.5	8	3/8 in. NPT	0.61
GRIN-C801-500	8.750	2GRIN-C801-500	9.375	500	120	43	0.5	8	3/8 in. NPT	0.61
GRIN-C802-500	8.750	2GRIN-C802-500	9.375	500	240	43	0.5	8	3/8 in. NPT	0.61
GRIN-C842-500	9.250	2GRIN-C842-500	9.875	500	240	40	0.5	8-1/2	3/8 in. NPT	0.63
GRIN-C902-500	9.750	2GRIN-C902-500	10.375	500	240	38	0.5	9	3/8 in. NPT	0.65
GRIN-C1002-350	10.750	2GRIN-C1002-350	11.375	350	240	24	0.5	10	3/8 in. NPT	0.69
GRIN-C1002-1500D	10.750	2GRIN-C1002-1500D	11.375	375	120	26	0.5	10	3/8 in. NPT	0.79
GRIN-C1001-500	10.750	2GRIN-C1001-500	11.375	500	120	34	0.5	10	3/8 in. NPT	0.69
GRIN-C1002-500	10.750	2GRIN-C1002-500	11.375	500	240	34	0.5	10	3/8 in. NPT	0.69
GRIN-C1001-600	10.750	2GRIN-C1001-600	11.375	600	120	41	0.5	10	3/8 in. NPT	0.69
GRIN-C1102-600F	11.750	2GRIN-C1102-600F	12.375	600	240	36	0.5	11	3/8 in. NPT	0.73
GRIN-C1142-600F	12.250	2GRIN-C1142-600F	12.875	600	240	34	0.5	11-1/2	3/8 in. NPT	0.75
GRIN-C1162-500	12.500	2GRIN-C1162-500	13.125	500	240	28	0.5	11-3/4	3/8 in. NPT	0.75
GRIN-C1202-500	12.750	2GRIN-C1202-500	13.375	500	240	28	0.5	12	3/8 in. NPT	0.77

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

23 to 45 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-C1202-600	12.750	2GRIN-C1202-600	13.375	600	240	34	0.5	12	3/8 in. NPT	0.77
GRIN-C1302-700	13.750	2GRIN-C1302-700	14.375	700	240	36	0.5	13	3/8 in. NPT	0.81
GRIN-C1402-500	14.750	2GRIN-C1402-500	15.375	500	240	24	0.5	14	3/8 in. NPT	0.85
GRIN-C1402-2300D	14.750	2GRIN-C1402-2300D	15.375	575	120	28	0.5	14	3/8 in. NPT	0.95
GRIN-C1502-600	15.750	2GRIN-C1502-600	16.375	600	240	26	0.5	15	3/8 in. NPT	0.88
GRIN-C1601-1000	16.750	2GRIN-C1601-1000	17.375	1000	120	41	0.5	16	3/8 in. NPT	0.93
GRIN-C1602-1000	16.750	2GRIN-C1602-1000	17.375	1000	240	41	0.5	16	3/8 in. NPT	0.93
GRIN-C1702-600	17.750	2GRIN-C1702-600	18.375	600	240	24	0.5	17	3/8 in. NPT	0.97
GRIN-C2002-1050	20.750	2GRIN-C2002-1050	21.375	1050	240	34	0.5	20	3/8 in. NPT	1.08
GRIN-D231-150	3.500	2GRIN-D231-150	4.375	150	120	41	0.625	2-3/8	1/2 in. NPT	0.55
GRIN-D232-150	3.500	2GRIN-D232-150	4.375	150	240	41	0.625	2-3/8	1/2 in. NPT	0.55
GRIN-D302-500D	4.125	2GRIN-D302-500D	5.000	125	120	26	0.625	3	1/2 in. NPT	0.68
GRIN-D301-150	4.125	2GRIN-D301-150	5.000	150	120	31	0.625	3	1/2 in. NPT	0.58
GRIN-D302-150	4.125	2GRIN-D302-150	5.000	150	240	31	0.625	3	1/2 in. NPT	0.58
GRIN-D402-750D	5.125	2GRIN-D402-750D	6.000	187.5	120	28	0.625	4	1/2 in. NPT	0.74
GRIN-D401-250	5.125	2GRIN-D401-250	6.000	250	120	37	0.625	4	1/2 in. NPT	0.64
GRIN-D402-250	5.125	2GRIN-D402-250	6.000	250	240	37	0.625	4	1/2 in. NPT	0.64
GRIN-D431-300	5.500	2GRIN-D431-300	6.375	300	120	42	0.625	4-3/8	1/2 in. NPT	0.66
GRIN-D441-250	5.625	2GRIN-D441-250	6.500	250	120	35	0.625	4-1/2	1/2 in. NPT	0.67
GRIN-D502-1300D	6.125	2GRIN-D502-1300D	7.000	325	120	37	0.625	5	1/2 in. NPT	0.80
GRIN-D542-285	6.625	2GRIN-D542-285	7.500	285	240	28	0.625	5-1/2	1/2 in. NPT	0.74
GRIN-D602-1000D	7.125	2GRIN-D602-1000D	8.000	250	120	23	0.625	6	1/2 in. NPT	0.86
GRIN-D602-1500D	7.125	2GRIN-D602-1500D	8.000	375	120	35	0.625	6	1/2 in. NPT	0.86
GRIN-D601-400	7.125	2GRIN-D601-400	8.000	400	120	38	0.625	6	1/2 in. NPT	0.76
GRIN-D602-400	7.125	2GRIN-D602-400	8.000	400	240	38	0.625	6	1/2 in. NPT	0.76
GRIN-D702-1500D	8.125	2GRIN-D702-1500D	9.000	375	120	30	0.625	7	1/2 in. NPT	0.92
GRIN-D702-400	8.125	2GRIN-D702-400	9.000	400	240	31	0.625	7	1/2 in. NPT	0.82
GRIN-D802-1500D	9.125	2GRIN-D802-1500D	10.000	375	120	26	0.625	8	1/2 in. NPT	0.98
GRIN-D801-500	9.125	2GRIN-D801-500	10.000	500	120	34	0.625	8	1/2 in. NPT	0.88
GRIN-D861-450	9.875	2GRIN-D861-450	10.750	450	120	28	0.625	8-3/4	1/2 in. NPT	0.93
GRIN-D1001-600	11.125	2GRIN-D1001-600	12.000	600	120	32	0.625	10	1/2 in. NPT	1.00
GRIN-D1002-750	11.125	2GRIN-D1002-750	12.000	750	240	40	0.625	10	1/2 in. NPT	1.00
GRIN-D1202-1000	13.125	2GRIN-D1202-1000	14.000	1000	240	45	0.625	12	1/2 in. NPT	1.12
GRIN-D1462-1000	15.875	2GRIN-D1462-1000	16.750	1000	240	38	0.625	14-3/4	1/2 in. NPT	1.29
GRIN-D1502-600	16.125	2GRIN-D1502-600	17.000	600	240	21	0.625	15	1/2 in. NPT	1.30
GRIN-D1502-750	16.125	2GRIN-D1502-750	17.000	750	240	27	0.625	15	1/2 in. NPT	1.30
GRIN-D1802-1500	19.125	2GRIN-D1802-1500	20.000	1500	240	44	0.625	18	1/2 in. NPT	1.48
GRIN-D2002-1000	21.125	2GRIN-D2002-1000	22.000	1000	240	27	0.625	20	1/2 in. NPT	1.60
GRIN-D2102-1075	22.125	2GRIN-D2102-1075	23.000	1075	240	28	0.625	21	1/2 in. NPT	1.66
GRIN-D2402-2000	25.125	2GRIN-D2402-2000	26.000	2000	240	44	0.625	24	1/2 in. NPT	1.84
GRIN-D3602-3000	37.125	2GRIN-D3602-3000	38.000	3000	240	43	0.625	36	1/2 in. NPT	2.70
GRIN-E301-250	4.062	2GRIN-E301-250	5.000	250	120	43	0.75	3	3/4 in. NPT	0.76
GRIN-E302-250	4.062	2GRIN-E302-250	5.000	250	240	43	0.75	3	3/4 in. NPT	0.76
GRIN-E502-1000D	6.062	2GRIN-E502-1000D	7.000	250	120	24	0.75	5	3/4 in. NPT	1.03
GRIN-E602-350	7.062	2GRIN-E602-350	8.000	350	240	27	0.75	6	3/4 in. NPT	1.01

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

23 to 45 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-E602-1500D	7.062	2GRIN-E602-1500D	8.000	375	120	29	0.75	6	3/4 in. NPT	1.11
GRIN-E601-500	7.062	2GRIN-E601-500	8.000	500	120	39	0.75	6	3/4 in. NPT	1.01
GRIN-E602-500	7.062	2GRIN-E602-500	8.000	500	240	39	0.75	6	3/4 in. NPT	1.01
GRIN-E701-500	8.062	2GRIN-E701-500	9.000	500	120	33	0.75	7	3/4 in. NPT	1.10
GRIN-E702-500	8.062	2GRIN-E702-500	9.000	500	240	33	0.75	7	3/4 in. NPT	1.10
GRIN-E802-500	9.062	2GRIN-E802-500	10.000	500	240	28	0.75	8	3/4 in. NPT	1.18
GRIN-E1002-1000	11.062	2GRIN-E1002-1000	12.000	1000	240	45	0.75	10	3/4 in. NPT	1.35
GRIN-E1202-1000	13.062	2GRIN-E1202-1000	14.000	1000	240	37	0.75	12	3/4 in. NPT	1.52
GRIN-E1302-1000	14.062	2GRIN-E1302-1000	15.000	1000	240	34	0.75	13	3/4 in. NPT	1.61
GRIN-E1302-1250	14.062	2GRIN-E1302-1250	15.000	1250	240	43	0.75	13	3/4 in. NPT	1.61
GRIN-E1402-1000	15.062	2GRIN-E1402-1000	16.000	1000	240	32	0.75	14	3/4 in. NPT	1.69
GRIN-E1402-1200	15.062	2GRIN-E1402-1200	16.000	1200	240	41	0.75	14	3/4 in. NPT	1.69
GRIN-E1502-1500	16.062	2GRIN-E1502-1500	17.000	1500	240	44	0.75	15	3/4 in. NPT	1.78
GRIN-E1602-1250	17.062	2GRIN-E1602-1250	18.000	1250	240	34	0.75	16	3/4 in. NPT	1.86
GRIN-E1702-1200	18.062	2GRIN-E1702-1200	19.000	1200	240	30	0.75	17	3/4 in. NPT	1.95
GRIN-E2002-1200	21.062	2GRIN-E2002-1200	22.000	1200	240	27	0.75	20	3/4 in. NPT	2.20
GRIN-E2402-1400	25.062	2GRIN-E2402-1400	26.000	1400	240	26	0.75	24	3/4 in. NPT	2.54
GRIN-E3602-2500	37.062	2GRIN-E3602-2500	38.000	2500	240	30	0.75	36	3/4 in. NPT	3.56

15 to 23 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-A402-200D	4.625	2GRIN-A402-200D	5.000	50	120	19	0.25	4	1/8 in. NPT	0.27
GRIN-A602-300D	6.625	2GRIN-A602-300D	7.000	75	120	18	0.25	6	1/8 in. NPT	0.30
GRIN-A802-400D	8.625	2GRIN-A802-400D	9.000	100	120	18	0.25	8	1/8 in. NPT	0.34
GRIN-B202-150D	2.750	2GRIN-B202-150D	3.375	37.5	120	22	0.375	2	1/4 in. NPT	0.35
GRIN-B302-200D	3.750	2GRIN-B302-200D	4.375	50	120	17	0.375	3	1/4 in. NPT	0.38
GRIN-B302-250D	3.750	2GRIN-B302-250D	4.375	62.5	120	22	0.375	3	1/4 in. NPT	0.38
GRIN-B342-300D	4.250	2GRIN-B342-300D	4.875	75	120	22	0.375	3-1/2	1/4 in. NPT	0.39
GRIN-B402-250D	4.750	2GRIN-B402-250D	5.375	62.5	120	16	0.375	4	1/4 in. NPT	0.41
GRIN-B402-300D	4.750	2GRIN-B402-300D	5.375	75	120	19	0.375	4	1/4 in. NPT	0.41
GRIN-B442-300D	5.250	2GRIN-B442-300D	5.875	75	120	16	0.375	4-1/2	1/4 in. NPT	0.42
GRIN-B502-200D	5.750	2GRIN-B502-200D	6.375	50	120	16	0.375	5	1/4 in. NPT	0.44
GRIN-B602-500D	6.750	2GRIN-B602-500D	7.375	125	120	20	0.375	6	1/4 in. NPT	0.46
GRIN-B802-600D	8.750	2GRIN-B802-600D	9.375	150	120	17	0.375	8	1/4 in. NPT	0.52
GRIN-B802-750D	8.750	2GRIN-B802-750D	9.375	187.5	120	21	0.375	8	1/4 in. NPT	0.52
GRIN-B1002-800D	10.750	2GRIN-B1002-800D	11.375	200	120	18	0.375	10	1/4 in. NPT	0.57
GRIN-B1202-1000D	12.750	2GRIN-B1202-1000D	13.375	250	120	19	0.375	12	1/4 in. NPT	0.62
GRIN-B1442-1000D	14.750	2GRIN-B1442-1000D	15.375	250	120	16	0.375	14	1/4 in. NPT	0.68
GRIN-C202-200D	2.750	2GRIN-C202-200D	3.375	50	120	22	0.5	2	3/8 in. NPT	0.48
GRIN-C222-250D	3.000	2GRIN-C222-250D	3.625	62.5	120	23	0.5	2-1/4	3/8 in. NPT	0.49
GRIN-C302-250D	3.750	2GRIN-C302-250D	4.375	62.5	120	16	0.5	3	3/8 in. NPT	0.52
GRIN-C302-300D	3.750	2GRIN-C302-300D	4.375	75	120	20	0.5	3	3/8 in. NPT	0.52
GRIN-C302-75	3.750	2GRIN-C302-75	4.375	75	240	19	0.5	3	3/8 in. NPT	0.42
GRIN-C402-500D	4.750	2GRIN-C402-500D	5.375	125	120	23	0.5	4	3/8 in. NPT	0.56

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

15 to 23 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-C442-500D	5.250	2GRIN-C442-500D	5.875	125	120	20	0.5	4-1/2	3/8 in. NPT	0.58
GRIN-C504-500D	5.750	2GRIN-C504-500D	6.375	125	240	18	0.5	5	3/8 in. NPT	0.60
GRIN-C501-150	5.750	2GRIN-C501-150	6.375	150	120	22	0.5	5	3/8 in. NPT	0.50
GRIN-C602-750D	6.750	2GRIN-C602-750D	7.375	187.5	120	22	0.5	6	3/8 in. NPT	0.63
GRIN-C802-1000D	8.750	2GRIN-C802-1000D	9.375	250	120	22	0.5	8	3/8 in. NPT	0.71
GRIN-C902-1000D	9.750	2GRIN-C902-1000D	10.375	250	120	19	0.5	9	3/8 in. NPT	0.75
GRIN-C901-300	9.750	2GRIN-C901-300	10.375	300	120	23	0.5	9	3/8 in. NPT	0.65
GRIN-C941-300	10.250	2GRIN-C941-300	10.875	300	120	22	0.5	9-1/2	3/8 in. NPT	0.67
GRIN-C1002-1000D	10.750	2GRIN-C1002-1000D	11.375	250	120	17	0.5	10	3/8 in. NPT	0.79
GRIN-C1001-300	10.750	2GRIN-C1001-300	11.375	300	120	21	0.5	10	3/8 in. NPT	0.69
GRIN-C1102-1500D	11.750	2GRIN-C1102-1500D	12.375	375	120	23	0.5	11	3/8 in. NPT	0.83
GRIN-C1201-350	12.750	2GRIN-C1201-350	13.375	350	120	20	0.5	12	3/8 in. NPT	0.77
GRIN-C1202-350	12.750	2GRIN-C1202-350	13.375	350	240	20	0.5	12	3/8 in. NPT	0.77
GRIN-CIR-3120D	12.750	2GRIN-CIR-3120D	13.375	375	120	21	0.5	12	3/8 in. NPT	0.87
GRIN-C1502-1500D	15.750	2GRIN-C1502-1500D	16.375	375	120	17	0.5	15	3/8 in. NPT	0.98
GRIN-C1501-500	15.750	2GRIN-C1501-500	16.375	500	120	22	0.5	15	3/8 in. NPT	0.88
GRIN-C1502-500	15.750	2GRIN-C1502-500	16.375	500	240	22	0.5	15	3/8 in. NPT	0.88
GRIN-C1602-1500D	16.750	2GRIN-C1602-1500D	17.375	375	120	15	0.5	16	3/8 in. NPT	1.03
GRIN-C1601-500	16.750	2GRIN-C1601-500	17.375	500	120	21	0.5	16	3/8 in. NPT	0.93
GRIN-C1702-500	17.750	2GRIN-C1702-500	18.375	500	240	20	0.5	17	3/8 in. NPT	0.97
GRIN-C1802-500	18.750	2GRIN-C1802-500	19.375	500	240	18	0.5	18	3/8 in. NPT	1.00
GRIN-D222-250D	3.375	2GRIN-D222-250D	4.250	62.5	120	18	0.625	2-1/4	1/2 in. NPT	0.64
GRIN-D242-280D	3.625	2GRIN-D242-280D	4.500	70	120	18	0.625	2-1/2	1/2 in. NPT	0.66
GRIN-D402-500D	5.125	2GRIN-D402-500D	6.000	125	120	18	0.625	4	1/2 in. NPT	0.74
GRIN-D401-150	5.125	2GRIN-D401-150	6.000	150	120	22	0.625	4	1/2 in. NPT	0.64
GRIN-D602-750D	7.125	2GRIN-D602-750D	8.000	187.5	120	18	0.625	6	1/2 in. NPT	0.86
GRIN-D702-1000D	8.125	2GRIN-D702-1000D	9.000	250	120	20	0.625	7	1/2 in. NPT	0.92
GRIN-D762-1200D	8.875	2GRIN-D762-1200D	9.750	300	120	21	0.625	7-3/4	1/2 in. NPT	0.95
GRIN-D802-1000D	9.125	2GRIN-D802-1000D	10.000	250	120	17	0.625	8	1/2 in. NPT	0.98
GRIN-D802-1200D	9.125	2GRIN-D802-1200D	10.000	300	120	21	0.625	8	1/2 in. NPT	0.98
GRIN-D1002-1500D	11.125	2GRIN-D1002-1500D	12.000	375	120	20	0.625	10	1/2 in. NPT	1.10
GRIN-D1202-1500D	13.125	2GRIN-D1202-1500D	14.000	375	120	17	0.625	12	1/2 in. NPT	1.22
GRIN-D1202-500	13.125	2GRIN-D1202-500	14.000	500	240	22	0.625	12	1/2 in. NPT	1.12
GRIN-D1502-2400D	16.125	2GRIN-D1502-2400D	17.000	600	120	21	0.625	15	1/2 in. NPT	1.40
GRIN-D1602-2500D	17.125	2GRIN-D1602-2500D	18.000	625	120	21	0.625	16	1/2 in. NPT	1.58
GRIN-D1801-600	19.125	2GRIN-D1801-600	20.000	600	120	18	0.625	18	1/2 in. NPT	1.48
GRIN-D1802-3000D	19.125	2GRIN-D1802-3000D	20.000	750	120	22	0.625	18	1/2 in. NPT	1.58
GRIN-D2002-3500D	21.125	2GRIN-D2002-3500D	22.000	875	120	23	0.625	20	1/2 in. NPT	1.70
GRIN-E302-500D	4.062	2GRIN-E302-500D	5.000	125	120	21	0.75	3	3/4 in. NPT	0.86
GRIN-E402-500D	5.062	2GRIN-E402-500D	6.000	125	120	15	0.75	4	3/4 in. NPT	0.94
GRIN-E602-1000D	7.062	2GRIN-E602-1000D	8.000	250	120	20	0.75	6	3/4 in. NPT	1.11
GRIN-E602-300	7.062	2GRIN-E602-300	8.000	300	240	23	0.75	6	3/4 in. NPT	1.01
GRIN-E702-1000D	8.062	2GRIN-E702-1000D	9.000	250	120	17	0.75	7	3/4 in. NPT	1.20
GRIN-E702-350	8.062	2GRIN-E702-350	9.000	350	240	23	0.75	7	3/4 in. NPT	1.10
GRIN-E742-1300D	8.562	2GRIN-E742-1300D	9.500	325	120	20	0.75	7-1/2	3/4 in. NPT	1.19

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

15 to 23 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-E1002-2000D	11.062	2GRIN-E1002-2000D	12.000	500	120	23	0.75	10	3/4 in. NPT	1.45
GRIN-E1202-2000D	13.062	2GRIN-E1202-2000D	14.000	500	120	19	0.75	12	3/4 in. NPT	1.62
GRIN-E1301-600	14.062	2GRIN-E1301-600	15.000	600	120	20	0.75	13	3/4 in. NPT	1.61
GRIN-E1332-550	14.437	2GRIN-E1332-550	15.375	550	240	19	0.75	13-3/8	3/4 in. NPT	1.67
GRIN-E1402-700	15.062	2GRIN-E1402-700	16.000	700	240	22	0.75	14	3/4 in. NPT	1.69
GRIN-E1502-3000D	16.062	2GRIN-E1502-3000D	17.000	750	120	22	0.75	15	3/4 in. NPT	1.88
GRIN-E1602-3000D	17.062	2GRIN-E1602-3000D	18.000	750	120	21	0.75	16	3/4 in. NPT	1.96
GRIN-E2402-4600D	25.062	2GRIN-E2402-4600D	26.000	1150	120	21	0.75	24	3/4 in. NPT	2.64
GRIN-E2402-1200	25.062	2GRIN-E2402-1200	26.000	1200	240	22	0.75	24	3/4 in. NPT	2.54

12 to 15 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-B202-100D	2.750	2GRIN-B202-100D	3.375	25	120	14	0.375	2	1/4 in. NPT	0.35
GRIN-B302-150D	3.750	2GRIN-B302-150D	4.375	37.5	120	13	0.375	3	1/4 in. NPT	0.38
GRIN-B1002-600D	10.750	2GRIN-B1002-600D	11.375	150	120	14	0.375	10	1/4 in. NPT	0.57
GRIN-C402-300D	4.750	2GRIN-C402-300D	5.375	75	120	14	0.5	4	3/8 in. NPT	0.56
GRIN-C702-500D	7.750	2GRIN-C702-500D	8.375	125	120	13	0.5	7	3/8 in. NPT	0.67
GRIN-C702-600D	7.750	2GRIN-C702-600D	8.375	150	120	15	0.5	7	3/8 in. NPT	0.67
GRIN-C802-600D	8.750	2GRIN-C802-600D	9.375	150	120	13	0.5	8	3/8 in. NPT	0.71
GRIN-C1162-1000D	12.500	2GRIN-C1162-1000D	13.125	250	120	14	0.5	11-3/4	3/8 in. NPT	0.85
GRIN-D302-250D	4.125	2GRIN-D302-250D	5.000	62.5	120	13	0.625	3	1/2 in. NPT	0.68
GRIN-D402-100	5.125	2GRIN-D402-100	6.000	100	240	15	0.625	4	1/2 in. NPT	0.64
GRIN-D502-500D	6.125	2GRIN-D502-500D	7.000	125	120	14	0.625	5	1/2 in. NPT	0.80
GRIN-D502-125	6.125	2GRIN-D502-125	7.000	125	240	14	0.625	5	1/2 in. NPT	0.70
GRIN-D1002-1000D	11.125	2GRIN-D1002-1000D	12.000	250	120	14	0.625	10	1/2 in. NPT	1.10
GRIN-D1102-1000D	12.125	2GRIN-D1102-1000D	13.000	250	120	12	0.625	11	1/2 in. NPT	1.16
GRIN-E232-200D	3.437	2GRIN-E232-200D	4.375	50	120	12	0.75	2-3/8	3/4 in. NPT	0.84
GRIN-E402-400D	5.062	2GRIN-E402-400D	6.000	100	120	12	0.75	4	3/4 in. NPT	0.94
GRIN-E802-1000D	9.062	2GRIN-E802-1000D	10.000	250	120	14	0.75	8	3/4 in. NPT	1.28
GRIN-E1202-1400D	13.062	2GRIN-E1202-1400D	14.000	350	120	13	0.75	12	3/4 in. NPT	1.62
GRIN-E1602-1800D	17.062	2GRIN-E1602-1800D	18.000	450	120	12	0.75	16	3/4 in. NPT	1.96
GRIN-E1802-2000D	19.062	2GRIN-E1802-2000D	20.000	500	120	12	0.75	18	3/4 in. NPT	2.13
GRIN-E2002-2300D	21.062	2GRIN-E2002-2300D	22.000	575	120	13	0.75	20	3/4 in. NPT	2.30

9 to 12 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-B302-100D	3.750	2GRIN-B302-100D	4.375	25	120	9	0.375	3	1/4 in. NPT	0.38
GRIN-B602-250D	6.750	2GRIN-B602-250D	7.375	62.5	120	10	0.375	6	1/4 in. NPT	0.46
GRIN-B702-250D	7.750	2GRIN-B702-250D	8.375	62.5	120	8	0.375	7	1/4 in. NPT	0.49
GRIN-B702-300D	7.750	2GRIN-B702-300D	8.375	75	120	10	0.375	7	1/4 in. NPT	0.49
GRIN-B802-300D	8.750	2GRIN-B802-300D	9.375	75	120	9	0.375	8	1/4 in. NPT	0.52
GRIN-B902-400D	9.750	2GRIN-B902-400D	10.375	100	120	11	0.375	9	1/4 in. NPT	0.54
GRIN-B1002-400D	10.750	2GRIN-B1002-400D	11.375	100	120	9	0.375	10	1/4 in. NPT	0.57
GRIN-B1002-500D	10.750	2GRIN-B1002-500D	11.375	125	120	12	0.375	10	1/4 in. NPT	0.57

Screw Plug Heaters

Type GRIN (Single End NPT Connection)
Type 2GRIN (Double End NPT Connection)
1/8", 1/4", 3/8", 1/2", 3/4" NPT

9 to 12 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-B1202-600D	12.750	2GRIN-B1202-600D	13.375	150	120	11	0.375	12	1/4 in. NPT	0.62
GRIN-B1402-600D	14.750	2GRIN-B1402-600D	15.375	150	120	10	0.375	14	1/4 in. NPT	0.68
GRIN-B2201-300	22.750	2GRIN-B2201-300	23.375	300	120	12	0.375	22	1/4 in. NPT	0.80
GRIN-C232-120D	3.125	2GRIN-C232-120D	3.750	30	120	10	0.5	2-3/8	3/8 in. NPT	0.49
GRIN-C302-125D	3.750	2GRIN-C302-125D	4.375	31.25	120	8	0.5	3	3/8 in. NPT	0.52
GRIN-C402-180D	4.750	2GRIN-C402-180D	5.375	45	120	9	0.5	4	3/8 in. NPT	0.56
GRIN-C402-250D	4.750	2GRIN-C402-250D	5.375	62.5	120	12	0.5	4	3/8 in. NPT	0.56
GRIN-C602-300D	6.750	2GRIN-C602-300D	7.375	75	120	9	0.5	6	3/8 in. NPT	0.63
GRIN-C802-500D	8.750	2GRIN-C802-500D	9.375	125	120	11	0.5	8	3/8 in. NPT	0.71
GRIN-C842-500D	9.250	2GRIN-C842-500D	9.875	125	120	10	0.5	8-1/2	3/8 in. NPT	0.73
GRIN-C902-500D	9.750	2GRIN-C902-500D	10.375	125	120	10	0.5	9	3/8 in. NPT	0.75
GRIN-C1002-500D	10.750	2GRIN-C1002-500D	11.375	125	120	9	0.5	10	3/8 in. NPT	0.79
GRIN-C1202-600D	12.750	2GRIN-C1202-600D	13.375	150	120	9	0.5	12	3/8 in. NPT	0.87
GRIN-C1402-1000D	14.750	2GRIN-C1402-1000D	15.375	250	120	12	0.5	14	3/8 in. NPT	0.95
GRIN-C1602-1000D	16.750	2GRIN-C1602-1000D	17.375	250	120	10	0.5	16	3/8 in. NPT	1.03
GRIN-C2002-1050D	20.750	2GRIN-C2002-1050D	21.375	262.5	120	9	0.5	20	3/8 in. NPT	1.18
GRIN-D232-150D	3.500	2GRIN-D232-150D	4.375	37.5	120	10	0.625	2-3/8	1/2 in. NPT	0.65
GRIN-D402-250D	5.125	2GRIN-D402-250D	6.000	62.5	120	9	0.625	4	1/2 in. NPT	0.74
GRIN-D602-400D	7.125	2GRIN-D602-400D	8.000	100	120	10	0.625	6	1/2 in. NPT	0.86
GRIN-D602-500D	7.125	2GRIN-D602-500D	8.000	125	120	12	0.625	6	1/2 in. NPT	0.86
GRIN-D1002-750D	11.125	2GRIN-D1002-750D	12.000	187.5	120	10	0.625	10	1/2 in. NPT	1.10
GRIN-D1202-1000D	13.125	2GRIN-D1202-1000D	14.000	250	120	11	0.625	12	1/2 in. NPT	1.22
GRIN-D1462-1000D	15.875	2GRIN-D1462-1000D	16.750	250	120	10	0.625	14-3/4	1/2 in. NPT	1.39
GRIN-D1502-600D	16.125	2GRIN-D1502-600D	17.000	150	120	9	0.625	15	1/2 in. NPT	1.40
GRIN-D1802-1500D	19.125	2GRIN-D1802-1500D	20.000	375	120	11	0.625	18	1/2 in. NPT	1.58
GRIN-D2402-2000D	25.125	2GRIN-D2402-2000D	26.000	500	120	11	0.625	24	1/2 in. NPT	1.94
GRIN-D3602-3000D	37.125	2GRIN-D3602-3000D	38.000	750	120	11	0.625	36	1/2 in. NPT	2.80
GRIN-E302-250D	4.062	2GRIN-E302-250D	5.000	62.5	120	11	0.75	3	3/4 in. NPT	0.86
GRIN-E502-500D	6.062	2GRIN-E502-500D	7.000	125	120	12	0.75	5	3/4 in. NPT	1.03
GRIN-E602-500D	7.062	2GRIN-E602-500D	8.000	125	120	10	0.75	6	3/4 in. NPT	1.11
GRIN-E702-500D	8.062	2GRIN-E702-500D	9.000	125	120	8	0.75	7	3/4 in. NPT	1.20
GRIN-E1002-200	11.062	2GRIN-E1002-200	12.000	200	240	10	0.75	10	3/4 in. NPT	1.35
GRIN-E1002-1000D	11.062	2GRIN-E1002-1000D	12.000	250	120	11	0.75	10	3/4 in. NPT	1.45
GRIN-E1202-1000D	13.062	2GRIN-E1202-1000D	14.000	250	120	9	0.75	12	3/4 in. NPT	1.62
GRIN-E1302-1000D	14.062	2GRIN-E1302-1000D	15.000	250	120	9	0.75	13	3/4 in. NPT	1.71
GRIN-E1402-1000D	15.062	2GRIN-E1402-1000D	16.000	250	120	8	0.75	14	3/4 in. NPT	1.79
GRIN-E1402-1200D	15.062	2GRIN-E1402-1200D	16.000	300	120	10	0.75	14	3/4 in. NPT	1.79
GRIN-E1502-1500D	16.062	2GRIN-E1502-1500D	17.000	375	120	11	0.75	15	3/4 in. NPT	1.88
GRIN-E1602-1250D	17.062	2GRIN-E1602-1250D	18.000	312.5	120	9	0.75	16	3/4 in. NPT	1.96
GRIN-E2402-2550D	25.062	2GRIN-E2402-2550D	26.000	637.5	120	12	0.75	24	3/4 in. NPT	2.64

4 to 8 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-B502-150D	5.750	2GRIN-B502-150D	6.375	37.5	120	7	0.375	5	1/4 in. NPT	0.44

Screw Plug Heaters

Type GRIN (Single End NPT Connection)

Type 2GRIN (Double End NPT Connection)

1/8", 1/4", 3/8", 1/2", 3/4" NPT

4 to 8 W/sq.in.

Type GRIN Single NPT Fitting		Type 2GRIN- Double NPT Fitting		Watts	Volts	Watt Dnsity	Heater Diam.	Lgth. Dim (C)	Plug Size	Weight
Catalog Number	Dim (A)	Catalog Number	Dim (B)							
GRIN-C502-200D	5.750	2GRIN-C502-200D	6.375	50	120	7	0.5	5	3/8 in. NPT	0.60
GRIN-C1702-500D	17.750	2GRIN-C1702-500D	18.375	125	120	5	0.5	17	3/8 in. NPT	1.07
GRIN-C1702-600D	17.750	2GRIN-C1702-600D	18.375	150	120	6	0.5	17	3/8 in. NPT	1.07
GRIN-D302-150D	4.125	2GRIN-D302-150D	5.000	37.5	120	8	0.625	3	1/2 in. NPT	0.68
GRIN-D402-100D	5.125	2GRIN-D402-100D	6.000	25	120	4	0.625	4	1/2 in. NPT	0.74
GRIN-D502-125D	6.125	2GRIN-D502-125D	7.000	31.25	120	4	0.625	5	1/2 in. NPT	0.80
GRIN-D542-285D	6.625	2GRIN-D542-285D	7.500	71.25	120	7	0.625	5-1/2	1/2 in. NPT	0.84
GRIN-D702-400D	8.125	2GRIN-D702-400D	9.000	100	120	8	0.625	7	1/2 in. NPT	0.92
GRIN-D1202-500D	13.125	2GRIN-D1202-500D	14.000	125	120	6	0.625	12	1/2 in. NPT	1.22
GRIN-D1502-750D	16.125	2GRIN-D1502-750D	17.000	187.5	120	7	0.625	15	1/2 in. NPT	1.40
GRIN-D2002-1000D	21.125	2GRIN-D2002-1000D	22.000	250	120	7	0.625	20	1/2 in. NPT	1.70
GRIN-D2102-1075D	22.125	2GRIN-D2102-1075D	23.000	268.75	120	7	0.625	21	1/2 in. NPT	1.76
GRIN-E602-300D	7.062	2GRIN-E602-300D	8.000	75	120	6	0.75	6	3/4 in. NPT	1.11
GRIN-E602-350D	7.062	2GRIN-E602-350D	8.000	87.5	120	7	0.75	6	3/4 in. NPT	1.11
GRIN-E702-350D	8.062	2GRIN-E702-350D	9.000	87.5	120	6	0.75	7	3/4 in. NPT	1.20
GRIN-E802-500D	9.062	2GRIN-E802-500D	10.000	125	120	7	0.75	8	3/4 in. NPT	1.28
GRIN-E1002-200D	11.062	2GRIN-E1002-200D	12.000	50	120	3	0.75	10	3/4 in. NPT	1.45
GRIN-E1332-550D	14.437	2GRIN-E1332-550D	15.375	137.5	120	5	0.75	13-3/8	3/4 in. NPT	1.77
GRIN-E1402-700D	15.062	2GRIN-E1402-700D	16.000	175	120	6	0.75	14	3/4 in. NPT	1.79
GRIN-E1702-1200D	18.062	2GRIN-E1702-1200D	19.000	300	120	8	0.75	17	3/4 in. NPT	2.05
GRIN-E2002-1200D	21.062	2GRIN-E2002-1200D	22.000	300	120	7	0.75	20	3/4 in. NPT	2.30
GRIN-E2402-1200D	25.062	2GRIN-E2402-1200D	26.000	300	120	6	0.75	24	3/4 in. NPT	2.64
GRIN-E2402-1400D	25.062	2GRIN-E2402-1400D	26.000	350	120	7	0.75	24	3/4 in. NPT	2.64
GRIN-E3602-2500D	37.062	2GRIN-E3602-2500D	38.000	625	120	8	0.75	36	3/4 in. NPT	3.66