

17 Turbine flow meter SCFTT CAN

Turbine flow meter SCFTT CAN

- Turbine flow meter with integrated temperature sensor in CAN bus technology
- 6 measuring ranges up to 750 l/min
- Easy construction
- Small flow resistance
- Built-in pressure and temperature measurement connections
- Suitable for reverse operation
- Suitable for long cables
- Sensor identification LED



Flow measurement with low flow resistance. Combined p, T and Q measurement possible with additional sensors.

Function

A turbine wheel is driven and rotated by the oil flow. The generated frequencies are processed by digital electronics.

The influences of disruptive flow effects are compensated.

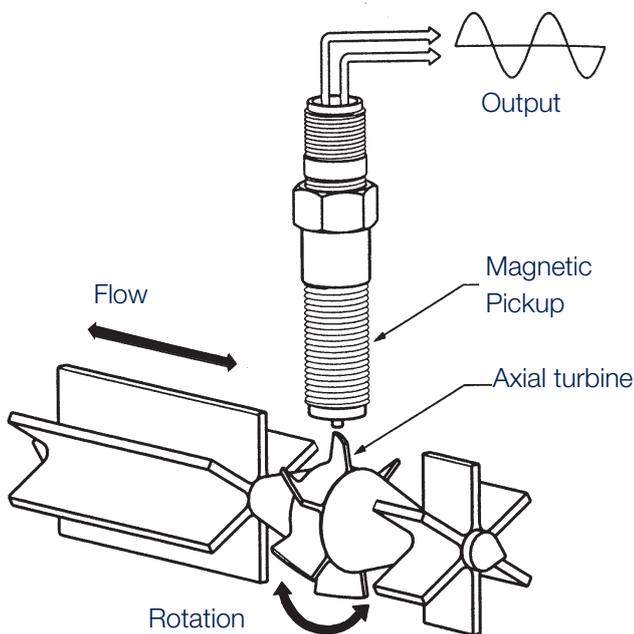
Due to the low flow resistance Q_R the hydraulic circuit is operated with little loss.

The turbine flow meter is equipped with an EMA-3 quick coupling for pressure measurement.

Oil temperatures are measured directly in the oil flow of the turbine flow meter. This means that all important measured variables are available at one installation location.

Applications

- mobile diagnosis
- p-Q measurement
- Hydraulic test via pressure load valve

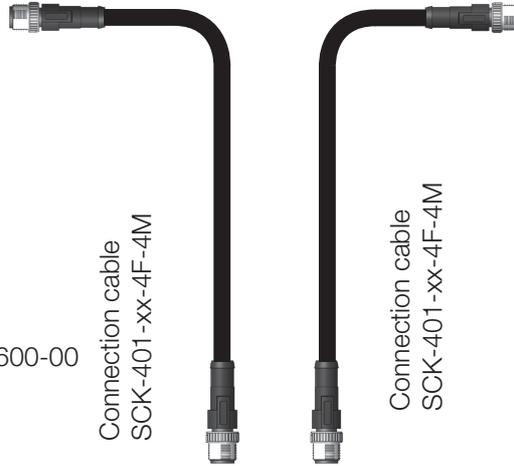


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Functional description



The Parker Service Master CONNECT SCM-600-00 or SCM-600-0A



Connection cable
SCK-401-xx-4F-4M

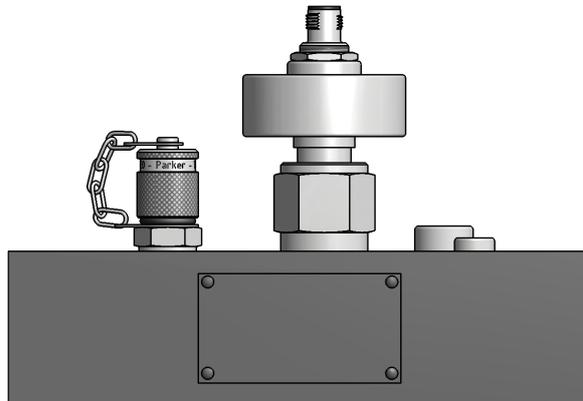
Connection cable
SCK-401-xx-4F-4M



Parker Serviceman Plus
SCM-155-0-02



Terminating
resistor
SCK-401-R



Turbine flow meter SCFTT-xxx-CU-05

Sensors

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Technical data

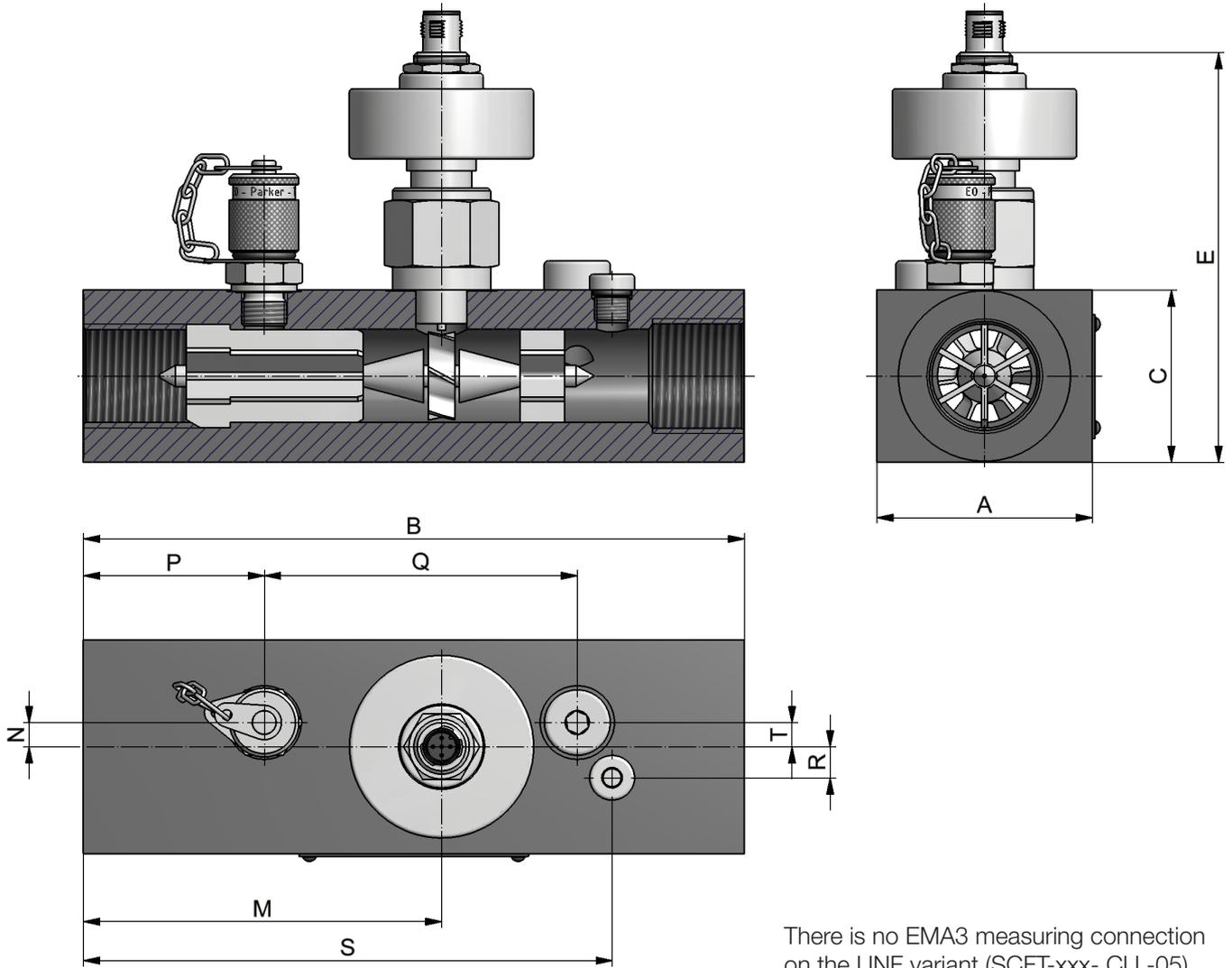
Type	SCFTT-015	SCFTT-060	SCFTT-150	SCFTT-300	SCFTT-600	SCFTT-750
Measuring range Q_N (l/min) (US Gal/min)	1...15 0.25...4	3...60 0.8...16	5...150 1.3...40	8...300 2...80	15...600 4...160	20...750 5...200
Accuracy (± %) @ 21cSt.	1.0 FS	1.0 IR*	1.0 IR*	1.0 IR*	1.0 IR*	1.0 IR*
Operating pressure P_N (bar) (psi)	350 5070"	350 5070"	350 5070"	350 5070"	290 4200"	400 5800"
Connection (A - B) SCFTT-xxx-C2-05 SCFTT-xxx-CU-05	"1/2" BSPP 3/4"-16UNF"	"3/4" BSPP 1-1/16"-12UNF"	"3/4" BSPP 1-1/16"-12UNF"	"1" BSPP 1-5/16"-12UNF"	"1-1/4" BSPP 1-5/8"-12UNF"	"1-7/8"-12UNF -
Pressure drop ΔP_{Max} @ (FS) (bar) (psi)	1.5 21.8"	1.5 21.8"	1.5 21.8"	4 58"	5 72.5"	5 72.5"
Weight (g)	700	1600	1600	1700	2700	5000
* FS = Full Scale (measuring range end value) ** IR = Indicated Reading (measured value displayed) * = for measured values $\geq 15\%$ FS, for measured values $< 15\%$ accuracy 0.15% FS						

Response time	50 ms
Accuracy temperature measurement	± 2 K
Q_{max}	$Q_N \times 1.1$ l
Overload pressure P_{max}	$P_N \times 1.2$
Ports: Temperature measurement Pressure (SCFTT-xxx-C2-05) Pressure (SCFTT-xxx-CU-05) Pressure (VSTI)	M10x1 EMA3 M16x2 7/16" UNF 1/4" BSPP
Housing	Aluminium
Seal	FKM
Media-contacting parts	Aluminium, steel, FKM
Protection class	IP66 EN 60529

Ambient temperature (°C) (°F)	-10...+50 +14...+122
Media temperature (°C) (°F)	-20...+80 -4...+185
Storage temperature (°C) (°F)	-20...+90 -4...+194
Filtration	25 μ m (10 μ m for SCFTT-015)
Viscosity range (cSt.) (calibrated at 21 cSt.)	10...100

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Dimensional drawings



There is no EMA3 measuring connection on the UNF variant (SCFT-xxx- CU -05).

Type	SCFTT-015	SCFTT-060	SCFTT-150	SCFTT-300	SCFTT-600	SCFTT-750
A	37	62	62	62	62	100
B	136	190	190	190	212	212
C	37	50	50	50	75	75
E	105	118	118	119	137	141
M	70	103	103	103	127	126
N	N/A	5	5	7	9	12
P	25	52	52	52	62	60
Q	N/A	90	90	90	106	104
R	N/A	5	5	9	11	10
S	115	157	157	152	168	181
D	N/A	9	9	10	9	12

All dimensions in mm

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Supply range and accessories

SCFTT-CAN turbine flow meter	Order designation
1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)	SCFTT-xxx-C2-05
1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)	SCFTT-xxx-CU-05
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only)	SCFTT-xxx-CU-05-EMA
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)	SCFTT-xxx-CU-05-PD
1,0...15/3...60/5...150/8...300/15...600 l/min mit UNF connection and PDP adapter (USA only)	SCFTT-xxx-CU-05-PDP
SCFTT CAN turbine flow meter with calibration certificate as per ISO 9001	Order designation
1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)	K-SCFTT-xxx-C2-05
1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)	K-SCFTT-xxx-CU-05
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only)	K-SCFTT-xxx-CU-05-EMA
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)	K-SCFTT-xxx-CU-05-PD
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PDP adapter (USA only)	K-SCFTT-xxx-CU-05-PDP
SCK connection cables CAN*	Order designation
0.5 m (male 5 pin - female 5 pin)	SCK-401-0.5-4F-4M
2 m (male 5 pin - female 5 pin)	SCK-401-02-4F-4M
5 m (male 5 pin - female 5 pin)	SCK-401-05-4F-4M
10 m (male 5 pin - female 5 pin)	SCK-401-10-4F-4M
Y-junction CAN	SCK-401-Y
Y-junction CAN incl. 0.3-m cable	SCK-401-0.3-Y
T-junction CAN	SCK-401-T
Terminating resistor** CAN (female 5 pin - female 5 pin)	SCK-401-R
* Other lengths available on request	
** Each CAN network requires a terminating resistor	