

- **Measurement principle:**
volume counter/positive displacement
- **4 flow ranges up to 300 l/min**
- **Measurement accuracy $\pm 0.5\%$ FS**
- **Withstands pressures up to 400 bar**
- **High viscosity range**
- **Low noise emission**



Gear flow for the precision measurement of flow in hydraulic equipment

Function

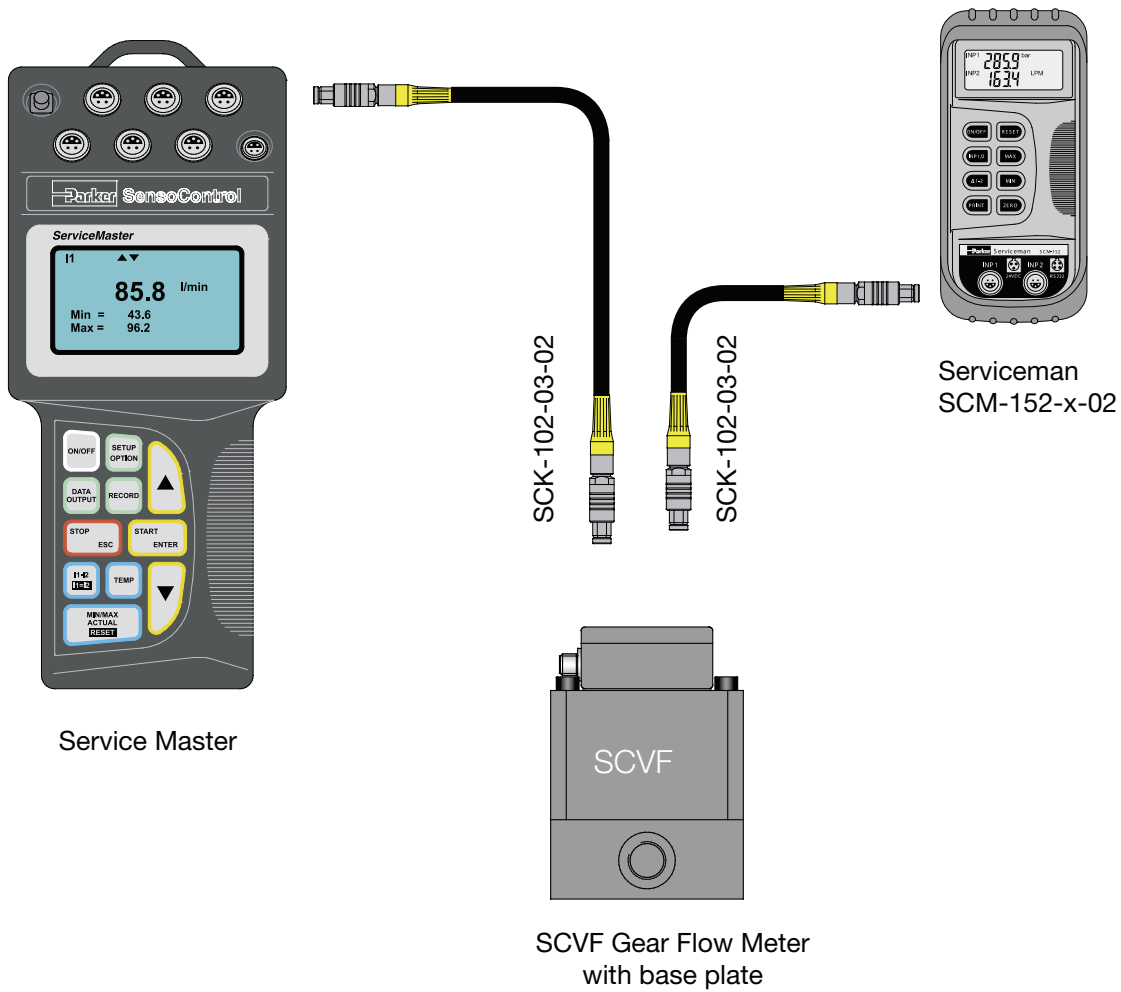
The **SCVF** gear flow meter operates as a flow volume counter. A very precisely machined pair of gears is driven by the fluid flow.

The **SCVF** accommodates a wide range of viscosity. Various seals* permit a large number of applications.

Applications

Because of the wide viscosity range, all fluids which can be pumped and have a certain lubricating capability can be measured.

- brake fluids (EPDM Sealing)
- Skydrol
- mineral oils
- hydraulic oils
- fats
- mobile diagnosis (SCVF with SCM)
exact Q measurement (oil leakage)
automatic scaling (sensor recognition)



| SCVF Serviceman/Service Master | # |
|--------------------------------|----------------|
| 0,1 ... 015 l/min | SCVF-015-00-02 |
| 0,4 ... 060 l/min | SCVF-060-00-02 |
| 0,4 ... 150 l/min | SCVF-150-00-02 |
| 1,0 ... 300 l/min | SCVF-300-00-02 |

| Connection Cables | # |
|---------------------------------------|---------------|
| Serviceman (4 pin) 2 m | SCK-102-02-08 |
| Serviceman/Service Master (5 pin) 3 m | SCK-102-03-02 |
| Extension 5 m | SCK-102-05-12 |

6.3 Determination of Flow Volume

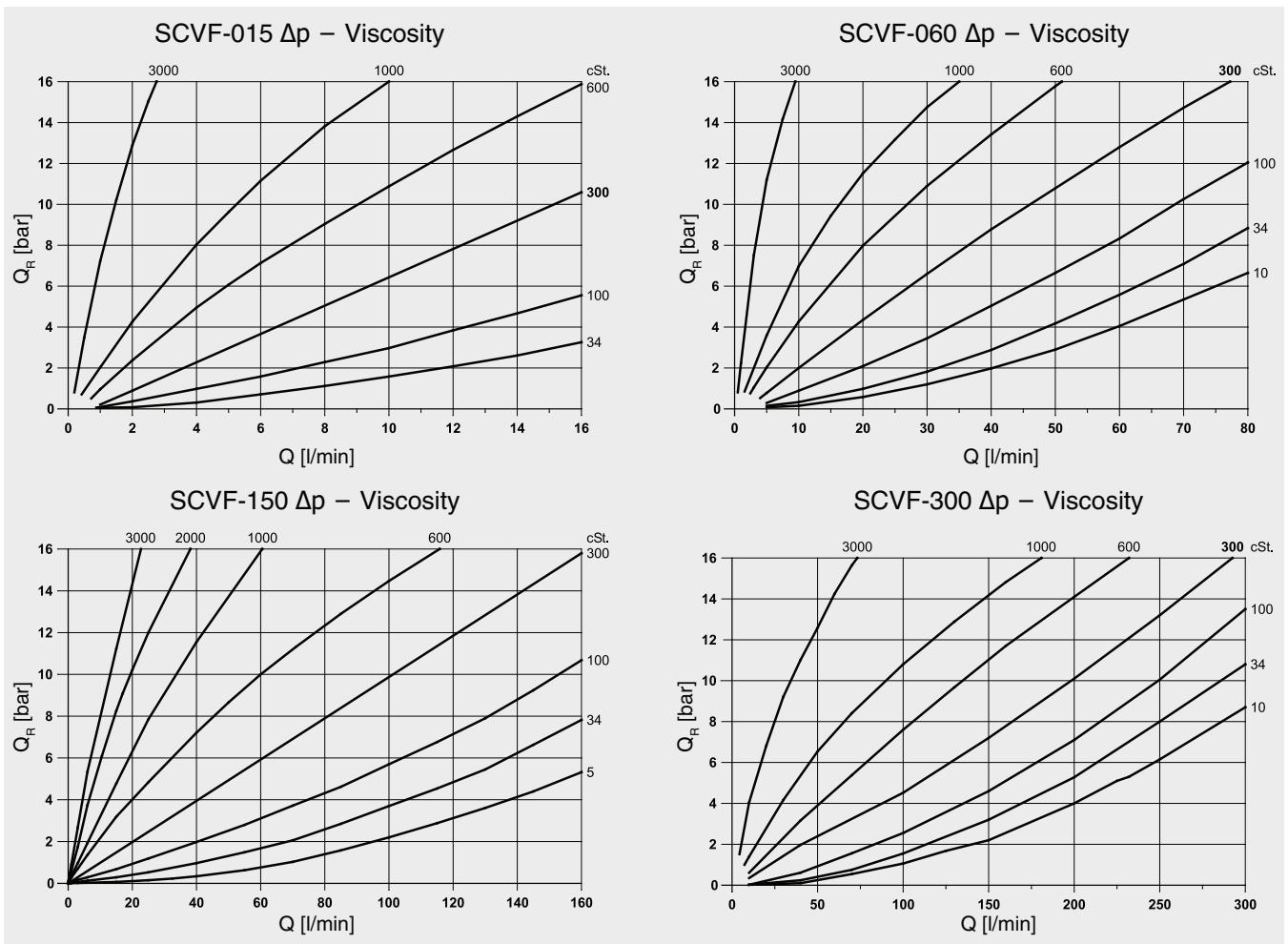
Gear Flow Meter

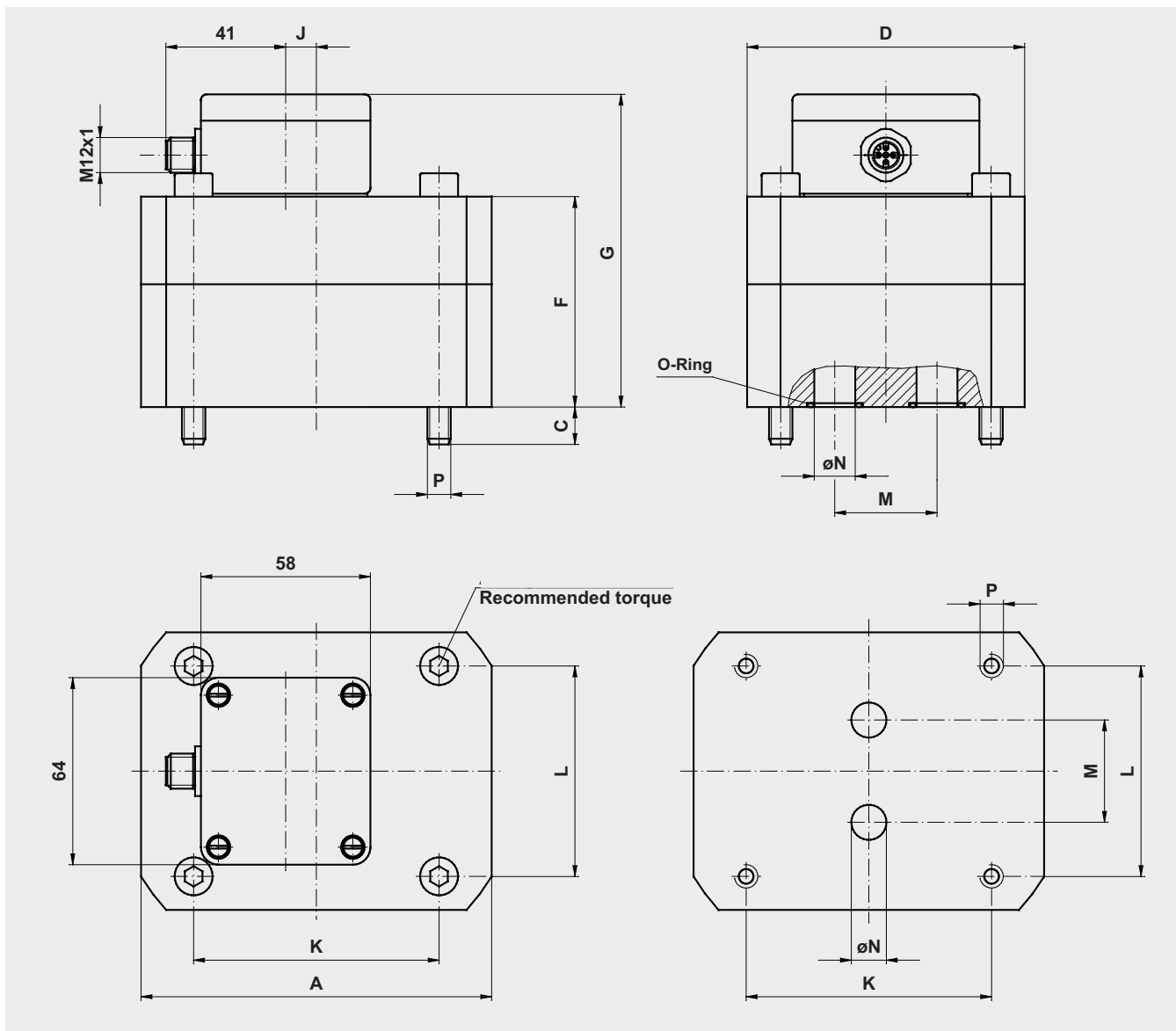
| Typ | SCVF-015 | SCVF-060 | SCVF-150 | SCVF-300 |
|---|-----------|-----------|-----------|----------|
| Flow Range QN (l/min) | 1...015 | 0,4...060 | 0,6...150 | 1...300 |
| Accuracy (\pm %) FS @ 21cSt. | 0,5 | 0,5 | 0,5 | 0,5 |
| Operating Pressure PN (bar) | 400 | 400 | 315 | 315 |
| Ports (A - B) | 3/8" BSPP | 1/2" BSPP | 1" BSPP | 1" BSPP |
| Pressure Drop ΔP_{max} (bar) @ (FS) | Graph | | | |
| Weight (kg) | 3,8 | 8,1 | 23 | 27 |

FS = FullScale) IR = Indicated Reading

| | |
|-----------------------------------|-----------------------------|
| Response Time (ms) | 400 |
| Q_{max} (l/min) | QN x 1,1 |
| Overload Pressure P_{max} (bar) | PN x 1,2 |
| Housing | GGG 40 |
| Sealing | Viton® (FKM) |
| Parts in contact with media | Viton® (FKM), Steel, GGG 40 |

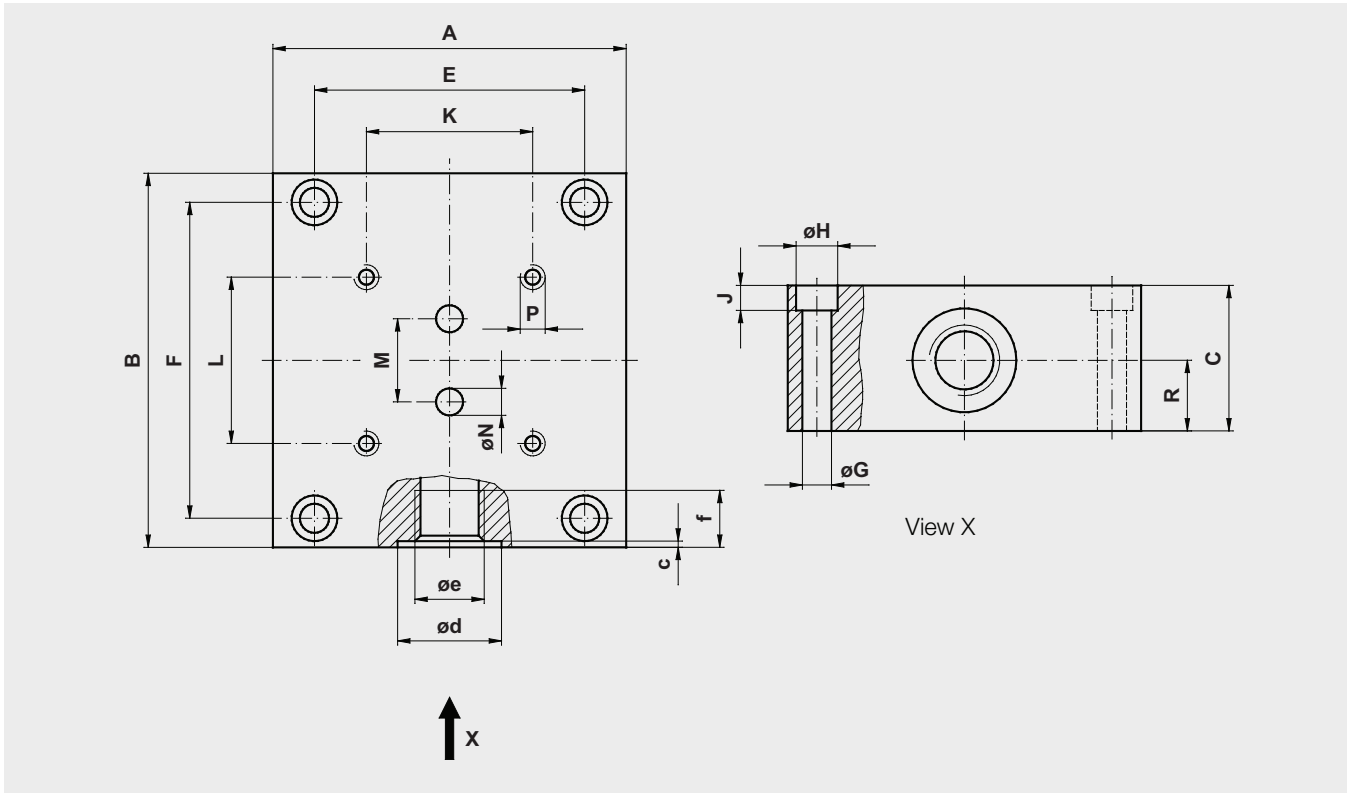
| | |
|--------------------------|-----------|
| Ambient Temperature (°C) | +10...+50 |
| Storage Temperature (°C) | -20...+80 |
| T_{max} Fluid (°C) | +110 |
| Filtration (μ m) | 25 |
| Viscosity Range (cSt.) | Graph |





| Type | Weight (kg) | Torque (Nm) | A | C | D | F | G | J | K | L | M | øN | P |
|----------|-------------|-------------|-----|----|-----|-----|-----|------|----|----|----|----|-----|
| SCVF-015 | 2 | 14 | 85 | 13 | 60 | 57 | 94 | - | 70 | 40 | 20 | 9 | M6 |
| SCVF-060 | 5,2 | 35 | 120 | 13 | 95 | 72 | 109 | 10,5 | 84 | 72 | 35 | 16 | M8 |
| SCVF-150 | 9 | 120 | 170 | 18 | 120 | 89 | 140 | 46,5 | 46 | 95 | 50 | 25 | M12 |
| SCVF-300 | 13 | 120 | 170 | 22 | 120 | 105 | 142 | 40 | 46 | 95 | 50 | 25 | M12 |

all measurements in mm



| Type | (kg) | A | B | C | E | F | øG | øH | J | K | L | M | øN | P | R | c | ød | øe BSPP | f |
|----------------------|------|-----|-----|----|-----|-----|----|----|---|----|----|----|-----|----------|------|-----|----|------------|----|
| SCVF-015 | 1,8 | 85 | 90 | 35 | 65 | 76 | 7 | 11 | 7 | 70 | 40 | 20 | 6,5 | M6/t=14 | 17 | 0,7 | 25 | 3/8" | 13 |
| SCVF-060 | 2,9 | 100 | 120 | 37 | 80 | 106 | 7 | 11 | 7 | 84 | 72 | 35 | 12 | M8/t=18 | 17,5 | 0,7 | 29 | 1/2" | 15 |
| SCVF-150 SCVF-300 | 14 | 160 | 165 | 80 | 140 | 145 | 9 | 15 | 9 | 46 | 95 | 50 | 25 | M12/t=24 | 28 | 1 | 42 | 1" | 19 |

all measurements in mm