

Absolute digital measuring probes

P12D

DESCRIPTION

- High-precision measuring probes with patented measuring system combining inductive and capacitive technologies
- Absolute system with integrated electronic error correction (no more pairing with the unit or computer) guaranteeing high accuracy over the entire measuring range
- Extremely robust ball bearing guide guarantees a minimum of 100 million cycles (30 millions with radial load)
- Stainless steel body Ø 12 mm, fixing diameter 8 h6
- Measuring range 12.7 mm
- Available in 3 versions: Standard, Work and Pro
- Measuring force selectable: low or very low for vertical use only
- Output signal in direct digital format without the need for a converter
- Reading speed up to 100 values per second depending on configuration
- Straight cable length 2m with either USB or M8 connector
- Cable outlet protected by a spring which can be tilted by 90° with the optional accessory 801-5101
- Protection class IP54



**SWISS
MADE**

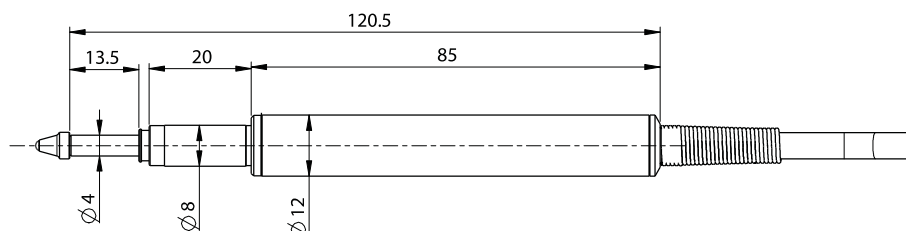
IP54



Absolute digital measuring probes

P12D

DIMENSIONAL DRAWINGS



TECHNICAL SPECIFICATIONS

PRO		801-1012	801-1018	801-1212	801-1218
Resolution type		High resolution			
Type		P12D HR USB	P12D HR USB CF ²⁾	P12D HR M8	P12D HR M8 CF ²⁾
Force ¹⁾	N	0.2 - 0.3	0.08	0.2 - 0.3	0.08
Measuring range	mm	12.7			
Resolution	µm	0.01			
Max. Error	µm	0.6			
Repeatability	µm	0.08			
Nb measures/s		up to 100/s, according to configuration ⁵⁾			
Output data		USB		M8	
Cable output		Straight			

STANDARD		801-2012	801-2017	801-2212
Resolution type		Standard		
Type		P12D USB	P12D USB LF ³⁾	P12D M8
Force ¹⁾	N	0.4 - 0.8	0.2 - 0.3	0.4 - 0.8
Measuring range	mm	12.7		
Resolution	µm	0.1		
Max. Error	µm	1		
Repeatability	µm	0.2		
Nb measures/s		up to 100/s, according to configuration ⁵⁾		
Output data		USB		M8
Cable output		Straight		

¹⁾ ± 20%, vertical position

²⁾ CF = constant force : usable only vertically, rod pointing downwards (without spring)

³⁾ LF = low force

⁴⁾ depends on resolution and software

⁵⁾ depends on resolution and number of probes per bus

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P12D - special version

P12D WORK

TECHNICAL SPECIFICATIONS

WORK		801-0212	801-0012
Resolution type		Standard	
Type		P12D WORK M8	P12D WORK USB
Force ¹⁾	N	0.4 - 0.8	
Measuring range	mm	12.7	
Resolution	µm	0.1	
Max. Error	µm	1.8	
Repeatability	µm	0.2	
Nb measures/s		up to 100/s, according to configuration ¹⁾	
Output data		M8	USB
Cable output		Straight	

¹⁾ depends on resolution and number of probes per bus

P12D - special version

P12D OPEN

DESCRIPTION

- Same specifications as P12D Work. In addition to this:
- Special execution with cable length 2 m. type «open connector» (4 coloured wires according to DIN 47100) for integration in machines or lines and communication with a PLC
- Output signal in direct digital format without the need for a converter.
- ASCII or ORBIT compatible communication protocol
- Resolution up to 0.0001 mm (0.1 µm), max. error 1.8 µm
- Measuring force 0.4 - 0.8 N

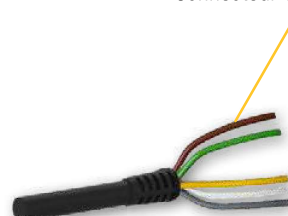
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IP54



Connecteur OPEN





Absolute digital measuring probes

P12D

TECHNICAL SPECIFICATIONS

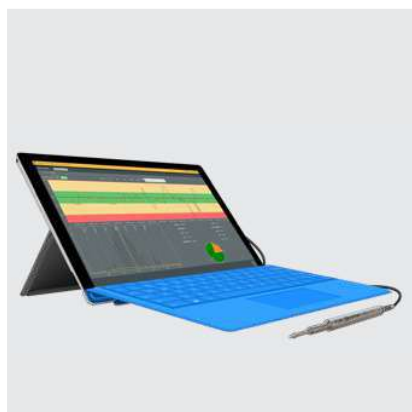
OPEN		801-0412
Resolution type		Standard
Type		P12D OPEN
Force ¹⁾	N	0.4 - 0.8
Measuring range	mm	12.7
Resolution	μm	0.1
Max. Error	μm	1.8
Repeatability	μm	0.2
Nb measures/s		up to 100/s, according to configuration ¹⁾
Output data		OPEN
Cable output		Straight

¹⁾ depends on resolution and number of probes per bus

STANDARD DELIVERY

- Probe according to technical specifications
- Cable 2 m
- Stainless steel contact point with tungsten carbide ball Ø 2 mm
- Quickstart
- Calibration certificate

APPLICATIONS



Probe P12D USB connected to a PC, measures displayed by Sylcom.



Probe P12D USB connected to a D300S (maximum resolution 0.1μm)



Probes P12D M8 connected to a D62S.

Absolute digital measuring probes

P25D

DESCRIPTION

- High-precision measuring probes with patented measuring system combining inductive and capacitive technologies
- Absolute system with integrated electronic error correction (no more pairing with the unit or computer) guaranteeing high accuracy over the entire measuring range
- Extremely robust ball bearing guide guarantees a minimum of 100 million cycles (30 millions with radial load)
- Stainless steel body Ø 15.5 mm, fixing diameter 8 h6
- Measuring range 25.4 mm
- Standard force 0.7 - 1.3N or constant 0.15N
- Output signal in direct digital format
- Reading speed up to 100 values per second depending on configuration
- Straight cable length 2m with either USB, M8 or OPEN connector
- Protection class IP51



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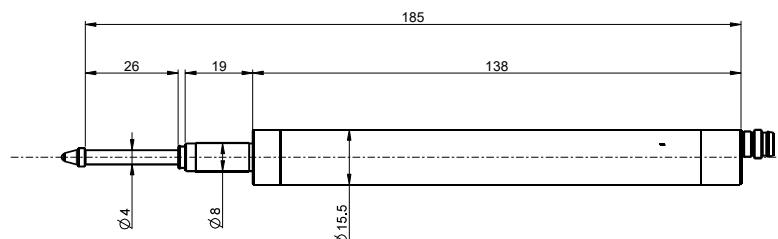
IP51



Absolute digital measuring probes

P25D

DIMENSIONAL DRAWINGS



TECHNICAL SPECIFICATIONS

		801-1225	801-1228	801-1229	801-1235	801-1238
Type		P25D M8	P25D USB	P25D OPEN	P25D M8 CF ²⁾	P25D USB CF ²⁾
Force ¹⁾	N	0.7 - 1.3			0.15	
Measuring range	mm	25.4				
Resolution	µm	0.01				
Max. Error	µm	1.2				
Repeatability	µm	0.1				
Nb measures/s		up to 100/s, according to configuration ³⁾				
Output data		M8	USB	OPEN	M8	USB
Protection		IP51				

¹⁾ ± 20%, vertical position

²⁾ CF = constant force : usable only vertically, rod pointing downwards (without spring)

³⁾ depends on resolution and number of probes per bus

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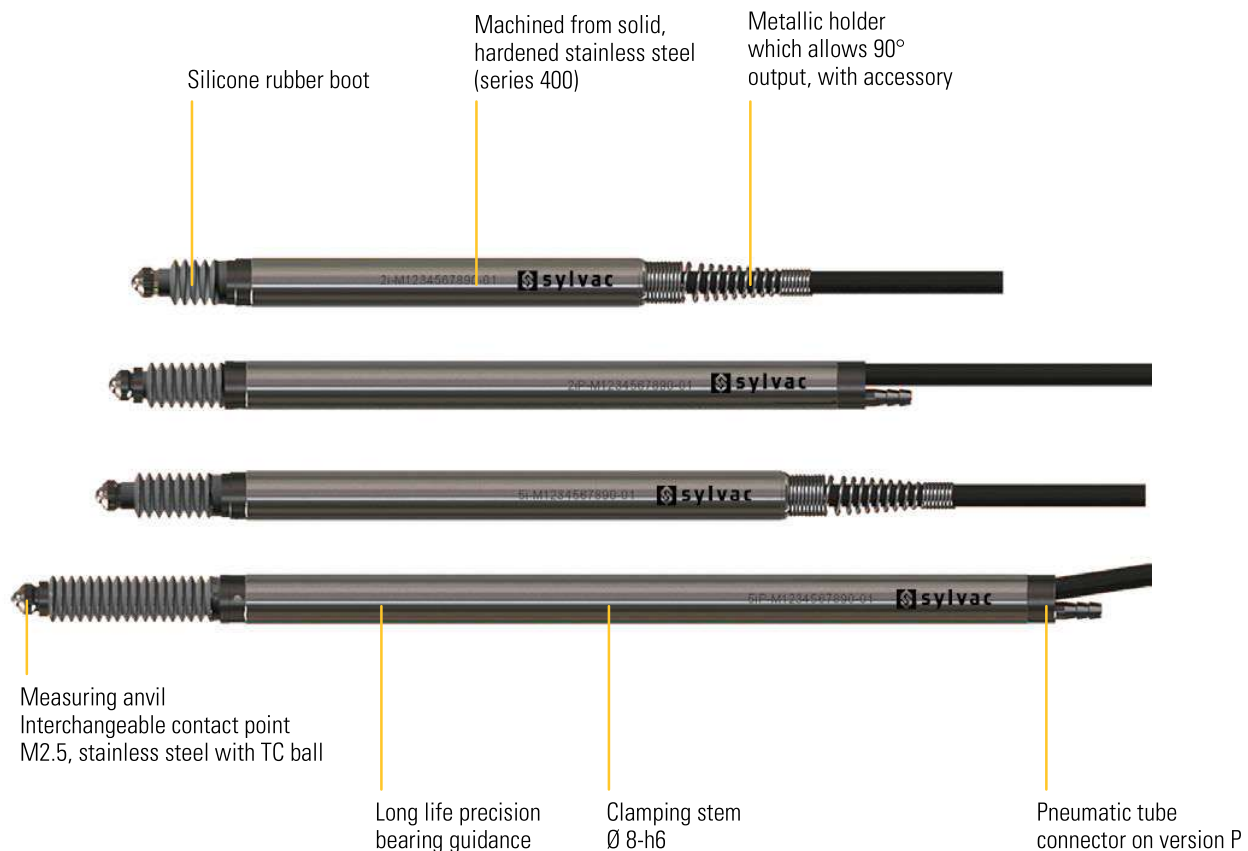
STANDARD DELIVERY

- Probe according to technical specifications
- Cable 2 m
- Stainless steel contact point with tungsten carbide ball Ø 2 mm
- Quickstart
- Calibration certificate

Inductive measuring probes

DESCRIPTION

- Inductive pencil-type measuring probes with stainless steel body Ø 8 h6 over the entire length
- Particularly suitable for comparison measurements due to their excellent repeatability (0.15 µm)
- Half-Bridge Output Type
- Reading speed up to 3900 values per second, depending on configuration
- Extremely robust ball bearing guide guarantees a minimum of 10 million cycles when the probe is not subjected to a lateral force
- Available in 2 versions :
 - Spring pressure, measuring force 0.7 N
 - Pneumatic thrust, the probe is retracted when it is not supplied with air (1 to 3 bar), pressure influencing the measuring force (0.4-0.7 N)
- Measuring range +/- 2 mm and +/- 5 mm
- Resolution up to 0.0001 mm (0.1 µm)
- Cable outlet protected by a spring which can be tilted by 90° with the optional accessory 901-5110
- PUR cable length 2 m.
- IP65 protection with Viton® bellows

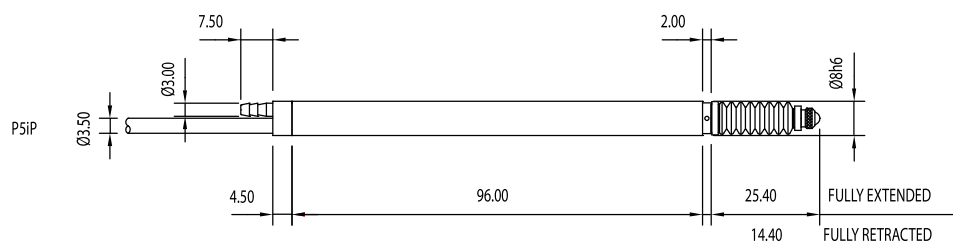
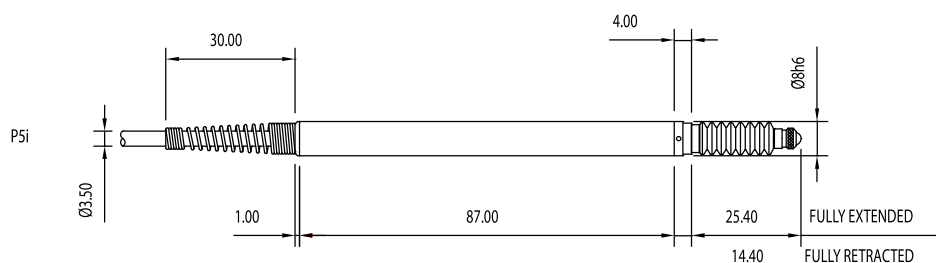
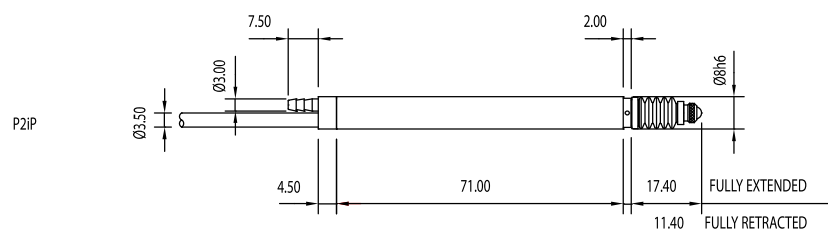
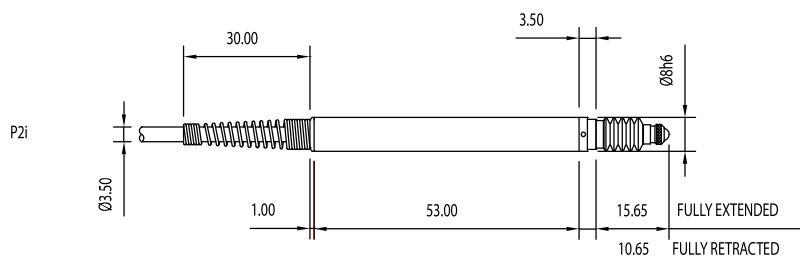


IP65



Inductive measuring probes

DIMENSIONAL DRAWINGS





Inductive measuring probes

TECHNICAL SPECIFICATIONS

		P2i	P2iP	P5i	P5iP
Travel	mm	±2	±2	±5	±5
Pre-travel	mm	0.15	0.8	0.15	0.3
Post-travel	mm	1.35	1.2	0.85	0.7
Resolution		Digital : user selectable to <0.1µm			
Repeatability	µm	0.15	0.15	0.15	0.15
Moving mass	g	3.4	3.4	3.7	3.7
Accuracy of reading %		0.5	0.5	0.5	0.5
Body diameter	mm	8h6			
IP rating		IP65			
Temperature	%FS/°C	0.01			

MEASURING FORCE

		P2i	P2iP	P5i	P5iP
Standard	N	0.7	0.7 / 0.4 bar - 2.6 / 1 bar	0.7	0.7 / 0.4 bar - 2.6 / 1 bar

Tolerance ± 20%, measuring probe in middle course, outgoing spindle.

PNEUMATIC PROBES

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Pneumatic probes are fully retracted when they are not supplied with air. For continual reliable operation and to maximise working life, the air supply should be clean and dry. 60% maximum relative humidity, filtered to better than 2µm particle size. Air pressure : 0.4-0.8 bar, don't go over 0.8 Bar because the rubber boot can be damaged.

LIST OF REFERENCES

P2i				P5i			
P2i	900-1101	P2iP	900-1102	P5i	900-1111	P5iP	900-1112

P = pneumatic push



Inductive measuring probes

STANDARD DELIVERY

- Probe according to technical specifications
- Cable 2 m
- Stainless steel contact point with tungsten carbide ball Ø 3 mm (905-2204)
- Calibration certificate

APPLICATIONS



Inductives probes connected to a D70I.



Inductives and Solartron probes connected to a M-Bus modul coupled with D400S.



Probes connected to the D300S.