

KINAX HW730-Modbus/TCP PoE-val

Abszolút, üreges tengelyű szögelfordulás távadó

- Kiemelkedő minőség
- Kapacitív mérési mód
- Programozható szögelfordulás méréstartomány: 0... 360°
- Átviteli Sebesség 10/100Mbit
- Nagy pontosság $\leq 0,15^\circ$
- Induló nyomaték $< 0.5 \text{ Ncm}$
- Forgásirány: a kimenő jel növekedhet, vagy csökkenhet az elfordulás függvényében
- A tengely körbeforgatható (nincs végállás ütköző)
- Víz és pormentes kivitel IP67/IP69K
- Üreges tengely 30 mm-ig
- Kompakt tokozás
- A robusztus kivitelnek és a kiválóan megválasztott anyagoknak köszönhetően ellenáll nagy mechanikai igénybevételeknek
- Táplálás Ethernet hálózaton keresztül
- Biztonságos és megbízható M12x1 dugaszos csatlakozás
- Paraméterezés CB-Manager szoftverrel
- Modbus TCP/IP. Interfész Ethernet (PoE)-neten keresztül



Technical data

General

- Measured quantity: Angle of rotation
- Measuring principle: Capacitive method

Measuring input

- Angle measuring range: Programmable 0 ... 360°
- Hollow-shaft diameter: $\varnothing 30 \text{ mm}$ [1.181"], reducing the diameter of the hollow shaft by casing adapter
- Starting torque: max. 0.5 Nm [70.806 in-oz]
- Sense of rotation Adjustable

Measuring output

- Power supply: Power over Ethernet (PoE)
- Interface: Modbus TCP/IP (IEC 61158) 100BASE-TX
- Function: Configuration and measured value enquiry
- Transmission rate: 10 / 100 MBit

Accuracy data

- Absolute precision: $\pm 0.15^\circ$ (0.04% at 360°)
- Resolution: 14 Bit
- Reproducibility: $< 0,1^\circ$
- Influence of temperature output current (-40... 85°C) [-40... 185°F]: $\pm 0.04\% / 10\text{K}$

Installation data

- Material: aluminium EN AW-6060 T6 anodized
- Mounting position: Any
- Connections: 8-pole spring-type terminal block via cable gland or sensor plug metal (M12x1 / 4-pole d-coded)
- Weight: Approx. 820g [28.925 oz]

Regulations

- Spurious radiation: EN 61 000-6-3
- Immunity: EN 61 000-6-2
- Test voltage: 750 V DC, 1 Min.
- All connections against housing

KINAX HW730-Modbus/TCP with PoE hollow-shaft transmitter for angular position

Housing protection: IP 67 acc. to EN 60529
IP 69K acc. to EN 40050-9

Environmental conditions

Climatic rating: Temperature -40 ... +85 °C
[-40 ... +185°F]
Rel. humidity ≤ 95 % non-condensing

Vibration resistance: ≤ 100 m/s² / 10...500 Hz
according to EN 60068-2-6

Shock resistance: 1000 m/s² / 11 ms
according to EN 60068-2-27

Transportation and storage temperature: -40 ... +85 °C [-40 ... +185°F]

Modbus/TCP protocol with Power over Ethernet (PoE)

The Modbus TCP/IP protocol is a widespread standard protocol based on a master/slave or client/server architecture. It is directly supported by all common operating systems and visualising tools thus permitting the fast implementation of the devices.

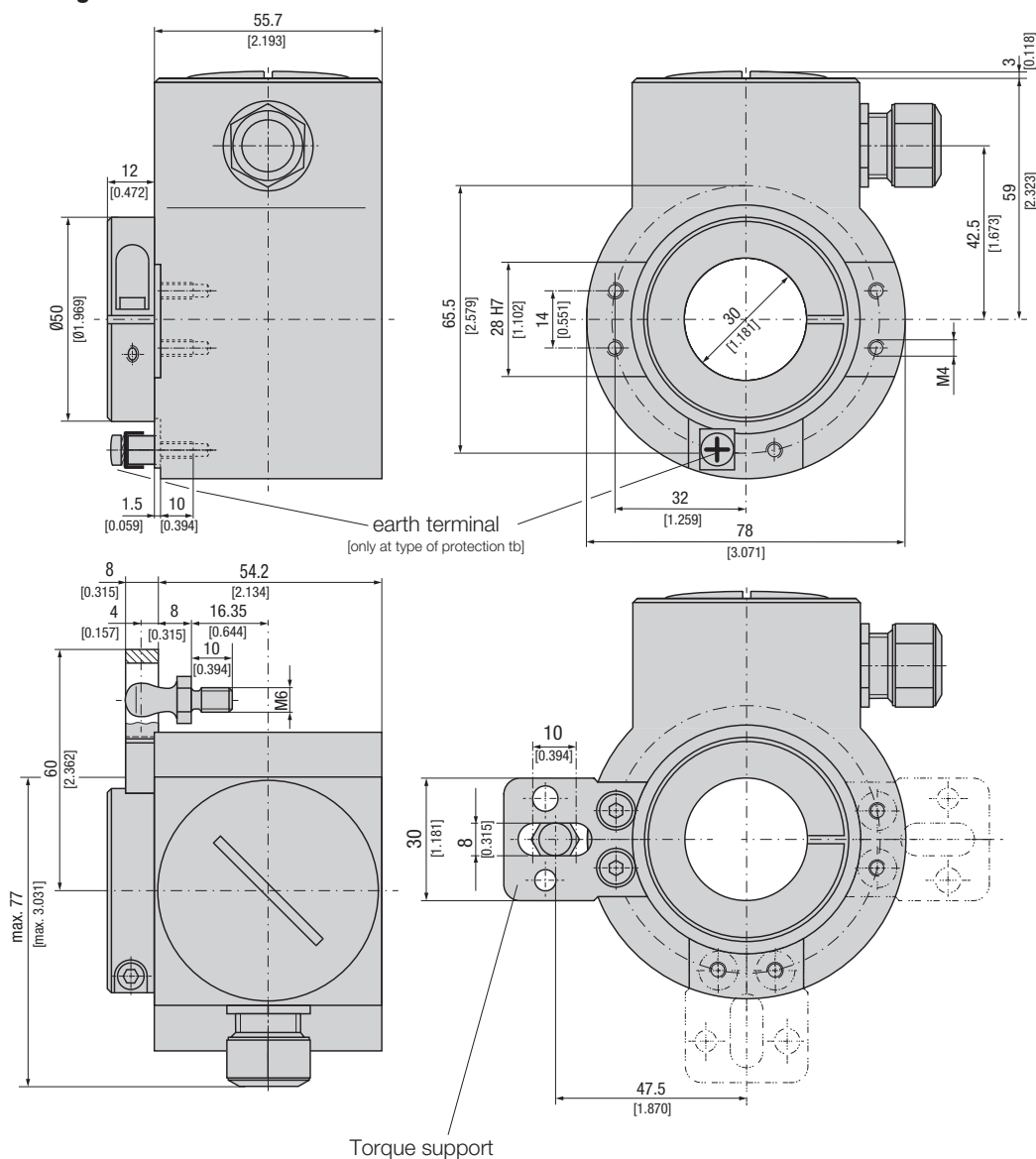
Power over Ethernet (PoE) provides a transfer medium with a high bandwidth which supplies network-compatible devices directly via the Ethernet cable.

Parameterisation and measured value acquisition

The CB Manager PC software supplied with every device serves the parameterisation of KINAX HW730-Modbus/TCP with PoE. The Ethernet interface not only permits the parameterisation of the device but also the acquisition of all of the measured values.

CB-Manager Software is included with each device.

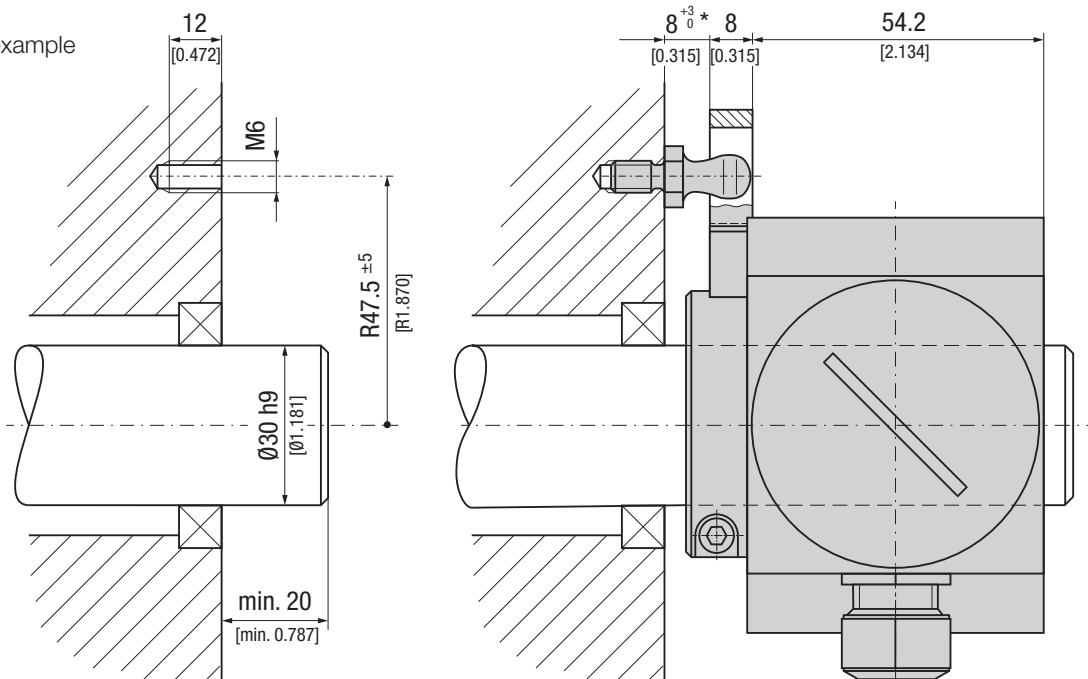
Dimensional drawing



KINAX HW730-Modbus/TCP with PoE hollow-shaft transmitter for angular position

Mounting

Installation example



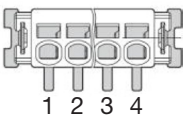
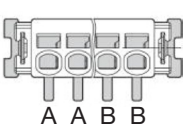
* With spacers, this measure will be increased

Electrical connections

For connecting the external wires, the transmitter has a plug connector M12x1 / 4 poles d-coded or a cable glands M16x1.5. During the version with a cable glands the connection via a spring-type terminal block made in accordance with diagram of connections.

Permissible cable: Ethernet Cat 5
Cable length: 100m

Pin assignment spring-type terminal block


	Pin	Signal	EIA-568-A	EIA-568-B
	1	Rx-	green/white	orange/white
	2	Rx+	green	orange
	3	Tx-	orange/white	green/white
	4	Tx+	orange	green
	A		blue/white	blue/white
	A		blue	blue
	B		brown/white	brown/white
	B		brown	brown

Assembly instruction cable gland easyCONNECT EMC



Push contact spring with sealing set into the lower part and tighten nut using a tool. Please make sure that the contact spring contacts the screen.

Connection allocation plug M12x1 / 4-poles d-coded

	Pin	Signal
	1	Rx+
	2	Tx+
	3	Rx-
	4	Tx-

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hollow-shaft transmitter for angular position

Specification and ordering information

Description	Locking code	Impossible with locking code	Article No / Feature
KINAX HW730	Order code 730 - xxxx xxxx xx		730 –
1. Version			
Standard			1
ATEX EX II 2G Ex ia IIC T4 Gb II 2D Ex ia IIIC T80°C Db	A		2
ATEX EX II 2D Ex tb IIIC T80°C Db	A		3
IECEX Ex ia IIC T4 Gb Ex ia IIIC T80°C Db	A		4
IECEX Ex tb IIIC T80°C Db	A		5
2. Angle area mechanically			
Single-Turn (360°)			1
3. Hollow-shaft diameter			
Hollow-shaft 10 mm [0.393"], electrically insulating			1
Hollow-shaft 12 mm [0.472"], electrically insulating			2
Hollow-shaft 16 mm [0.629"], electrically insulating			3
Hollow-shaft 20 mm [0.787"], electrically insulating			4
Hollow-shaft 30 mm [1.181"], non-insulating, standard			5
Hollow-shaft 18 mm, electrically insulating			6
Hollow-shaft 1/2" (12.7mm), electrically insulating			A
Hollow-shaft 5/8" (15.875mm), electrically insulating			B
Hollow-shaft 3/4" (19.05mm), electrically insulating			C
Hollow-shaft 7/8" (22.225mm), electrically insulating			D
Hollow-shaft 1" (25.4mm), electrically insulating			E
4. Torque support			
Standard			1
5. Output variable			
Current, 4...20 mA, two-wire	B		1
Modbus TCP/IP with PoE	C	A	2
6. Electrical connections			
Gland standard			1
Gland with increased strain relief		A	2
Sensor plug M12x1/ 4-poles		AC	
Sensor plug M12x1 / 4-poles d-coded		AB	3
7. Test protocole			
Without protocole			0
Protocole German			D
Protocole English			E
8. Direction of rotation			
Direction of rotation clockwise	J		0
Direction of rotation counter-clockwise	G, J	C	1
V-characteristic	G, K	C	2

KINAX HW730-Modbus/TCP with PoE hollow-shaft transmitter for angular position

Description	Blocking code	No-go with blocking code	Article No./ Feature
KINAX WT730 Order code 730 - xxxx xxxx xx			730 -
9. Measuring range Basic configuration (linear, 0 ... 360°)		K, G	0
[°angle], 0...end value:		Switching point:	K, C
V-characteristic [± ° angle]	vmax1: vmax2:	vmin1: vmin2:	J, C
10. Climatic rating / Marine version Standard			0
Version GL (Germanischer Lloyd)			G

Accessories

Article	Article-Nr.
Kit of torque support HW730	169 749
Adapter sleeve 0 10 mm, electrically insulating	168 874
Adapter sleeve 0 12 mm, electrically insulating	168 882
Adapter sleeve 0 16 mm, electrically insulating	168 907
Adapter sleeve 0 18 mm, electrically insulating	171 976
Adapter sleeve 0 20 mm, electrically insulating	168915
Adapter sleeve 0 1/2", electrically insulating	171 984
Adapter sleeve 0 5/8", electrically insulating	171 992
Adapter sleeve 0 3/4", electrically insulating	172 007
Adapter sleeve 0 7/8", electrically insulating	172 015
Adapter sleeve 0 1", electrically insulating	172 023

Scope of delivery

- 1 KINAX HW730-Modbus/TCP with PoE programmable hollow-shaft transmitter for angular position
- 1 HW730 torque support set 169 749
- 1 Safety instructions 172 734 (german, english, french)
- 1 Software and documentation CD 156 027

Approvals

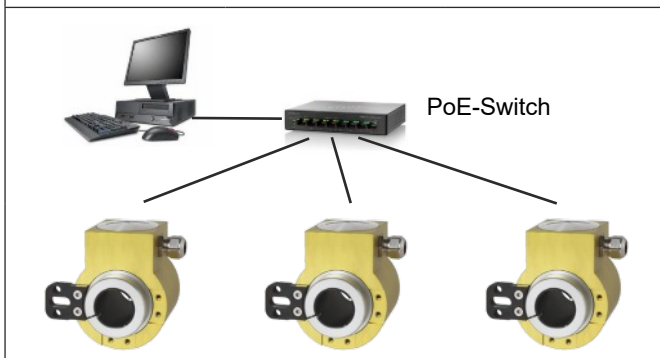


Germanischer Lloyd

Identification

D, H, EMC1

KINAX HW730-Modbus/TCP with PoE can be connected and supplied via a commercially available PoE switch.



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