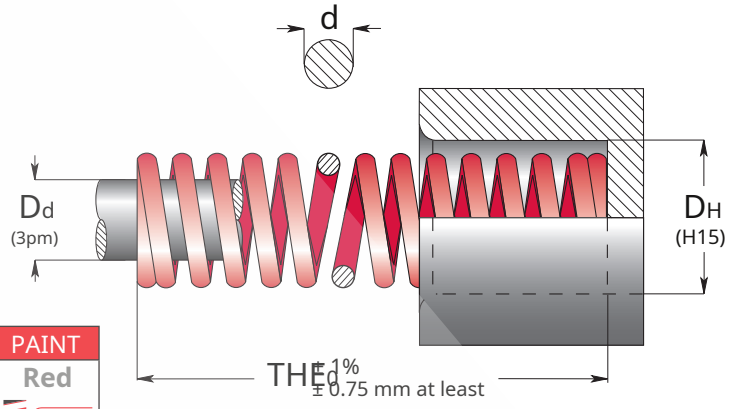
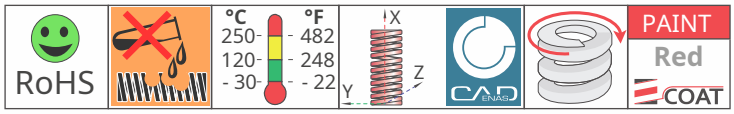
TR SERIES

Special Springs Standard Round Wire

IT Heavy load springs
EN Strong load springs
FRDE Federn für hohe Spannung
FR Ressorts charge forte
ES Muelles carga fuerte
PT Molas carga forte





Code	D_H Hole Diameter d	D_d Rod Diameter d	TH_0 Free Length	ER Spring Rate ± 10%	TO 20%THE 0 + 3,000,000		B 25%THE 0 ~ 1,500,000		C 27.5%THE 0 300 - 500,000		D 30%THE 0 100 - 200,000		AND approx. do not use	
	mm	mm	mm	N/mm	mm	N	mm	N	mm	N	mm	N	mm	Pcs
TR 6 - 016	6.3	3.6	16	12.7	3.2	40.8	4.0	51.0	4.4	56.1	4.8	61.2	7.9	50
TR 6 - 025			25	7.7	5.0	38.7	6.3	48.4	6.9	53.2	7.5	58.1	12.1	50
TR 6 - 038			38	4.9	7.6	37.3	9.5	46.6	10.5	51.3	11.4	56.0	17.4	50
TR 6 - 051	1.0		51	3.7	10.2	37.4	12.8	46.8	14.0	51.5	15.3	56.2	23.1	25
TR 8 - 016	8.3	5.2	16	12.5	4.0	50.0	4.0	50.0	4.4	55.0	4.8	60.0	8.2	50
TR 8 - 025			25	6.9	5.0	34.5	6.3	43.1	6.9	47.4	7.5	51.8	12.4	50
TR 8 - 038			38	5.1	7.6	38.4	9.5	48.0	10.5	52.8	11.4	57.6	16.9	50
TR 8 - 051	1.2		51	4.0	10.2	40.8	12.8	51.0	14.0	56.1	15.3	61.2	23.2	25
TR 10 - 025	10	5	25	20.7	5.0	103.5	6.3	130.4	6.9	142.8	7.5	155.3	8.6	50
TR 10 - 032			32	16.1	6.4	103.0	8.0	128.8	8.8	141.7	9.6	154.6	10.9	50
TR 10 - 038			38	13.0	7.6	98.8	9.5	123.5	10.5	136.5	11.4	148.2	13.2	50
TR 10 - 044			44	10.9	8.8	95.9	11.0	119.9	12.1	131.9	13.2	143.9	14.7	50
TR 10 - 051			51	9.6	10.2	97.9	12.8	122.9	14.0	134.4	15.3	146.9	17.8	25
TR 10 - 064			64	7.7	12.8	98.6	16.0	123.2	17.6	135.5	19.2	147.8	22.9	25
TR 10 - 076			76	6.3	15.2	95.8	19.0	119.7	20.9	131.7	22.8	143.6	26.9	25
TR 10 - 305	1.6		305	1.5	61.0	91.5	76.3	114.5	83.9	125.9	91.5	137.3	110.0	10
TR 13 - 025	12.5	6.3	25	37.5	5.0	187.5	6.3	236.3	6.9	258.8	7.5	281.3	8.9	50
TR 13 - 032			32	28.9	6.4	185.0	8.0	231.2	8.8	254.3	9.6	277.4	11.2	50
TR 13 - 038			38	23.5	7.6	178.6	9.5	223.3	10.5	246.8	11.4	267.9	13.7	50
TR 13 - 044			44	19.6	8.8	172.5	11.0	215.6	12.1	237.2	13.2	258.7	15.7	25
TR 13 - 051			51	17.3	10.2	176.5	12.8	221.4	14.0	242.2	15.3	264.7	18.8	25
TR 13 - 064			64	13.5	12.8	172.8	16.0	216.0	17.6	237.6	19.2	259.2	23.6	25
TR 13 - 076			76	11.2	15.2	170.2	19.0	212.8	20.9	234.1	22.8	255.4	28.4	25
TR 13 - 089			89	9.5	17.8	169.1	22.3	211.9	24.5	232.8	26.7	253.7	33.0	20
TR 13 - 305	2.2		305	2.7	61.0	164.7	76.3	206.0	83.9	226.5	91.5	247.1	114.0	10
TR 16 - 025	16	8	25	81.6	5.0	408.0	6.3	514.1	6.9	563.0	7.5	612.0	9.1	50
TR 16 - 032			32	61.3	6.4	392.3	8.0	490.4	8.8	539.4	9.6	588.5	11.4	50
TR 16 - 038			38	49.9	7.6	379.2	9.5	474.1	10.5	524.0	11.4	568.9	14.2	25
TR 16 - 044			44	40.8	8.8	359.0	11.0	448.8	12.1	493.7	13.2	538.6	16.3	25
TR 16 - 051			51	35.6	10.2	363.1	12.8	455.7	14.0	498.4	15.3	544.7	18.8	25
TR 16 - 064			64	27.8	12.8	355.8	16.0	444.8	17.6	489.3	19.2	533.8	23.9	25
TR 16 - 076			76	22.8	15.2	346.6	19.0	433.2	20.9	476.5	22.8	519.8	29.0	20
TR 16 - 089			89	19.6	17.8	348.9	22.3	437.1	24.5	480.2	26.7	523.3	34.3	20
TR 16 - 102			102	17.0	20.4	346.8	25.5	433.5	28.1	477.7	30.6	520.2	39.4	20
TR 16 - 305	2.8		305	5.4	61.0	329.4	76.3	412.0	83.9	453.1	91.5	494.1	119.0	10

No "L0" tolerance ± 1% - No "R" tolerance ± 10% - No "E-coat" painting

How to order: TR 16 - 102 (Series D_H -)TH_0

1 N = 0.1 daN = 0.102 kgf Load (N) = R (N/mm) x Deflection (mm)