

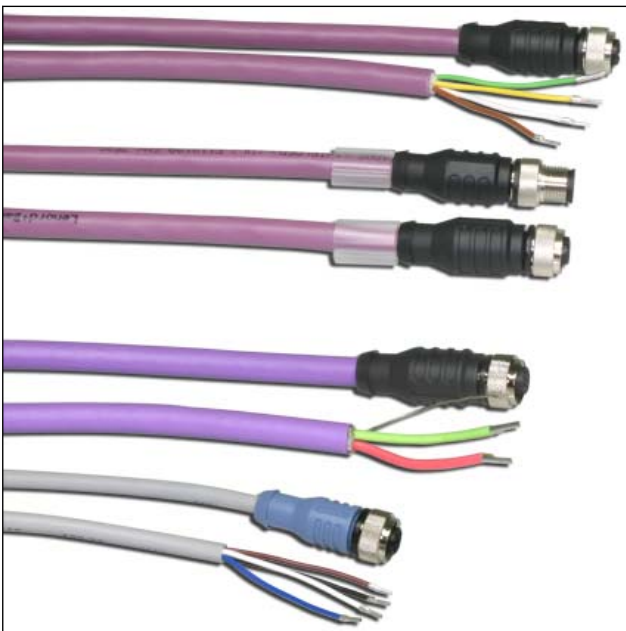


General

- ▶ Mounting accessories for magnetic-incremental and magnetic absolute rotary encoders featuring different flange shapes and dimensions
- ▶ Accessories for length measurement with standard rotary encoders by means of measuring wheel systems or toothed-belt drives
- ▶ Protective housing and protective design measures available for special applications
- ▶ Wide selection of plugs and cables perfectly matched to our rotary encoders, for error-free connections and high-precision data transmissions

Advantages

- ▶ Easy assembly due to perfectly matched and pre-assembled components from a single source
- ▶ Adaptation to customised and individual installation situations
- ▶ Optimised electrical connection via flexible cable and plug fabrication
- ▶ Individual solutions for different applications



Connection of drive shaft and rotary encoder

Item No.	Description	Dimensional drawing	Suitable for												
KK 14	<p>Clamp coupling Elastic connection of drive shaft and rotary encoder shaft to compensate misalignments and angular errors, to dampen shorttime torque shocks</p> <ul style="list-style-type: none"> ▶ 2 coupling halves, positive pre-stressed, assembled free of play via damping element 	<p>*) Maximum dimension for inserted shaft A Coupling halves B Plastic damping element</p>	<p>GEL 207 GEL 208 GEL 235 GEL 260 GEL 2010 GEL 2035 GEL 2037 GEL 2351 GEL 2352</p>												
	<table border="1"> <thead> <tr> <th>$d_1^{(1)}$</th> <th>$d_2^{(1)}$</th> <th>Standard d_1 / d_2</th> </tr> </thead> <tbody> <tr> <td>6 to 16</td> <td>6 to 16</td> <td>6/6; 8/8; 10/10; 12/12; 16/16</td> </tr> </tbody> </table> <p>with different diameters d_1 and d_2 available</p> <p>static torsional stiffness 125 Ncm/° transmittable torque, free of play 100 Ncm maximum shaft offset axial -1 mm radial 0.2 mm angle 1°</p>			$d_1^{(1)}$	$d_2^{(1)}$	Standard d_1 / d_2	6 to 16	6 to 16	6/6; 8/8; 10/10; 12/12; 16/16						
$d_1^{(1)}$	$d_2^{(1)}$	Standard d_1 / d_2													
6 to 16	6 to 16	6/6; 8/8; 10/10; 12/12; 16/16													
MK 8	<p>Metal coupling made of stainless steel Universal connection between drive shaft and rotary encoder shaft to compensate for misalignments and angular errors Material: X12CrNi18-8 (V2-A)</p> <ul style="list-style-type: none"> ▶ Permissible misalignment of nominal shaft diameter: 3° or 3% ▶ with different diameters d_1 and d_2 available 	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>D</th> <th>$d_1^{(1)}$</th> <th>$d_2^{(1)}$</th> <th>d_1 / d_2</th> </tr> </thead> <tbody> <tr> <td>35</td> <td>5</td> <td>21</td> <td>5 to 12</td> <td>5 to 12</td> <td>6/6; 8/8; 10/10; 12/12</td> </tr> </tbody> </table> <p>d_1 / d_2 Standard version</p>	A	B	D	$d_1^{(1)}$	$d_2^{(1)}$	d_1 / d_2	35	5	21	5 to 12	5 to 12	6/6; 8/8; 10/10; 12/12	<p>GEL 207 GEL 208 GEL 235 GEL 260 GEL 2010 GEL 2035 GEL 2037 GEL 2351 GEL 2352</p>
	A		B	D	$d_1^{(1)}$	$d_2^{(1)}$	d_1 / d_2								
35	5	21	5 to 12	5 to 12	6/6; 8/8; 10/10; 12/12										
<p>Metal coupling Universal connection between drive shaft and rotary encoder shaft to compensate for misalignments and angular errors Material: Steel</p> <ul style="list-style-type: none"> ▶ Permissible misalignment of nominal shaft diameter: 3° or 3% ▶ with different diameters d_1 and d_2 available 															
MK 12	<p>Metal coupling Universal connection between drive shaft and rotary encoder shaft to compensate for misalignments and angular errors Material: Steel</p> <ul style="list-style-type: none"> ▶ Permissible misalignment of nominal shaft diameter: 3° or 3% ▶ with different diameters d_1 and d_2 available 	<table border="1"> <thead> <tr> <th>A</th> <th>B</th> <th>D</th> <th>$d_1^{(1)}$</th> <th>$d_2^{(1)}$</th> <th>d_1 / d_2</th> </tr> </thead> <tbody> <tr> <td>50</td> <td>7</td> <td>26⁽²⁾</td> <td>6 to 15</td> <td>6 to 15</td> <td>12/12</td> </tr> </tbody> </table> <p>d_1 / d_2 Standard version</p>	A	B	D	$d_1^{(1)}$	$d_2^{(1)}$	d_1 / d_2	50	7	26 ⁽²⁾	6 to 15	6 to 15	12/12	<p>GEL 207 GEL 208 GEL 235 GEL 260 GEL 2010 GEL 2035 GEL 2037 GEL 2351 GEL 2352</p>
	A		B	D	$d_1^{(1)}$	$d_2^{(1)}$	d_1 / d_2								
50	7	26 ⁽²⁾	6 to 15	6 to 15	12/12										

(1) Tolerance H7

(2) available with Woodruff key

Connection of drive shaft and rotary encoder

Item No.	Description	Dimensional drawing	Suitable for																											
MKF 8 MKF 12	<p>Flange coupling</p> <p>Flexible flange connection between drive shaft and rotary encoder shaft to compensate for misalignments and angular errors</p> <p>MKF 8 42 mm flange diameter MKF 12 48 mm flange diameter</p> <ul style="list-style-type: none"> ▶ Permissible misalignment of nominal shaft diameter: 3° or 3% ▶ Mount coupling preloaded to 1 mm 	<table border="1"> <thead> <tr> <th></th> <th>A</th> <th>B</th> <th>C⁽¹⁾</th> <th>D</th> <th>R</th> <th>F</th> <th>d⁽¹⁾</th> <th>d*</th> </tr> </thead> <tbody> <tr> <td>MKF 8</td> <td>30</td> <td>42</td> <td>18</td> <td>21</td> <td>5</td> <td>30</td> <td>6 to 10</td> <td>6; 8; 10</td> </tr> <tr> <td>MKF 12</td> <td>40</td> <td>48</td> <td>22</td> <td>26⁽²⁾</td> <td>7</td> <td>37</td> <td>8 to 15</td> <td>12</td> </tr> </tbody> </table> <p>d* Standard version</p>		A	B	C ⁽¹⁾	D	R	F	d ⁽¹⁾	d*	MKF 8	30	42	18	21	5	30	6 to 10	6; 8; 10	MKF 12	40	48	22	26 ⁽²⁾	7	37	8 to 15	12	<p>GEL 207 GEL 208 GEL 235 GEL 260 GEL 2010 GEL 2035 GEL 2037 GEL 2351 GEL 2352</p>
	A	B	C ⁽¹⁾	D	R	F	d ⁽¹⁾	d*																						
MKF 8	30	42	18	21	5	30	6 to 10	6; 8; 10																						
MKF 12	40	48	22	26 ⁽²⁾	7	37	8 to 15	12																						

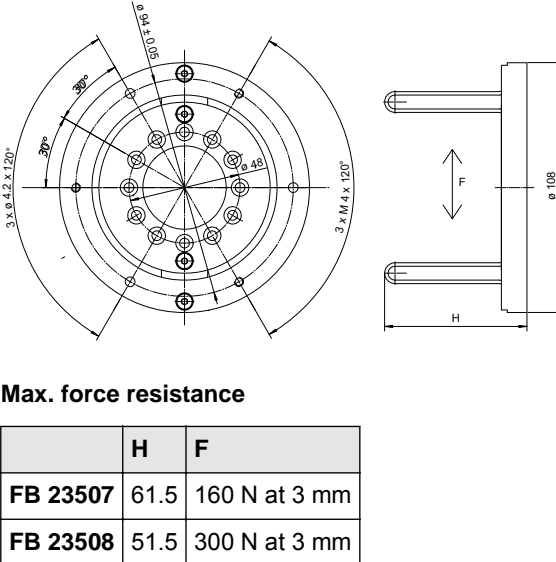
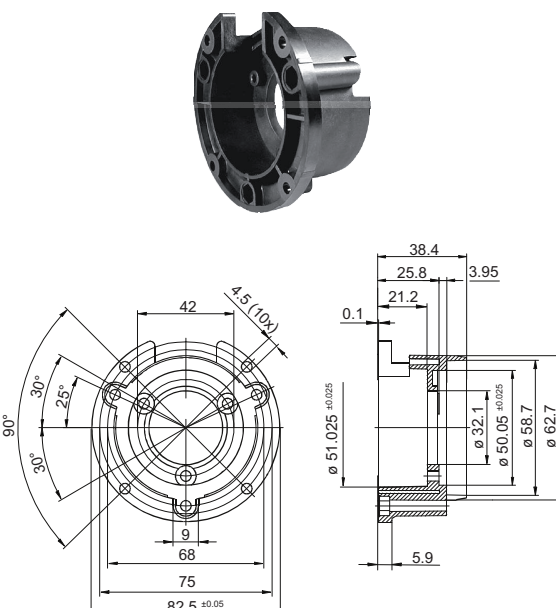
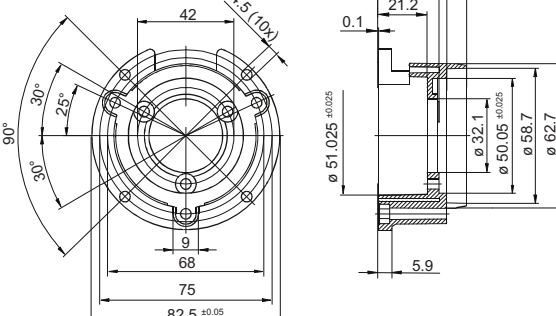
(1) Tolerance H7

(2) available with Woodruff key

Assembly accessories for shaft rotary encoders

Item No.	Description	Dimensional drawing	Suitable for
KL 200	<p>Assembly kit clamping elements Clamping eccentric for rotary encoder with synchro flange</p> <p>Scope of supply: ▶ 3 eccentrics ▶ 3 screws</p> <p>Mounting the encoder requires at least 3 clamping elements.</p>		<p>GEL 207 GEL 2010 GEL 2035 GEL 2037 GEL 235 GEL 2351 GEL 2352</p>
KL 260	<p>Assembly kit clamping elements Clamping eccentric for rotary encoder with synchro flange</p> <p>Scope of supply: ▶ 4 eccentrics ▶ 4 screws</p> <p>Mounting the encoder requires at least 3 clamping elements.</p>		<p>GEL 260</p>
MF 23501	<p>Mounting flange 15° Flange adapter for mounting rotary encoders with 58 mm flange dimension and radial plug or cable outlet for radial outlet rotated by 15°</p> <p>Scope of supply: ▶ 1 flange adapter ▶ 3 screws for mounting the rotary encoder</p>		<p>GEL 235</p>
MF 23502	<p>Mounting flange 65 mm Flange adapter to replace third-party products featuring 65 mm flange dimension and 45 mm pitch circle with Lenord+Bauer rotary encoders with 58 mm flange dimension</p> <p>Scope of supply: ▶ 1 flange adapter ▶ 3 screws for mounting the rotary encoder</p>		<p>GEL 235</p>
MF 121	<p>Mounting flange 120 mm Flange adapter to replace third-party products featuring 120 mm flange dimension and 104 mm pitch circle with Lenord+Bauer rotary encoders with 90 mm flange dimension</p> <p>Scope of supply: ▶ 1 flange adapter ▶ 4 screws for mounting the rotary encoder</p>		<p>GEL 260</p>

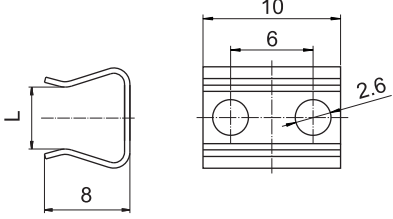
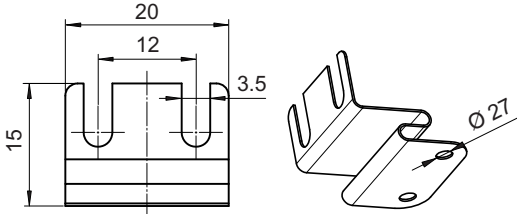
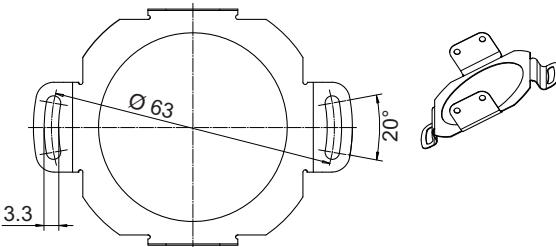
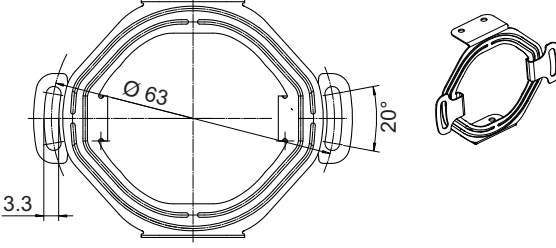
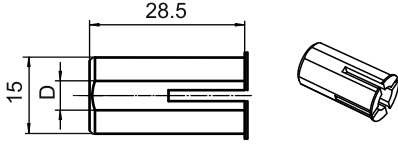
Assembly accessories for shaft rotary encoders

Item No.	Description	Dimensional drawing	Suitable for									
FB 23507 FB 23508	<p>Flexible flange For mounting heavy-duty rotary encoders in applications with high dynamics to compensate axial and radial play. Flange dimension 58 mm, pitch circle 48 mm</p> <p>Scope of supply: ▶ 1 flexible flange assembly ▶ 3 screws for mounting the rotary encoder</p>	 <p>Max. force resistance</p> <table border="1" data-bbox="742 817 1098 952"> <thead> <tr> <th></th> <th>H</th> <th>F</th> </tr> </thead> <tbody> <tr> <td>FB 23507</td> <td>61.5</td> <td>160 N at 3 mm</td> </tr> <tr> <td>FB 23508</td> <td>51.5</td> <td>300 N at 3 mm</td> </tr> </tbody> </table>		H	F	FB 23507	61.5	160 N at 3 mm	FB 23508	51.5	300 N at 3 mm	GEL 2035 GEL 2037
	H	F										
FB 23507	61.5	160 N at 3 mm										
FB 23508	51.5	300 N at 3 mm										
ZS 23501	<p>Mounting bell set 1 Accessories set for easy assembly of rotary encoders with synchro flange, 58 mm flange dimension Ensures thermal and electrical insulation between encoder and drive shaft</p> <p>Scope of supply: ▶ 1 mounting bell made of plastic, glass-fibre reinforced ▶ 1 shaft coupling ▶ 3 clamping elements, incl. fastening material</p>		GEL 235									
ZS 23502	<p>Mounting bell set 2 Accessories set for easy assembly of rotary encoders with synchro flange, 58 mm flange dimension. Ensures thermal and electrical insulation between encoder and drive shaft</p> <p>Scope of supply: ▶ 1 mounting bell made of plastic, glass-fibre reinforced ▶ 1 shaft coupling ▶ 3 screws for mounting the rotary encoder</p>		GEL 235									

Assembly accessories for shaft rotary encoders

Item No.	Description	Dimensional drawing	Suitable for
MW 52	<p>Mounting bracket For easy and solid assembly of rotary encoders with 58 mm flange dimension</p> <p>Scope of supply: ▶ 1 mounting bracket ▶ 3 screws for mounting the rotary encoder</p>		<p>GEL 207 GEL 2010 GEL 2035 GEL 2037 GEL 235 GEL 2351 GEL 2352</p>
	<p>Installation example: Mounting bracket MW 52 and rotary encoder with synchro (SF) or clamping flange (KF)</p>	<p>SF ø 58 mm</p> <p>KF ø 58 mm</p> <p>SF ø 65 mm</p>	
MW 92	<p>Mounting bracket For easy and solid assembly of rotary encoders with 90 mm flange dimension</p> <p>Scope of supply: ▶ 1 mounting bracket ▶ 3 screws for mounting the rotary encoder</p>		<p>GEL 260</p>

Assembly accessories for hollow shaft rotary encoder

Item No.	Description	Dimensional drawing	Suitable for											
FB 23501 FB 23502	Spring plate U-shape For mounting hollow shaft rotary encoders in small installation spaces Scope of supply: ▶ 1 spring element ▶ 2 screws for mounting to rotary encoder	 <table border="1" data-bbox="794 589 1248 712"> <thead> <tr> <th>Item No.</th> <th>L</th> </tr> </thead> <tbody> <tr> <td>FB 23501</td> <td>4 mm</td> </tr> <tr> <td>FB 23502</td> <td>6 mm</td> </tr> </tbody> </table>	Item No.	L	FB 23501	4 mm	FB 23502	6 mm	GEL 235 GEL 2035 GEL 2352					
Item No.	L													
FB 23501	4 mm													
FB 23502	6 mm													
FB 23503	Spring plate Wave shape For mounting hollow shaft rotary encoders in small installation spaces Suitable for applications with axial play. Scope of supply: ▶ 1 spring element ▶ 2 screws for mounting to rotary encoder		GEL 235 GEL 2035 GEL 2352											
FB 23504	Torque support, hard For mounting hollow shaft rotary encoders in applications with high accuracy Scope of supply: ▶ 1 torque support ▶ 4 screws for mounting to rotary encoder		GEL 235 GEL 2035 GEL 2352											
FB 23505	Torque support, soft ⁽¹⁾ For mounting hollow shaft rotary encoders in applications with high dynamics to compensate axial and radial play. Scope of supply: ▶ 1 spring element ▶ 4 screws for mounting to rotary encoder		GEL 235 GEL 2035 GEL 2352											
RH 23501 RH 23502 RH 23503	POM bushing made of polyoxymethylene For reduction of hollow shaft at simultaneous electrical insulation of rotary encoder		GEL 235 GEL 2035 GEL 2352											
RH 23504 RH 23505 RH 23506	Brass bushing For reduction of the hollow shaft	<table border="1" data-bbox="794 1780 1248 1944"> <thead> <tr> <th>POM</th> <th>Brass</th> <th>D</th> </tr> </thead> <tbody> <tr> <td>RH 23501</td> <td>RH 23504</td> <td>8 mm</td> </tr> <tr> <td>RH 23502</td> <td>RH 23505</td> <td>10 mm</td> </tr> <tr> <td>RH 23503</td> <td>RH 23506</td> <td>12 mm</td> </tr> </tbody> </table>		POM	Brass	D	RH 23501	RH 23504	8 mm	RH 23502	RH 23505	10 mm	RH 23503	RH 23506
POM	Brass	D												
RH 23501	RH 23504	8 mm												
RH 23502	RH 23505	10 mm												
RH 23503	RH 23506	12 mm												

(1) Included in scope of supply of standard rotary encoder with semi hollow shaft.

Special accessories

Protective measures

Item No.	Description	Dimensional drawing	Suitable for
KS 200	<p>Condensed water outlet for axial or radial mounting on rotary encoder housing Reduction of encoder's protection class to IP 64 Indicate position when ordering rotary encoder. Ensure that condensed water outlet is pointing down when installing the encoder.</p>		<p>GEL 207 GEL 208 GEL 209 GEL 219 GEL 260</p>
SG 110 SG 111	<p>Protective housing Protects rotary encoder from exterior mechanical damage, thus increasing the service life of the rotary encoder Suitable for harsh environmental conditions and extreme mechanical stress Light alloy, sea-water resistant, protection class IP 68 SG 110 5 x PG21 cable entry glands SG 111 6 x PG21 cable entry glands The shaft of the rotary encoder must be 12 mm</p>	<p>Observe separate technical information</p>	<p>GEL 207 GEL 260</p>
SG 208	<p>Protective housing Protects rotary encoder from exterior mechanical damage, thus increasing the service life of the rotary encoder Suitable for harsh environmental conditions and extreme mechanical stress Anodised aluminium, 5 mm wall thickness, protection class IP 68</p>	<p>Observe separate technical information</p>	<p>GEL 208</p>

Bearing pedestal

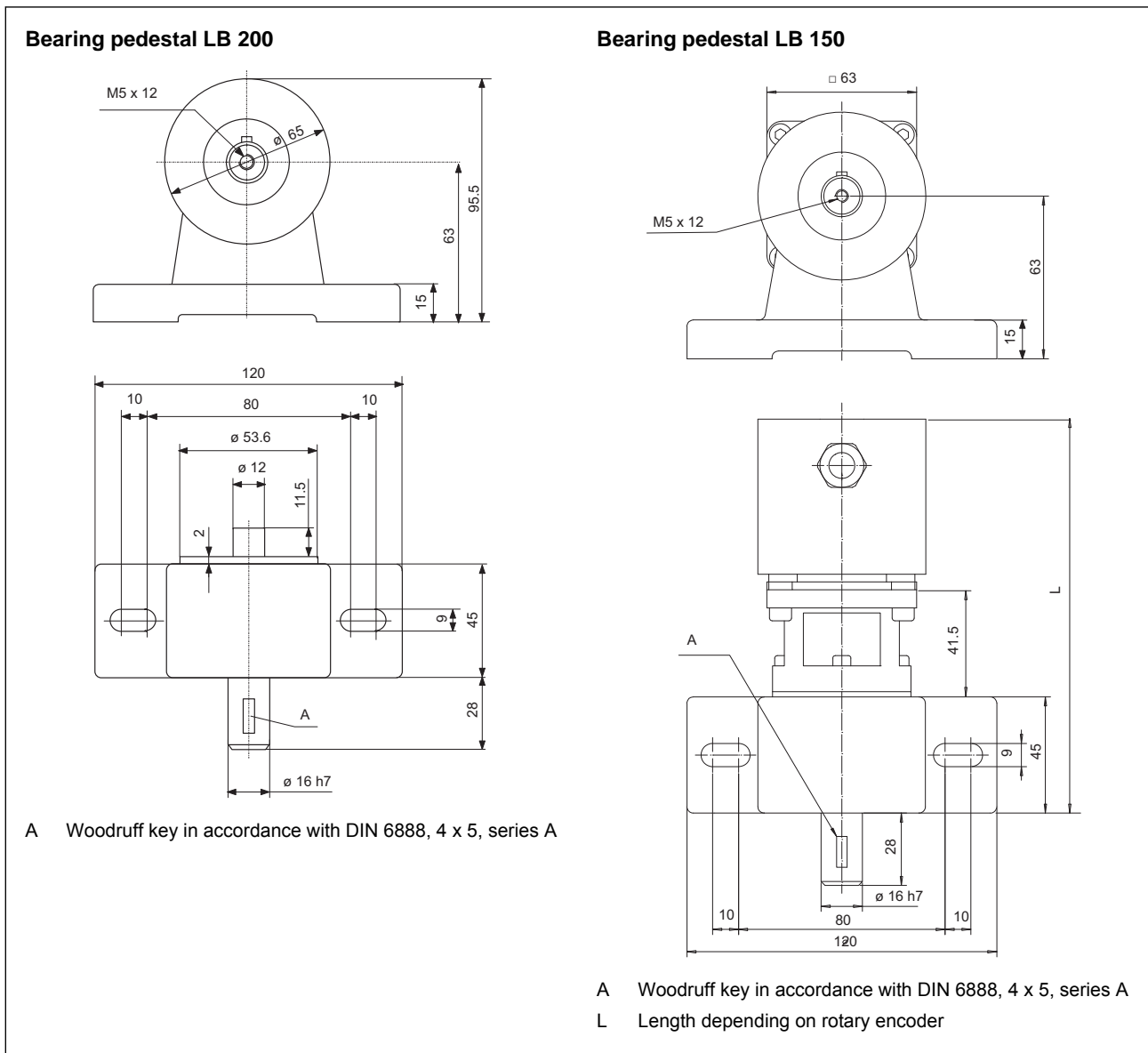
For applications with high axial or radial shaft loads

- ▶ For mounting rotary encoders when shaft loads exceed permissible maximum values during operation.
- ▶ For deflection, for instance of a toothed-belt drive

Bearing pedestal and rotary encoder are delivered pre-assembled and must be ordered together.

Item No.	Description	Suitable for
LB 150	Bearing pedestal with mounting adapter for rotary encoder with 58 mm flange dimension	GEL 235
LB 200	Bearing pedestal for rotary encoder with 65 mm flange dimension	GEL 209

Dimensional drawing



Special accessories

Length measurement on conveyor or moving products

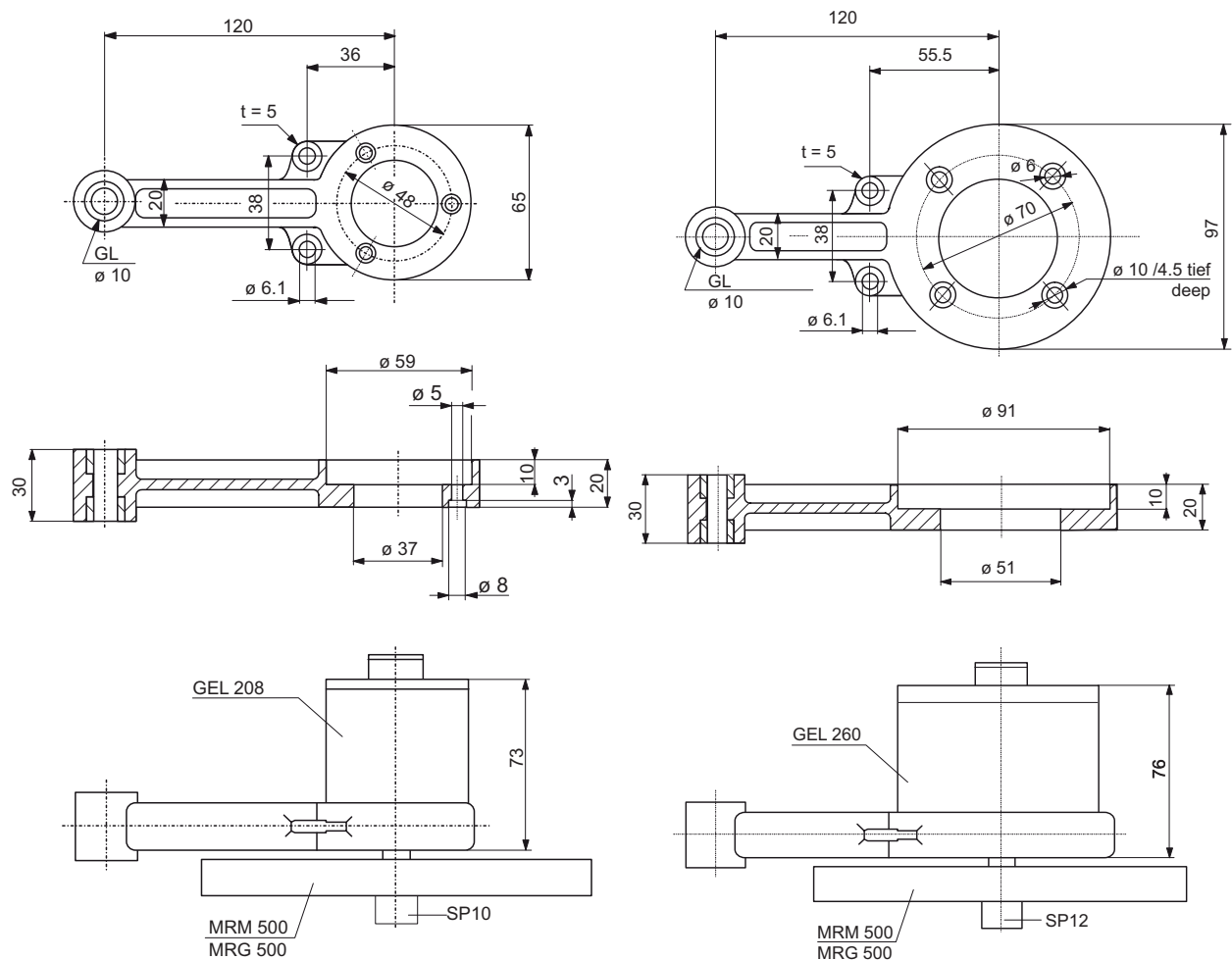
Measuring wheels are used for length measurement on conveyor or moving products. The contact pressure between measuring wheel and product is decisive for accurate measurement.

If the measuring wheel is mounted directly on the shaft of the rotary encoder, the maximum radial shaft load of the rotary encoder is not to be exceeded.

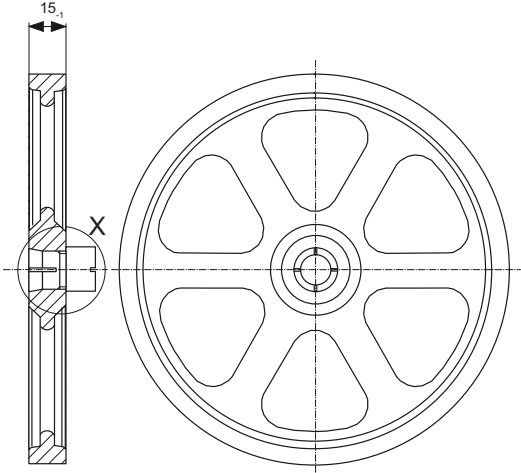
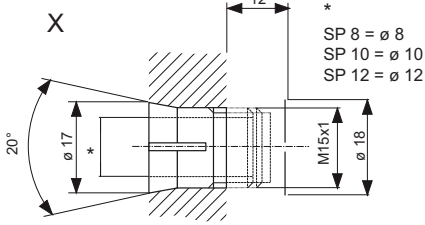
Item No.	Description	Dimensional drawing	Suitable for
MA 205	Measuring arm For mounting measuring wheel and rotary encoder with 58 mm flange dimension, 48 mm pitch circle Bearing: Polyamide slide bearing (ø 10 mm)		GEL 208
MA 262	Measuring arm For mounting measuring wheel and rotary encoder with 90 mm flange dimension, 70 mm pitch circle Bearing: Polyamide slide bearing (ø 10 mm)		GEL 260

Dimensional drawing

MA 205 with measuring wheel and rotary encoder GEL 208 MA 262 with measuring wheel and rotary encoder GEL 260



Special accessories

Item No.	Description	Dimensional drawing	Suitable for
MRM 500	Measuring wheel For length measurement on moving products Material Aluminium die cast Surface Hard anodised (approx. 700 HV) Circumference 500 mm ± 0.8 mm	 <p data-bbox="746 869 1300 952">The measuring wheels MRM 500 and MRG 500 may only be used for purposes that are not subject to the calibration law.</p>	MA 205 MA 262
MRG 500	Measuring wheel For length measurement on moving products Material Aluminium die cast, rubberised Coating Perbunan (Shore approx. 70) Circumference 500 mm ± 0.3 mm Operating temperature permanently -30 ° to +120 °C shorttime -40 ° to +150 °C		MRM 500 MRG 500
SP 8 SP 10 SP 12	Collet chuck For mounting measuring wheel to encoder shaft The diameter of the collet chuck must be selected according to the encoder shaft diameter.		MRM 500 MRG 500

Special accessories

Length measurement with toothed-belt drive

Rotary encoders can measure lengths by means of toothed belts. A tooth wheel mounted on an encoder is used to transmit the movement of the toothed belt to the encoder shaft free of play. The toothed belt is tensioned via a tensioning element. The rotation acquired by the rotary encoder is proportional to the traversing distance.

During the acquisition of long lengths, for instance in crane systems, high axial or radial shaft loads occur. The use of a measuring pedestal separates bearing load and rotary encoder, thus protecting it from mechanical overload. The measuring pedestal consists of measuring pedestal attachment, bearing pedestal, and rotary encoder.

Technical data of toothed belt ZR 206

Dimension	Width 10 mm, tooth pitch 5 mm (by the metre)
Material	10 steel cord tension members, 0.32 mm diameter, embedded in polyurethane elastomer
Features	Resistant against humidity, petrol, oil, grease, UV rays, ozone, etc. steel cord as tension member: Constant lengths, no post-elongation
Operating temperature	- 10° C to +80° C shorttime 120° C -30° C upon request
Breaking load	1200 N
Permissible cable-pull load	≤ 300 N at 4 ‰ elastic elongation
Weight per metre:	0.022 kg
Measuring accuracy	typical ± 0.3 mm/m ⁽¹⁾ at 60 N

⁽¹⁾ Changing the toothed belt tension can significantly increase measuring accuracy. The elongation behaviour is strictly linear. The coefficient of elongation is approx. 0.01 mm / (1 m · 1 N).

Item No.	Description	Dimensional drawing	Suitable for
ZR 206	Toothed belt (by the metre) Polyurethane elastomer with 10 steel cord tension members, 0.32 mm diameter, 10 mm width, 5 mm tooth pitch		ZA 206
ZA 206	Toothed lock washer For length measurement by means of the toothed belt ZR 206, 16 mm shaft diameter One rotation of the toothed lock washer corresponds to 100 mm traversing distance. Scope of supply ▶ 1 toothed lock washers ▶ 1 socket head screw M5 x 12		GEL 209 GEL 219 LB 150 LB 200
SE 206	Tensioning element For tensioning of toothed belt with tensioning head, spring force 58 N		ZR 206
SK 206	Tensioning head (kit) For toothed belt clamping		

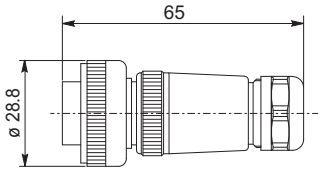
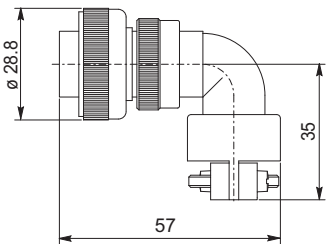
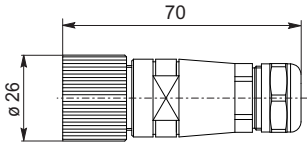
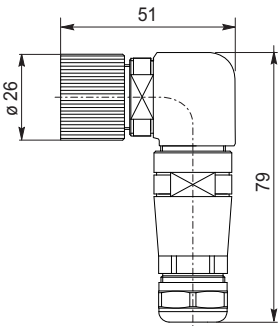
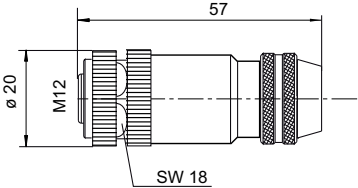
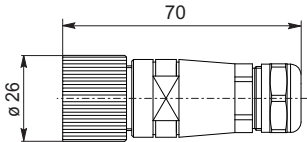
Special accessories

Item No.	Description	Dimensional drawing	Suitable for
MB 150	<p>Measuring pedestal Measuring pedestal attachment, bearing pedestal and rotary encoder are delivered pre-assembled and must be ordered together.</p> <p>Scope of supply</p> <ul style="list-style-type: none"> ▶ Attachment with non-slip toothed-belt drive ▶ LB 150 bearing pedestal with mounting adapter ▶ Rotary encoder with 58 mm flange dimension 		<p>GEL 207 GEL 208 GEL 235</p>
MB 206	<p>Measuring pedestal Measuring pedestal attachment, bearing pedestal and rotary encoder are delivered pre-assembled and must be ordered together.</p> <p>Scope of supply</p> <ul style="list-style-type: none"> ▶ Attachment with non-slip toothed-belt drive ▶ LB 200 bearing pedestal ▶ Rotary encoder with 58 mm flange dimension 	<p><i>Example: Measuring pedestal with GEL 209 (view without cover)</i></p>	<p>GEL 209</p>

Electrical connection accessories

Various mating connectors and pre-assembled connection cables are available for the electrical connection of the rotary encoders. Customised adaptation of all components is basically possible.

Connection accessories for rotary encoders with analogue or SSI output

Item No.	Description	Dimensional drawing	Suitable for
GG 66	Mating connector 6-pin, straight		GEL 207 GEL 208 GEL 209 GEL 219 GEL 260
GW 66	Mating connector 6-pin, 90° offset		GEL 207 GEL 208 GEL 209 GEL 219 GEL 260
GG 126	Mating connector M23, 12-pin, straight, socket, A-coded		GEL 207 GEL 208 GEL 235 GEL 260 GEL 2035 GEL 2037 GEL 2352
GW 126	Mating connector M23, 12-pin, 90° offset, socket, A-coded, IP 65		GEL 207 GEL 208 GEL 235 GEL 260 GEL 2035 GEL 2037 GEL 2352
FS 1352	Mating connector M12, 8-pin, straight, socket, A-coded		GEL 235 GEL 2351 GEL 2352
FS 11311	Mating connector M23, 17-pin, straight		GEL 2035 GEL 2037
FS 1095	Pre-assembled connection cable, 10 m, 8-pin, socket M12 A-coded / flying lead		GEL 2351 GEL 2352

Pre-assembled connection cables

To ensure easy integration of rotary encoders with bus interface, pre-assembled connection cables are available. All pre-assembled bus cables feature the following design:

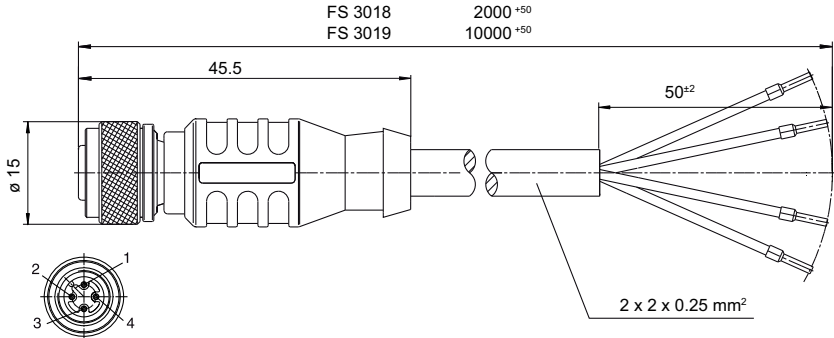
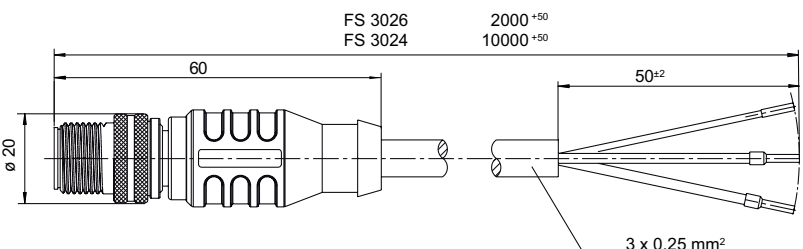
- ▶ Screened cable, outer sheath PUR
- ▶ Connection couplings, M12 with vibration protection

Cable specification

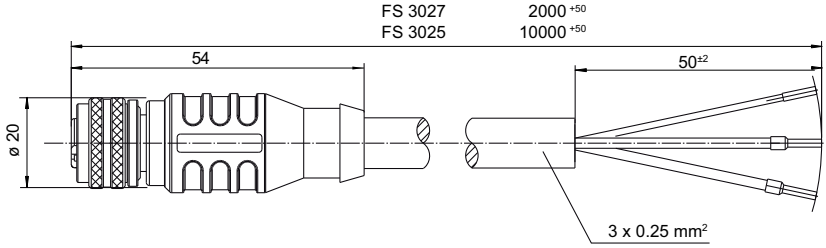
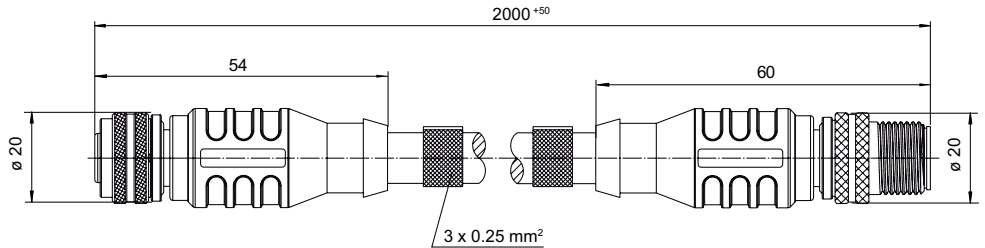
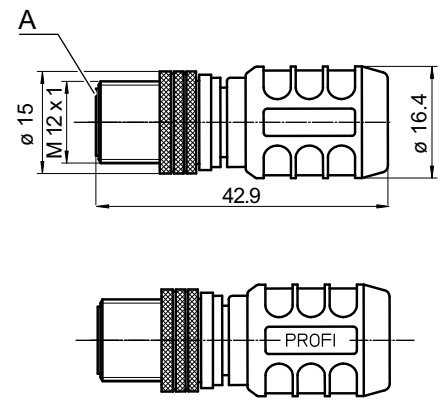
General data	
Operating voltage according to IEC 60664-1	max. 60 V
Contamination level according to IEC 60644-1	3/2
Insulation resistance according to 60512-2	$10^9 \Omega$
Current carrying capacity according to IEC 60 512-3	4 A
Ambient temperature	-30 °C to +80 °C
Protection class according to IEC 60529	IP 67, when screwed together

PROFIBUS

Connection accessories for PROFIBUS

Item No.	Description / dimensional drawing	Suitable for
FS 3018 FS 3019	PROFIBUS connection cable Plug, M12, A-coded, 4-pin / flying lead with ferrules 	GEL 235
FS 3024 FS 3026	PROFIBUS connection cable Plug, M12, B-coded, 5-pin / flying lead with ferrules 	GEL 235

Bus accessories

Item No.	Description / dimensional drawing	Suitable for
FS 3025 FS 3027	PROFIBUS connection cable Socket, M12, B-coded, 5-pin / flying lead with ferrules 	GEL 235
FS 3028	PROFIBUS connection cable Socket / plug, B-coded, 5-pin 	GEL 235
FS 3041	PROFIBUS terminating resistor Plug, 5-pin, B-coded, M12  <p>A Plug insert with union nut and flange ring</p>	GEL 235

CANopen

Connection accessories for CANopen

Item No.	Description / dimensional drawing	Suitable for
BK 2100 BK 2101	<p>CANopen connection cable Plug, M12, A-coded, 5-pin / flying lead, 4-core with ferrules</p> <p>BK 2000 2000⁺⁵⁰ BK 2001 10000⁺⁵⁰</p>	GEL 235 GEL 2035 GEL 2352
BK 2102 BK 2103	<p>CANopen connection cable Socket, M12, A-coded, 5-pin / flying lead, 4-core with ferrules</p> <p>BK 2002 2000⁺⁵⁰ BK 2003 10000⁺⁵⁰</p>	GEL 235 GEL 2035 GEL 2352
BK 2104 BK 2105	<p>CANopen connection cable Socket / plug, M12, A-coded, 5-pin</p> <p>BK 2005 2000⁺⁵⁰ BK 2004 10000⁺⁵⁰</p>	GEL 235 GEL 2035 GEL 2352

Assignment pin - core colour

Pin	1	2	3	4	5
Core colour	Screen	white	brown	yellow	green

Bus accessories

Item No.	Description / dimensional drawing	Suitable for
FS 3040	CANopen terminating resistor Plug, 4-pin, A-coded, M12	GEL 235 GEL 2352 GEL 2035

A Plug insert with union nut and flange ring

Assignment pin - core colour

Pin	1	2	3	4	5
Core colour	Screen	white	brown	yellow	green

Customisable connection accessories

For customised adaptations, the following plugs and sockets with corresponding bus cable can be freely assembled.

Freely assembled plugs and sockets for bus connection

Item No.	Description
FS 3016	5-pin socket, B-coded, M12, metal, fully shieldable ⁽¹⁾
FS 3017	5-pin plug, B-coded, M12, metal, fully shieldable ⁽¹⁾
FS 3020	5-pin socket, A-coded, M12, metal, fully shieldable ⁽²⁾
FS 3021	5-pin plug, A-coded, M12, metal, shield on pin ⁽²⁾
FS 3022	5-pin socket, M12, plastic ⁽²⁾
FS 3023	5-pin plug, A-coded, M12, plastic, shield on pin ⁽²⁾
Upon request	4-pin socket, D-coded, M12 ⁽³⁾
FS 3039	4-pin plug, D-coded, M12, metal ⁽³⁾
FS 3056	4-pin socket, A-coded, M12 ⁽⁴⁾

⁽¹⁾ e.g. for PROFIBUS-DP

⁽²⁾ e.g. for CANopen

⁽³⁾ e.g. for EtherCAT

⁽⁴⁾ e.g. power supply EtherCAT

Your notes:



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