

## Selection of the Selfregulating Heating Tape Type ELSR-...-BO for a Minimum Frost Protection Temperature + 5

Outside diameter of pipe :	inch:	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2	3	4	5	6	7	8	9	10	12
DN :		15	20	25	32	40	50	65	80	100	125	150	175	200	225	250	300
Thickness of thermal insulation (mm)	min. ambient temp.( )	Heating Tape Type ELSR-...BO															
10	-15	10	10	20	20	20	30	30	30	40	2 x 30	2 x 30	2 x 40	2 x 40	2 x 40	2 x 30	3 x 40
	-20	10	20	20	20	30	30	40	40	2 x 30	2 x 30	2 x 40	2 x 40	3 x 30	3 x 40	3 x 40	4 x 40
	-25	10	20	20	30	30	40	40	2 x 30	2 x 30	2 x 40	2 x 40	3 x 40	3 x 40	3 x 40	4 x 40	4 x 40
20	-15	10	10	10	10	10	20	20	20	30	30	30	40	40	40	2 x 30	2 x 30
	-20	10	10	10	10	20	20	20	30	30	30	40	2 x 30	2 x 30	2 x 30	2 x 30	2 x 40
	-25	10	10	20	20	20	20	30	30	40	40	2 x 30	2 x 30	2 x 30	2 x 30	2 x 40	2 x 40
30	-15	10	10	10	10	10	10	10	20	20	20	20	30	30	30	40	40
	-20	10	10	10	10	10	20	20	20	20	20	30	30	40	40	40	2 x 30
	-25	10	10	10	10	20	20	20	20	30	30	30	40	40	2 x 30	2 x 30	2 x 30
40	-15	10	10	10	10	10	10	10	10	20	20	20	20	20	30	30	30
	-20	10	10	10	10	10	10	20	20	20	20	20	30	30	30	30	40
	-25	10	10	10	10	10	20	20	20	20	20	30	30	30	40	40	2 x 30
50	-15	10	10	10	10	10	10	10	10	10	20	20	20	20	20	20	30
	-20	10	10	10	10	10	10	10	10	20	20	20	20	30	30	30	30
	-25	10	10	10	10	10	10	20	20	20	20	20	30	30	30	30	40

Above calculation is based on a conduction coefficient of the insulation of 0.04 W/mK, a wind speed of 10 m/s and a safety margin of 20%

Technical Data	Frost Protection				Gutter	Hot Water		Grease Pipe
	ELSR-10-BO	ELSR-20-BO	ELSR-30-BO	ELSR-40-BO	ELSR-20-BO	ELSR-W-55-BO	ELSR-W-65-BO	ELSR-F-22-BO
Outer protection sheath TPE-O, colour	black	black	black	black	black	grey	grey	grey
Nominal voltage (V)	230	230	230	230	230	230	230	230
Nominal wattage on insulated pipes at + 5 (Watt / m)	11.5	23	33.5	40				
Nominal wattage at 0 in the air (Watt / m)				16				
Nominal wattage at 0 in ice-water (Watt / m)				35				
Nominal wattage at + 55 (Watt / m)						9		
Nominal wattage at + 65 (Watt / m)							13	
Nominal wattage at + 40 (Watt / m)								22
Max. allowable ambient temperature								
Heating tape switched off ( )	80	80	80	80	80	120	120	120
Heating tape switched on ( )	65	65	65	65	65	80	80	80
Cross-section of the bus wires (mm <sup>2</sup> )	1.23	1.23	1.23	1.23	1.23	1.23	1.23	1.23
Max. length of the heating circuit at 0 with a 16A delay circuit breaker (m)	142	94	70	62	94	150	120	150
Min. bending radius (mm)	25	25	25	25	25	25	25	25
Dimensions; thickness (mm)	4.9	4.9	5.3	5.3	4.9	4.6	4.6	4.6
width (mm)	13	13	15.6	15.6	13	11.7	11.7	11.7
Min. installation temperature( )	-10	-10	-10	-10	-10	-10	-10	-10
Weight of the tape (g / m)	126	126	153	153	126	118	118	118
Thermal class	class 0 acc. to VDE 0721 part 2A3 9/83							