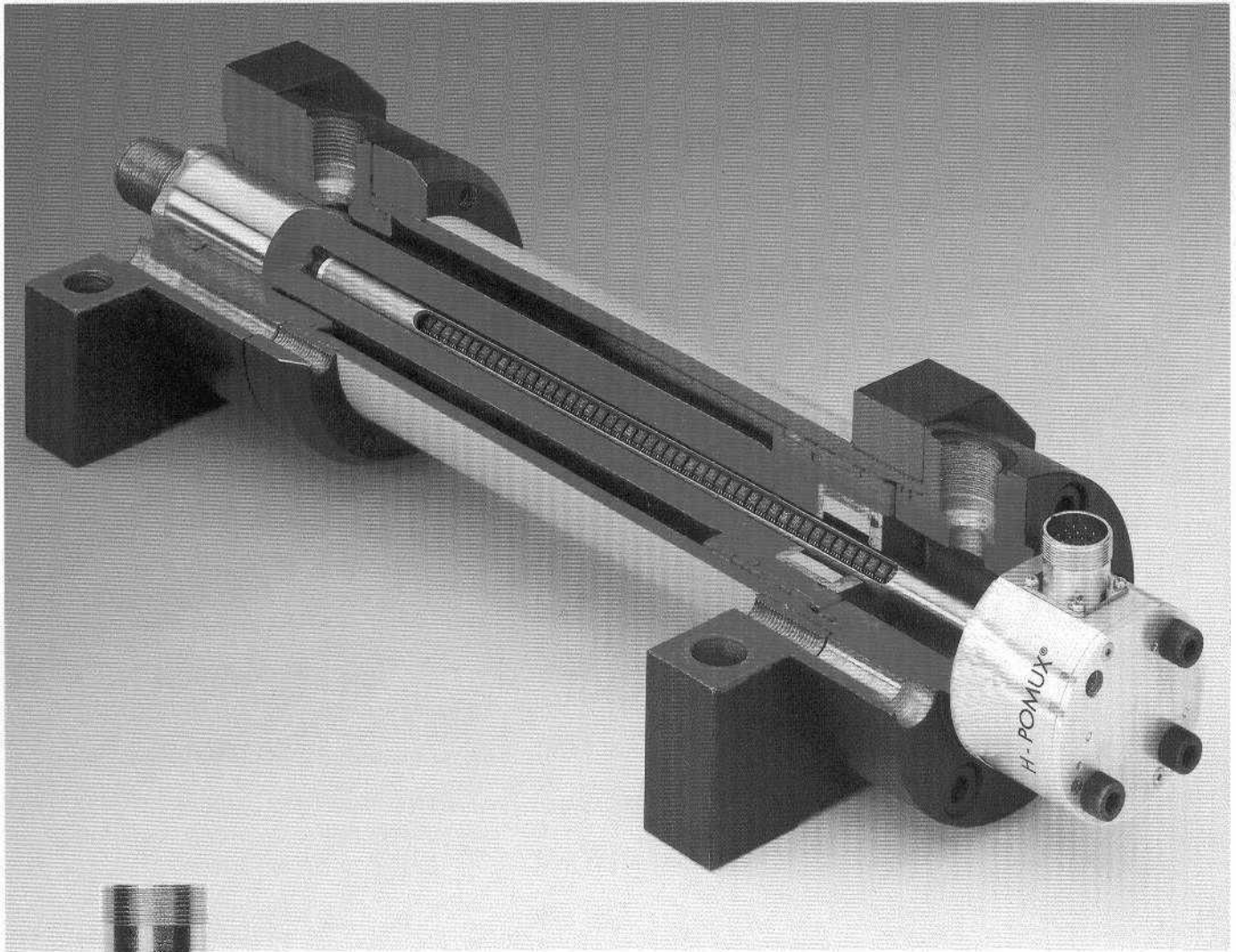


H-POMUX® P521

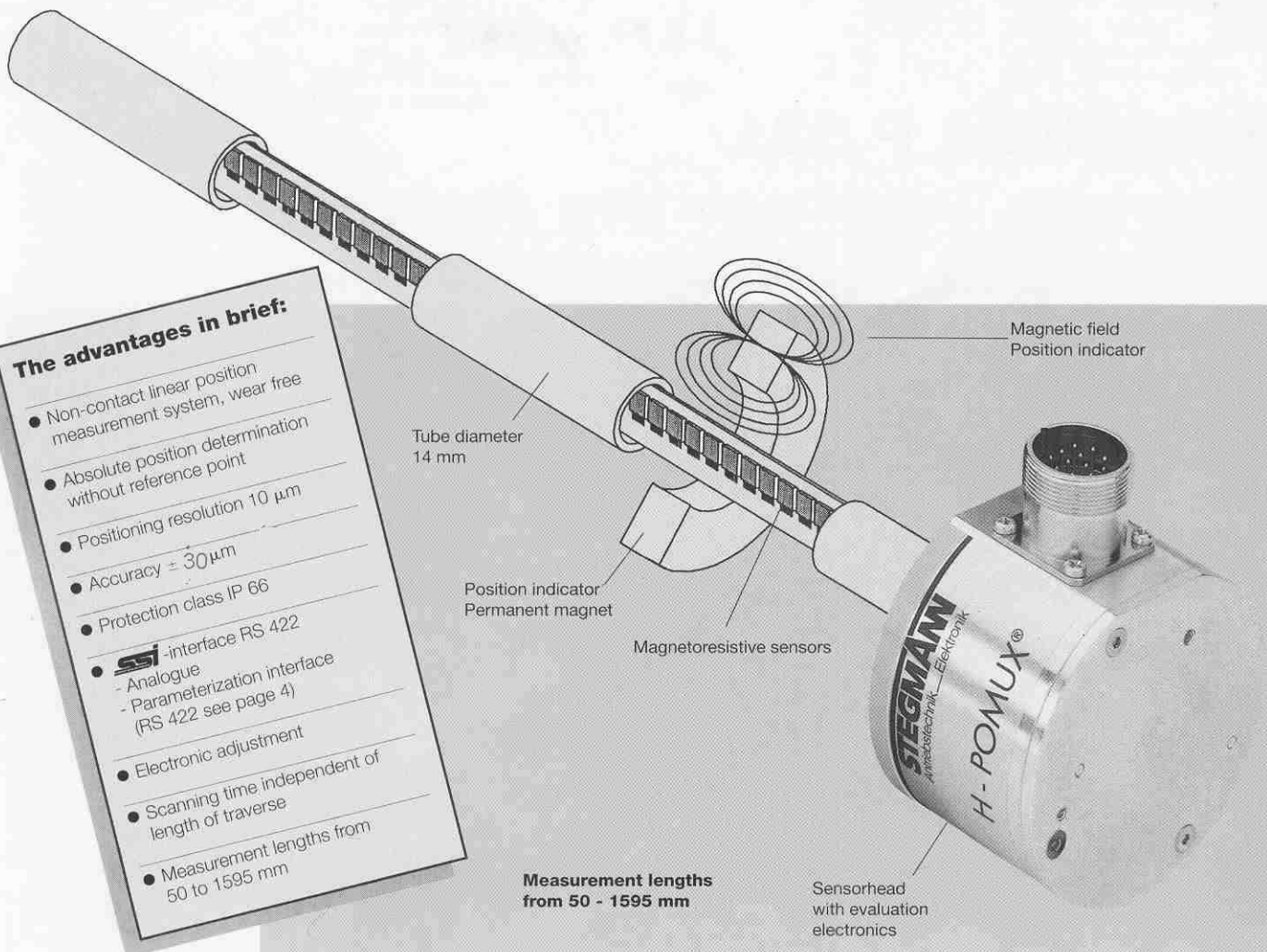
**Absolute linear position system for
installation inside hydraulic cylinders**



H-POMUX® P 521

The advantages in brief:

- Non-contact linear position measurement system, wear free
- Absolute position determination without reference point
- Positioning resolution 10 µm
- Accuracy ± 30 µm
- Protection class IP 66
- **SSI**-interface RS 422
 - Analogue
 - Parameterization interface (RS 422 see page 4)
- Electronic adjustment
- Scanning time independent of length of traverse
- Measurement lengths from 50 to 1595 mm



Available Versions P521



Analogue
0-20 mA

Analogue
4-20 mA

Analogue
± 20 mA

Analogue
0-10 V

Analogue
+ 10 V

Cable exit radial, 1.5 m

P 521 SKR....

P 521 AKR....

P 521 BKR....

P 521 CKR....

P 521 DKR....

P 521 EKR....

Plug exit radial

P 521 SSR....

P 521 ASR....

P 521 BSR....

P 521 CSR....

P 521 DSR....

P 521 ESR....

Order example for: P 521, **SSI** - interface,
radial plug exit, measurement length 294 mm → **P 521 SSR 0294**

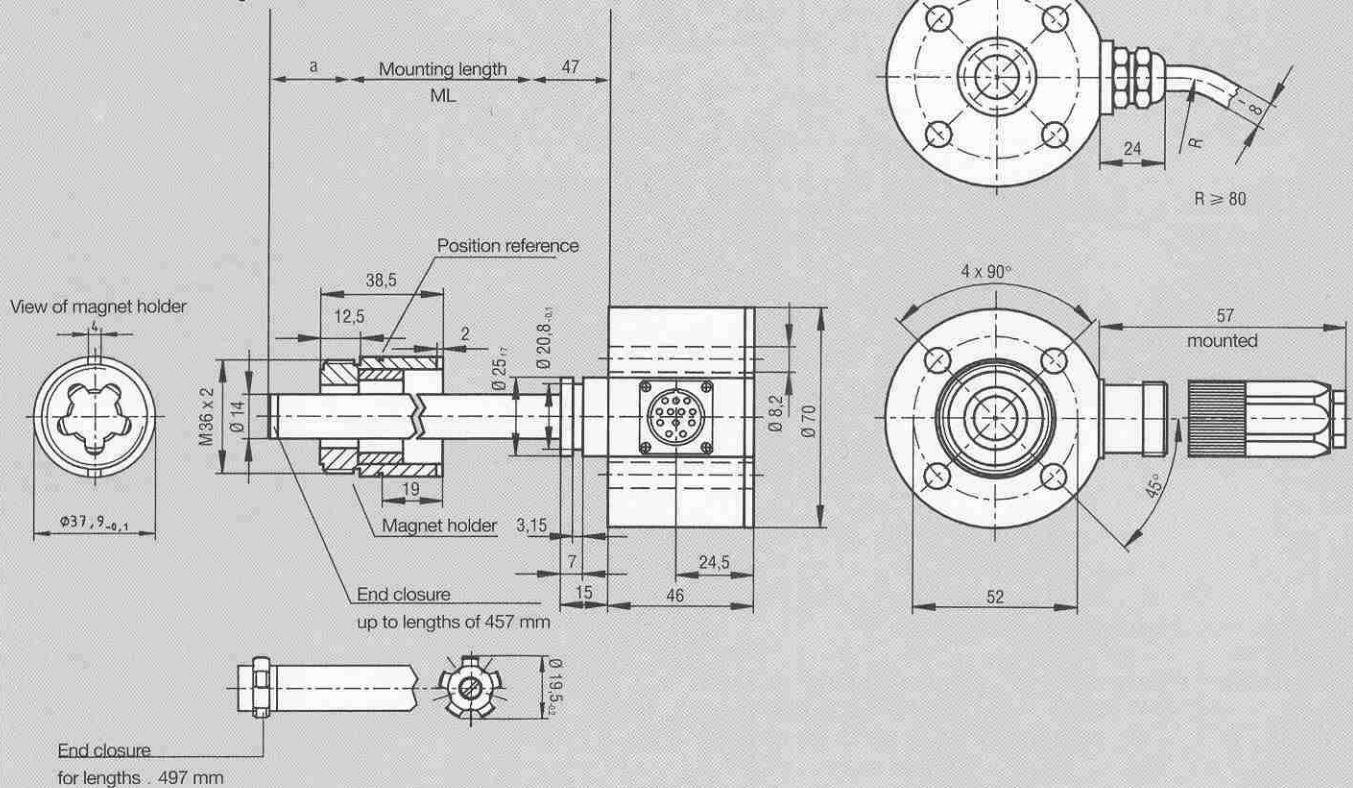
Measurement lengths

ML in mm (the measurement length ML is the range within which the absolute position can be unequivocally determined).

50	375	700	1026	1351
91	416	741	1066	1391
131	457	782	1107	1432
172	497	822	1147	1473
213	538	863	1188	1513
253	579	904	1229	1554
294	619	944	1269	1595

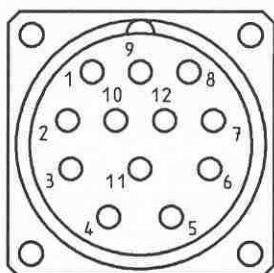
Not all variants are available!

a = 31 from measurement length 497 mm
a = 22 to measurement length 457 mm



Pin allocation interface		for the analog interface	for the serial <i>SSI</i> interface
PIN	Colour	Signal	Signal
1	blue	GND	GND
2	white	Current/voltage +	data +
3	yellow	Nc	clock +
4	grey	R x D +	R x D +
5	green	R x D -	R x D -
6	pink	T x D +	T x D +
7	black	T x D -	T x D -
8	red	+ Us	+ Us
9	orange	NC	NC
10	brown	Current/voltage -	data -
11	lilac	NC	clock -
12	orange/black	NC	NC

NC = not connected
Pins/cores designated NC must not be connected



Pinout

The mating plug **C 12 FUR** (female connector) does not form part of the delivery and must be ordered separately.

Accessories:

- *SSI* - display
- Programming tool
Every length measurement unit in the P 5 product family can be configured via a RS 422 (asynchronous = out) parameterising interface.
The programmable parameters differ depending on the type of interface.
The PC programming software operates at the DOS level using a pull-down menu technique.

- *SSI* plug-in board for PCs, PC - *SSI* - slot. 3
- Cable 12-ore

Not all variants are available!

Technical data and characteristics to DIN 32878

H-POMUX® P 521

System resolution a	with digital interface	10	μm
	with analogue interface	$10 \leq a < ML/2048$	μm
Repeatability r	with digital interface for measurement lengths to 0.8 m	30	μm
	with digital interface for measurement lengths to 1.59 m	60	μm
	with analogue interface for measurement lengths to 0.8 m	$30 \leq r < ML/2048$	μm
	with analogue interface for measurement lengths to 1.59 m	$60 \leq r < ML/2048$	μm
Measurement accuracy *	for measur. lengths to 0.8 m, min. $\pm 150 + L_{(TU)}$, typ. $\pm 60 + L_{(TU)}$, max. $\pm L_{(TU)}$		μm
	for measur. lengths to 1.59 m, min. $\pm 250 + L_{(TU)}$, typ. $\pm 100 + L_{(TU)}$, max. $\pm L_{(TU)}$		μm
ML = measurement length; TU = ambient temp. in °C; $L_{(TU)} = ML (25^\circ C - TU) TK$			
Coefficient of thermal expansion Tk		15	μm/°C/m
Dimensions	see technical drawing and measurement lengths table		
Weight	Sensor head 300 g + sensor section 1 g/mm		
Housing material	AlMgSiPbF28		
Measurement tube material	V2A		
Measurement lengths	see table page 2		
Shock resistance	to DIN IEC 68 part 2-27	30/10	g/ms
Vibration resistance	to DIN IEC 68 part 2-6	5/20 ... 250	g/Hz
Pressure resistance	from sealing groove over entire measuring tube	500	bar
Working temperature range		0 ... 60	°C
Operating temperature range		-20 ... 85	°C
Storage temperature range		-40 ... 85	°C
Protection class	to DIN VDE 0470 part 1	with plug exit IP 65 with cable exit IP 66	
Max. traversing speed with continuous measure value output		1.2	m/s
Scanning interval	SSI /analogue	1.7	ms
Power supply		10-32	V
Power consumption		0.3	A
Parameterization interface	Four-wire transmission, asynchronous, full duplex Data format: 1 start bit, 8 data bits, 1 stop bit, no parity Data protocol: ASCII, baud rate: 9600	RS 422	
signal processing interface	Digital serial	SSI 24 bit format	
	Analogue current output (max. impedance = 400 Ohm)	0 - 20 or 4 - 20 freely prog.	mA
	Analogue current output (max. impedance = 400 Ohm)	-20 to +20	mA
	Analogue voltage output (min. impedance = 1000 Ohm)	0 to 10	V
Analogue voltage output (min. impedance = 1000 Ohm)	-10 to +10	V	

***Specifications relating to system precision apply only when using sensors and position indicators (magnet holders) with the same identification number. External magnetic influences may affect the attainable accuracies.**

Important

If not specified when ordering, the Parameter interface will be inactive:

For the **SSI**- Interface:

- Operating mode Synchronous **SSI** = inactive
- Parameter Interface RS 422 (asynchronous) = inactive
- The start of the measuring range is at the connector or cable outlet.

For the Analogue Interface:

- The smallest voltage or current is output at the start of the measuring range.
- The start of the measuring range is at the connector or cable outlet.
- Parameter Interface RS 422 (asynchronous) = inactive.

Not all variants are available!

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