

LSR - Self Regulating Heating Cable

LSR Heating Cables are designed for Freeze Protection and Process Temperature maintenance of metal and plastic pipes and tanks. The semiconductive polymer core changes its power output versus pipe temperature to optimize power usage and prevent overheating. The cables are designed for extended service life, are third party tested and approved to strict industry standards for ordinary and hazardous area use. Cables are available from stock for same day shipment.

SPECIFICATIONS

- Self-Regulating Power Output
- Continuous Maintenance Temperature
 - 150°F (65°C) Max
- Maximum Exposure Temperature
 - 185°F (85°C) Max
- Output Wattage
 - 3,5,8,10 W/FT @ 50°F
 - 10, 16, 26, 33 W/M @ 10°C
- Supply Voltage
 - 120, 208-277 VAC
- T-Ratings
 - 3,5,8 W/FT = T6
 - 10 W/FT = T5
- Size = 1/2" W x 1/4" H
- Minimum Bend Radius = 1 1/8"
- Minimum Install Temperature
 - 40°F (-40°C)
- Cut to Length and terminate in the field
- Can be overlapped without burnout



CONSTRUCTION

- A. 16 AWG Nickel Plated Copper Buss Wires
- B. Radiation Cross Linked Polymer Heater Core
- C. Flame Retardant, UV Stabilized Polyolefin Jacket
- D. Tinned Copper Braid
- E. Optional Modified Polyolefin Outer Jacket
 - UV Stabilized
 - Flame Retardant
 - Protects Cable against aqueous inorganic Chemicals
 Optional Fluoropolymer Outer Jacket
 - Protects against organic and corrosive chemicals

APPROVALS



Ordinary Locations

Hazardous Locations



Class I Div 2 Groups A,B,C,D

Class II Div 2 Groups F,G

Class III



Ordinary Locations



II 2 GD

EX e IIC Txx Gb

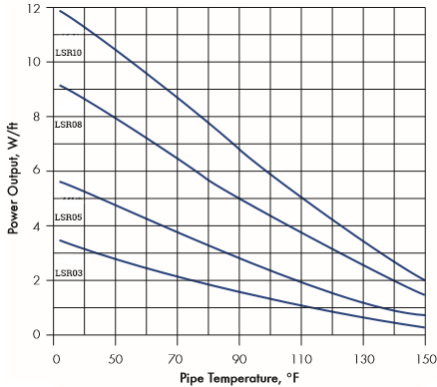
EX tb IIIC Txx Db

Pending



POWER OUTPUT CURVES

Power Output Curves shown below apply to cables used at service voltages shown below on insulated metal pipes. For Plastic pipe installation derate cable power output by 35% and use aluminum tape installation method. For other applications contact Indeeco.



CONNECTION ACCESSORIES

All Cables require power connection and end seal terminations as a minimum to comply with third party requirements. Indeeco offers accessories to provide trouble free easy installation and maximum cable circuit life.

Accessories - Ordinary Area / Div 2 Hazardous Area				
Type	Ord Area	Div 2	Part Number	Model
Power Connection	x	x	PCA-40J	PCA-40J
Pipe Stand Off Kit	x	x	PCA-40P	PCA-40P
Splice/Tee Connection	x	x	SPTA-1	SPTA-1
End Seal	x	x	ESA-ES	ESA-ES
Lighted End Seal 120 V	x	x	LESA-1	LESA-1
Lighted End Seal 208-240V	x	x	LESA-2	LESA-2
Thermostat - Ambient Sense	x		1033808	THL-L15-X-Q10
Thermostat - Line Sense	x		1033809	THR-L25-10X-Q10
Thermostat - Ambient Sense	x	x	1033810	TXL-L15-Q10
Thermostat - Line Sense	x	x	1033811	TXR-L25-10-Q10
Application Tape	x	x	1033805	HTFT-1
Aluminum Foil Tape	x	x	1033806	HTAT-1
6 inch Pipe Strap	x	x	1033803	HTPS-6
10 Inch Pipe Strap	x	x	1033804	HTPS-10
Caution Label	x	x	1033935	HTCL-1

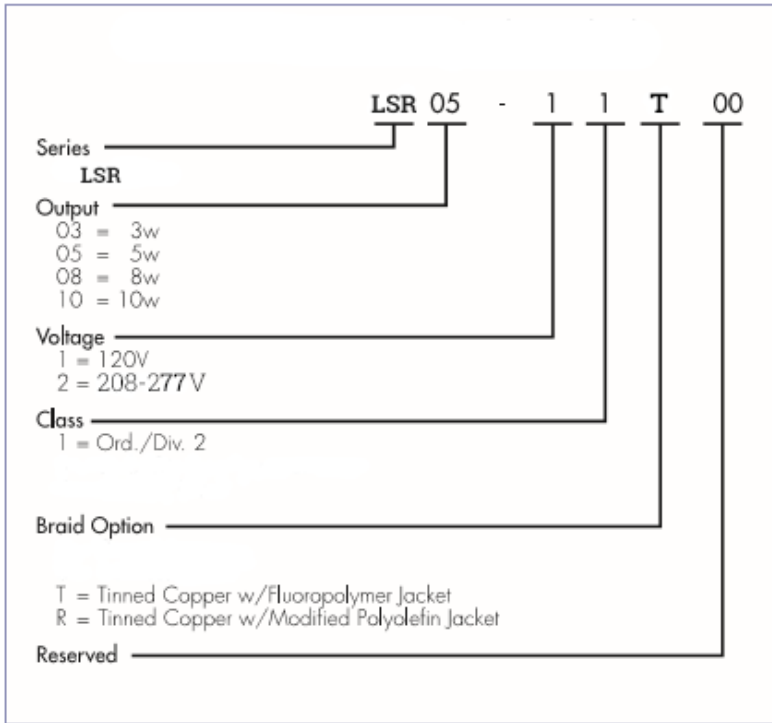


CIRCUIT BREAKER SIZING

Maximum Circuit Lengths per start up temperature and circuit breaker size are shown below. Use local electrical codes to select appropriate branch circuit breakers. Ground Fault circuit breakers are required for heat trace branch circuits – typical minimum trip level is 30mA. Thermal magnetic circuit breakers are recommended to reduce nuisance tripping.

Maximum Circuit Length vs Breaker Size & Start-Up Temp FT (M)					
Model	Start-Up Temperature Deg F Deg C	15 A	20 A	30 A	40 A
LSR03-1	50 (10)	300 (92)	330 (100)	330 (100)	330 (100)
	0 (-18)	200 (60)	270 (82)	330 (100)	330 (100)
	-20 (-29)	180 (55)	230 (70)	330 (100)	330 (100)
LSR03-2	50 (10)	660 (200)	660 (200)	660 (200)	660 (200)
	0 (-18)	410 (125)	560 (170)	660 (200)	660 (200)
	-20 (-29)	360 (110)	480 (146)	660 (200)	660 (200)
LSR05-1	50 (10)	230 (70)	270 (82)	270 (82)	270 (82)
	0 (-18)	150 (45)	200 (60)	270 (82)	270 (82)
	-20 (-29)	130 (40)	175 (54)	260 (80)	270 (82)
LSR05-2	50 (10)	460 (140)	540 (165)	540 (165)	540 (165)
	0 (-18)	300 (92)	400 (122)	540 (165)	540 (165)
	-20 (-29)	260 (80)	345 (105)	520 (160)	540 (165)
LSR08-1	50 (10)	150 (45)	200 (60)	210 (64)	210 (64)
	0 (-18)	95 (30)	125 (38)	190 (58)	210 (64)
	-20 (-29)	85 (26)	100 (31)	170 (52)	210 (64)
LSR08-2	50 (10)	295 (90)	390 (119)	420 (128)	420 (128)
	0 (-18)	195 (60)	250 (76)	375 (115)	420 (128)
	-20 (-29)	170 (52)	225 (69)	340 (104)	420 (128)
LSR10-1	50 (10)	115 (35)	150 (45)	180 (55)	180 (55)
	0 (-18)	70 (22)	95 (30)	145 (44)	180 (55)
	-20 (-29)	60 (18)	85 (26)	120 (37)	165 (50)
LSR10-2	50 (10)	230 (70)	305 (93)	360 (110)	360 (110)
	0 (-18)	150 (45)	200 (60)	300 (92)	360 (110)
	-20 (-29)	130 (40)	175 (54)	260 (80)	360 (110)

Note – Circuit lengths shown above are based on trip current characteristics of Type QO and Type QOB devices. For equipment with different trip current characteristics please consult Indeeco.



Ordering Information				
Output W/ft	Volts	Model	Stock	LBS/1000'
3 W/FT @ 50F	120	LSR03-11R00	S	80
		LSR03-11T00	S	80
	208-277	LSR03-21R00	S	80
		LSR03-21T00	S	80
5 W/FT @ 50F	120	LSR05-11R00	S	80
		LSR05-11T00	S	80
	208-277	LSR05-21R00	S	80
		LSR05-21T00	S	80
8 W/FT @ 50F	120	LSR08-11R00	S	80
		LSR08-11T00	S	80
	208-277	LSR08-21R00	S	80
		LSR08-21T00	S	80
10 W/FT @ 50 F	120	LSR10-11R00	S	80
		LSR10-11T00	S	80
	208-277	LSR10-21R00	S	80
		LSR10-21T00	S	80

Note = To order specify model, length, and connection accessories. Cables are shipped +/- 5% of label, maximum spool length 1000 feet, minimum order is 250 feet. No fee to cut to length between 250 and 1000 feet.

When you need more than an off-the-shelf, standardized product.
Ask **More.**