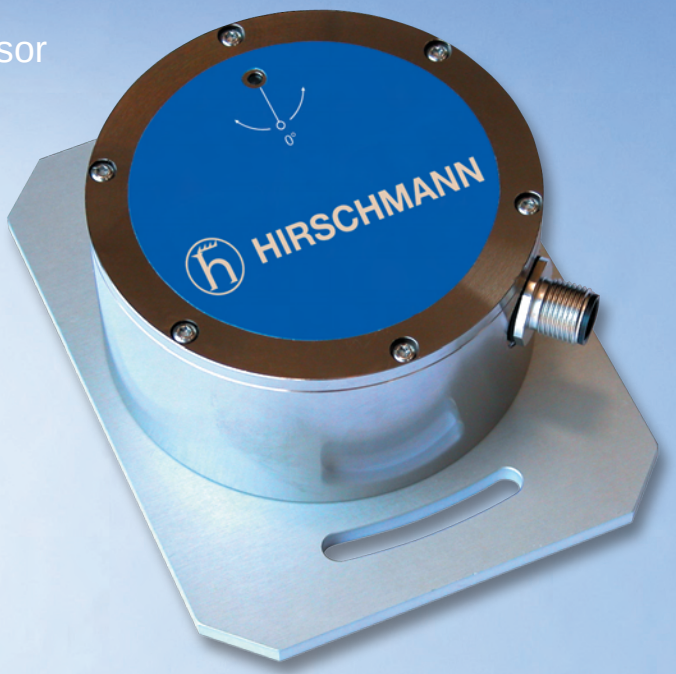
HIRSCHMANN
A Belden Company

Controls | Consoles | SLIs | Sensors | Service

gSENS WGC

Capacitive angle sensor



The advances in system technology have created a need for advanced sensors, that maintain a good price / performance ratio. Hirschmann has responded to this challenge with its new angle sensor, which in three words can be described as **simple, compact, and precise**. The basis of the new development is a capacitive metercell consisting of two parallel plates and a fluid which is introduced into the space between the two plates. This fluid-driven measuring principle replaces the conventional pendulum drive. The conductive coating of the first plate (the transmitter) is configured in circle segments, while the conductive coating of the other plate (the receiver) has the form of a ring. At timed intervals, signals are applied to the circle segments on the transmitter side. These signals are intensified on the receiver side by subsequent evaluation electronics and then assigned to an angle by means of a suitable evaluation algorithm.

- Absolute value sensor
- Fluid driven action
- Wide temperature range
- High degree of operational safety, even under extreme conditions
- Improved rotative effect
- Simple zero point calibration
- Excellent cost/performance ratio

TECHNICAL DATA

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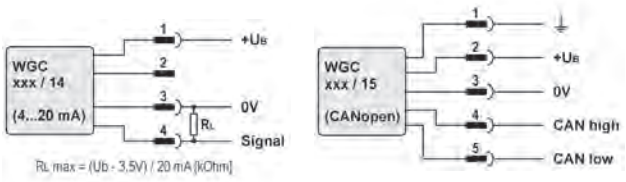
	Description	gSENS WGC
		
Sensor	Angle range (Options 4...20 mA)	0 - 180°
	Angle range (CANopen options)	+/- 180°
	Measurement range (signal)	selectable
	Linearity	< ±0.2°
	Resolution	< ±0.1°
	Hysteresis	< ±0.1°
	Temperature drift	±0.002°/K
	Transversal sensitivity	0.01°/1° transversal slope
Mechanics	Housing	aluminium
Output signal	with current interface	4 - 20 mA / short circuit proof
	with CAN version: • CAN Bus protocol • CANopen protocol	CAN 2.0 B, standard identifier (11 bit) CiA DS 301, Device Profil DS 401 Standard version is supplied with the node ID 81 and baud rate 125
	Physical transmission	2 wire, 5 V level, CAN HighSpeed ISO 11898-2 (24 V short circuit prot.)
Electrical connection	Operation voltage	9 - 36 V DC
	Input Current	100 mA
Environmental conditions	Operating temperature	-40 °C to +85 °C
	Storage temperature	-40 °C to +85 °C
	Protection class in accordance with DIN 40050	IP 67

Pin configuration



Order code

gSENS WGC ▮▮▮ /▮▮ ▮▮

- 01 Version-01
- 14 4…20 mA
- 15 CANopen

Angle range

- 090 90°
- 180 180°

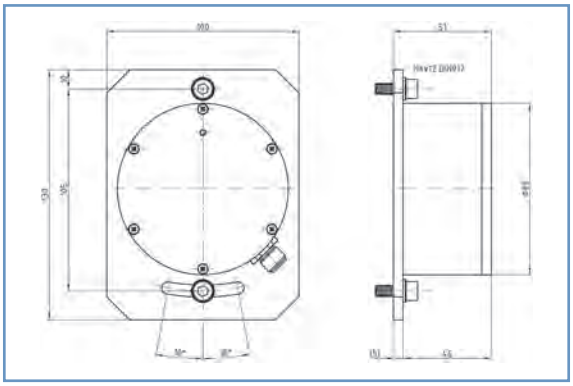
Ordering Example: gSENS WGC 090 / 1401

Angle range	90°
Output signal	4...20 mA
Version	01

Available standard versions
gSENS WGC 090/1401
gSENS WGC 180/1401
gSENS WGC 360/1501

Further versions on request

Mechanical diagram



Other mounting options on request

Specifications are subject to change without notice.

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