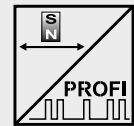




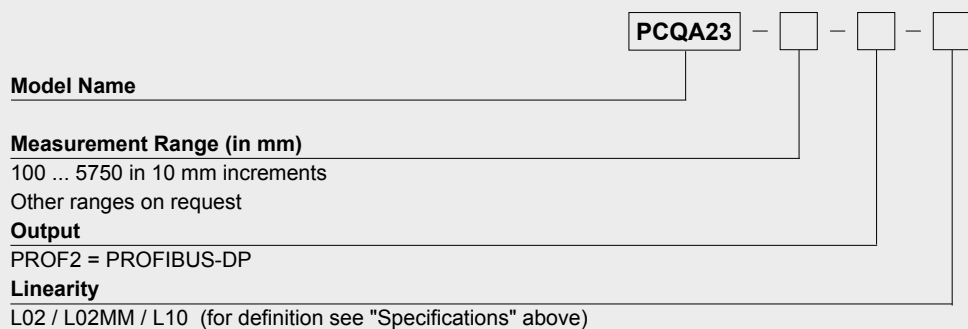
POSICHRON® position sensor in square profile

- Protection class IP64
- Measurement range 0 ... 100 to 0 ... 5750 mm
- Absolute position measurement
- Easy installation with mounting brackets
- Wire-free position magnet
- Contact-free
- Also available with guided position magnet
- Multi-magnet operation
- Output PROFIBUS-DP



Specifications	Output	PROFIBUS Profile for encoders, class 2
	Resolution	Measurement increments of 5 ... 1000 µm
	Measurement response time	0.75 to 3.5 ms, depending on the measurement range, number of position magnets, preset function
	Linearity	Ranges >500 mm: L10 = ±0.10 % f.s. L02 = ±0.02 % f.s. Ranges ≤500 mm: L10 = ±0.5 mm L02MM = ±0.2 mm
	Repeatability	±3 µm
	Measurement direction	Adjustable
	Number of position magnets	1 ... 4
	Housing material	AlMgSi1 / Zn / V4A
	Protection class	IP64 (with mating connectors only)
	Shock	EN60068-2-27:1993, 50 g/11 ms, 100 shocks
	Vibration	EN60068-2-6:1995, 20 g 10 Hz-2 kHz, 10 cycles
	Connection	2 x connector M12 round, 5 pin, B-coded 1 x connector M8 round, 3 pin
EMC, temperature	Refer to output specification	

Order Code PCQA23



Order code mounting set (see page 22)

PCQA-BFS1

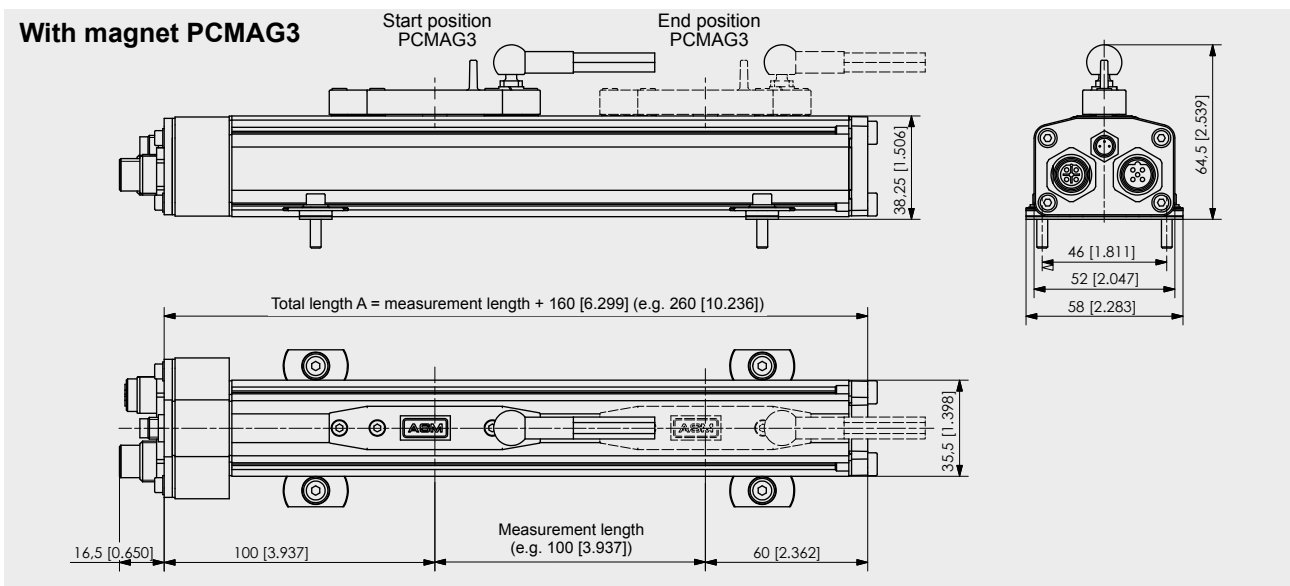
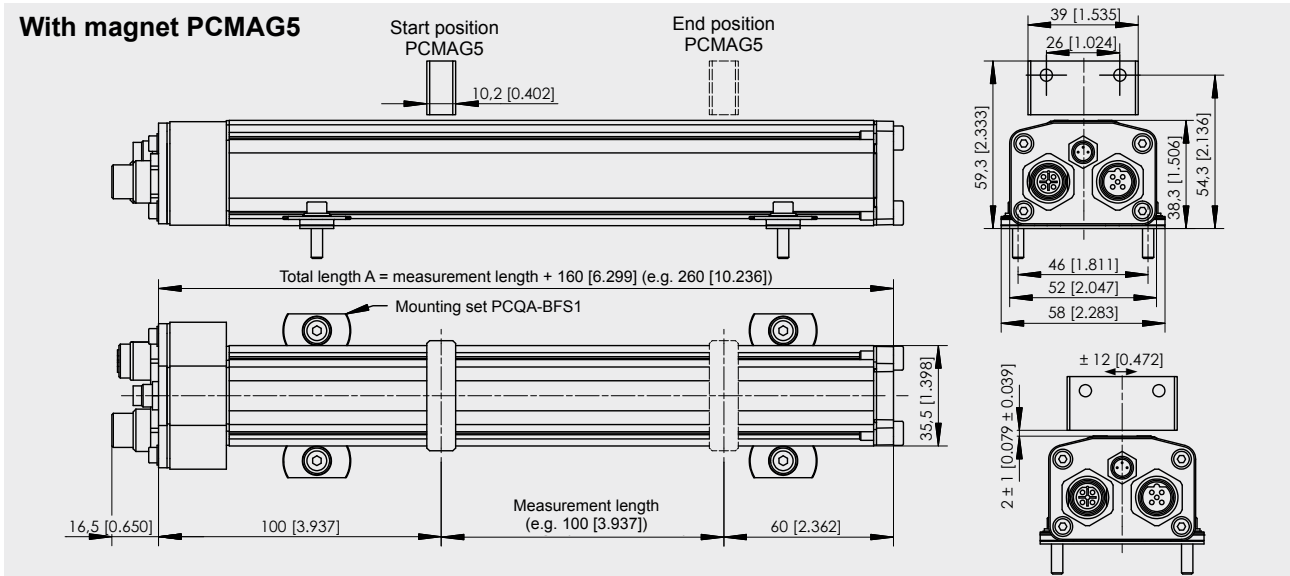
Order code position magnet (see page 23)

PCMAG ...

Order code mating cable set (see page 79)

KABS...-PCQA23-PROF-...M-LITZE

Order example: PCQA23 - 2000 - PROF2 - L02

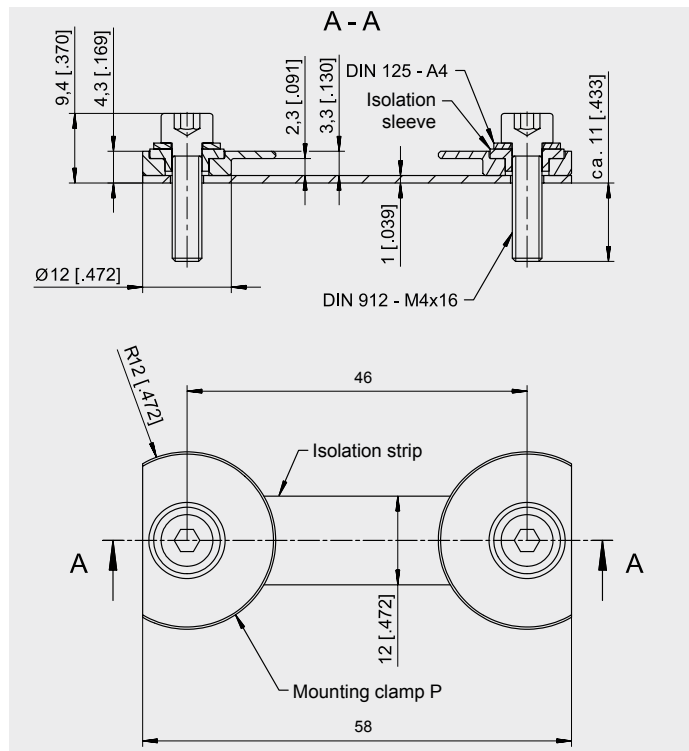


Dimensions in mm [inch]

Dimensions informative only.

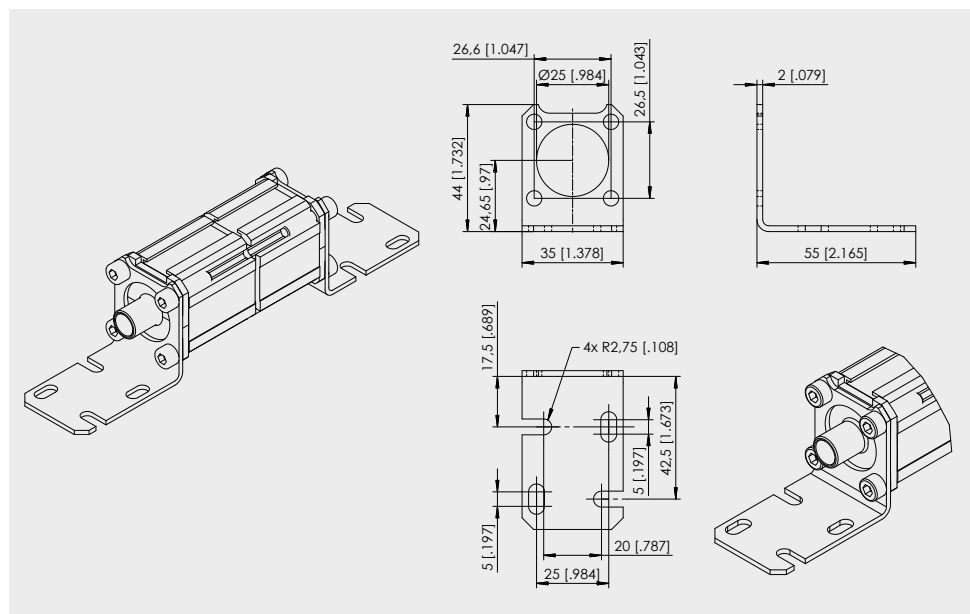
For guaranteed dimensions consult factory.

**Mounting set
 PCQA-BFS1 with
 mounting clamps**



**Option -BFW
 Mounting brackets
 for PCQA22 and
 PCQA24**

Note: The option -BFW can only be ordered with a new sensor, not separately! Applicable for sensor lengths up to 1000 mm.



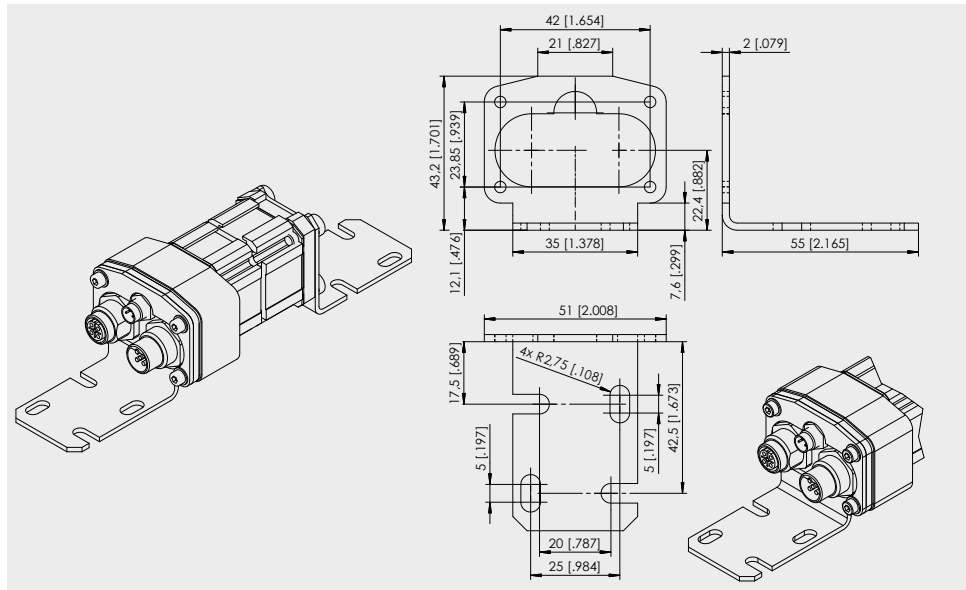
Dimensions in mm [inch]
 Dimensions informative only.
 For guaranteed dimensions consult factory.

Order example: PCQA24 - 1000 - STSP - L10 - M12 - BFW

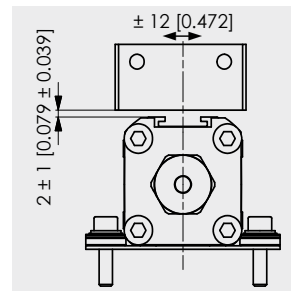
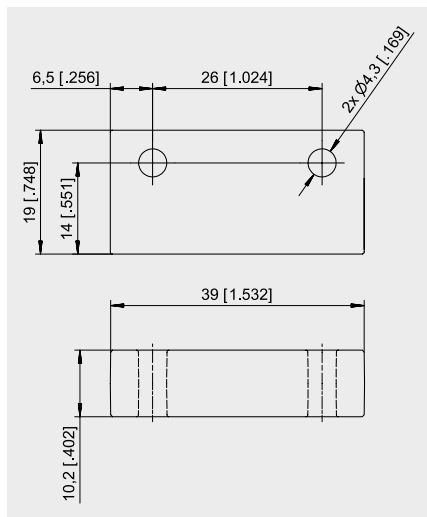
POSICHRON®
PCQA
Mounting Sets - Magnets



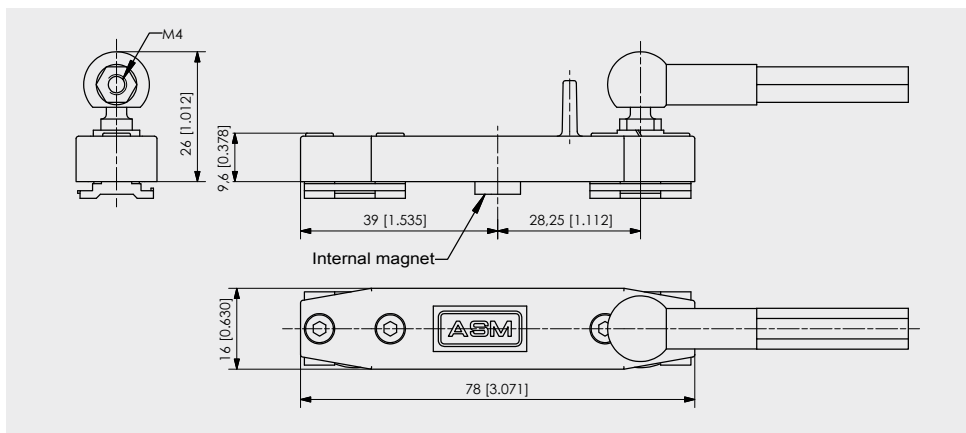
Option -BFW
Mounting brackets
for PCQA23
 (continuation)



PCMAG5
 Standard magnet



PCMAG3
 Guided magnet
 slider with internal
 position magnet



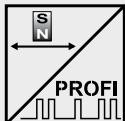
Dimensions in mm [inch]

Dimensions informative only.
 For guaranteed dimensions consult factory.

POSICHRON® Output Specification PROFIBUS-DP



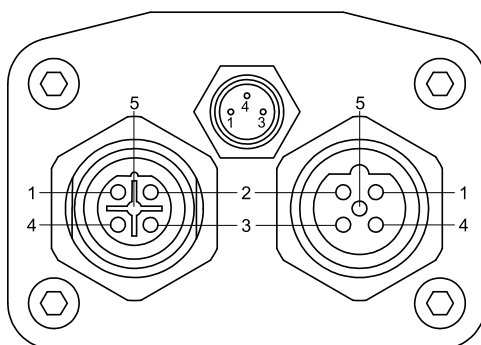
Profibus-Interface PROF2



Device profile	PROFIBUS profile for encoders class 2, following
Transmission rate	12 MBaud max.
Device master file	ASMQ0715.GSD
DP functions	SYNC, FREEZE
DP diagnostics	Error position marker
Slave address	1 ... 125, adjustable by the Profibus Service
Slave default address	125
Measurement direction	Adjustable, common for all position markers
Preset	Adjustable, individual or common
Resolution	Measurement steps 5 ... 1000 µm, adjustable
Number of position magnets	1 ... 4
Excitation voltage	22 ... 27 V DC, residual ripple 10 mV _{PP}
Excitation current	Typ. 100 mA
Measurement cycle time	0.75 ms to 3.5 ms, depending on the measurement range, the number of position magnets and used features
Operation temperature	-40 ... +85 °C
Stability (temperature)	±50 x 10 ⁻⁶ / °C f.s.

When using multiple magnets the distance between two magnets must be min. 70 mm to identify the single magnets definitely.

Mating connectors



View to sensor
connectors

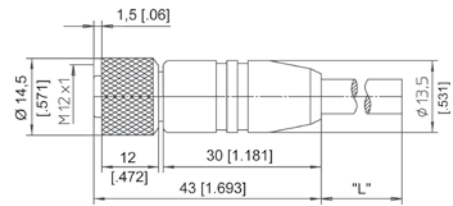
Signal wiring	Connector pin	Signal name bus / cable color	Signal name excitation / cable color	
	1	VP +5 V output		+24 V
2	A	Green		
3	Data GND		0 V (GND)	Blue
4	B	Red	Shield	Black
5	Shield			

POSICHRON® Accessories Connector Cables



Connector/bus cable for POSICHRON® position sensors
5 pin M12
CAN bus/DeviceNet

The 5-lead shielded cable is supplied with a female 5-pin M12 connector at one end and a male 5-pin M12 connector at the other end. Available lengths are 0.3, 2, 5 and 10 m.

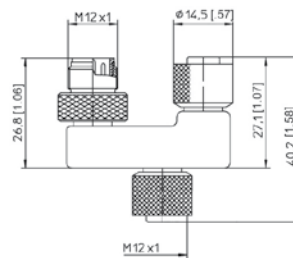


Order code:

KAB - XM - M12/5F/G - M12/5M/G
IP69K: KAB - XM - M12/5F/G/69K - M12/5M/G/69K
 Length in m ↑

T-piece for bus cable
5 pin M12
CAN bus/DeviceNet

KAB - TCONN - M12/5M - 2M12/5F



Terminating resistance
5 pin M12
CAN bus/DeviceNet

KAB - RTERM - M12/5M/G



Cable set for POSICHRON® position sensors PROFIBUS

The cable set consists of one cable each of the following type :

- Cable set 1: Bus input, bus output, sensor excitation
- Cable set 2: Bus input, terminating resistor, sensor excitation

Available lengths are 2, 5 and 10 m

Order Code:

KABS1-PCQA23-PROF-XM-LITZE
 Length in m ↑

KABS2-PCQA23-PROF-XM-LITZE
 Length in m ↑

Separate cables on request.