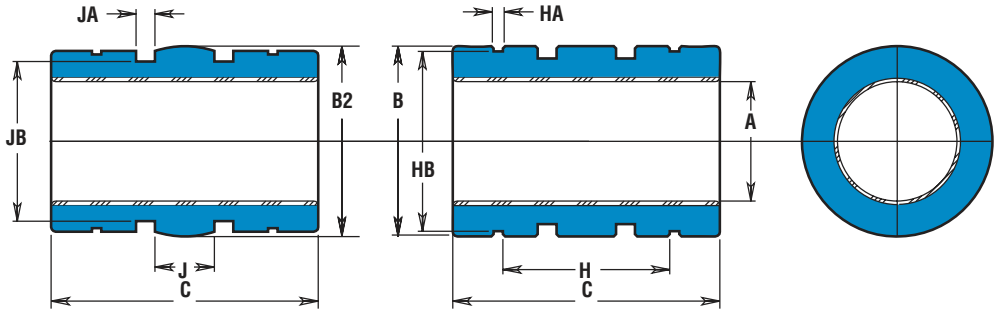


***SELF-ALIGNING O.D. (FMA-XX)** **STANDARD O.D. (FM-XX)**



*Except for the O.D., bearings with the self-aligning feature have the same dimensions and tolerances as the standard bearing. There is a spherical crown on the O.D. to create the self-aligning feature. They are used in a straight bore housing. Add an "A" to the part number per the example. More information on self-aligning bearings is on pages 41-42.

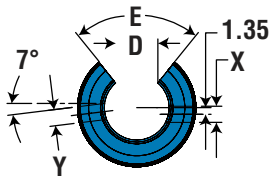
BASIC DIMENSIONAL INFORMATION

PRECISION I.D. SERIES Similar to preloaded ball bearing					COMPENSATED I.D. SERIES Similar to standard ball bearing				STANDARD O.D.		SEL-ALIGNING O.D. FMA					
PART NO.		NOMINAL SIZE	A BEARING I.D. (F8)		PART NO.		A BEARING I.D.		B O.D. (h7)		B2 O.D.		C LENGTH		CONCENTRIC	BEARING WEIGHT
CLOSED	OPEN	(mm)	MIN.	MAX.	CLOSED	OPEN	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MIN.	MAX.	MAX. (mm)	(kg.)
FM 05	FMN 05	5	5.010	5.028	FMC 05	FMCN 05	5.060	5.078	11.982	12	11.941	11.966	21.746	22	0.0254	0.004
FM 08	FMN 08	8	8.013	8.035	FMC 08	FMCN 08	8.063	8.085	15.982	16	15.941	15.966	24.746	25	0.0254	0.009
FM 10	FMN 10	10	10.013	10.035	FMC 10	FMCN 10	10.063	10.085	18.979	19	18.938	18.964	28.746	29	0.0254	0.014
FM 12	FMN 12	12	12.016	12.043	FMC 12	FMCN 12	12.066	12.093	21.979	22	21.938	21.963	31.746	32	0.0254	0.017
FM 16	FMN 16	16	16.016	16.043	FMC 16	FMCN 16	16.066	16.093	25.979	26	25.938	25.964	35.746	36	0.0254	0.028
FM 20	FMN 20	20	20.020	20.053	FMC 20	FMCN 20	20.096	20.129	31.975	32	31.938	31.963	44.746	45	0.0254	0.054
FM 25	FMN 25	25	25.020	25.053	FMC 25	FMCN 25	25.096	25.129	39.975	40	39.936	39.962	57.746	58	0.0254	0.109
FM 30	FMN 30	30	30.020	30.053	FMC 30	FMCN 30	30.096	30.129	46.975	47	46.937	46.962	67.746	68	0.0254	0.176
FM 40	FMN 40	40	40.025	40.064	FMC 40	FMCN 40	40.127	40.166	61.970	62	61.935	61.961	79.746	80	0.0254	0.356
FM 50	FMN 50	50	50.025	50.064	FMC 50	FMCN 50	50.127	50.166	74.970	75	74.935	74.960	99.746	100	0.0254	0.628
FM 60	FMN 60	60	60.030	60.076	FMC 60	FMCN 60	60.182	60.228	89.965	90	89.931	89.957	124.492	125	0.0380	1.117
FM 80	FMN 80	80	80.030	80.076	FMC 80	FMCN 80	80.182	80.228	119.965	120	119.931	119.957	164.492	165	0.0510	2.679

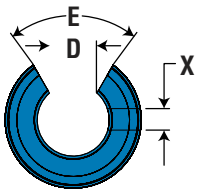
MOUNTING DIMENSIONAL INFORMATION

PART NO.		NOMINAL SIZE (mm)	H BETWEEN RET. RINGS	HA RET. RING GRV. WIDTH	HB RET. RING GRV. DIA.	RET. RING PART NO. (DIN 471)	J BETWEEN O'RING GRVS.	JA O'RING GRV. WIDTH	JB O'RING GRV. DIA.	METRIC O'RING PART NO.
CLOSED	OPEN									
FM 05	FMN 05	5	12	1.14	11.5	12	5	2	9.86	9.7 x 1.3
FM 08	FMN 08	8	14	1.14	15.2	16	5.33	2	13.2	13 x 1.7
FM 10	FMN 10	10	19.4	1.32	18.0	19	5.63	2.44	15.7	15.5 x 2
FM 12	FMN 12	12	20	1.32	21.0	22	6	3.17	17.9	17.5 x 2.5
FM 16	FMN 16	16	22	1.32	24.9	26	8	3.17	21.9	21.5 x 2.5
FM 20	FMN 20	20	28	1.63	30.3	32	10	3.17	27.9	27.5 x 2.5
FM 25	FMN 25	25	40	1.90	37.5	40	12.5	3.17	35.9	35.5 x 2.5
FM 30	FMN 30	30	48	1.90	44.5	47	15	3.17	42.7	42.52 x 2.62
FM 40	FMN 40	40	56	2.20	59.0	62	20	4.1	56.3	56 x 3.5
FM 50	FMN 50	50	72	2.70	72.0	75	25	4.1	69.2	69 x 3.5
FM 60	FMN 60	60	95	3.20	86.4	90	30	7.1	81.7	81 x 5
FM 80	FMN 80	80	125	4.17	116.1	120	40	7.1	111.7	111 x 5

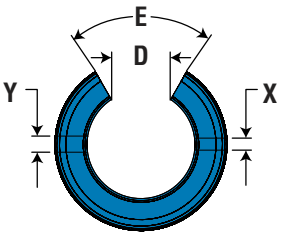
FMN 12 ONLY

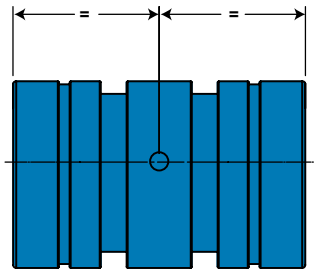


FMN 05 THRU FMN 10 & FMN 80

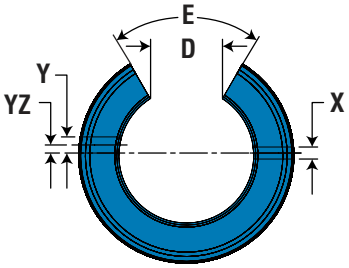


FMN 16 THRU FMN 20

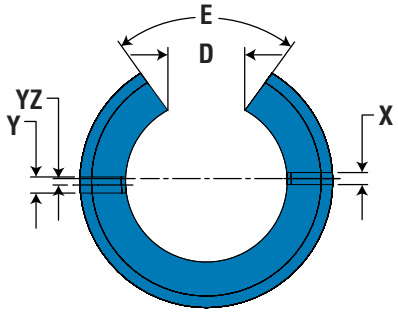




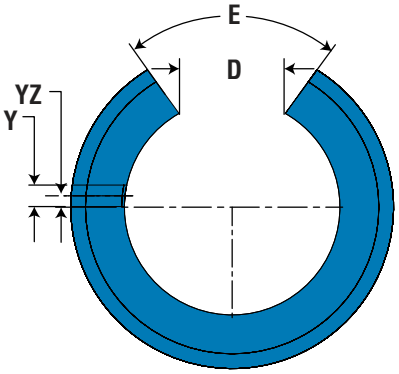
FMN 25 ONLY



FMN 30 THRU FMN 50



FMN 60 ONLY



OPEN DIMENSIONAL INFORMATION

PART NO. CLOSED	NOMINAL SIZE (mm)	D SLOT WIDE MIN.	E SLOT ANGLE	X RET. HOLE DIA.	Y RET. HOLE DIA.	YZ RET. HOLE LOCATE	BEARING WT. (kg.)
FMN 05	5	3.2	60	2.2	N / A	N / A	0.0034
FMN 08	8	5.1	60	3.0	N / A	N / A	0.0077
FMN 10	10	6.4	60	3.0	N / A	N / A	0.0119
FMN 12	12	7.6	78	3.0	3.0	7.0	0.0156
FMN 16	16	10.4	78	2.2	3.0	0	0.0213
FMN 20	20	10.8	60	2.2	3.0	0	0.0439
FMN 25	25	13.2	60	3.0	3.0	1.5	0.0893
FMN 30	30	14.2	72	3.0	3.0	2.0	0.1460
FMN 40	40	19.5	72	3.0	3.0	1.5	0.2948
FMN 50	50	24.0	72	3.0	5.0	2.5	0.5202
FMN 60	60	29.6	72	N / A	6.0	0	0.9199
FMN 80	80	39.0	72	N / A	8.0	0	2.2269

Wide temperature range

F = -400°F / +400°F

C = -240°C / +240°C

LOAD & SPEED DATA

PART NO.	EFFECTIVE SURFACE AREA (sq. in.)	MAX. STATIC LOAD FRELON GOLD (lbs.)	MAX. STATIC LOAD FRELON J (lbs.)	EFFECTIVE SURFACE AREA (cm^2)	MAX. STATIC LOAD FRELON GOLD (N)	MAX. STATIC LOAD FRELON J (N)
FMN 05	0.171	511	256	1.10	2276	1138
FMN 08	0.310	926	463	2.00	4120	2060
FMN 10	0.450	1345	672	2.90	5984	2992
FMN 12	0.589	1777	888	3.80	7907	3953
FMN 16	0.899	2667	1334	5.80	11870	5935
FMN 20	1.395	4167	2083	9.00	18541	9270
FMN 25	2.248	6715	3358	1.450	29881	14941
FMN 30	3.162	9444	4722	2.040	42026	21013
FMN 40	4.960	14814	7407	3.200	65923	32962
FMN 50	7.750	23147	11574	5.000	103005	51503
FMN 60	11.625	34721	17360	7.500	154508	77254
FMN 80	20.460	61120	30554	13.200	271933	135967
	MAX. PV (m/min. * kg/sq. cm) Frelon Gold = 430 PV Frelon J = 215 PV			**MAX. PV (m/s. * N/mm²)** Frelon Gold = 0.70 PV Frelon J = 0.35 PV		
	MAX. Speed Running Dry (m/min.) Frelon Gold = 91.4 Frelon J = 42.6			**MAX. Speed Running Dry (m/s.)** Frelon Gold = 1.52 Frelon J = 0.71		
	MAX. Speed Running with Lubrication (m/min.) Frelon Gold = 251.5 Frelon J = 122			**MAX. Speed Running with Lubrication (m/s.)** Frelon Gold = 4.19 Frelon J = 2.03		