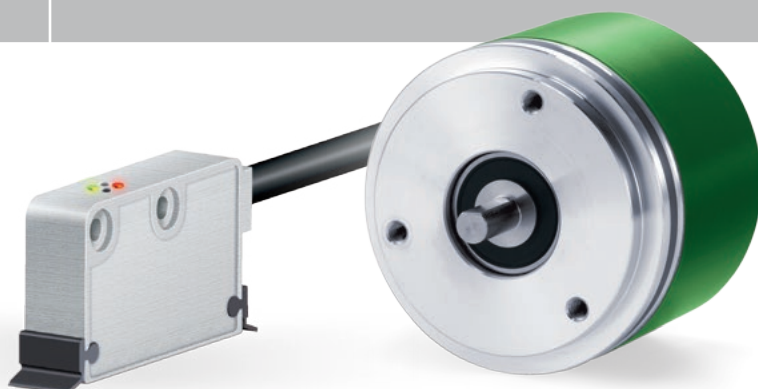
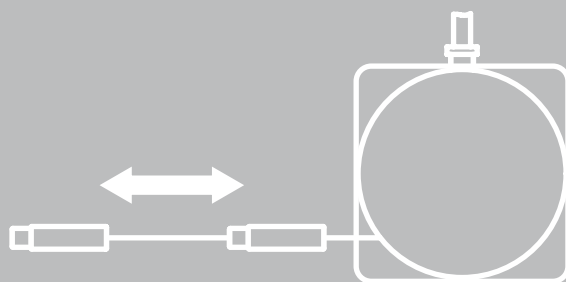
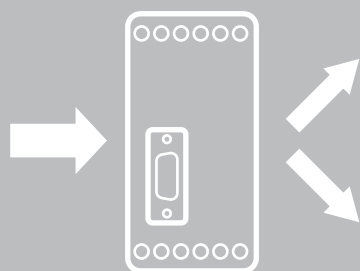
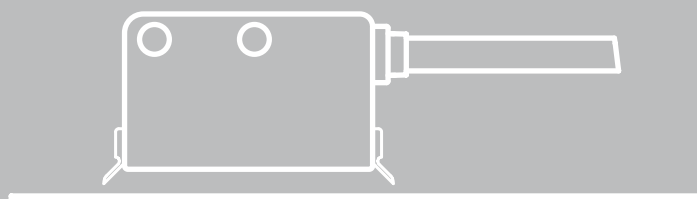
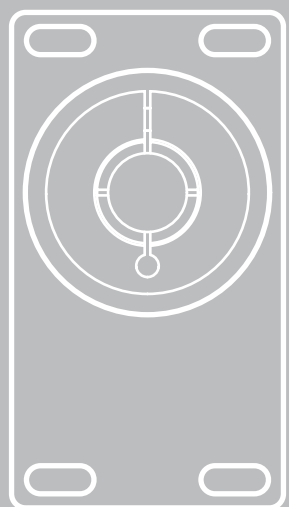
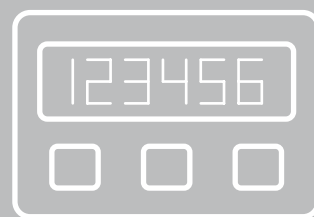
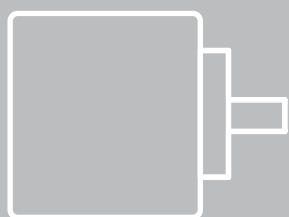




**30 YEARS  
YOUNG**  
1982.2012



Smart encoders & actuators



General catalogue 2013

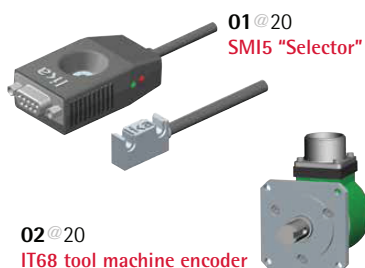




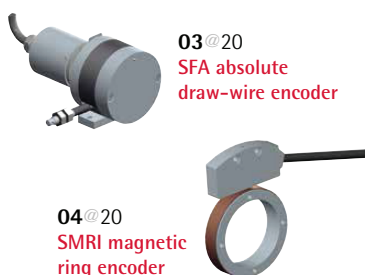
# Product news calendar

**2013**  
new products | website | catalogues

Gennaio | January



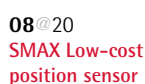
Febbraio | February



Marzo | March



Aprile | April



Maggio | May



Giugno | June



Luglio | July



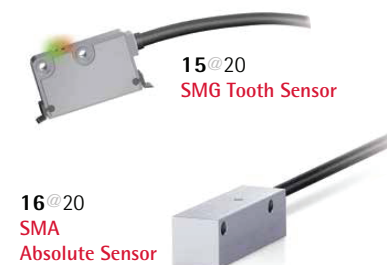
**13@20**  
MS36 TT



Agosto | August

**15@20**  
SMG Tooth Sensor

Settembre | September



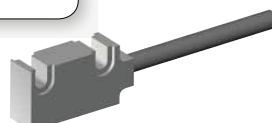
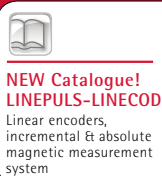
Ottobre | October



**18@20**  
HM58 high resolution with PROFINET



Novembre | November



Dicembre | December



Follow us on...



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..... **lika**<sup>®</sup>  
Smart encoders & actuators



### ROTAPULS

Incremental rotary encoders



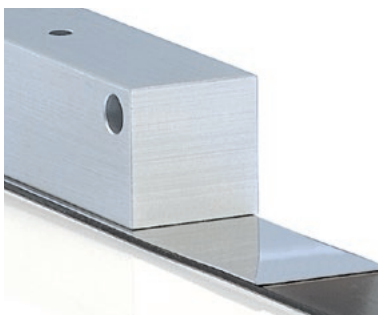
### ROTACOD

Absolute rotary & Fieldbus encoders



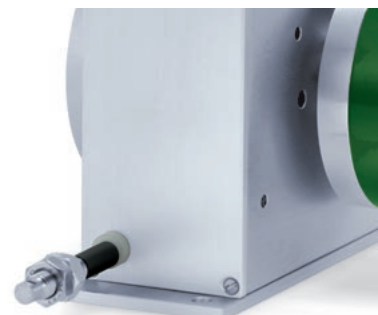
### ROTAMAG

Rotary Magnetic encoder & Encoder modules



### LINEPULS – LINECOD

Linear Absolute & Incremental encoders



### DRAW-WIRE

Draw-wire encoders & potentiometers



### COUPLINGS

Flexible & Transmission couplings



### POSICONTROL

Displays & Signal converters  
Encoder Interfaces



### DRIVECOD

Rotary Actuators & Positioning units



**30 YEARS  
YOUNG**  
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1982  
Lika Electronic  
founded in Schio (VI).

1986  
Manufacturing of  
absolute encoders with  
integrated display and  
incremental encoders  
for the Italian market.

1991  
Foundation of Lika  
Trading commercial  
corporate.

1993  
Lika Electronic is the  
first company in Italy  
to offer a complete  
portfolio of encoders  
in the 58 mm diam.  
range.

1997  
Lika is first certified  
to ISO 9001:1994.



1982

1986

1990

1995

1983  
Lika numbers 8  
customers.

1985  
Lika starts the  
production of  
absolute encoders  
for the German  
market.

1987  
Lika produces a 50 mm  
diameter miniature  
encoder, the smallest  
absolute encoder in  
Europe.

1995  
The 100,000th  
encoder rolled off the  
production line.

1996  
ROTACAM ASR58 is the  
first absolute encoder  
fitted with integrated  
cam programmer.

## An international family company, corporate profile



Lika Electronic stands for encoders and position measuring systems. Since its inception in 1982, Lika Electronic develops and manufactures *incremental and absolute, optical and magnetic, rotary and linear encoders, incremental & absolute sensors, linear and rotary incremental & absolute magnetic measurement systems, rotary actuators, displays, signal converters and encoder interfaces.*

Starting as a family-owned business, thanks to its technical competence and comprehensive know-how in the automation industry along with the high quality standards and the skill in providing solutions that target specific customer needs, over the years **Lika Electronic has grown becoming a forward thinking innovative and global company** and has become one of the leading manufacturers of optical encoders and magnetic measurement systems in Europe and worldwide.

Many key features include the extensive technical engineering skills, in-depth knowledge and expertise in digital and analogical electronic design as well as the proven daily practice in co-operation with universities, research institutions and customers in order to **develop and provide advanced electronic equipment and high-tech materials & devices tailored to specific customer and market requirements.** Moreover software development and mechanical & optical components design are entirely performed within the company. Often production machinery and tools are often engineered and built internally to satisfy specific needs and performances.

Every day Lika Electronic is committed to being a step ahead and always at the forefront of innovation, looking to the future with the enthusiasm that steers the company towards new opportunities *without giving up the strength of being an international family company.*

Lika Electronic is certified for compliance with ISO 9001:2000 quality management system and is now committed to adopt an environmental management system complying with ISO 14001:2004 requirements. All Lika's products are designed and manufactured to fully meet the requirements of CE, RoHS and REACH directives, most of them are UL and CSA compliant too. ATEX certified solutions suitable to be integrated into potential explosive environments and hazardous areas are also available.



### Global presence, make us closer to the customer

Every day, everywhere Lika Electronic works in close contact with its customers to build strong, long-lasting relationships and support them at all times in each day-to-day requirement.

Lika's actions focus on customers' needs with daily challenges to develop reliable and cutting edge solutions.

*Continuous innovation, outstanding expertise, overall quality, prompt action and maximum flexibility* are the fundamental values that Lika Electronic is truly proud of offering its customers when working together.

Lika Electronic operates all over the world providing a widespread and efficient global distribution network, offering unrivalled technical support and excellent customer service.

At the present time the export share is approximately 60% of the turnover in more than 50 countries.

1998

First 16-bit resolution single-turn absolute encoder engineered for installation in aerostatic probes developed by Florence University.

2000

ROSETTA space probe project gets under way in co-operation with CISAS.

2002

Production in antistatic environment (ESD). DRIVECOD & POSICONTROL product ranges are launched in the market.

2007

Lika Electronic celebrates its 25th anniversary with a series of special events.

2012

30th anniversary: "30 new products for our 30 years" event launched.



2000

1999

Lika Electronic moves its corporate headquarters to Carrè (VI) establishing in new larger production and office premises.

2001

Foundation of Lika subsidiary in Germany.

2004

2004 Ariane 5 rocket successfully launched: Rosetta probe fits Lika encoders.

2008

2008 ALMA project: giant array of 12-m radio telescopes equipped with special custom-made Lika encoders.

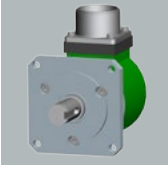
2012

2010 Lika introduces the innovative range of heavy-duty products dedicated to steel & iron industry and wind mills.

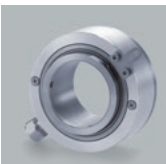
# ROTAPULS incremental encoders

|   |                                                                                                             | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (PPR) | Output frequency max. (kHz) | Power supply (Vdc)      | NPN | PNP | 1Vpp | Push-Pull | Line Driver | Universal circuit | Operating temp. °C (°F)<br>min. – max.          | Protection max. |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|-----------------------|-----------------------------|-------------------------|-----|-----|------|-----------|-------------|-------------------|-------------------------------------------------|-----------------|
|                                                                                    |                                                                                                             |                |                   |                                   | connector  | cable |                       |                             |                         |     |     |      |           |             |                   |                                                 |                 |
|    | <b>I28</b><br>Optical miniature encoder<br><br><b>Light-duty</b>                                            | 28             | ● 5               | 3000                              |            | •     | 1024                  | 100                         | +5<br>+10 +30<br>+5 +30 | •   |     |      | •         | •           | •                 | -20 +70<br>(-4 +158)                            | IP54            |
|    | <b>MI36 - MC36</b><br>Magnetic encoders, compact<br><br><b>Light-duty</b>                                   | 36             | ● 6<br>○ 6        | 12000                             |            | •     | 2048                  | 300                         | +5<br>+10 +30           | •   |     |      | •         | •           |                   | -25 +85<br>(-13 +185)                           | IP67            |
|    | <b>MI36K</b><br>Magnetic encoders<br>Stainless steel version<br>Food industry<br><br><b>Light-duty Food</b> | 36             | ● 6               | 12000                             |            | •     | 2048                  | 300                         | +5<br>+10 +30           | •   |     |      | •         | •           |                   | -25 +85<br>(-13 +185)                           | IP67            |
|   | <b>I40 - I41</b><br>Optical encoders, compact<br><br><b>Light-duty</b>                                      | 40             | ● 8               | 6000                              |            | •     | 5000                  | 100                         | +5<br>+10 +30<br>+5 +30 | •   | •   |      | •         | •           | •                 | -25 +85<br>(-13 +185)                           | IP66            |
|  | <b>CK41 - CK46</b><br>Optical encoder, compact<br><br><b>Light-duty</b>                                     | 41<br>46       | ○ 6               | 6000                              |            | •     | 5000                  | 100                         | +5<br>+10 +30<br>+5 +30 | •   | •   |      | •         | •           | •                 | -25 +85<br>(-13 +185)                           | IP65            |
|  | <b>C50 - C51</b><br>Optical encoder<br>High temperature<br><br><b>Industrial / Feedback</b>                 | 50             | ○ 10              | 6000<br>3000                      |            | •     | 2048<br>2500          | 100                         | +5<br>+10 +30<br>+5 +30 | •   |     |      | •         | •           | •                 | -40 +100<br>(-40 +212)<br>-25 +85<br>(-13 +185) | IP65            |
|  | <b>CB50</b><br>Optical encoder for servo motors<br>UVW signals<br><br><b>Feedback</b>                       | 50             | ○ 10              | 6000                              | •          |       | 2500/<br>8 poles      | 200                         | +5<br>+10 +30           |     |     |      | •         | •           |                   | -20 +100<br>(-4 +212)                           | IP20            |
|  | <b>I58 - I58S</b><br>Optical standard encoders<br><br><b>Industrial</b>                                     | 58             | ● 12              | 12000                             | •          | •     | 10000                 | 300                         | +5<br>+10 +30<br>+5 +30 | •   | •   | •    | •         | •           | •                 | -40 +100<br>(-40 +212)                          | IP65            |
|  | <b>I58SK</b><br>Optical encoder<br>Stainless steel version<br>Food industry<br><br><b>Industrial Food</b>   | 58             | ● 12              | 12000                             | •          | •     | 10000                 | 300                         | +5<br>+10 +30<br>+5 +30 | •   | •   | •    | •         | •           | •                 | -40 +100<br>(-40 +212)                          | IP66            |

# ROTAPULS incremental encoders

|    |                                                                                                                    | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (PPR) | Output frequency max. (kHz) | Power supply (Vdc)      | NPN | PNP | 1 Vpp | Push-Pull | Line Driver | Universal circuit | Operating temp. °C (°F)<br>min. – max. | Protection max. |
|-------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|-----------------------|-----------------------------|-------------------------|-----|-----|-------|-----------|-------------|-------------------|----------------------------------------|-----------------|
|                                                                                     |                                                                                                                    |                |                   |                                   | connector  | cable |                       |                             |                         |     |     |       |           |             |                   |                                        |                 |
|    | <b>IP58 – CP58</b><br>Programmable encoder<br><br><b>Industrial</b>                                                | 58             | ● 12<br>○ 15      | 12000                             | •          | •     | 32768                 | 1000                        | +5 +30                  |     |     |       | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|    | <b>C58 – C59 – C60</b><br>Optical standard encoders<br>Through hollow shaft<br><br><b>Industrial</b>               | 58             | ○ 15              | 6000                              | •          | •     | 5000                  | 100                         | +5<br>+10 +30<br>+5 +30 |     |     |       | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|    | <b>C58A – C58R</b><br>Optical standard encoders<br>Through hollow shaft<br><br><b>Industrial / Feedback</b>        | 58             | ○ 15              | 6000                              | •          | •     | 5000                  | 100                         | +5<br>+10 +30<br>+5 +30 |     |     |       | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|   | <b>CK58 – CK59 – CK60</b><br>Optical standard encoders<br>Blind hollow shaft<br><br><b>Industrial</b>              | 58             | ○ 15              | 6000                              | •          | •     | 10000                 | 300                         | +5<br>+10 +30<br>+5 +30 | •   | •   | •     | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|  | <b>CB59 – CB60</b><br>Optical encoders for servo motors<br>Sine/cosine<br><br><b>Feedback / Lift</b>               | 58             | ● 1:10<br>○ 15    | 12000                             | •          | •     | 2048/<br>1 sin/cos    | 300                         | +5                      |     |     | •     |           |             |                   | -20 +100<br>(-4 +212)                  | IP40            |
|  | <b>MI58 – MI58S</b><br>Magnetic encoders<br>Sealed circuits<br><br><b>Industrial</b>                               | 58             | ● 12              | 12000                             | •          | •     | 10000                 | 500                         | +5<br>+10 +30<br>+5 +30 |     |     |       | •         | •           | •                 | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>MC58 – MC59 – MC60</b><br>Magnetic encoders<br>Sealed circuits<br>Through hollow shaft<br><br><b>Industrial</b> | 58             | ○ 15              | 6000                              | •          | •     | 10000                 | 500                         | +5<br>+10 +30<br>+5 +30 |     |     |       | •         | •           | •                 | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>I65 – IT65</b><br>Optical encoders<br>Square flange, US size<br><br><b>Industrial</b>                           | 65             | ● 12              | 6000                              | •          | •     | 10000                 | 300                         | +5<br>+10 +30<br>+5 +30 | •   | •   |       | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP66            |
|  | <b>IT68</b><br>Optical encoder<br><br><b>Industrial</b>                                                            | 65             | ● 15              | 6000                              | •          | •     | 10000                 | 100                         | +5<br>+10 +30<br>+5 +30 | •   | •   |       | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP66            |

# ROTAPULS incremental encoders

|   |                                                                                                                                         | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (PPR) | Output frequency max. (kHz) | Power supply (Vdc)      | NPN | PNP | 1Vpp | Push-Pull | Line Driver | Universal circuit | Operating temp. °C (°F)<br>min. - max. | Protection max. |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|-----------------------|-----------------------------|-------------------------|-----|-----|------|-----------|-------------|-------------------|----------------------------------------|-----------------|
|                                                                                    |                                                                                                                                         |                |                   |                                   | connector  | cable |                       |                             |                         |     |     |      |           |             |                   |                                        |                 |
|    | <b>XC77</b><br>Optical encoder<br>ATEX II 2GD Ex d IIC T6<br>Areas 1, 2, 21, 22<br><br><b>Heavy-duty</b>                                | 77             | ○ 14              | 6000                              | •          |       | 10000                 | 300                         | +5<br>+10 +30<br>+5 +30 | •   |     |      | •         | •           | •                 | -25 +85<br>(-13 +185)                  | IP66            |
|    | <b>C80</b><br>Optical encoders for<br>lift motors<br><br><b>Feedback / Lift</b>                                                         | 80             | ○ 30              | 6000                              | •          | •     | 4096                  | 100                         | +5<br>+10 +30<br>+5 +30 |     |     |      | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|    | <b>C81</b><br>Optical encoders<br>Through hollow shaft<br><br><b>Heavy-duty<br/>Feedback</b>                                            | 80             | ○ 44              | 3000                              |            | •     | 4096                  | 200                         | +5<br>+10 +30<br>+5 +30 |     |     | •    | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|   | <b>C82</b><br>Optical encoders for<br>lift motors<br><br><b>Feedback / Lift</b>                                                         | 80             | ○ 44              | 3000                              | •          | •     | 8192                  | 200                         | +5<br>+10 +30<br>+5 +30 |     |     |      | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|  | <b>I115 - I116</b><br>Optical encoders<br>Redundant version<br>(I116)<br><br><b>Heavy-duty / Wind</b>                                   | 115            | ● 11              | 6000                              | •          |       | 5000                  | 100                         | +5<br>+10 +30<br>+5 +30 | •   | •   |      | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP66            |
|  | <b>C100 - C101</b><br>Optical encoder for wind<br>generator applications<br>Redundant version<br>(C101)<br><br><b>Heavy-duty / Wind</b> | 100            | ○ 1:17<br>○ 16    | 6000                              | •          | •     | 2500<br>2048          | 100                         | +5<br>+10 +30<br>+5 +30 |     |     |      | •         | •           | •                 | -40 +100<br>(-40 +212)                 | IP65            |
|  | <b>I70</b><br>Belt pulley with<br>integrated encoder<br><br><b>Heavy-duty</b>                                                           | 54             | -                 | 3600                              |            | •     | 500                   | 30                          | +10 +30                 |     |     |      | •         |             |                   | -20 +85<br>(-4 +185)                   | IP65            |
|  | <b>ICS</b><br>Optical encoder<br>Spring loaded shaft<br><br><b>Heavy-duty</b>                                                           | 172x80<br>x53  | ● 12              | 6000                              | •          |       | 1068                  | 60                          | +5<br>+10 +30<br>+5 +30 | •   | •   |      | •         | •           | •                 | -25 +85<br>(-13 +185)                  | IP65            |
|  | <b>I105</b><br>Optical encoder<br>High resolution<br><br><b>Industrial</b>                                                              | 105            | ● 10              | 6000                              | •          | •     | 18000                 | 300                         | +5<br>+10 +30<br>+5 +30 |     |     |      | •         | •           | •                 | -25 +85<br>(-13 +185)                  | IP65            |

# ROTACOD absolute encoders

|    |                                                                                                                               | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (bits)  | Power supply (Vdc) | NPN / Push-Pull | SSI | BiSS | Modbus / RS485 | Add. incremental track | Analogue output | Operating temp. °C (°F)<br>min. - max. | Protection max. |
|-------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|-------------------------|--------------------|-----------------|-----|------|----------------|------------------------|-----------------|----------------------------------------|-----------------|
|                                                                                     |                                                                                                                               |                |                   |                                   | connector  | cable |                         |                    |                 |     |      |                |                        |                 |                                        |                 |
|    | <b>MS36 - MSC36</b><br>Magnetic encoders<br>Compact, singleturn<br><br><b>Light-duty</b>                                      | 36             | ● 6<br>○ 6        | 12000                             |            | •     | 13                      | +10 +30            |                 | •   |      |                |                        |                 | -20 +85<br>(-4 +185)                   | IP67            |
|    | <b>MM36 - MMC36</b><br>Magnetic encoders<br>Compact, multiturn<br><br><b>Light-duty</b>                                       | 36             | ● 6<br>○ 6        | 12000                             |            | •     | 12 x 15                 | +10 +30            |                 | •   |      |                |                        |                 | -20 +85<br>(-4 +185)                   | IP67            |
|    | <b>AS36 - ASC36</b><br>Optical encoder<br>Compact, singleturn<br>High resolution<br><br><b>Industrial / Feedback</b>          | 36             | ● 6<br>○ 6        | 6000                              |            | •     | 20                      | +10 +30            |                 | •   | •    |                |                        |                 | -40 +100<br>(-40 +212)                 | IP65            |
|   | <b>AM36 - AMC36</b><br>Optical encoder<br>Compact, multiturn<br>High resolution<br><br><b>Industrial / Feedback</b>           | 36             | ● 6<br>○ 6        | 6000                              |            | •     | 20 x 12                 | +10 +30            |                 | •   | •    |                |                        |                 | -40 +100<br>(-40 +212)                 | IP65            |
|  | <b>ES58 - ES58S - ESC58</b><br>Optical encoders<br>Standard, singleturn<br><br><b>Industrial</b>                              | 58             | ● 12<br>○ 15      | 12000                             | •          | •     | 13                      | +7,5 +34           | •               | •   |      | •              | •                      |                 | -40 +100<br>(-40 +212)                 | IP67            |
|  | <b>EM58 - EM58S - EMC58</b><br>Optical encoders<br>Standard, multiturn<br><br><b>Industrial</b>                               | 58             | ● 12<br>○ 15      | 12000                             | •          | •     | 13 x 14                 | +7,5 +34           | •               | •   |      | •              | •                      |                 | -40 +100<br>(-40 +212)                 | IP67            |
|  | <b>HS58 - HS58S - HSC58</b><br>Optical singleturn encoders<br>High resolution<br><br><b>Industrial / Feedback</b>             | 58             | ● 12<br>○ 15      | 6000                              | •          | •     | 19<br>+ 2048            | +10 +30            |                 | •   | •    |                | •                      |                 | -40 +100<br>(-40 +212)                 | IP65            |
|  | <b>HM58 - HM58S - HMC58</b><br>Optical multiturn encoders<br>High resolution<br><br><b>Industrial / Feedback</b>              | 58             | ● 12<br>○ 15      | 6000                              | •          | •     | 16 x 14<br>+ 2048       | +10 +30            |                 | •   | •    |                | •                      |                 | -40 +100<br>(-40 +212)                 | IP65            |
|  | <b>HSCT - HMCT</b><br>Optical singleturn and<br>multiturn encoder<br>Through hollow shaft<br><br><b>Industrial / Feedback</b> | 58             | ○ 15              | 6000                              | •          | •     | 18<br>16 x 12<br>+ 2048 | +10 +30            |                 | •   | •    |                | •                      |                 | -25 +85<br>(-13 +185)                  | IP65            |

# ROTACOD absolute encoders

|   |                                                                                                                                 | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (bits)         | Power supply (Vdc) | NPN / Push-Pull | SSI | BiSS | Modbus / RS485 | Add. incremental track | Analogue output | Operating temp. °C (°F)<br>(max.) | Protection max. |
|------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|--------------------------------|--------------------|-----------------|-----|------|----------------|------------------------|-----------------|-----------------------------------|-----------------|
|                                                                                    |                                                                                                                                 |                |                   |                                   | connector  | cable |                                |                    |                 |     |      |                |                        |                 |                                   |                 |
|    | <b>AS58 - AS58S - ASC58</b><br>Optical singleturn encoders<br><br><b>Industrial</b>                                             | 58             | ● 12<br>○ 15      | 6000                              | •          | •     | 13                             | +10 +30            | •               | •   |      |                |                        |                 | -40 +100<br>(-40 +212)            | IP65            |
|    | <b>AM58 - AM58S - AMC58</b><br>Optical multiturn encoders<br><br><b>Industrial</b>                                              | 58             | ● 12<br>○ 15      | 6000                              | •          | •     | 13 x 12                        | +10 +30            | •               | •   |      |                |                        |                 | -40 +100<br>(-40 +212)            | IP65            |
|    | <b>MH58S</b><br>Magnetic multiturn<br>For wind generators,<br>steel mills & mobile<br>equipment<br><br><b>Heavy-duty / Wind</b> | 58             | ● 10              | 6000                              | •          |       | 12 x 12                        | +10 +30            |                 | •   |      |                |                        | •               | -40 +85<br>(-40 +185)             | IP67            |
|   | <b>MM58 - MM58S - MMC58</b><br>Magnetic multiturn encoders<br><br><b>Industrial</b>                                             | 58             | ● 12<br>○ 15      | 12000                             |            | •     | 12 x 16                        | +10 +30            |                 | •   |      |                |                        |                 | -20 +85<br>(-4 +185)              | IP67            |
|  | <b>HM58 P - HM58S P<br/>HMC58 P</b><br>Optical multiturn encoders<br>Programmable<br><br><b>Industrial</b>                      | 58             | ● 12<br>○ 15      | 6000                              | •          | •     | 18 x 14                        | +10 +30            | •               | •   |      |                |                        |                 | -40 +100<br>(-40 +212)            | IP65            |
|  | <b>EM58 TA</b><br>Programmable encoder<br>with analogue output<br>Teach-in buttons<br><br><b>Industrial</b>                     | 58             | ● 12<br>○ 15      | 12000                             | •          | •     | 12 x 14                        | +13 +30            |                 |     |      |                |                        | •               | -25 +85<br>(-13 +185)             | IP67            |
|  | <b>AS58 A - AM58 A</b><br>Optical absolute encoders<br>Analogue output<br><br><b>Industrial</b>                                 | 58             | ● 12<br>○ 15      | 6000                              | •          |       | 12<br>12 x 4<br>9 x 6<br>6 x 8 | +15 +30            |                 |     |      |                |                        | •               | -25 +85<br>(-13 +185)             | IP65            |
|  | <b>EM58 PA</b><br>Optical multiturn encoder<br>Programmable analogue output<br><br><b>Industrial</b>                            | 58             | ● 12<br>○ 15      | 6000                              | •          |       | 12 x 14                        | +15 +30            |                 |     |      |                |                        | •               | -25 +85<br>(-13 +185)             | IP65            |
|  | <b>ASR58 - AMR58</b><br>Optical singleturn and multiturn encoders<br>Integrated cam switch programmer<br><br><b>Industrial</b>  | 58             | ● 12              | 6000                              | •          |       | 12<br>12 x 8                   | +10 +30            | •               |     |      |                |                        | •               | -25 +85<br>(-13 +185)             | IP65            |

# ROTACOD absolute encoders

|  |                                                                                                                     | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (Bit) | Power supply (Vdc) | NPN / Push-Pull | SSI | BiSS | Modbus / RS485 | Add. incremental track | Analogue output | Operating temp. °C (°F)<br>(max.) | Protection max. |
|-----------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|-----------------------|--------------------|-----------------|-----|------|----------------|------------------------|-----------------|-----------------------------------|-----------------|
|                                                                                   |                                                                                                                     |                |                   |                                   | connector  | cable |                       |                    |                 |     |      |                |                        |                 |                                   |                 |
|  | <b>AST6 – AMT6</b><br>Optical singleturn and multiturn encoder<br>Square flange, US size<br><br><b>Industrial</b>   | 65             | ● 12              | 6000                              | •          | •     | 13 x 14               | +10 +30            | •               | •   |      |                | •                      |                 | -40 +100<br>(-40 +212)            | IP66            |
|  | <b>XAC77</b><br>Optical multiturn encoder<br>ATEX II 2GD Ex d IIC T6<br>Areas 1, 2, 21, 22<br><br><b>Heavy-duty</b> | 77             | ○ 14              | 6000                              |            | •     | 16 x 14               | +10 +30            | •               | •   | •    |                | •                      | •               | -25 +85<br>(-13 +185)             | IP65            |
|  | <b>AM9 – AMC9</b><br>Optical multiturn encoders<br>Flat design<br><br><b>Industrial</b>                             | 88             | ● 10<br>○ 15      | 6000                              | •          |       | 13 x 12               | +10 +30            |                 | •   |      |                |                        |                 | -40 +100<br>(-40 +212)            | IP65            |

## ROTACOD absolute encoders • Fieldbus

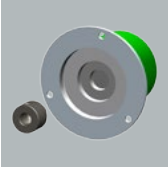
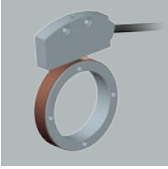
|  |                                                                                                                           | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Connection cap with PG | Connection cap with connectors | Resolution max. (bits) | Power supply (Vdc) | CANopen | CANopen LIFT | Profibus-DP | DeviceNet | EtherCAT | Operating temp. °C (°F)<br>(max.) | Protection max. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|------------------------|--------------------------------|------------------------|--------------------|---------|--------------|-------------|-----------|----------|-----------------------------------|-----------------|
|                                                                                     |                                                                                                                           |                |                   |                                   | connector  | cable |                        |                                |                        |                    |         |              |             |           |          |                                   |                 |
|  | <b>AS58 PB – AM58 PB</b><br>Optical singleturn and multiturn encoders<br>Profibus-DP interface<br><br><b>Industrial</b>   | 58             | ● 12<br>○ 15      | 6000                              |            |       | •                      | •                              | 13<br>13 x 12          | +10 +30            |         |              | •           |           |          | -25 +85<br>(-13 +185)             | IP65            |
|  | <b>AS58 CB – AM58 CB</b><br>Optical singleturn and multiturn encoders<br>CANbus interface<br><br><b>Industrial</b>        | 58             | ● 12<br>○ 15      | 6000                              |            |       | •                      | •                              | 13<br>13 x 12          | +10 +30            | •       | •            |             |           |          | -25 +85<br>(-13 +185)             | IP65            |
|  | <b>HS58 FB – HM58 FB</b><br>Optical singleturn & multiturn encoders<br>Fieldbus, high resolution<br><br><b>Industrial</b> | 58             | ● 12<br>○ 15      | 6000                              |            |       | •                      | •                              | 18<br>16 x 14          | +10 +30            | •       | •            | •           | •         |          | -25 +85<br>(-13 +185)             | IP65            |

# ROTACOD Absolute encoders • Fieldbus

|   |                                                                                                      | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Connection cap with PG | Connection cap with connectors | Resolution max. (bits) | Power supply (Vdc) | CANopen / CANlift | Profibus-DP | DeviceNet | EtherCAT | Profinet | Operating temp. °C (°F)<br>min. – max. | Protection max. |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|------------------------|--------------------------------|------------------------|--------------------|-------------------|-------------|-----------|----------|----------|----------------------------------------|-----------------|
|                                                                                    |                                                                                                      |                |                   |                                   | connector  | cable |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |
|    | <b>AM58 K</b><br>Optical multiturn encoders<br>Profibus, CANbus interface<br>Stainless steel version | 58             | ● 12              | 6000                              |            |       | •                      | •                              | 13 x 12                | +10 +30            | •                 | •           |           |          |          | -25 +85<br>(-13 +185)                  | IP65            |
|                                                                                    | <b>Industrial / Food</b>                                                                             |                |                   |                                   |            |       |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |
|    | <b>ASx58x – AMx58x</b><br><b>CANopen</b><br>Direct connection<br>Single & multiturn                  | 58             | ● 12<br>○ 15      | 6000                              | •          | •     |                        |                                | 18<br>16 x 14          | +10 +30            | •                 |             |           |          |          | -25 +85<br>(-13 +185)                  | IP65            |
|                                                                                    | <b>Industrial</b>                                                                                    |                |                   |                                   |            |       |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |
|    | <b>HM58 EC – HM58S EC</b><br><b>HMC58 EC</b><br>Optical multiturn encoders<br>EtherCAT interface     | 58             | ● 12<br>○ 15      | 6000                              |            |       | -                      | •                              | 16 x 14                | +10 +30            |                   |             |           | •        |          | -25 +85<br>(-13 +185)                  | IP65            |
|                                                                                    | <b>Industrial</b>                                                                                    |                |                   |                                   |            |       |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |
|   | <b>HM58 PT</b><br>Optical multiturn encoders<br>Profinet interface                                   | 58             | ● 12<br>○ 15      | 6000                              |            |       | -                      | •                              | 16 x 14                | +10 +30            |                   |             |           |          | •        | -25 +85<br>(-13 +185)                  | IP65            |
|                                                                                    | <b>Industrial</b>                                                                                    |                |                   |                                   |            |       |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |
|  | <b>XAC77 PB + CB</b><br>ATEX multiturn encoder<br>Profibus and CANbus<br>interfaces (point to point) | 77             | ○ 14              | 6000                              | •          |       |                        |                                | 18<br>16 x 14          | +10 +30            | •                 | •           |           |          |          | -25 +85<br>(-13 +185)                  | IP66            |
|                                                                                    | <b>Heavy-duty</b>                                                                                    |                |                   |                                   |            |       |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |
|  | <b>XAC77 FB</b><br>Absolute encoder Profibus,<br>CANbus and DeviceNet<br>interfaces                  | 77             | ○ 14              | 6000                              |            |       | •                      | •                              | 18<br>16 x 14          | +10 +30            | •                 | •           | •         |          |          | -25 +85<br>(-13 +185)                  | IP66            |
|                                                                                    | <b>Heavy-duty</b>                                                                                    |                |                   |                                   |            |       |                        |                                |                        |                    |                   |             |           |          |          |                                        |                 |



# ROTAPULS • ROTACOD bearingless encoders

|    |                                                                                              | Housing ø (mm) | Shaft max. ø (mm) | Shaft rotational speed max. (rpm) | Connection |       | Resolution max. (PPR) | Output frequency max. (kHz) | Power supply (Vdc) | NPN | PNP | 1 Vpp | Push-Pull | Line Driver | SSI | Operating temp. °C (°F)<br>min. – max. | Protection max. |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------|----------------|-------------------|-----------------------------------|------------|-------|-----------------------|-----------------------------|--------------------|-----|-----|-------|-----------|-------------|-----|----------------------------------------|-----------------|
|                                                                                     |                                                                                              |                |                   |                                   | connector  | cable |                       |                             |                    |     |     |       |           |             |     |                                        |                 |
|    | IM30 - IM31 - IM56<br>Encoder modules<br><br>Light-duty<br>Feedback                          | 30÷56          | Ø 8               | 3000                              | •          |       | 2048                  | 100                         | +5                 | •   |     |       |           | •           |     | -40 +85<br>(-40 +185)                  | IP20            |
|    | SGSM - SGSD<br>Modular magnetic<br>encoder<br>Redundant (SGSD)<br><br>Heavy-duty<br>Feedback | -              | Ø 50              | 6000                              |            | •     | 1024                  | 100                         | +5<br>+10 +30      |     |     |       | •         | •           |     | -40 +85<br>(-40 +185)                  | IP68            |
|    | MIK36<br>Shaftless incremental<br>encoder<br><br>Industrial<br>Feedback                      | 36             | Ø10               | 40000                             |            | •     | 2048                  | 300                         | +5<br>+10 +30      | •   | •   |       | •         | •           |     | -20 +85<br>(-4 +185)                   | IP68            |
|   | MSK36<br>Shaftless absolute<br>encoder<br><br>Industrial<br>Feedback                         | 36             | Ø10               | 40000                             |            | •     | 13 Bit                | 300                         | +10 +30            |     |     |       |           |             | •   | -20 +85<br>(-4 +185)                   | IP68            |
|  | SMRI<br>Incremental magnetic<br>ring encoder<br><br>Heavy-duty<br>Feedback                   | -              | Ø 250             |                                   | •          | •     | 90000                 | 2000                        | +5<br>+10 +30      |     |     |       | •         | •           |     | -20 +85<br>(-4 +185)                   | IP67            |
|  | SMRA<br>Absolute magnetic<br>ring encoder<br><br>Heavy-duty<br>Feedback                      | -              | Ø 380             |                                   | •          | •     | 18 Bit                | -                           | +10 +30            |     |     |       |           |             | •   | -20 +85<br>(-4 +185)                   | IP67            |

# DRAW WIRE UNITS & Accessories

|   |                                                                                                                                    | Dimensions (mm)   | Measurement length max. (mm) | Stroke per turn (mm) | Measuring speed max. (m/sec) | Sensor     |          | Potentiometer | Incremental encoder | Absolute encoder | Fieldbus encoder | Atex encoder |
|------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|-------------------|------------------------------|----------------------|------------------------------|------------|----------|---------------|---------------------|------------------|------------------|--------------|
|                                                                                    |                                                                                                                                    |                   |                              |                      |                              | integrated | external |               |                     |                  |                  |              |
|    | <b>SFP</b><br>Draw wire potentiometer<br>Miniature<br><br><b>Light-duty</b>                                                        | 56 x 55 x 79      | 2000                         | 100                  | 2                            | •          |          | •             |                     |                  |                  |              |
|    | <b>SFE</b><br>Draw wire encoder<br>Miniature<br><br><b>Light-duty</b>                                                              | 56 x 55 x 64      | 2000                         | 100                  | 2                            | •          |          |               | •                   |                  |                  |              |
|    | <b>SFA</b><br>Draw wire encoder<br>Miniature<br><br><b>Light-duty</b>                                                              | 56 x 56 x 79      | 2000                         | 100                  | 2                            | •          |          |               |                     | •                |                  |              |
|   | <b>SFI - SFA</b><br>Draw wire unit<br>Standard version<br><br><b>Industrial</b>                                                    | 125 x 83 x 58     | 6800                         | 200<br>204,8         | 2,5                          |            | •        |               | •                   | •                | •                |              |
|  | <b>SAK-10000<br/>SAK-15000</b><br>Draw wire unit<br>Reinforced winding<br>mechanism<br><br><b>Industrial</b>                       | 233,5 x 128 x 135 | 15000                        | 300                  | 10                           |            | •        |               | •                   | •                | •                | •            |
|  | <b>SBK-20000, SBK-30000<br/>SBK-40000, SBK-50000</b><br>Draw wire unit<br>Reinforced winding<br>mechanism<br><br><b>Industrial</b> | 401 x 190 x 200   | 50000                        | 500                  | 10                           |            | •        |               | •                   | •                | •                | •            |



## Flexible couplings

Complete range of encoder and transmission couplings

Flexible or rigid  
Zero-backlash  
Electrically insulated  
Vibration absorbing  
High torque & stiffness versions  
Grub screw or collar fixing  
Versions with keyway  
Stainless steel versions



## Mounting and Connection accessories

Mounting accessories for encoders and electrical connections

Spring loaded brackets  
Mounting bells and adapter flanges  
Fixing clamps, Reducing sleeves  
Connectors  
Cordets



## Metric wheels and Gears

Metric wheels with 200 and 500 mm circumference  
Aluminum or Rubber surface  
Metric wheel encoders (IR65 series on request)  
Rack and pinions (for ICS series)

# LINEPULS incremental magnetic sensors

|    |                                                                                                                             | Dimensions (mm)                  | Connection |       | Resolution max. (µm) | Travel speed max. (m/s) | Push-Pull | Line Driver | 1Vpp | Reference | Limit switches | Power supply (Vdc) | Operating temp. °C (°F)<br>min. - max. | Protection max. |
|-------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------|----------------------------------|------------|-------|----------------------|-------------------------|-----------|-------------|------|-----------|----------------|--------------------|----------------------------------------|-----------------|
|                                                                                     |                                                                                                                             |                                  | connector  | cable |                      |                         |           |             |      |           |                |                    |                                        |                 |
|    | <b>MT – MTS</b><br>Magnetic tape<br>Incremental coding                                                                      | MT: 10<br>MTS: 5<br>x 100 m max. | -          | -     | -                    | -                       | -         | -           | -    | -         | -              | -                  | -40 +120<br>(-40 +248)                 | IP67            |
|    | <b>SME51</b><br>Magnetic sensor<br>Status LED, wipers<br><br><b>Industrial</b>                                              | 40 x 25 x 10                     |            | •     | 5                    | 16                      | •         | •           |      | •         |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|    | <b>SME52</b><br>Magnetic sensor<br>Status LED, wipers<br>Limit switches<br><br><b>Industrial</b>                            | 40 x 25 x 10                     |            | •     | 5                    | 16                      | •         | •           |      | •         | •              | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|   | <b>SME21</b><br>Magnetic sensor<br>Status LED, wipers<br><br><b>Industrial / Feedback</b>                                   | 40 x 25 x 10                     |            | •     | 1                    | 16                      | •         | •           |      | •         |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>SME22</b><br>Magnetic sensor<br>Status LED, wipers<br>Limit switches<br><br><b>Industrial / Feedback</b>                 | 40 x 25 x 10                     |            | •     | 1                    | 16                      | •         | •           |      | •         | •              | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>SME11</b><br>High performance sensor<br>for linear motors<br>Status LED, wipers<br><br><b>Feedback</b>                   | 40 x 25 x 10                     |            | •     | 0,5                  | 16                      | •         | •           |      | •         |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>SME12</b><br>High performance sensor<br>for linear motors<br>Status LED, wipers<br>Limit switches<br><br><b>Feedback</b> | 40 x 25 x 10                     |            | •     | 0,5                  | 16                      | •         | •           |      | •         | •              | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>SMS11</b><br>Magnetic sensor for linear<br>motors<br>Sine/cosine output<br><br><b>Feedback</b>                           | 40 x 25 x 10                     |            | •     | 1000                 | 16                      |           |             | •    | •         |                | +5                 | -25 +85<br>(-13 +185)                  | IP67            |
|  | <b>SMS12</b><br>Magnetic sensor for linear<br>motors<br>Sine/cosine output<br>Limit switches<br><br><b>Feedback</b>         | 40 x 25 x 10                     |            | •     | 1000                 | 16                      |           |             | •    | •         |                | +5                 | -25 +85<br>(-13 +185)                  | IP67            |

# LINEPULS incremental magnetic sensors

|   |                                                                                                                   | Dimensions (mm) | Connection |       | Resolution max. (µm)      | Travel speed max. (m/s) | Push-Pull | Line Driver | 1Vpp | Reference | Limit switches | Power supply (Vdc) | Operating temp. °C (°F)<br>min. - max. | Protection max. |
|------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------|-----------------|------------|-------|---------------------------|-------------------------|-----------|-------------|------|-----------|----------------|--------------------|----------------------------------------|-----------------|
|                                                                                    |                                                                                                                   |                 | connector  | cable |                           |                         |           |             |      |           |                |                    |                                        |                 |
|    | SMB2 - SMB5<br>Magnetic sensors<br>External converter<br><br><b>Industrial</b>                                    | 25 x 15 x 8,5   |            | •     | 50                        | 16                      | •         | •           |      |           |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP68            |
|    | SMI2 - SMI5<br>Linear incremental<br>encoder with resolution<br>selector<br><br><b>Feedback</b>                   | 25 x 15 x 8,5   | •          |       | 2                         | 16                      | •         | •           |      |           |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP68            |
|    | SMSR<br>Miniature magnetic<br>sensor for linear motors<br>and pick & place<br>applications<br><br><b>Feedback</b> | 25 x 15 x 8,5   |            | •     | 1000                      | 10                      |           |             | •    |           |                | +5                 | -25 +85<br>(-13 +185)                  | IP68            |
|   | SMX2 - SMX5<br>Magnetic speed sensors<br><br><b>Heavy-duty</b>                                                    | M10 x 30        |            | •     | 5 mm (1.25)<br>2 mm (0.5) | 30<br>(7,5 kHz)         | •         | •           |      |           |                | +5 +30             | -10 +70<br>(+14 +158)                  | IP67            |
|  | SMK<br>Robust magnetic sensor<br>for standard applications<br><br><b>Heavy-duty</b>                               | 40 x 25 x 10    |            | •     | 10                        | 2,5                     | •         | •           |      |           |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|  | SML - SMH<br>Robust magnetic sensors<br>for standard applications<br><br><b>Heavy-duty</b>                        | 40 x 25 x 10    |            | •     | 100                       | 10                      | •         | •           |      |           |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |
|  | SMIG<br>Magnetic system with<br>self-guiding sensor head<br><br><b>Heavy-duty</b>                                 | 80 x 48 x 28    | •          | •     | 5                         | 1                       | •         | •           |      |           |                | +5<br>+10 +30      | -25 +85<br>(-13 +185)                  | IP67            |

# LINECOD absolute magnetic sensors

|    |                                                                                             | Dimensions (mm) | Connection |       | Resolution max. (µm) | Travel speed max. (m/s) | SSI | BiSS | RS485 | Profibus | CANopen / CANlift | Analogue | Power supply (Vdc) | Operating temp. °C (°F)<br>min. – max. | Protection max. |
|-------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------|-----------------|------------|-------|----------------------|-------------------------|-----|------|-------|----------|-------------------|----------|--------------------|----------------------------------------|-----------------|
|                                                                                     |                                                                                             |                 | connector  | cable |                      |                         |     |      |       |          |                   |          |                    |                                        |                 |
|    | MTA1 – MTA5<br>Magnetic tape<br>Absolute coding                                             | 20 x 5,1 m      | -          | -     | -                    | -                       | -   | -    | -     | -        | -                 | -        | -                  | -40 +120<br>(-40 +248)                 | IP67            |
|    | SMA5<br>Compact magnetic sensor<br>SSI interface<br><br><b>Industrial</b>                   | 65 x 20 x 20    |            | •     | 5                    | 5                       | •   |      |       |          |                   |          | +10 +30            | -25 +85<br>(-13 +185)                  | IP67            |
|    | SMA1<br>Compact magnetic sensor<br>BiSS + sin/cos interface<br><br><b>Feedback</b>          | 85 x 21 x 20    |            | •     | 5                    | 5                       | •   | •    |       |          |                   |          | +10 +30            | -25 +85<br>(-13 +185)                  | IP67            |
|   | SMAG<br>Magnetic system with<br>self-guiding sensor head<br><br><b>Heavy-duty</b>           | 80 x 48 x 28    | •          | •     | 5                    | 1                       | •   |      |       |          |                   |          | +10 +30            | -25 +85<br>(-13 +185)                  | IP65            |
|  | SMAX<br>Low cost magnetic sensor<br><br><b>Heavy-duty</b>                                   | 80 x 40 x 22    |            | •     | 100                  | 5                       | •   |      | •     |          |                   | •        | +10 +30            | -25 +85<br>(-13 +185)                  | IP68<br>IP69K   |
|  | SMAL<br>Magnetic sensor for<br>long distances<br>Elevators<br><br><b>Industrial</b>         | 190 x 52 x 45   | •          | •     | 1 mm                 | 5                       | •   |      | •     | •        | •                 |          | +10 +30            | -25 +85<br>(-13 +185)                  | IP54            |
|  | SMAL2<br>Magnetic sensor for<br>long distances<br>Elevators<br><br><b>Lift / Industrial</b> | 147 x 100 x 60  |            | •     | 0,1 mm               | 5                       | •   |      | •     |          | •                 |          | +10 +30            | -25 +85<br>(-13 +185)                  | IP54            |

# DRIVECOD rotary actuators

|   |                                                                                                                       | Dimensions (mm)   | Hollow shaft ø (mm) | Shaft rotational speed max. (rpm) | Nominal torque (Nm) | Max. torque (Nm) | Motor brake | Power supply (Vdc) | RS232 service Modbus | CANopen | Profibus | Modbus RS485 | Operating temp. °C (°F)<br>min. – max. | Protection max. |
|------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------|-------------------|---------------------|-----------------------------------|---------------------|------------------|-------------|--------------------|----------------------|---------|----------|--------------|----------------------------------------|-----------------|
|    | <b>RD1A</b><br>Positioning unit with absolute encoder<br>Brushless motor<br>Diagnostic LEDs<br><br><b>Industrial</b>  | 59 x 112 x 125    | 14                  | 240<br>120<br>60                  | 1,2<br>2,4<br>5     | 3<br>6<br>12     |             | 24                 | •                    | •       | •        | •            | 0 +60<br>(32 +140)                     | IP65            |
|    | <b>RD12A</b><br>Positioning unit with absolute encoder<br>Brushless motor<br>Diagnostic LEDs<br><br><b>Industrial</b> | 59 x 142 x 125    | 14                  | 240<br>120<br>60                  | 1,2<br>2,4<br>5     | 3<br>6<br>12     | •           | 24                 | •                    | •       | •        | •            | 0 +60<br>(32 +140)                     | IP65            |
|    | <b>RD5</b><br>Compact positioning unit with absolute encoder<br>Brushless motor<br><br><b>Industrial</b>              | 48,3 x 88 x 126,6 | 14                  | 60                                | 5                   | 12               |             | 24                 |                      | •       | •        | •            | 0 +60<br>(32 +140)                     | IP54            |
|   | <b>RD52</b><br>Compact positioning unit with absolute encoder<br>Brushless motor<br><br><b>Industrial</b>             | 48,3 x 88 x 126,6 | 14                  | 60                                | 5                   | 12               | •           | 24                 |                      | •       | •        | •            | 0 +60<br>(32 +140)                     | IP54            |
|  | <b>RD4</b><br>Positioning unit with absolute encoder<br>Brushless motor<br><br><b>Heavy-duty</b>                      | 65 x 153 x 160    | 20                  | 94<br>62                          | 10<br>15            | 20<br>30         |             | 24                 |                      | •       | •        | •            | 0 +60<br>(32 +140)                     | IP65            |

# POSICONTROL displays & interfaces

|    |                                                                                  | Display         | Display mode |         |         | Dimensions (mm)                | Input |     |      |                 | Counting frequency max. (kHz) | Interface RS232 / RS485 | Power supply                                   | Output max.              |
|-------------------------------------------------------------------------------------|----------------------------------------------------------------------------------|-----------------|--------------|---------|---------|--------------------------------|-------|-----|------|-----------------|-------------------------------|-------------------------|------------------------------------------------|--------------------------|
|                                                                                     |                                                                                  |                 | linear       | angular | mm/inch |                                | AB0   | SSI | 1Vpp | Magnetic sensor |                               |                         |                                                |                          |
|    | <b>LD120</b><br>Compact LED display for magnetic sensors                         | LED 5 digit     | •            | •       | •       | 72 x 36 x 62                   |       |     |      | •               | -                             | •                       | +10 +30                                        | -                        |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|    | <b>LD112</b><br>Compact LCD battery display                                      | LCD 6 digit     | •            | •       | •       | 72 x 48 x 31                   |       |     |      | •               | -                             |                         | battery                                        | -                        |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|    | <b>LD111 - LD141</b><br>Ultracompact OEM battery display                         | LCD 6 digit     | •            | •       | •       | 61 x 39 x 23<br>87 x 60,5 x 47 |       |     |      | •               | -                             |                         | battery                                        | -                        |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|   | <b>LD140 - LD142</b><br>Standard battery display                                 | LCD 6 digit     | •            | •       | •       | 96 x 72 x 47                   |       |     |      | •               | -                             | •                       | battery                                        | -                        |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|  | <b>LD200</b><br>Universal position display                                       | LED 8 digit     | •            | •       | •       | 96 x 48 x 49                   | •     | •   | •    | •               | 500                           | •                       | 24 Vdc                                         | 3 x 24V @ 23mA           |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|  | <b>LD250</b><br>Absolute multi-function display                                  | LED 6 digit     | •            |         | •       | 96 x 48 x 141                  |       | •   |      |                 | -                             | •                       | 24 Vdc<br>115/230 Vac                          | 0/4 - 20mA<br>0...±10Vdc |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|  | <b>LD300</b><br>Incremental multi-function display                               | LED 6 digit     | •            |         | •       | 96 x 48 x 141                  | •     |     |      |                 | 100                           | •                       | 24 Vdc<br>115/230 Vac                          | 0/4 - 20mA<br>0...±10Vdc |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|  | <b>MC111- MC150</b><br>Position display for encoders<br>Economic version (MC111) | LED 6 digit     | •            |         |         | 96 x 72 x 60<br>96 x 72 x 71   | •     |     |      |                 | 25<br>1000                    |                         | 24 Vdc/Vac<br>24 Vdc/Vac<br>115 Vac<br>230 Vac | 2 x 24V @ 600mA          |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |
|  | <b>MC221</b><br>Compact 2 axes position display                                  | 2 x LED 6 digit | •            |         |         | 96 x 96 x 72                   | •     |     |      |                 | 500                           |                         | 24 Vdc                                         | 2 x 24V @ 600mA          |
|                                                                                     | <b>Industrial</b>                                                                |                 |              |         |         |                                |       |     |      |                 |                               |                         |                                                |                          |

# POSICONTROL displays & interfaces

|   |                           | Description                                                                                 | Input                          | Output                              | Service interface | Functions                                                                                                                         |
|------------------------------------------------------------------------------------|---------------------------|---------------------------------------------------------------------------------------------|--------------------------------|-------------------------------------|-------------------|-----------------------------------------------------------------------------------------------------------------------------------|
|    | IF10<br>Industrial        | Universal incremental encoder signal splitter, converter & switcher<br>DIN rail mounting    | 2 inputs<br>HTL or TTL / RS422 | 2 outputs<br>HTL or TTL / RS422     |                   | Adjustable inputs and outputs signal levels (can be mixed)<br>Contactless switch-over<br>Up to 1 MHz input frequency              |
|    | IF20<br>Industrial        | Signal converter for incremental encoder<br>DIN rail mounting                               | HTL or TTL / RS422             | HTL or TTL / RS422                  |                   | Output voltage according to remote voltage<br>Input/Output galvanically separated<br>AB quadrature to UP/DOWN conversion          |
|    | IF30<br>Industrial        | Sine/Cosine signal interpolator<br>DIN rail mounting                                        | 1Vpp                           | HTL (AB0) or RS422 (AB0 /AB0)       |                   | Adjustable interpolation rate up to x50<br>Adjustable pulse divider<br>Filtering functions                                        |
|   | IF50<br>Industrial        | Incremental signal to Analogue converter<br>DIN rail mounting                               | HTL or TTL / RS422             | $\pm 10$ V<br>0- 20 mA<br>4 - 20 mA | RS232<br>RS485    | Signal linearization<br>Scaling factor<br>Teach-in function                                                                       |
|  | IF51<br>Industrial        | Absolute SSI to Analogue converter<br>DIN rail mounting                                     | SSI (up to 25 bit)             | $\pm 10$ V<br>0- 20 mA<br>4 - 20 mA | RS232<br>RS485    | Bit blanking function<br>Signal linearization<br>Scaling factor                                                                   |
|  | IF52<br>Industrial        | Absolute SSI to Bit parallel converter<br>DIN rail mounting                                 | SSI (up to 25 bit)             | Push-Pull                           | RS232             | Signal linearization<br>Scaling factor                                                                                            |
|  | IF60 - IF61<br>Heavy-duty | Fibre-optic signal converters for incremental encoders<br>IF60 transmitter<br>IF61 receiver | HTL or TTL / RS422             | Optical signal                      |                   | Safe signal transmission up to 1000 m<br>Suitable for explosive areas and environments with extremely high electromagnetic fields |
|  | IF62 - IF63<br>Heavy-duty | Fibre-optic signal converters for absolute encoders<br>IF62 transmitter<br>IF63 receiver    | SSI                            | Optical signal                      |                   | Safe signal transmission up to 1500 m<br>Suitable for explosive areas and environments with extremely high electromagnetic fields |





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