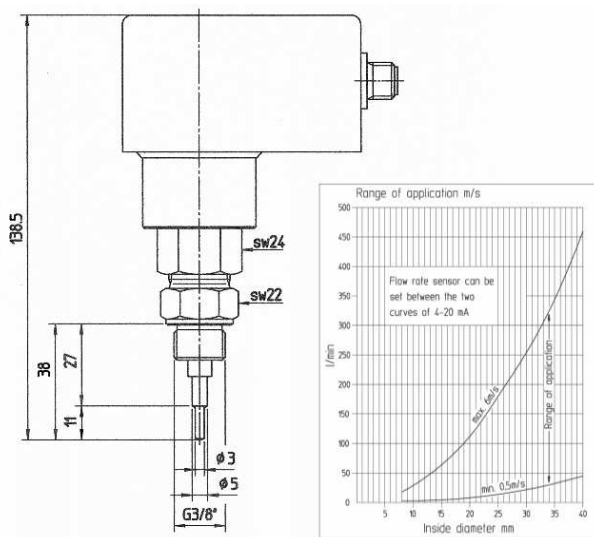
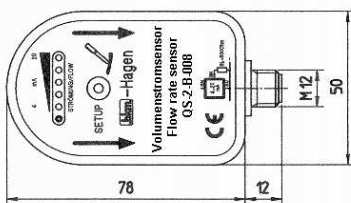


Flow rate sensor QS-2-B-008 for serv-Clip[®] 2

- No need cutting pipelines -

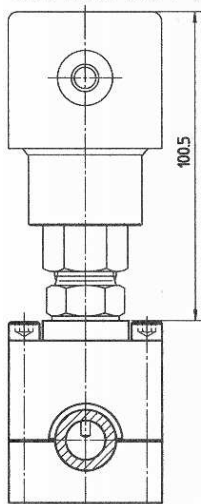


Display 6 Led
red = 04 mA
1. green > 04 mA
2. green > 08 mA
3. green > 12 mA
4. green > 16 mA
5. green > 20 mA

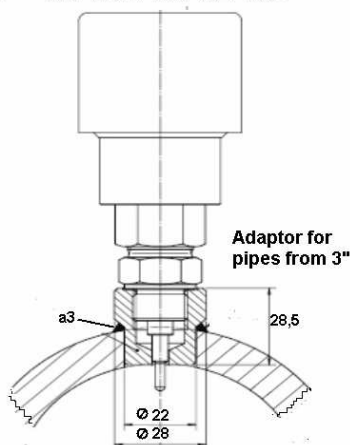


1: BN+24VDC
3: BU-
4: BK Analog 4-20mA

QS with serv-Clip



QS with SC-XE-607



RECOMMENDED MEASURING RANGES

Range	OD-Pipe in mm	Tube Inch (OD)	Pipe Inch (ID)	ID-Pipe in mm	Recommended Measuring range l/min
001	12	3/8	-	8 - 10	0,5 - 38
002	14 - 15	1/2	1/4	11 - 12	0,7 - 52
003	16 - 18	5/8	3/8	12 - 14	0,9 - 75
004	20 - 22	3/4	1/2	15 - 17	1,4 - 110
005	25 - 28	1	3/4	19 - 22	2,2 - 190
006	30 - 35	1 1/4	1	23 - 29	4,0 - 320
007	38 - 42	1 1/2	1 1/4	30 - 36	6,0 - 500
008	-	-	-	-	No calibrated

Calibration is adjusted only for a measuring range

What can I measure?

Hydraulic and gear oil as well as water-glycol (HFC)

With the QS-2-B-008 flow rate sensor (up to 600 l/min):

- Monitoring flow rate and wear of pumps
- Operability of accumulators
- Filter transmittance
- Heat exchangers
- Nozzle flow rate
- Speed of hydraulic motors

Leakages detection? Our solution LS-2-B Sensor (Page 19)
Mobile Measurement kit FM-1-B for sensors (Page 22)

Description

The flow rate sensor QS-2-B-008 **fluid-Check[®]** was developed for monitoring hydraulic systems.

The flow rate sensor can be used with the pipe measuring point **serv-Clip[®]** for **steel pipelines from 12 mm x 1,5 mm up to 5,5 mm wall thickness**. For pipes from 3" (88,9 mm) and wall thickness from 6 mm can be used the welding adaptor SC-XE-607.

The measurement system is based on the calorimetric principle, which provides a direct measurement of the flow velocity in l/min rather than measuring the volume flow.

Typical fields of application include systems and plant engineering automation. In addition to its inexpensive, robust and compact design, it stands out by its extensive measurement range.

As a standard, the sensor head is made of stainless steel 1.4571.

Calibration service (please see chart of the left side)

For the ID-pipe with the wished measuring range from/to in l/min.

With your instructions for calibration you get a data sheet with curves mA in l/min.

Installation with serv-Clip[®] 2

The patented measuring connector **sc-2-...** was developed for installation on pressureless hydraulic pipes.

After installation, the measuring connection can continuously be used, supporting operating pressures of up to 630 bar.

The measuring connection **sc-2-...** comes pre-mounted, including measurement coupling and needle, and is mounted as described in the corresponding installation instructions.

To install the flow rate sensor, the created 2 mm hole must be widened.

In the first step, the short needle of the measurement coupling is screwed down completely - without applying much force - until the stop is reached. Then it is unscrewed again. In the second step, the long needle is screwed down completely and unscrewed again, too.

Now the flow rate sensor can be screwed into the **serv-Clip[®]**. The measuring connection is completely tight and is ready for continuous use.

Using the **serv-Clip[®] sc-2-...**, the flow rate sensor can be installed easily, quickly and safely even by non-technical staff. The whole process takes a few minutes only. No special tools are required for the installation of the **serv-Clip[®]** and the **flow rate sensor**.

The system is completely tight, preventing any contamination of the hydraulic oil and ensuring sustained operational safety. The measuring connections are continuously available for measurement applications.

Special instructions for stainless steel up to 4 mm wall thickness with SC-2 can be provided.

Specifications

Measuring range	0,05 ... 8 Meter/Second
Flow rate	up to 600 l/min, depending on ID
Pressure	630 bar (9100 psi)
Temperature	-20...80°C
Threaded coupling	G 3/8"
Accuracy	+/- 2%
Output signal	4...20 mA (analogue)
Power supply	24 V DC +/- 10%; 150mA
Connection	M12 Universalstecksystem
Setting	Per Micro button
Display	6 LED lights
Protection mode	IP 65
Sensor head	stainless steel 1.4571
Housing	PBT

How can you use the fluid-Check® flow rate sensor QS-2-B-008?

For Hydraulic and gear oils as well as for water-glycol HFC

Mount **serv-Clip®** onto the pipe, which takes only few minutes.
Afterwards simply screw the **fluid-Check®** QS flow rate sensor into the serv-Clip® measuring connector.
The **fluid-Check®** QS flow rate sensor supports the following measuring ranges:

Range	OD-Pipe in mm	Tube Ins	Pipe Ins NB	ID-Pipe in mm	Recommended Measuring range l/min
001	12	3/8	-	8 - 10	0,5 - 38
002	14 - 15	1/2	1/4	11 - 12	0,7 - 52
003	16 - 18	5/8	3/8	12 - 14	0,9 - 75
004	20 - 22	3/4	1/2	15 - 17	1,4 - 110
005	25 - 28	1	3/4	19 - 22	2,2 - 190
006	30 - 35	1 1/4	1	23 - 29	4,0 - 320
007	38 - 42	1 1/2	1 1/4	30 - 36	6,0 - 500
008	-	-	-	No calibrated	

How it works:

- To order the **fluid-Check®** QS flow rate sensor, select the appropriate measuring range for corresponded calibration.
- Calibration is carried out by BKM in steps of 1 mm, depending on the corresponding pipe ID.
- Your **fluid-Check®** QS flow rate sensor comes with a data sheet specific for the pipe ID selected graphic with curves (mA in comparison with Liter/Minute)
- The flow rate in m/sec. is displayed in mA on the **fluid-Check®** QS flow rate sensor.
- In the data sheet, the flow rate in l/min can be extracted from the corresponding chart for the pipe ID selected.

What you need:

- For *mobile measurements*, you can order our **measuring suitcase FM-1-B fluid-Check®** <http://www.servclip.com>
The flow rate in the pipe, e.g. pump flow rate in l/min, can be determined immediately.
- For *stationary monitoring* of plants, the **fluid-Check®** QS flow rate sensor can be connected to an existing PLC or display.

Ordering example:

- √ - Intended application: Measuring the flow rate of a hydraulic pump with a rated capacity of 140 liters/minute (data for calibration) at a rated pressure of 220 bar.
- √ - Pressurized pipe 38 x 4 = ID 30
- √ - 1 **serv-Clip®** / Model SC-2-A-38 mm
- √ - 1 **fluid-Check®** flow rate sensor QS-2-B-008
- √ - Calibration Service (with your indications of from/to in Liter/Minute and ID)
You get a data sheet with curves (mA in comparison with Liter/Minute)



Example:
Control of a lubrication oil line with flow rate sensors **fluid-Check®** and **serv-Clip®-2** at a continuous pickling line.