

## SmartPlugs

Dedicated plug gauges

WiFi

RS232



### Features:

- Range 6 – 280 mm
- Tough, robust construction
- Easy-to-use
- Long life
- High accuracy dedicated plug-gauges
- Flexible, modular
- Hand-held measurement
- Can be incorporated into automated measuring systems (in-series)
- Cost-effective
- Short delivery times
- High visibility display
- Protective indicator shroud (with some indicators)
- All setting rings supplied as standard with UKAS calibration certificates
- Coverplates as standard on all SmartPlugs
- Specials (e.g. blind bore) on request
- Repeatability 1µm
- Setting by means of a setting ring
- Quick and reliable measurement
- 2-point measurement as standard
- Blind bore available on request
- Depth-stops available
- Extensions available for deeper bores
- Guide chamfer for easy entry into bore
- High durability, long-life plugs and contacts
- Easy to clean
- Plug body coatings: Hard-chrome (standard), T.i.N., plain steel
- Measuring contacts: Tungsten carbide, hard-chrome, ruby, ceramic

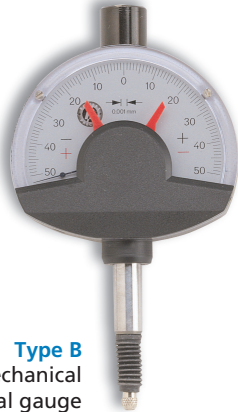


## SmartPlugs

### SMARTPLUG INDICATORS



**Type A**  
Waterproof mini indicator with shroud



**Type B**  
Mechanical dial gauge



**Type C**  
Standard digital indicator. Also available with shroud



**Type D**  
Measuring Probe

### SMARTPLUG HOLDERS



**SMA001M**  
M6 Holder



**SMA002M**  
M6 Holder



**SMA003**  
M6 - 100  
Extension



**SMA028**  
M6 - M10  
Adapter



Depth  
Stop

**SMA004**  
M6 Probe  
Holder



**SMA008**  
M10 Probe  
Holder



**SMA007**  
M10 - 100  
Extension



**SMA006M**  
M10  
Holder



**SMA005M**  
M10  
Holder



Depth  
Stop

### SMARTPLUGS

**M6 THREAD RANGE 6 - 20**  
Please state size to be measured



**M10 THREAD RANGE 15 - 280**  
Please state size to be measured



**Contact Options:** Tungsten carbide (standard), hard chrome, ruby, ceramic  
**Plug-Body options:** Hard chrome plated (standard), titanium nitride, plain steel

## SmartPlugs

### SMARTPLUG APPLICATIONS AND OPTIONS



SmartPlug with TiN coated body



SmartPlug with ruby contacts



SmartPlug with ceramic contacts



SmartPlug for blind bore measurement



SmartPlug with depth stop



SmartPlug with extension



SmartPlug with transducer holder and D50S digital readout



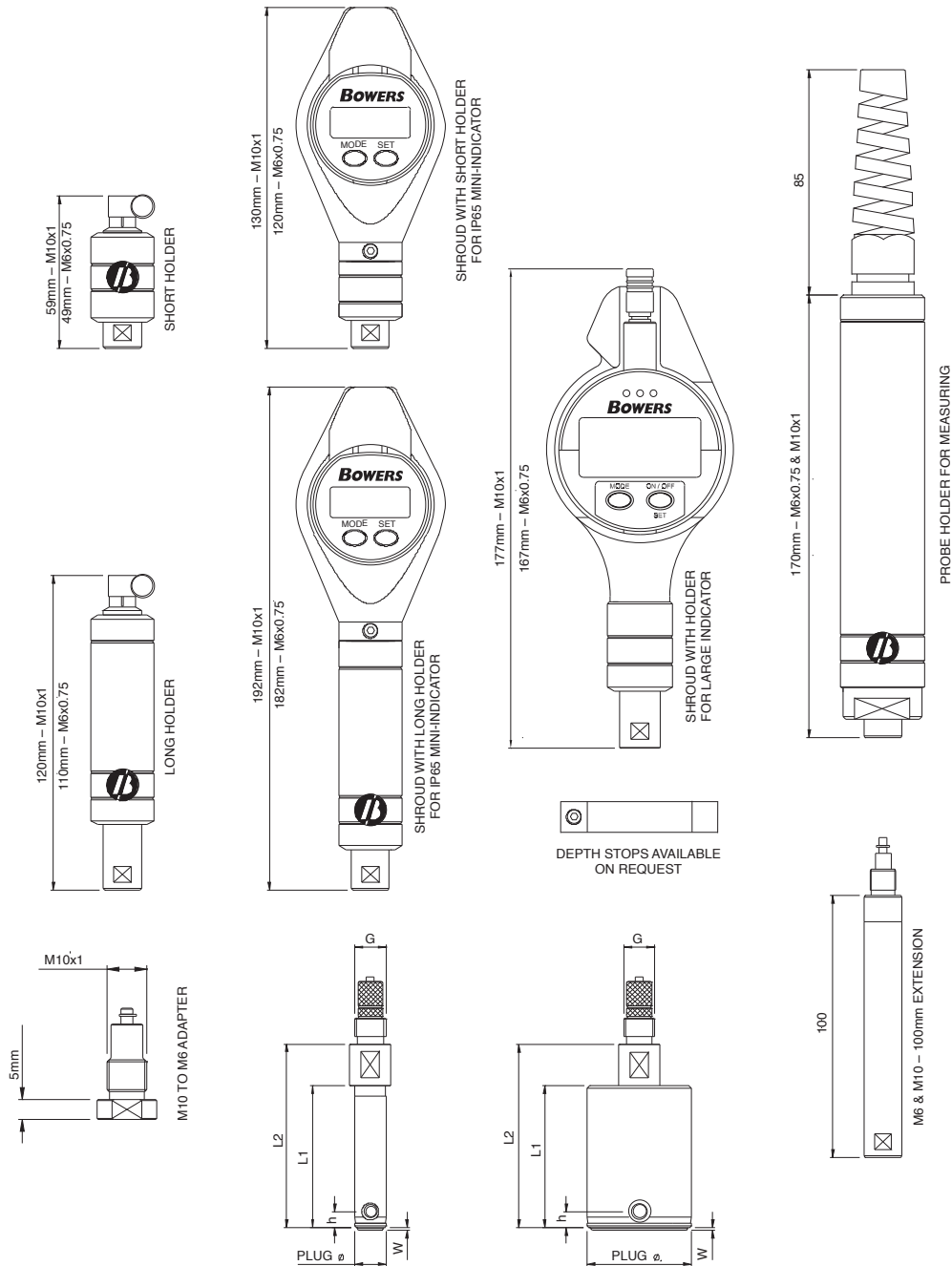
SmartPlug for large diameters (up to 280mm)





## SmartPlugs

### SMARTPLUG TECHNICAL DETAIL



SMARTPLUG	Range	h	L1	L2	W	G
6-7.8 mm*	0.15	3	27	35	0.5	M6x0.75
7.9-20 mm						
15-45 mm	0.2	3.5	28	43.5	1	M10x1
45.1-70 mm	0.2	4	28	44	1.5	
70.1-280 mm	0.2	4	35	44		

\* max measuring depth 27mm between 6 and 7.8mm

## SmartPlugs

SmartPlug Standard	Bore Diameter	Connecting Thread
<b>SMP010</b>	>6 - 20 mm / 0.236" - 0.787"	M6x0.75
<b>SMP012</b>	>15 - 25 mm / 0.590" - 0.984"	M10x1
<b>SMP014</b>	>25 - 35 mm / 0.984" - 1.378"	M10x1
<b>SMP016</b>	>35 - 45 mm / 1.378" - 1.772"	M10x1
<b>SMP018</b>	>45 - 60 mm / 1.772" - 2.362"	M10x1
<b>SMP020</b>	>60 - 80 mm / 2.362" - 3.150"	M10x1
<b>SMP022</b>	>80 - 100 mm / 3.150" - 3.937"	M10x1
<b>SMP024</b>	>100 - 125 mm / 3.937" - 4.921"	M10x1
<b>SMP026</b>	>125 - 150 mm / 4.921" - 5.906"	M10x1
<b>SMP028</b>	>150 - 175 mm / 5.906" - 6.890"	M10x1
<b>SMP030</b>	>175 - 200 mm / 6.890" - 7.874"	M10x1
<b>SMP032</b>	>200 - 225 mm / 7.874" - 8.858"	M10x1
<b>SMP034</b>	>225 - 250 mm / 8.858" - 9.843"	M10x1
<b>SMP036</b>	>250 - 280 mm / 9.843" - 11.025"	M10x1

SmartPlug Blind Bore	Bore Diameter	Connecting Thread
<b>SMP010BB</b>	>6 - 20 mm / 0.236" - 0.787"	M6x0.75
<b>SMP012BB</b>	>15 - 25 mm / 0.590" - 0.984"	M10x1
<b>SMP014BB</b>	>25 - 35 mm / 0.984" - 1.378"	M10x1
<b>SMP016BB</b>	>35 - 45 mm / 1.378" - 1.772"	M10x1
<b>SMP018BB</b>	>45 - 60 mm / 1.772" - 2.362"	M10x1
<b>SMP020BB</b>	>60 - 80 mm / 2.362" - 3.150"	M10x1
<b>SMP022BB</b>	>80 - 100 mm / 3.150" - 3.937"	M10x1
<b>SMP024BB</b>	>100 - 125 mm / 3.937" - 4.921"	M10x1
<b>SMP026BB</b>	>125 - 150 mm / 4.921" - 5.906"	M10x1

Sizes above 150mm on request

### Accessories – M6 Thread

<b>SMA001M</b>	M6 Holder short 8mm stem
<b>SMA001i</b>	M6 Holder short 3/8" stem
<b>SMA002M</b>	M6 Holder long 8mm stem
<b>SMA002i</b>	M6 Holder long 3/8" stem
<b>SMA003</b>	M6 100mm extension
<b>SMA004</b>	M6 Probe holder 8mm stem
<b>SMA009M</b>	Type A Mini indicator with shroud & M6 short holder 8mm stem
<b>SMA011M</b>	Type A Mini indicator with shroud & M6 long holder 8mm stem
<b>SMA022</b>	Type B Mechanical dial gauge 0.001mm graduation
<b>SMA013</b>	Type C Indicator with shroud & M6 holder 8mm stem
<b>SMA014</b>	Shroud & M6 holder 8mm / 3/8" stem
<b>SMA028</b>	M6-M10 Adapter (to use M10 holders with M6 plugs)

### Accessories – M10 Thread

<b>SMA005M</b>	M10 Holder short 8mm
<b>SMA005i</b>	M10 Holder short 3/8" stem
<b>SMA006M</b>	M10 Holder long 8mm stem
<b>SMA006i</b>	M10 Holder long 3/8" stem
<b>SMA007</b>	M10 100mm extension
<b>SMA008</b>	M10 Probe holder 8mm stem
<b>SMA015M</b>	Type A Mini indicator with shroud & M10 short holder 8mm stem
<b>SMA017M</b>	Type A Mini indicator with shroud & M10 long holder 8mm stem
<b>SMA019</b>	Type 'C' digital indicator with shroud M10 thread
<b>SMA020</b>	Shroud only for type 'C' indicator M10 thread
<b>SMA021</b>	Type 'A' digital mini-indicator. Res. 0.001mm
<b>SMA022</b>	Type 'B' mechanical dial-gauge. 0.001 mm graduation
<b>SMA023</b>	Type 'C' digital indicator. Res 0.001 mm
<b>SMA024</b>	Transducer probe
<b>30-804-1080</b>	D80S Digital Readout
<b>30-804-1050</b>	D50S Digital Readout
<b>SMA026</b>	SmartPlug Demo Case

SmartPlug bodies available in hard chrome plated (standard), titanium nitride, plain steel

Contacts available in tungsten carbide, ruby and ceramic.





## SmartPlugs

### SmartPlug Setting Rings grade: Nominal (+/- 10 µm of marked size)

SPR002N	1.5 - 2 mm
SPR003N	2 - 3 mm
SPR004N	3 - 4 mm
SPR005N	4 - 5 mm
SPR006N	5 - 6 mm
SPR010N	6 - 10 mm
SPR020N	10 - 20 mm
SPR025N	20 - 25 mm
SPR030N	25 - 30 mm
SPR040N	30 - 40 mm
SPR050N	40 - 50 mm
SPR060N	50 - 60 mm
SPR070N	60 - 70 mm
SPR080N	70 - 80 mm
SPR090N	80 - 90 mm
SPR100N	90 - 100 mm
SPR115N	100 - 115 mm
SPR130N	115 - 130 mm
SPR145N	130 - 145 mm
SPR160N	145 - 160 mm
SPR170N	160 - 170 mm
SPR180N	170 - 180 mm
SPR190N	180 - 190 mm
SPR200N	190 - 200 mm
SPR210N	200 - 210 mm
SPR220N	210 - 220 mm
SPR230N	220 - 230 mm
SPR240N	230 - 240 mm
SPR250N	240 - 250 mm
SPR260N	250 - 260 mm
SPR270N	260 - 270 mm
SPR280N	270 - 280 mm
SPR290N	280 - 290 mm
SPR300N	290 - 300 mm

### SmartPlug Setting Rings Grade "X"

SPR002X	1.5 - 2 mm
SPR003X	2 - 3 mm
SPR004X	3 - 4 mm
SPR005X	4 - 5 mm
SPR006X	5 - 6 mm
SPR010X	6 - 10 mm
SPR020X	10 - 20 mm
SPR025X	20 - 25 mm
SPR030X	25 - 30 mm
SPR040X	30 - 40 mm
SPR050X	40 - 50 mm
SPR060X	50 - 60 mm
SPR070X	60 - 70 mm
SPR080X	70 - 80 mm
SPR090X	80 - 90 mm
SPR100X	90 - 100 mm
SPR115X	100 - 115 mm
SPR130X	115 - 130 mm
SPR145X	130 - 145 mm
SPR160X	145 - 160 mm
SPR170X	160 - 170 mm
SPR180X	170 - 180 mm
SPR190X	180 - 190 mm
SPR200X	190 - 200 mm
SPR210X	200 - 210 mm
SPR220X	210 - 220 mm
SPR230X	220 - 230 mm
SPR240X	230 - 240 mm
SPR250X	240 - 250 mm
SPR260X	250 - 260 mm
SPR270X	260 - 270 mm
SPR280X	270 - 280 mm
SPR290X	280 - 290 mm
SPR300X	290 - 300 mm

### SmartPlug Setting Rings Grade "XX"

SPR002XX	1.5 - 2 mm
SPR003XX	2 - 3 mm
SPR004XX	3 - 4 mm
SPR005XX	4 - 5 mm
SPR006XX	5 - 6 mm
SPR010XX	6 - 10 mm
SPR020XX	10 - 20 mm
SPR025XX	20 - 25 mm
SPR030XX	25 - 30 mm
SPR040XX	30 - 40 mm
SPR050XX	40 - 50 mm
SPR060XX	50 - 60 mm
SPR070XX	60 - 70 mm
SPR080XX	70 - 80 mm
SPR090XX	80 - 90 mm
SPR100XX	90 - 100 mm
SPR115XX	100 - 115 mm
SPR130XX	115 - 130 mm
SPR145XX	130 - 145 mm
SPR160XX	145 - 160 mm
SPR170XX	160 - 170 mm
SPR180XX	170 - 180 mm
SPR190XX	180 - 190 mm
SPR200XX	190 - 200 mm
SPR210XX	200 - 210 mm
SPR220XX	210 - 220 mm
SPR230XX	220 - 230 mm
SPR240XX	230 - 240 mm
SPR250XX	240 - 250 mm
SPR260XX	250 - 260 mm
SPR270XX	260 - 270 mm
SPR280XX	270 - 280 mm
SPR290XX	280 - 290 mm
SPR300XX	290 - 300 mm



### Depth

Stops	Diameter range
SMPDS00	under 6 mm
SMPDS01	6 - 8.5 mm
SMPDS02	8.5 - 13 mm
SMPDS03	13 - 17.5 mm
SMPDS04	17.5 - 25 mm
SMPDS05	25 - 32.5 mm
SMPDS06	32.5 - 40 mm
SMPDS07	40 - 47.5 mm
SMPDS08	47.5 - 55 mm
SMPDS09	55 - 62.5 mm
SMPDS10	62.5 - 70 mm
SMPDS11	70 - 77.5 mm
SMPDS12	77.5 - 85 mm
SMPDS13	85 - 92.5 mm
SMPDS14	92.5 - 100 mm

