



HIRSCHMANN

A Belden Company

Controls

Consoles

SLIs

Sensors

Service

gSENS WGC

Capacitive angle sensor



The speed of further technological development of the systems has resulted in a situation where the sensor engineering also needs to be improved while at the same time maintaining a good price-performance ratio. Hirschmann has responded to this challenge with its new angle sensor, which can be described with the words **simple, compact and precise**. The basis of the new development is a capacitive metercell consisting to two plates positioned parallel to one another 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. Signals at timed intervals are applied to the circle segments on the transmitter side which 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

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TECHNICAL DATA

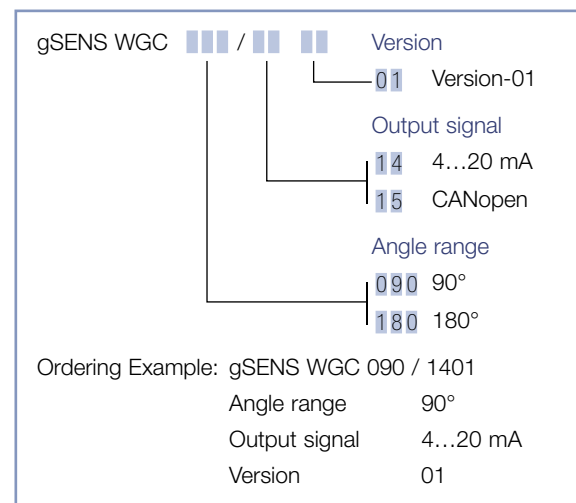
Description		gSENS WGC
		
Sensor	Angle range (Options 4...20 mA)	0 - 180°
	Angle range (CANopen options)	+/- 180°
	Measurement range (signal)	selectable
	Linearity	< ±0.2°
	Resolution	< ±0.1°
	Hysteresis	< ±0.1°
	Temperature drift	±0.002°/K
	Transversal sensitivity	0.01°/1° transversal slope
Mechanics	Housing	aluminium
Output signal	with current interface	4 - 20 mA / short circuit proof
	with CAN version:	CAN 2.0 B, standard identifier (11 bit) CiA DS 301, Device Profil DS 401
	Physical transmission	Standard version is supplied with the note ID 81 and baud rate 125 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

Plug M12x1



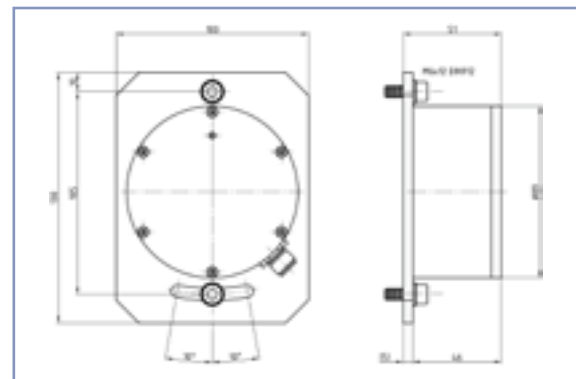
Order code



Available standard versions	Order-No.
gSENS WGC 090/1401	606 656
gSENS WGC 180/1401	606 671
gSENS WGC 360/1501	606 657

Further versions on request

Mechanical diagram



Other mounting options on request