

# 14 Turbine flow meter SCFT analogue

## Turbine flow meter SCFT analogue

- 6 measuring ranges up to 750 l/min
- Easy construction
- Small flow resistance
- Built-in pressure and temperature measurement connections
- Suitable for reverse operation



**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.

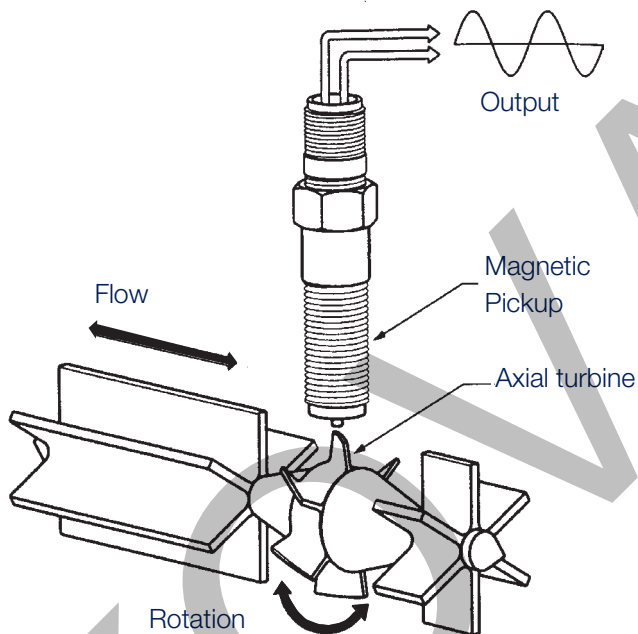
Due to the low flow resistance  $Q_R$  the hydraulic circuit is operated with little loss.

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

Oil temperatures can be 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

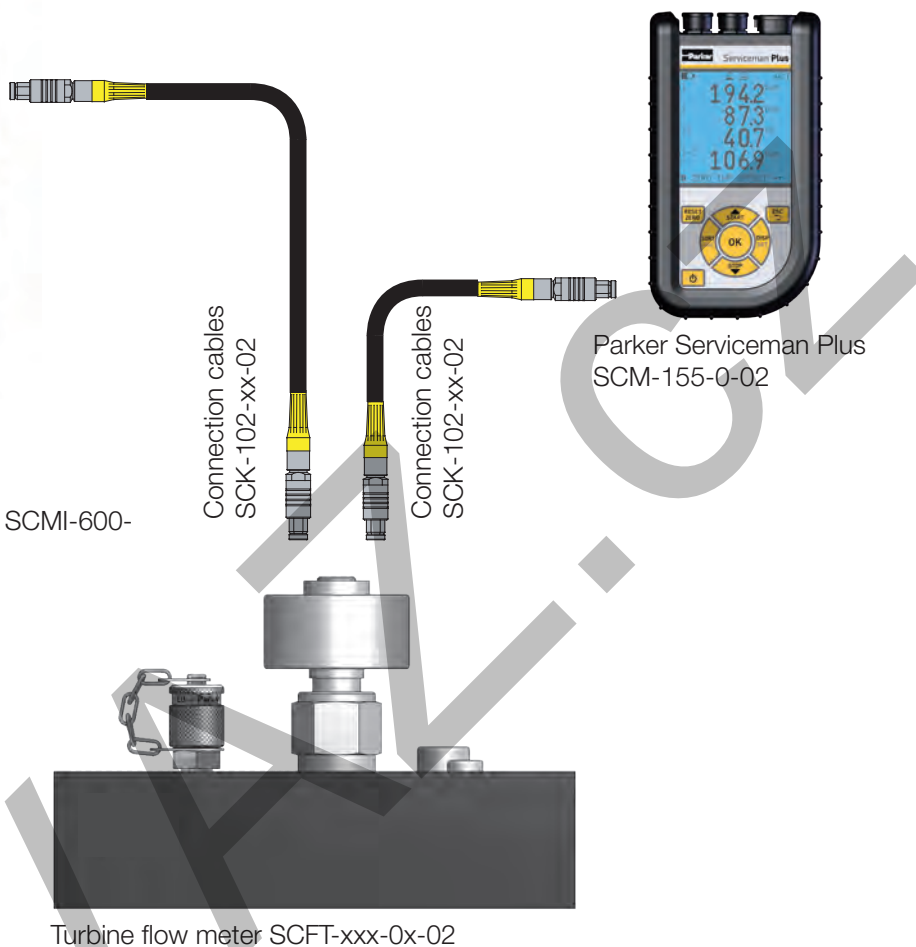


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## Functional description



The Parker Service Master CONNECT SCM-600-xx with input module analogue SCMI-600-01 or SCMI-600-03



Turbine flow meter SCFT-xxx-0x-02

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## Technical data

Type	SCFT-015	SCFT-060	SCFT-150	SCFT-300	SCFT-600	SCFT-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 ( $\pm$ %) @ 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) SCFT-xxx-02-02 SCFT-xxx-0U-02	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" UNF -
Pressure drop $\Delta P_{Max}$ @ 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 = FullScale (full scale value)

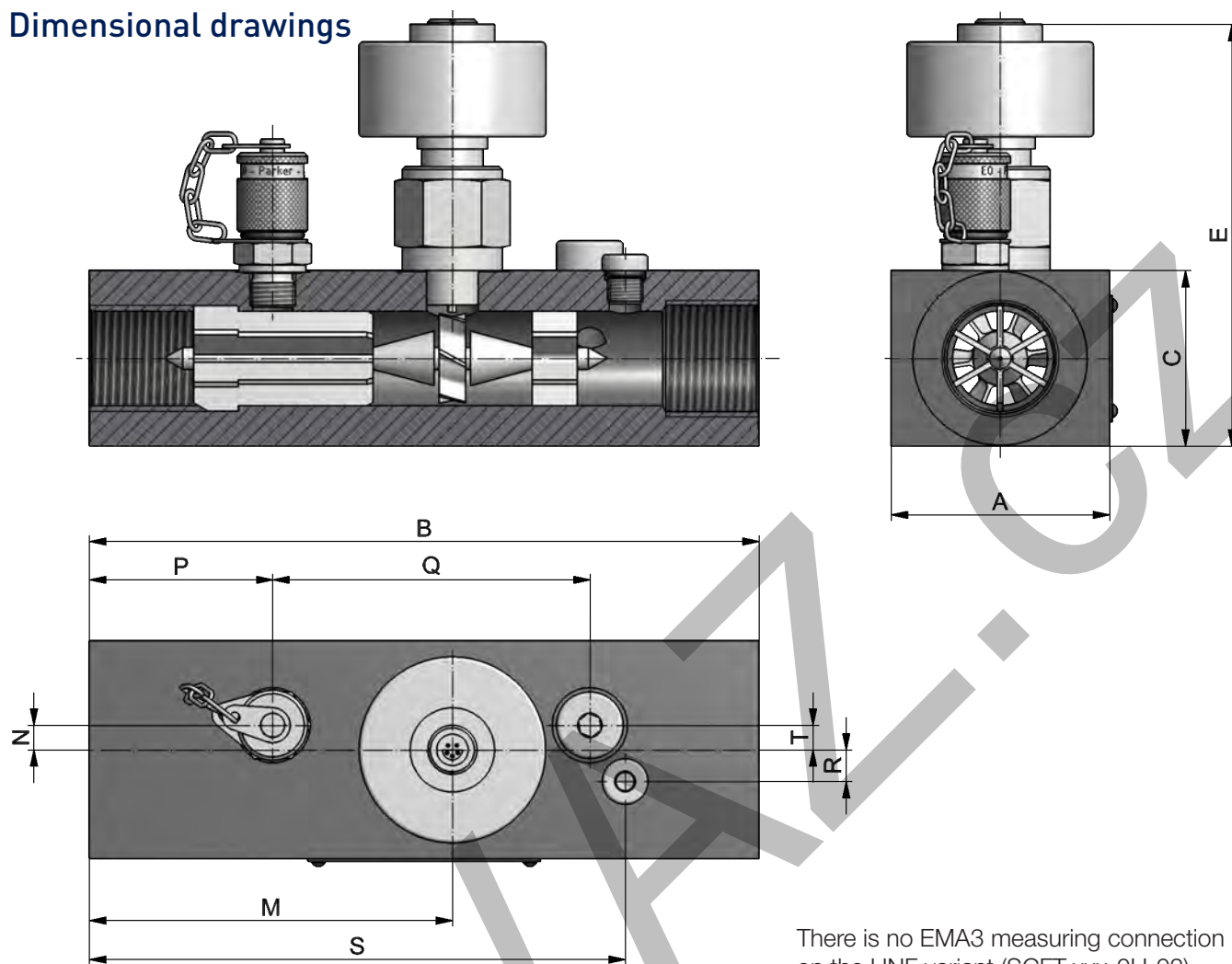
IR = Indicated Reading (displayed measured value)

\* = for measured values  $\geq$  15% FS, for measured values  $<$  15% FS, accuracy 0.15% FS

<b>Response time</b>	50 ms	<b>Ambient temperature (°C) (°F)</b>	-10...+50 +14...+122
<b><math>Q_{max}</math></b>	$Q_N \times 1.1$	<b>Storage temperature (°C) (°F)</b>	-20...+80 -4...+176
<b>Overload pressure <math>P_{max}</math></b>	$P_N \times 1.2$	<b>Media temperature (°C) (°F)</b>	-20...+90 -4...+194
<b>Ports:</b>		<b>Filtration</b>	25 $\mu$ m (10 $\mu$ m for SCFT-015)
<b>Temperature measurement</b>	M10x1	<b>Viscosity range (cSt.)</b> (calibrated at 21 cSt., other viscosities on request)	10...100
<b>Pressure (SCFT-xxx-02-02)</b>	EMA3 M16x2		
<b>Pressure (SCFT-xxx-0U-02)</b>	7/16" UNF		
<b>Pressure (VSTI)</b>	1/4" BSPP		
<b>Housing</b>	Aluminium		
<b>Seal</b>	FKM		
<b>Media-contacting parts</b>	Aluminium, steel, FKM		
<b>Protection class</b>	IP54 EN 60529		

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## Dimensional drawings



Type	SCFT-015	SCFT-060	SCFT-150	SCFT-300	SCFT-600	SCFT-750
A	37	62	62	62	62	100
B	136	190	190	190	212	212
C	37	50	50	50	75	75
E	108	121	121	125	140	143
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

SCFT turbine flow meter	Order designation
1.0...15/3...60/5...150/8...300/15...600/20...750 l/min (with BSPP connection)	SCFT-xxx-02-02
1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)	SCFT-xxx-0U-02
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only)	SCFT-xxx-0U-02-EMA
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)	SCFT-xxx-0U-02-PD
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PDP adapter (USA only)	SCFT-xxx-0U-02-PDP
SCFT 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-SCFT-xxx-02-02
1.0...15/3...60/5...150/8...300/15...600 l/min (with UNF connection)	K-SCFT-xxx-0U-02
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and EMA adapter (USA only)	K-SCFT-xxx-0U-02-EMA
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PD adapter (USA only)	K-SCFT-xxx-0U-02-PD
1,0...15/3...60/5...150/8...300/15...600 l/min with UNF connection and PDP adapter (USA only)	K-SCFT-xxx-0U-02-PDP
SCK connection cables analogue	Order designation
3 m (male 5 pin - male 5 pin)	SCK-102-03-02
5 m (male 5 pin - male 5 pin)	SCK-102-05-02
5-m extension cable (male 5 pin - female 5 pin)	SCK-102-05-12