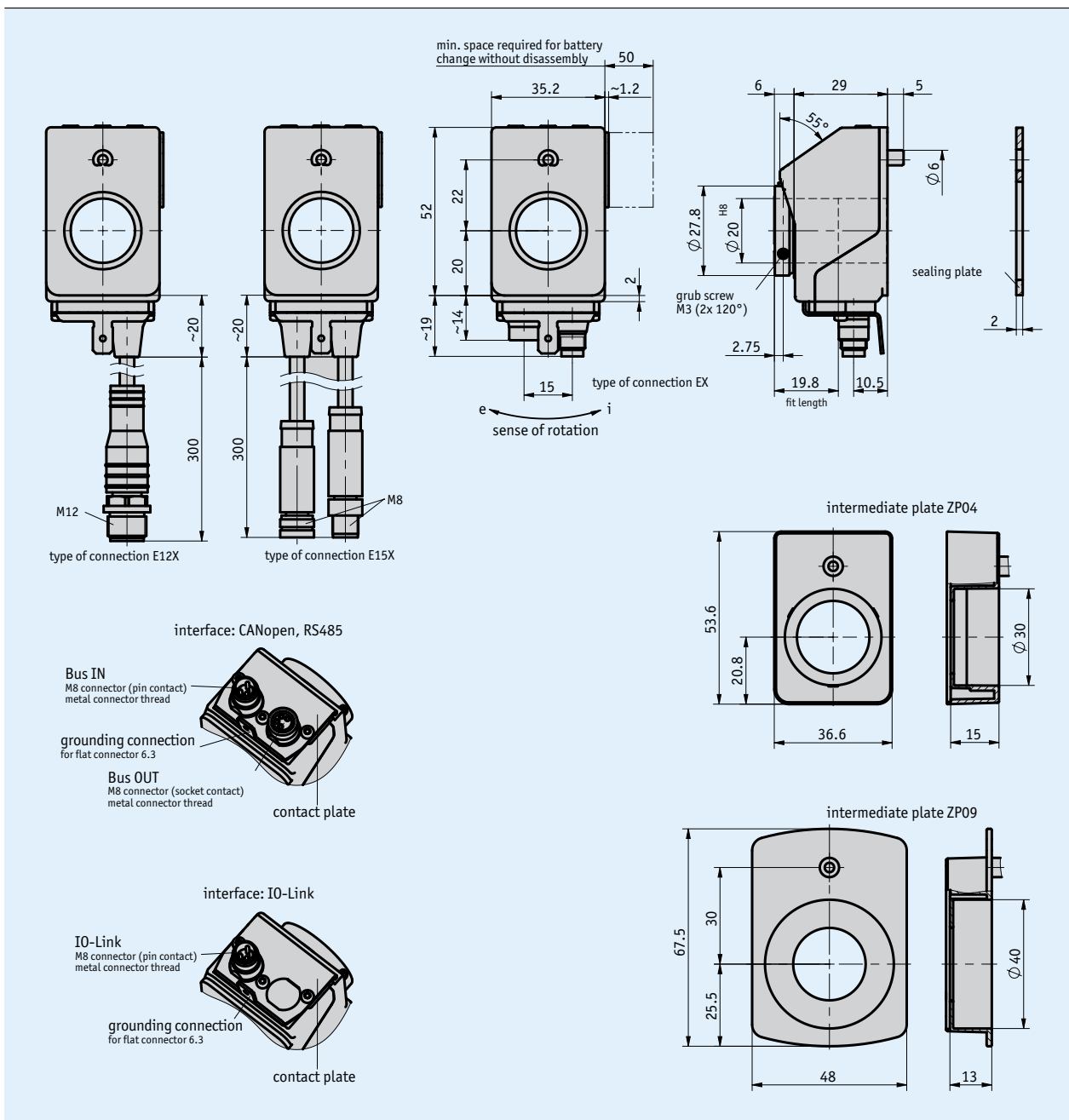


Profile

- Electronic position indicator with bus/data interface
- Backlit two-row LCD
- Display of target and actual value displays with integrated alignment
- User guidance through status LEDs
- Hollow shaft with \varnothing 20 mm and clamping ring made of stainless steel
- Enhanced shock resistance owing to protective display glass
- Integrated RS485 interface, CAN bus or IO-Link as an option
- Robust sensor technology unit thanks to magnetic scanning
- Mechanically compatible with the AP04 and DA04 position indicators
- IP53 protection class, IP65 as an option



Mechanical data

Feature	Technical data	Additional information
Shaft	plastic	
Housing	reinforced plastic	plug thread, nickel-plated brass/cover, metal ground connection
Color	black, RAL 9005	
Clamping ring	stainless steel	
Speed	≤500 rpm	
Cable sheath	PUR	E15X, E12X connection type
Cable bending radius	≥30 mm	permanently laid
Weight	~0.07 kg	

Electrical data

■ CANopen interface

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	reverse polarity protected
Current consumption	~30 mA	
Battery service life	~8 year(s)	
Parameter storage	10 ⁵ cycles	also applies to calibration operations
Display/display range	5-digit LCD 7-segment, ~6 mm height	decimal points, 2 rows, special characters (LED backlit red/white)
Special character	arrow clockwise, arrow counter-clockwise, incremental dimension, battery	
Status display	2x two-color LED (red/green)	position status, configurable
Keys	chain dimension function, parameterization, calibration	
Interface	CANopen	no galvanic isolation
Type of connection	2x M8-plug connectors (A-coded) grounding via flat connector 6.3 mm	4-pole, 1x socket, 1x pin

■ RS485 interface

Feature	Technical data	Additional information
Operating voltage	24 V DC ±20 %	reverse-polarity protected
Current consumption	~30 mA	
Battery service life	~8 year(s)	
Parameter storage	10 ⁵ cycles	also applies to calibration operations
Display/display range	5-digit LCD 7-segment, ~6 mm high	Decimal points, 2 lines, special characters (red/white LED backlit)
Special character	arrow clockwise, arrow counterclockwise, chain gauge, battery	
Status display	2x two-color LEDs (red/green)	position status, configurable
Keys	chain dimension function, parameterization, calibration	
Interface	RS485	no galvanic isolation
Type of connection	2x M8 connector (A-coded) Grounding via flat connector 6.3 mm	4-pole, 1x socket, 1x pin

■ IO-Link interface

Feature	Technical data	Additional information
Operating voltage	18 ... 30 V DC	reverse-polarity protected
Current consumption	~30 mA	
Battery service life	~8 year(s)	
Parameter storage	10 ⁵ cycles	also applies to calibration operations
Display/display range	5-digit LCD 7-segment, ~6 mm high	decimal points, 2 lines, special characters (red/white LED backlit)
Special character	arrow clockwise, arrow counterclockwise, chain gauge, battery	
Status display	2x two-color LEDs (red/green)	position status, configurable
Keys	chain dimension function, parameterization, calibration	
Interface	IO-Link Version 1.1	according to IEC 61131-9 V1.1.2, incl. Package 2015 & Corrigendum
Type of connection	1x M8 connector (A-coded) 1x M12 connector (A-coded) grounding via flat connector 6.3 mm	4-pole, 1x pin (EX connection type) 4-pole, 1x pin (E12X connection type)

System data

Feature	Technical data	Additional information
Scanning	magnetic	
Resolution	720 increments/revolution	displayed value/revolution freely configurable
Measuring range	≤932067 revolution(s)	coded

Ambient conditions

Feature	Technical data	Additional information
Ambient temperature	0 ... 60 °C	
Storage temperature	-20 ... 80 °C	
Relative humidity		condensation inadmissible
EMC	EN 61326-1	Industrial immunity requirements, class B emission limit
Safety regulations	DIN EN 61010-1 (VDE 0411-1), UL 61010-1	Limited power supply according to DIN EN 61010-1 Section 9.4. Protection class II Surge category II Pollution level 2
Protection category	IP53 IP65	EN 60529, in the fitted condition, with mating connector mounted EN 60529, in the fitted condition, with mating connector mounted
Shock resistance	≤500 m/s ² , 11 ms	EN 60068-2-27, half-sine, 3 axes (+/-), each 3 pulses
Vibration resistance	≤100 m/s ² , 10 ... 2000 Hz	EN 60068-2-6, 3 axes, each 10 cycles

Pin assignment

■ Interfaces

IO-Link	RS485	CAN	PIN
L+ (+UB)	TxRx-/DÜB	CANL	1
nc	TxRx+/DÜA	CANH	2
L- (GND)	+24 V DC	+24 V DC	3
C/Q	GND	GND	4

Industry 4.0

In most cases, data exchange with the position indicators is limited to the exchange of process data. In addition to the process data, intelligent displays provide additional information that can be evaluated for condition monitoring up to predictive maintenance:

Process Data	Smart Value	Smart Function
Actual position	Battery voltage	Battery change planning
Target position	Speed	Overload

Order

Ordering table

Feature	Ordering data	Specification	Additional information
Interface/protocol	IOL	IO-link	
	S3/09	RS485/SIKONETZ5	
	CAN	CANopen	
Hollow shaft/diameter	20	ø20 mm	
	...	RH12, RH14, RH15, RH16	reducing bushes
Intermediate plate	OZP	without	
	ZP04		
	ZP09	adaptation DA09S	
Protection category	IP53	IP53	
	IP65	IP65	
Type of connection	EX	industrial connector	without cable
	E12X	cable outlet	only with IO-link
	E15X	cable outlet	only with S3/09, CAN
Software	S	standard software	
	SW04	compatible to AP04-CAN	
	SW05	compatible to AP04-SN5	
	SW06	compatible to AP04-SN3/4	

Order key



Scope of delivery: AP05, Mounting instructions

Accessories:

Reduction sleeve RH09	www.siko-global.com
Pneumatic clamping plate KP09P	www.siko-global.com
Clamping plate KPE04	www.siko-global.com
Battery unit ZB1027	www.siko-global.com
Easy Touch Control ETC5000	www.siko-global.com
Cable extension KV04S1	www.siko-global.com
Mating Connector Overview	www.siko-global.com
Mating connector, 4-pole, socket	Order key 84209
Mating connector, 4-pole, pin	Order key 84210
Bus terminating connector, 4-pole, pin	Order key BAS-0005