

Product specification

Sizes	To fit bolt size from M30 to M64 (1 3/4' to 2 1/2')
Full Scale Load (FS)	From 385 kN to 1794 kN dependent on Sensor size.
Maximum Load at ambient temperature	FS range x 1.3 (without affecting the validity of the calibration)
Temperature range	-20°C to 70°C
Storage Temperature	-20°C to 70°C
Minimum Load	10% FS
Total accuracy at ambient temperature (rms)	< 5 % FS (machined parallel surfaces in bolt-nut assembly)
Linearity	< 1.5 % FS
Hysteresis	< 0.9 % FS
Creep	< 0.1 % FS
Repeatability	< 0.5 % FS
Typical Temperature effects	< ± 0.08 % FS/°C
Sealing	IP66
Material	Stainless Steel 17-4 PH, Condition H1025
Classification	10.9 (upon special request: 12.9)
Sensor Output	Serial digital signal
Power Supply	Powered through electronic interface
Electrical Connection	None-inductive/ optical connection (no cable)
Intrinsic Safe Code	II 2 G, EEx ib IIC T4 (upon special request)



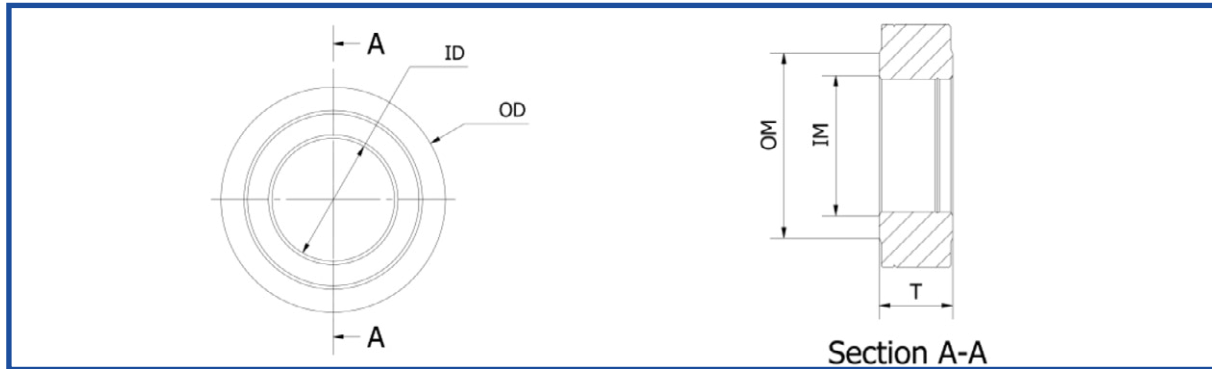
The BoltSafe PMS sensor requires no electrical connections. However, please note it is important that the lens is available for the PMS-probe after the final bolting process.



Please note that the BoltSafe sensor should be placed directly under a nut and that imperfections in the joining surfaces should be avoided to obtain the best possible accuracy of the residual bolt load.

Please contact your local distributor if you have to use it in any other way.

Dimensions



BoltSafe Size	Clearance Hole ID	Outside Diameter OD	Overall Thickness A	Steel Weight	Clamping Load Class 10.9	Steps	Measuring surface IM	Measuring surface OM
1-1/4"	32,3 mm	67 mm	20 mm	401 gr	437 kN	5 kN	35,5 mm	45,7 mm
1-3/8"	35,5 mm	73 mm	20 mm	474 gr	529 kN	5 kN	38,7 mm	50 mm
1-1/2"	38,7 mm	78 mm	20 mm	535 gr	629 kN	5 kN	41,9 mm	54,3 mm
1-5/8"	41,9 mm	84 mm	20 mm	619 gr	739 kN	5 kN	45,4 mm	58,6 mm
1-3/4"	45,1 mm	86 mm	20 mm	628 gr	857 kN	10 kN	48,9 mm	63,6 mm
1-7/8"	48,2 mm	91 mm	20 mm	698 mm	983 kN	10 kN	52,4 mm	67,9 mm
2"	51,4 mm	98 mm	20 mm	816 mm	1.119 kN	10 kN	55,9 mm	72,2 mm
2-1/4"	57,8 mm	108,8 mm	23 mm	1.156 mm	1.416 kN	15 kN	62,9 mm	81,8 mm
2-1/2"	64,3 mm	116,6 mm	23 mm	1.289 mm	1.748 kN	15 kN	69,9 mm	90,6 mm

BoltSafe Size	Clearance Hole ID	Outside Diameter OD	Overall Thickness A	Steel Weight	Clamping Load Class 10.9	Steps	Measuring surface IM	Measuring surface OM
M30	30,6 mm	64,3 mm	20 mm	372 gr	385 kN	5 kN	33,0 mm	42,8 mm
M33	33,6 mm	68,4 mm	20 mm	413 gr	480 kN	5 kN	36,3 mm	46,6 mm
M36	36,6 mm	72,8 mm	20 mm	462 gr	560 kN	5 kN	39,6 mm	51,1 mm
M39	39,6 mm	78 mm	20 mm	528 gr	670 kN	5 kN	42,9 mm	55,9 mm
M42	42,6 mm	83 mm	20 mm	593 gr	772 kN	5 kN	46,2 mm	60,0 mm
M45	45,6 mm	87,6 mm	20 mm	655 gr	905 kN	10 kN	49,5 mm	64,7 mm
M48	48,6 mm	92 mm	20 mm	716 gr	1.018 kN	10 kN	52,8 mm	69,5 mm
M52	52,6 mm	97,2 mm	20 mm	784 gr	1.221 kN	10 kN	57,2 mm	74,2 mm
M56	56,6 mm	102 mm	20 mm	845 gr	1.408 kN	15 kN	61,6 mm	78,7 mm
M60	60,8 mm	108 mm	23 mm	1.083 gr	1.647 kN	20 kN	66,0 mm	83,4 mm
M64	64,8 mm	114 mm	23 mm	1.196 gr	1.794 kN	20 kN	70,4 mm	88,2 mm

* On special request we can produce sensors able to withstand and measure 15% higher loads, dimensions remain the same. Contact us for more information.