

Overview flow monitors and -sensors

Please have a look at the important product usage information on the back cover of the brochure.

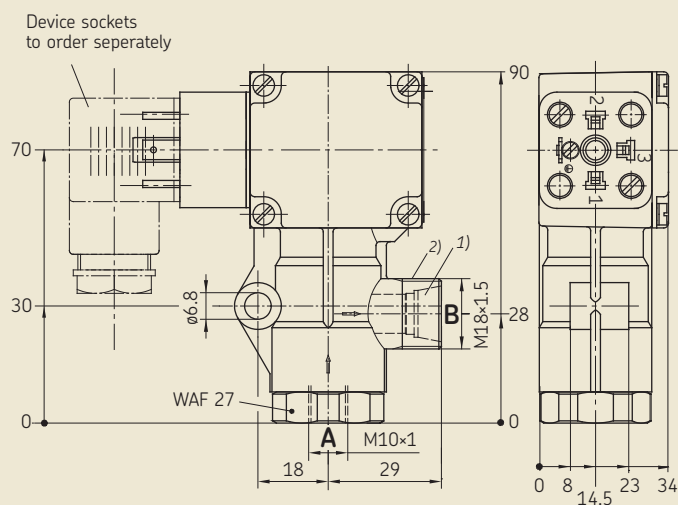
Designation	Order No.	Metered quantity flow rate	Application	Port A	Port B	Fig..	Page
Flow monitor	171-100-011	0,2 – 1,5 cm ³ /pass	Intermittend totalloss lubrication systems	M10×1	M18×1,5	1	2
Flow monitor	171-210-051 171-210-052 171-210-053 171-210-054 171-210-055	50 – 100 100 – 200 200 – 500 cm ³ /min 500 – 800 800 – 1800	Circulating centralized lubrication systems	M10×1	M18×1,5	2	3
Flow monitor	171-210-061 171-210-062 171-210-063 171-210-064 171-210-065	1,6 – 2,5 2,3 – 4,0 3,6 – 6,0 l/min 5,5 – 10,0 8,0 – 14,0	Circulating centralized lubrication systems	M18×1,5	M18×1,5	3	3
Flow sensor	GS300 GS304N GS304P	10 – 600 mm ³ /Impuls	Intermittend centralized lubrication systems, e.g. with piston distributors, metering elements, injection oilers			4	8
Oil-streak sensor	GS4011-S20 GS6011-S20 GS4011-S50 GS6011-S50	120 – 600 120 – 600 60 – 120 60 – 120 mm ³ /h	Oil+air centralized lubrication systems for assembling very close to the lube point			5	9
Oil-streak sensor	GS4011-S300 GS6011-S300	ab 2 ab 2 mm ³ /Impuls	Oil+air centralized lubrication systems for assembling very close to the mixing valve			5	9

Please note: See leaflet 1-1730-EN for associated line sockets.

Flow monitors for monitoring of an intermittend flow of oil

Totalloss lubrication systems

Fig. 1



Note: See application I, page 4.

¹⁾ Port tapped for cutting-sleeve screw union EO-2 DIN 2353 / ISO 8434-1

²⁾ DIN 2353 / ISO 8434-1. Only permissible for the use of preassembled fittings.
We recommend use of a preassembled EO-2 screw union.
(Example: GA21...23/GA30)

Technical data

Number of cycles max. 2/min ³⁾
 Operating viscosity 20-750 mm²/s
 Actuating pressure min. 4 bars ⁴⁾ max. 30 bars
 Electr. switching changeover 250 V AC, 0,5 A
 Type of enclosure IP 44
 Mounting position any

Materials:

Housing die-cast zinc, polyamide
Seals NBR (FKM version on request)

³⁾ Suitable for medial operating viscosity. In case of higher viscosity decreases the number of cycles.

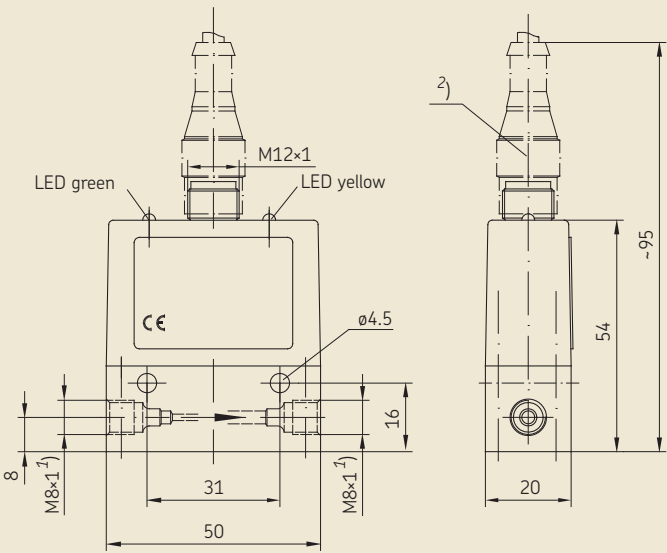
⁴⁾ In single line centralized lubrication systems the main line needs to have before the distributors a pressure of at least 14 bars.

Order No.	Flow rate
171-100-011	0,2 – 1,5 cm ³ /pass

GS300, GS304N, GS304P

Flow sensors for monitoring of lubricant feedright at the lube point

Fig. 4



- 1) Port tapped for solderless 4 mm diam. tube connection
- 2) Accessories
GS300: 5 m connection cable, order No. GS200.U4
GS304P / GS304N: 5 m connection cable with straight line socket, 4-pole type, order No. 179-990-600

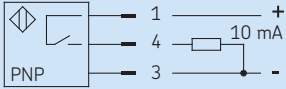
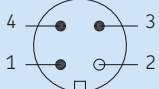
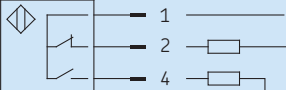
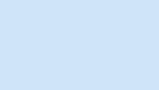
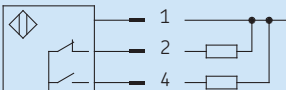
Technical data

Measuring principle calorimetric
Suitable metered quantities from 0.01 to 0.6 cm³/pulse
Clock frequency³⁾ max. 4 pulse/min
Lubricant⁴⁾ oil and grease, NLGI grades 000, 00
Max. operating pressure 40 bars
Operating temperature +10 °C to +50 °C
Installation directly upstream of lube point
Vibration resistance 20 g (DIN/IEC 68-2-27, 10-2000 Hz)
Impact resistance 50 g (DIN/IEC 68-2-27, 11 ms)

- 3) Sensor needs 30 sec. of warmup time.
- 4) The use of lubricants containing corrosive and/or abrasive additives may impair sensor function and possibly damage the sensor.

Electrical data

Rated voltage U_N 24 V DC
Residual ripple 10%
Working range U_A 18 to 30 V DC
Max. power consumption I_E 25 mA
Pulse output 3s
Load current I_A for GS300 max. 10 mA
for GS304 max. 500 mA per output
Output protection short-circuit protection
Built-in plug circular connector
with M12x1 screw plug

Order No.	Switching function	Electrical connection
GS300	 Pin 1 (BN - brown): + 24 V Pin 2 (WH - white): 0 V Pin 3 (BU - blue): PNP/NO – closes in event of flow Pin 4 (BK - black):	
GS304P	 Pin 1 (BN - brown): + 24 V Pin 2 (WH - white): PNP/NC – opens in event of flow Pin 3 (BU - blue): 0 V Pin 4 (BK - black): PNP/NO – closes in event of flow	
GS304N	 Pin 1 (BN - brown): + 24 V Pin 2 (WH - white): NPN/NC – opens in event of flow Pin 3 (BU - blue): 0 V Pin 4 (BK - black): NPN/NO – closes in event of flow	