ASM®

perfect in sensors.

SHORT FORM CATALOGUE SEPTEMBER 2010

Position Sensors
Angular Sensors
Encoders

NEW

numerous new products!

- **POSIWIRE®**
  Cable Extension Position Sensors
- **POSITAPE®**
  Tape Extension Position Sensors
- **POSICHRON®**
  Magnetostrictive Position Sensors
- **POSIMAG®**
  Magnetic Scale Position Sensors
- **POSIROT®**
  Magnetic Angular Sensors / Encoders
- **POSITILT®**
  Inclination Sensors
- **PRODIS®**
  Digital Process Meters

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Applications that are described herein for any of these products are for illustrative purpose only. ASM makes no representation or warranty that such applications will be suitable for the specified use without further testing or modification.

Company Profile and Products

ASM is a leading company in the development and production of linear and angular position sensors. ASM sensors are used in industrial and commercial applications, where angle, inclination, displacement or position measurements are used to automate, test or monitor processes.

Innovative Technologies that Solve Your Measuring Requirements

Our product range consists of various technologies to measure linear and rotary positions. With 30 years of experience in the position sensor market, ASM offers innovative solutions for the most demanding applications.

ASM Products Represent Quality and Reliability

The quality and precision of our products ensures consistent productivity. Our continuous research and development in our laboratories as well as our DIN EN 9001:2000 certified quality management system guarantee these high standards.

ASM – Global Supplier of Position Sensors

ASM products are sold world-wide through sales offices, subsidiaries and a network of 50 distributors. With this global presence we ensure being close to our customers and provide quick product availability wherever ASM sensors are needed.

The product range

- **POSIWIRE®** Cable Extension Position Sensors
- **POSITAPE®** Tape Extension Position Sensors
- **POSICHRON®** Magnetostrictive Position Sensors
- **POSIMAG®** Magnetic Scale Position Sensors
- **POSIROT®** Magnetic Angular Sensors
- **POSITILT®** Inclination Sensors
- **PRODIS ®** Digital Process Meters

WS31 / WS42
Instrumentation / Automation

- Measurement range: 0 ... 250 / 500 / 750 mm (WS31)
  0 ... 750 / 1000 mm (WS42)
- Protection class: IP40*
- Dimensions: L43 x W31 x H31 mm (WS31)
  L43 x W42 x H42 mm (WS42)

WS31 / WS42
Instrumentation / Automation

- Measurement range: 0 ... 500 mm (WS31)
  0 ... 1000 mm (WS42)
- Protection class: IP50
- Dimensions: L43 x W31 x H31 mm (WS31)
  L43 x W42 x H42 mm (WS42)

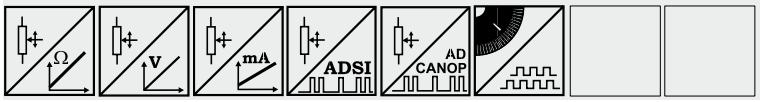
WS31C / WS42C
Instrumentation / Automation

- Measurement range: 0 ... 250 / 500 / 750 mm (WS31C)
  0 ... 750 / 1000 mm (WS42C)
- Protection class: IP50
- Dimensions: L60 x W31 x H31 mm (WS31C)
  L60 x W42 x H42 mm (WS42C)

For IPXX explanation see page 22

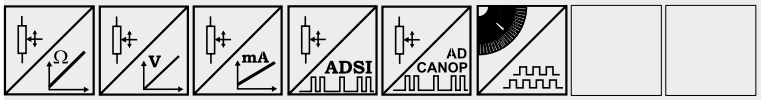
WS10SG (plastic housing)
Industry / Automation

- Measurement range: 0 … 100 / 125 / 250 / 375 / 500 / 750 / 1000 / 1250 mm
- Protection class: IP65
- Dimensions:
  L94,5 x W51 x H51 mm (analogue, ADSI, ADCANOP)
  L120,5 x W51 x H51 mm (incremental)



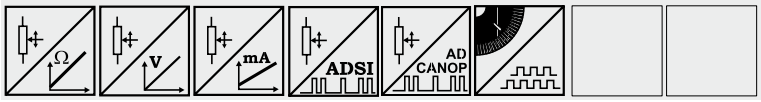
WS10ZG (zinc diecast housing)
Industry / Automation

- Measurement range: 0 … 100 / 125 / 250 / 375 / 500 / 750 / 1000 / 1250 mm
- Protection class: IP65
- Dimensions:
  L94,5 x W51 x H51 mm (analogue, ADSI, ADCANOP)
  L120,5 x W51 x H51 mm (incremental)



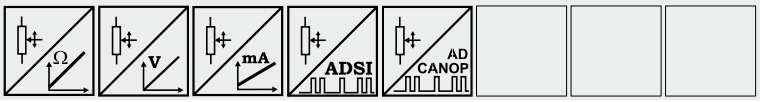
WS10 (aluminium housing)
Industry / Automation

- Measurement range: 0 … 100 / 125 / 250 / 375 / 500 / 750 / 1000 / 1250 mm
- Protection class: IP65
- Dimensions:
  L94,5 x W50 x H50 mm (analogue, ADSI, ADCANOP)
  L120,5 x W50 x H50 (incremental)



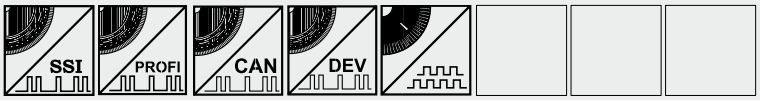
WS17KT
Industrial applications / Automation

- Measurement range: 0 … 1500 / 2000 / 2500 / 3000 / 4000 / 5000 / 6250 / 10000 / 12500 / 15000 mm
- Protection class: IP64 (optional IP66)
- Dimensions for measurement ranges:
  1500, 2000, 2500 mm: L147 x W100 x H100 mm
  3000, 4000 mm: L152 x W150 x H150 mm
  5000, 6250 mm: L169 x W228 x H228 mm
  10000, 12500, 15000 mm: L159 x W228 x H230 mm



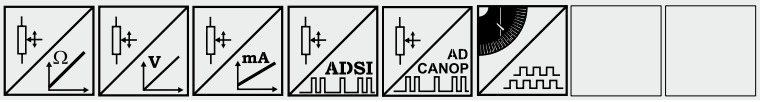
WS19KT
Heavy-Duty industrial applications / Automation

- Measurement range: 0 … 2000 / 3000 / 5000 / 8000 / 15000 mm
- Protection class: IP64
- Dimensions for measurement ranges:
  2000, 3000 mm: L72 + encoder x W95 x H100 mm
  5000 mm: L77 + encoder x W150 x H150 mm
  8000 mm: L94 + encoder x W228 x H228 mm
  15000 mm: L77 + encoder x W228 x H230 mm



WS12
Heavy-Duty industrial applications / Automation

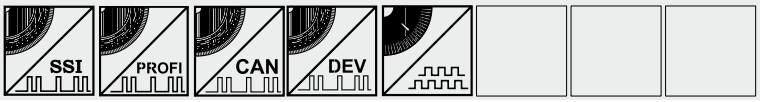
- Measurement range: 0 … 100 / 125 / 500 / 1000 / 1250 / 1500 / 2000 / 2500 / 3000 mm
- Protection class: IP67 / IP69K
- Dimensions for measurement ranges:
  100, 125, 500, 1000, 1250 mm: L112 x W71 x H71 mm
  1500 mm: L127 x W71 x H71 mm
  2000, 2500, 3000 mm: L127 x W109 x H109 mm



WS58C
High precision Instrumentation, ultra compact

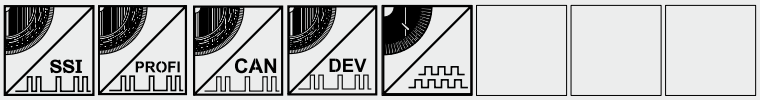
NEW

- Measurement range: 0 … 2500 mm
- Protection class: IP50 (optional IP64)
- Dimensions: L63 + encoder x W62 x H60 mm



WS19KK
Industry / Automation

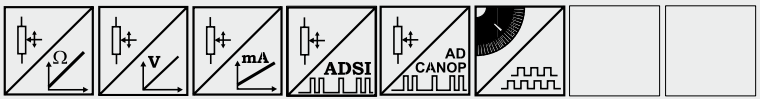
- Measurement range: 0 … 2000 / 3000 / 5000 / 8000 / 15000 mm
- Protection class: IP64
- Dimensions for measurement ranges:
  2000, 3000 mm: L113 + encoder x W95 x H95 mm
  5000 mm: L118 + encoder x W150 x H150 mm
  8000 mm: L135 + encoder x W228 x H230 mm
  15000 mm: L118 + encoder x W228 x H230 mm



WS100M
Marine applications

NEW

- Measurement range: 0 … 2000 / 3500 / 7500 / 10000 mm
- Protection class: IP67 / IP69K (IP68*)
- Dimensions for measurement ranges:
  2000, 3500 mm: L175 x W150 x H158 mm
  7500 mm: L179 x W196 x H201 mm
  10000 mm: L179 x W248 x H253 mm



* IP68 − depth and duration of immersion must be indicated!

POSIWIRE®
Cable Extension Position Sensors
Ex-Proof (Dust Area)

WS10EX
For Dust Ex-Proof applications

- Measurement range: 0 … 100 / 125 / 375 / 500 / 750 / 1000 / 1250 mm
- Protection class: IP65
- Dimensions: L121 x W50 x H50 mm
- Dust Ex-Proof: Ex II 3D Ex tD A22 IP65 T80°C X

WS12EX
For Dust Ex-Proof applications

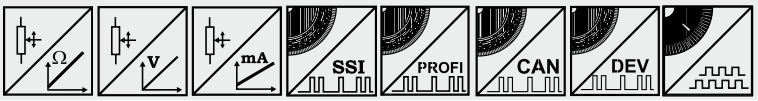
- Measurement range: 0 … 100 / 125 / 500 / 1000 / 1250 / 1500 / 2000 / 2500 / 3000 mm
- Protection class: IP67 / IP69K
- Dimensions for measurement ranges:
  100, 125, 500, 1000, 1250 mm: L112 x W71 x H71 mm
  1500 mm: L127 x W71 x H71 mm
  2000, 2500, 3000 mm: L127 x W109 x H109 mm
- Dust Ex-Proof: Ex II 3D Ex tD A22 IP67 T80°C

EX - Explanation

II	- for all Explosive Areas, excluding Surface and Underground Mining Systems
3D	- Equipment Category 3, applicable in Zone 22; D = dust
Ex	- meets the requirements of the European Ex-Directive
tD	- type of ignition protection: protection by enclosure “tD”
A22	- measurement of the surface temperature acc. to procedure A for applications in Zone 22
IP65	- IP Protection Class
T80°C	- maximum surface temperature
X	- tested with low impact energy

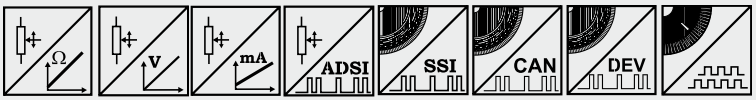
WS7.5
Lift applications / Automation

- Measurement range: 0 … 10000 / 20000 / 30000 / 40000 mm
- Protection class: IP52, encoder IP64
- Dimensions:
  L310 x W199 x H143 mm (analogue)
  L310 x W208 + encoder x H143 mm
  (incremental, digital absolute)



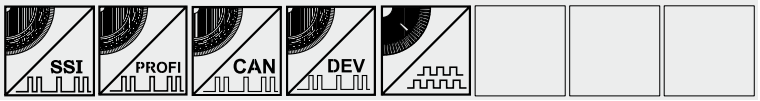
WS7.0
Open Frame OEM Type

- Measurement range: 0 … 10000 / 20000 / 30000 / 40000 mm
- Protection class: IP00
- Dimensions for measurement ranges:
  ≤20000 mm: L255 x W165 x H133 mm (analogue)
  >20000 mm: L255 x W184 x H133 mm (analogue)
  L255 x W145 + encoder x H143 mm
  (incremental, digital absolute)



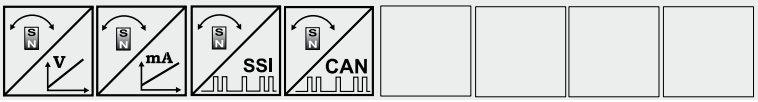
WS60
Lift applications

- Measurement range: 0 … 60000 mm
- Protection class: IP52, encoder IP64
- Dimensions:
  L393 + encoder x W200 x H200 mm
  (incremental, absolut)



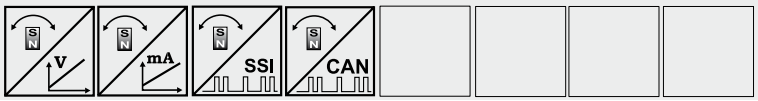
WB10ZG
Mobile working machines / automation

- Measurement range: 0 … 1250 / 2000 mm
- Protection class: IP65 (optional IP67)
- Dimensions:
  1250, 2000 mm: L82 x W50 x H50 mm



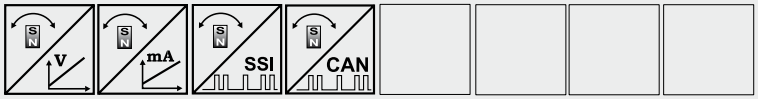
WB12
Mobile working machines / automation

- Measurement range: 1500 / 3000 mm
- Protection class: IP67
- Dimensions for measurement ranges:
  1500 mm: L127 x W71 x H71 mm
  3000 mm: L127 x W109 x H109 mm



WB17KT
Mobile working machines / automation

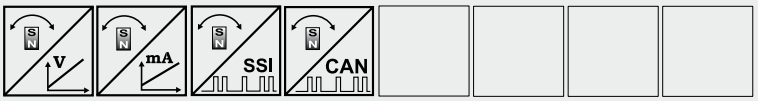
- Measurement range: 0 ... 3500 / 6500 / 10000 / 19000 mm
  Protection class: IP64 (optional IP66)
- Dimensions for measurement ranges:
  3500 mm: L138 x W100 x H100 mm
  6500 mm: L143 x W150 x H150 mm
  10000, 19000 mm: L138 x W228 x H228 mm



WB100M
Mobile working machines / automation

NEW

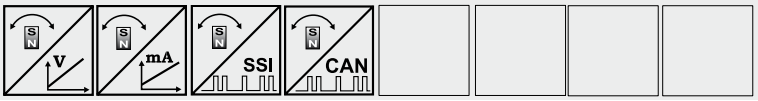
- Measurement range: 2000 / 3500 / 7500 / 10000 mm
- Protection class: IP68 / IP69K
- Dimensions for measurement ranges:
  2000 mm: L175 x W162 x H150 mm
  3500 mm: L175 x W162 x H150 mm
  7500 mm: L179 x W196 x H205 mm
  10000 mm: L179 x W248 x H257 mm



WB25KT
Mobile working machines / automation

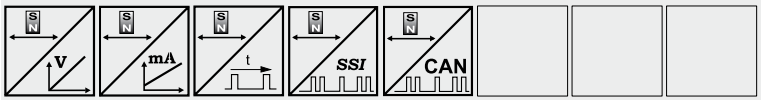
NEW

- Measurement range: 0 … 6000 / 8000 / 10000 / 12000 / 15000 / 20000 / 25000 mm
- Protection class: IP64 (optional IP67)
- Dimensions for measurement ranges:
  6000 mm: L150 x W96 x H100 mm
  8000 mm: L159 x W106,5 x H100 mm
  10000 mm: L179 x W109,5 x H100 mm
  Other ranges: L200 x W100,5 x H150 mm



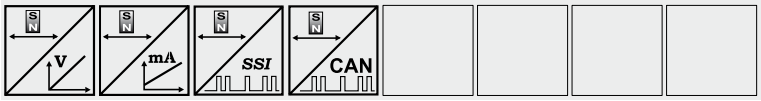
PCST24
Rod design

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP67 / IP69K
- Dimensions:
  Measurement rod: Ø10 mm x range + 105 mm
  Head: A/F46 x 83 mm



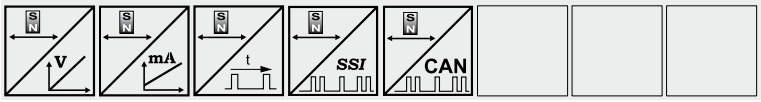
PCST25SV
Rod design, with compact head, radial O-Ring seal

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP67 / IP69K
- Dimensions:
  Measurement rod: Ø10 mm x range + 95 mm
  Head: Ø48 x 39 mm



PCST27
For underwater applications

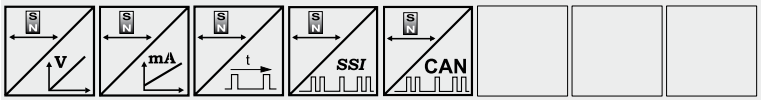
- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP68 / IP69K
- Dimensions:
  Measurement rod: Ø10 mm x range + 105 mm
  Head: A/F46 x 123 mm
- Ex version on request



* IP68 − depth and duration of immersion must be indicated!

PCQA22
Square profile housing

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP64
- Dimensions:
  L140 + measurement range x W35.5 x H37.3 mm

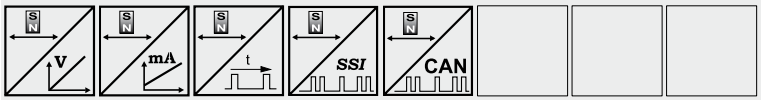


PCQA23
Square profile housing

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP64
- Dimensions:
  L160 + measurement range x W52 x H38,3 mm

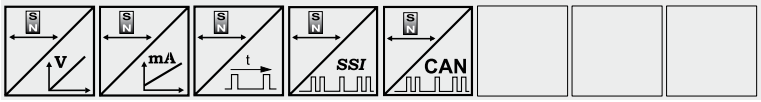
PCQA24
Square profile housing

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP67 / IP69K
- Dimensions:
  L155 + measurement range x W35.5 x H37.3 mm



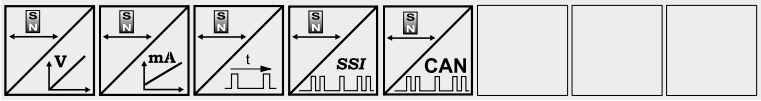
PCFP23
12 mm flat housing

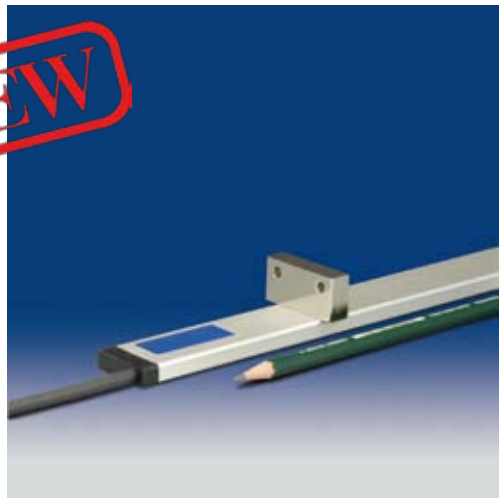
- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP64
- Dimensions:
  L150 + measurement range x W36 x H12 mm



PCFP24
12 mm flat housing

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP67 / IP69K
- Dimensions:
  L165 + measurement range x W43 x H12 mm

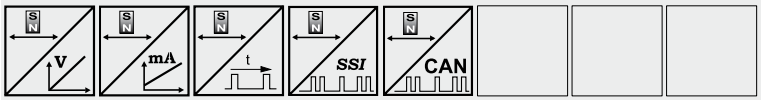




NEW

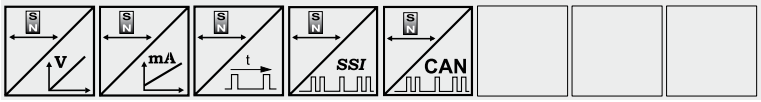
PCFP25
Extra flat – 8 mm flat housing

- Measurement range: 0 ... 100 to 0 ... 5500 mm
- Protection class: IP64
- Dimensions:
  L162 + measurement range W28 x H8 mm



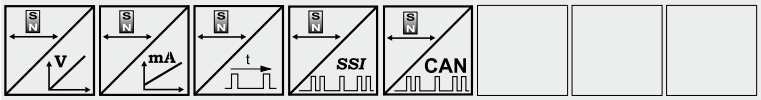
PCRP21
25 mm round profile housing

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP64
- Dimensions:
  L152 + measurement range x Ø25 mm



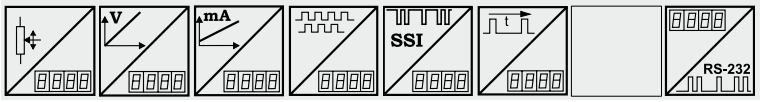
PCRP32
For chemically aggressive environments / food applications

- Measurement range: 0 ... 100 to 0 ... 5750 mm
- Protection class: IP67 / IP69K (IP68*)
- Dimensions:
  L155 + measurement range x Ø28 mm



PRODIS®
Digital Process Meter

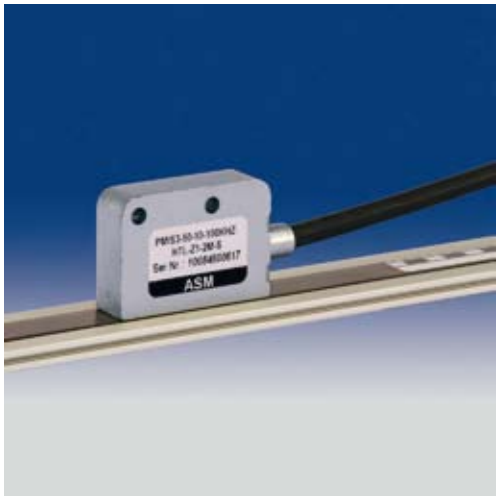
- 6-digit LED display
- Protection class: IP50
- Integrated sensor supply
- Control panel mounting 92 mm x 45 mm
- 24VDC or 90 - 240VAC fed



* IP68 − depth and duration of immersion must be indicated!

PMIS3 / PMIB3
Adhesive tape mounting

- Measurement range: 0 ... 30000 mm
- Protection class: IP67 / IP69K
- Dimensions:
  Head: L42 x W10 x H25 mm
  Scale: W10 x H1.7 mm
- Resolution up to 1 µm
- Non-contact, no wear

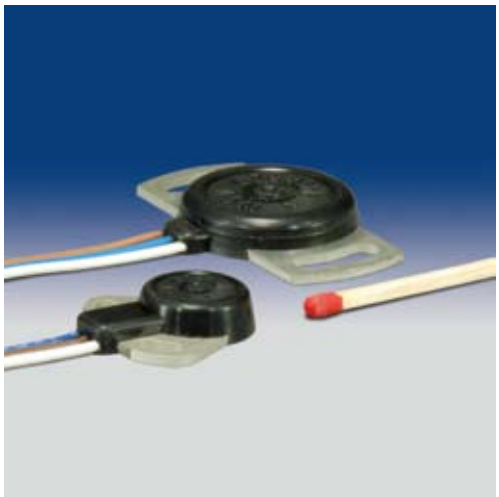


PMIS3 / PMIB3
Mounting with clamps

- Measurement range: 0 ... 30000 mm
- Protection class: IP67 / IP69K
- Dimensions:
  Head: L42 x W10 x H25 mm
  Profile : W44 x H4.8 mm
- Resolution up to 1 µm
- Non-contact, no wear

PMIS3 / PMIB3
Guided sensor head, mounting with clamps

- Measurement range: 0 ... 30000 mm
- Protection class: IP67 / IP69K
- Dimensions:
  Head: L85 x W20 x H36 mm
  Profile: W58 x H10.2 mm
- Resolution up to 1 µm

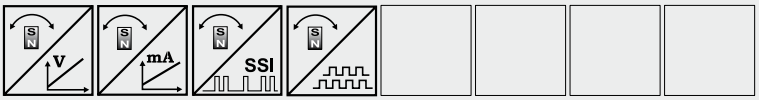


PRAS20 / PRAS21
OEM version

- Measurement range: 0 … 15° / 30° / 45° / ... / 345° / 360°
- Protection class: IP60
- Dimensions:
  L28 x W48 x H6 mm (PRAS20)
  L27 x W26 x H6 mm (PRAS21)
- Shaftless, with external position magnet

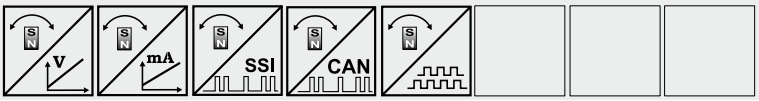
PRAS1 / PRDS1
M12 housing

- Measurement range: 0 … 15° / 30° / 45° / ... / 345° / 360°
- Protection class: IP67 / IP69K
- Dimensions: M12 x L53 mm
- Shaftless, with external position magnet



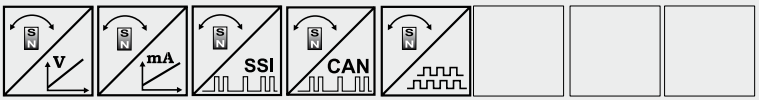
PRAS2 / PRDS2
36 mm, servo flange mounting

- Measurement range: 0 … 15° / 30° / 45° / ... / 345° / 360°
- Protection class: IP67 / IP69K
- Dimensions: L20 x Ø36 mm
- Shaftless, with external position magnet



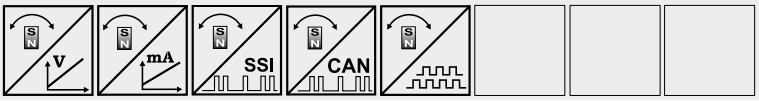
PRAS3 / PRDS3
36 mm, servo flange mounting

- Measurement range: 0 … 15° / 30° / 45° / ... / 345° / 360°
- Protection class: IP67 / IP69K
- Dimensions: L47 x Ø36 mm
- 10 mm shaft



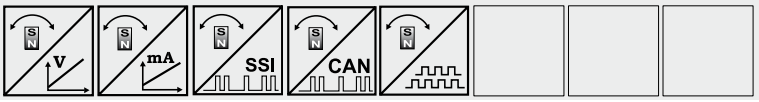
PRAS5K / PRDS5K
in flat housing

- Measurement range: 0 … 15° / 30° / 45° / ... / 345° / 360°
- Protection class: IP67 / IP69K
- Dimensions: L20 x Ø66 mm
- Non-contact with external position magnet



PRAS5V / PRDS5V
in flat housing

- Measurement range: 0 … 15° / 30° / 45° / ... / 345° / 360°
- Protection class: IP67 / IP69K
- Dimensions: L38 x Ø68.2 mm
- With 10 mm shaft, mechanically AWS compatible



PMIS4 / PMIR7
Incremental encoder all metal housing

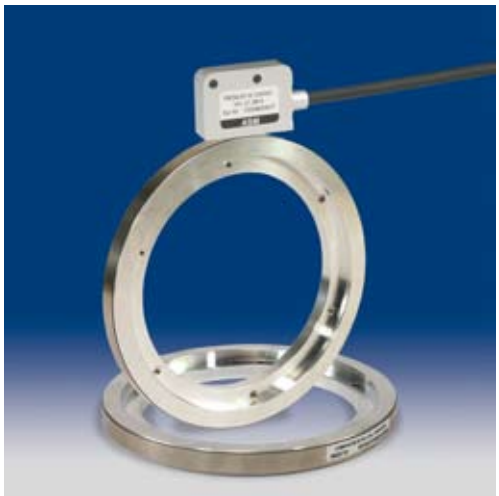
NEW

- Up to 184,320 pulses/360°
- Protection class: IP67
- Dimensions:
  Head: L42 x W10 x H25 mm
  Magnetic wheels: Ø31.8 x 10 mm
  Ø40.7 x 10 mm
  Ø57.3 x 10 mm

PMIS4 / PMIR7N
Incremental encoder all metal housing

NEW

- Up to 184,320 pulses/360°
- Protection class: IP67
- Dimensions:
  Head: L42 x W10 x H25 mm
  Magnetic wheels: Ø31.8 x 18 mm
  Ø40.7 x 18 mm
  Ø57.3 x 18 mm

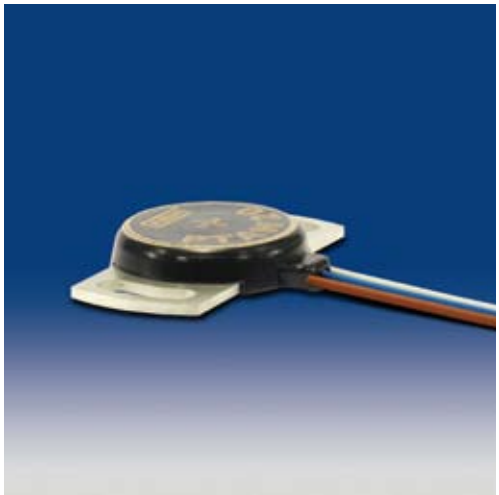


PMIS4 / PMIR5
Incremental encoder all metal housing

- Up to 327,680 pulses/360°
- Protection class: IP67
- Dimensions:
  Head: L42 x W10 x H25 mm
  Magnetic wheels: Ø102.3 x 14 mm
  Ø153.2 x 14 mm
  Ø255.1 x 14 mm

PTAM2
Inclination sensor (MEMS technology)

- Measurement range: ±15° to ±180° (1 axis)
  ±15° to ±60° (2 axes)
- Protection class IP67 / IP69K
- Dimensions: L20 (25) x Ø36 mm
- Linear output



PTAM20
Inclination sensor (MEMS technology)

- Measurement range: ±15° to ±180°
- Protection class: IP60
- Dimensions: W28 x Ø48 mm

PTAM27
Analogue inclination sensor for 1 axis or 2 axes in MEMS technology

- Measurement range: ±15° to ±180° (1 axis)
  ±15° to ±60° (2 axes)
- Protection class: IP64
- Dimensions: L30 x W49,5 x H10 mm

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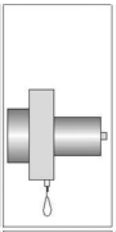
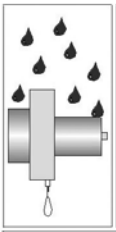
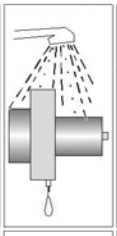
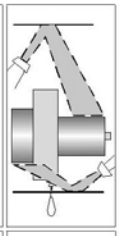
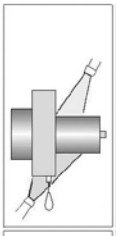
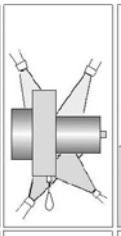
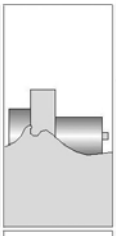
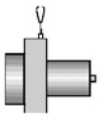
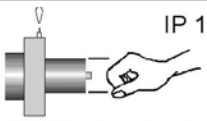
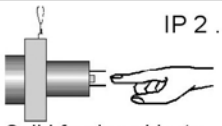
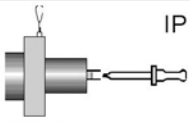
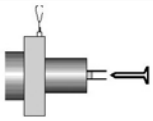
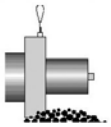
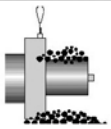
Protection classes according to EN 60529

2nd char. numeral: Protection against ingress of water / 1st char.numeral: Protection against solid foreign objects									
Protection against ...	Non protected	Falling water drops vertical / 15°		Spraying water	Splashing water	Water jets	Powerful water jets	Temporary immersion	Continuous Immersion
IEC 529 DIN 40050	IP .. 0	IP .. 1	IP .. 2	IP .. 3	IP .. 4	IP .. 5	IP .. 6	IP .. 7	IP .. 8
IP 0 ..  Non protected	IP 00								
IP 1 ..  Solid foreign objects diameter ≥ 50 mm	IP 10	IP 11	IP 12						
IP 2 ..  Solid foreign objects diameter ≥ 12,5 mm	IP 20	IP 21	IP 22	IP 23					
IP 3 ..  Solid foreign objects diameter ≥ 2,5 mm	IP 30	IP 31	IP 32	IP 33	IP 34				
IP 4 ..  Solid foreign objects diameter ≥ 1 mm	IP 40	IP 41	IP 42	IP 43	IP 44				
IP 5 ..  Dust-protected	IP 50		IP 52	IP 53	IP 54	IP 55	IP 56		
IP 6 ..  Dust-tight	IP 60				IP 64	IP 65	IP 66	IP 67	IP 68

* Depth and duration of immersion must be specified!

IP69K – Water at high pressure / steam jet cleaning

NOTE

For safety notes and detailed technical specifications see the dedicated product catalogue.
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