

15 Turbine flow meter SCFT analogue

Turbine flow meter SCFT analogue

- 6 measuring ranges of up to 750 l/min
- Easy installation
- High-pressure resistant up to 480 bar
- Low flow resistance
- Built-in pressure and temperature measurement connections
- Suitable for reverse-mode operation



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

Function

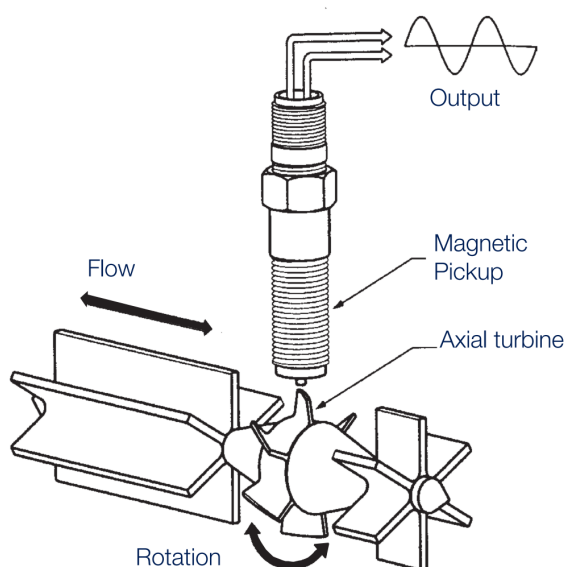
A turbine wheel is driven by the oil flow. The frequencies thus produced are processed by digital electronics. The influence of turbulent flow effects is compensated for. Because of the low flow resistance Q_R the hydraulic circuit operates with very low losses.

For pressure measurement, the turbine is equipped with an EMA-3 quick-connector.

Oil temperatures can be measured directly in the oil flow in the turbine flow meter. Consequently all the important measurement parameters are available at one measuring location.

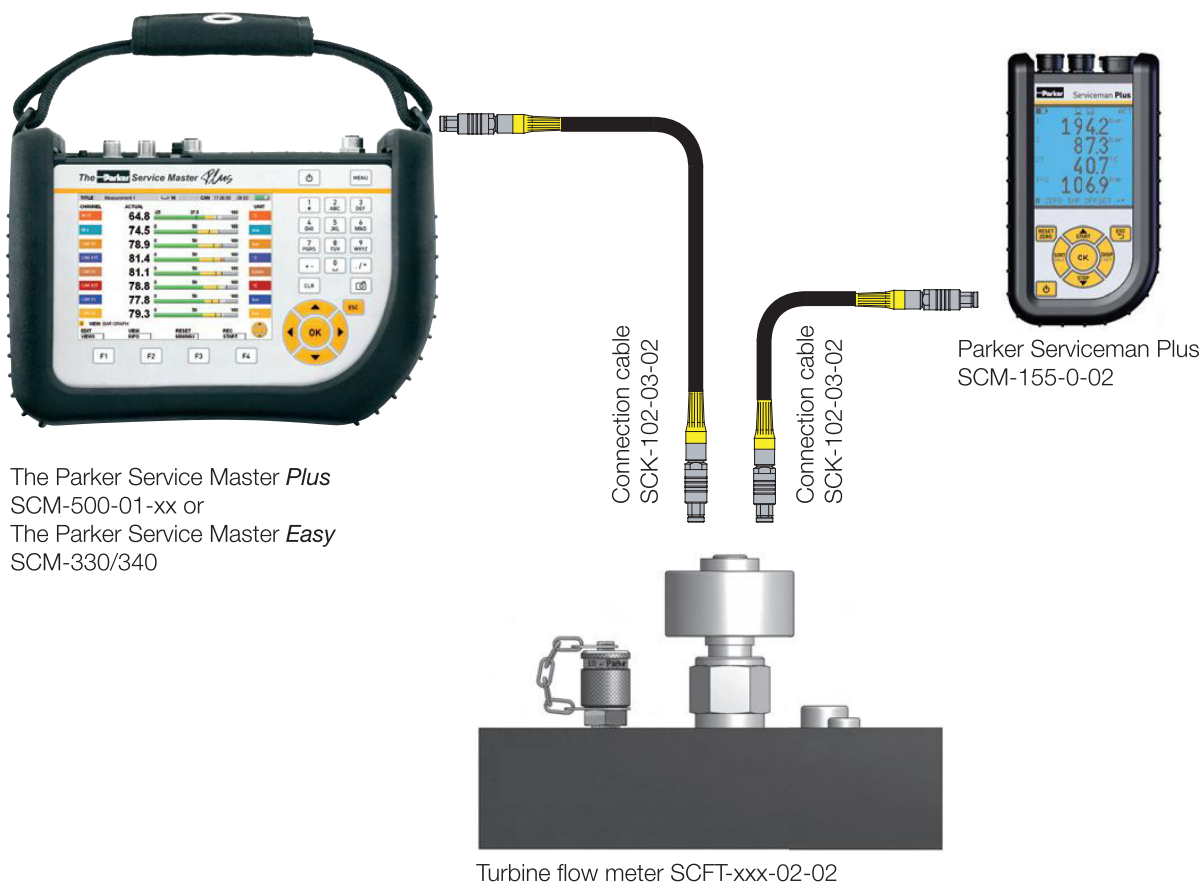
Applications

- Mobile diagnostic
- p-Q measurement
- Hydraulic tests with load valve



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Function specifications



Sensors



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Technical data

Type	SCFT-015	SCFT-060	SCFT-150	SCFT-300	SCFT-600	SCFT-750
Flow range Q_N (l/min)	1...015	3...060	5...150	8...300	15...600	20...750
Accuracy ($\pm$ %) FS/IR @ 21cSt.	1.0 FS	1.0 IR*	1.0 IR*	1.0 IR*	1.0 IR*	1.0 IR*
Operating pressure P_N (bar)	350	350	350	350	290	400
Ports (A - B)	1/2" BSPP	3/4" BSPP	3/4" BSPP	1" BSPP	1-1/4" BSPP	1-7/8" UNF
Pressure drop ΔP_{max} (bar) @ FS*, 21cSt	1.5	1.5	1.5	4	5	5
Weight (g)	650	750	750	1,200	1,800	2,100

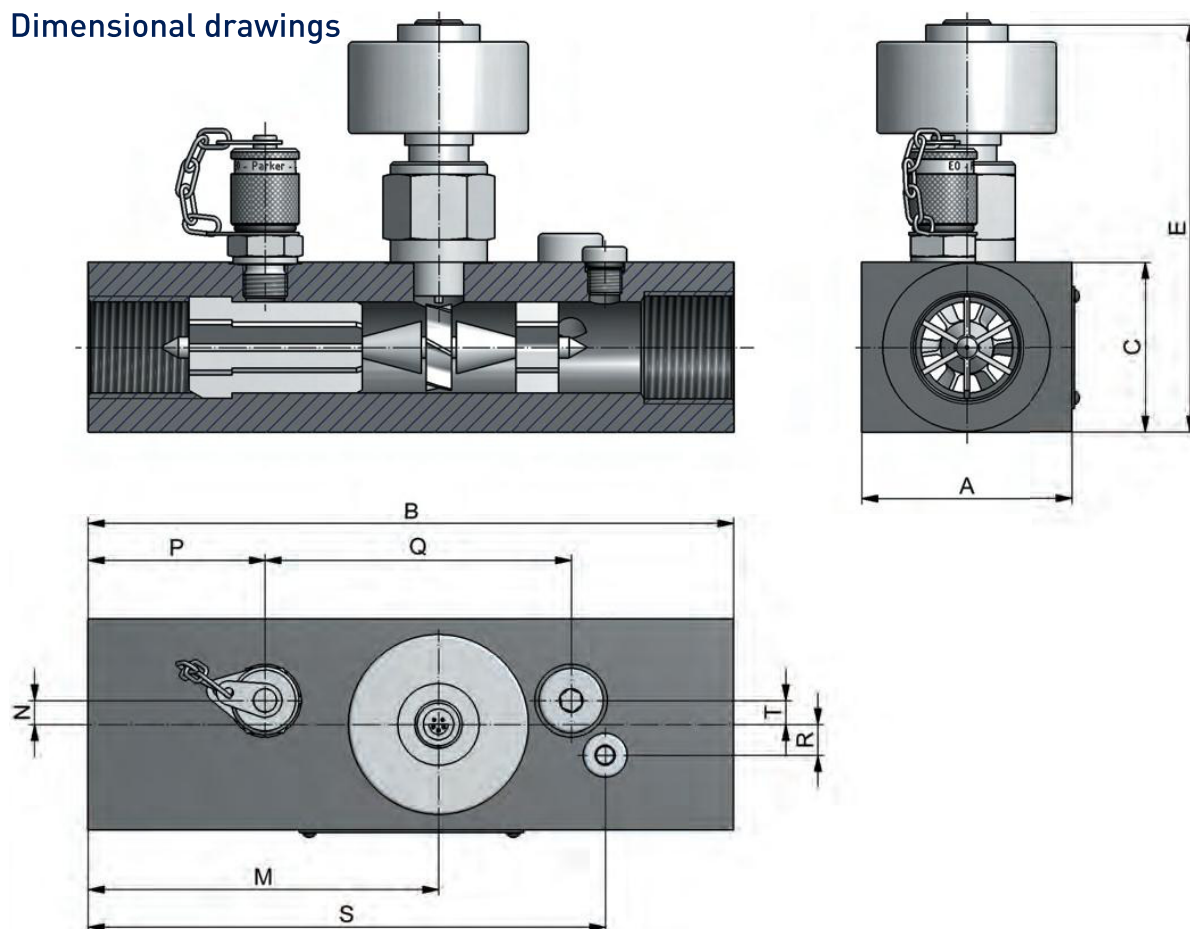
FS = Full Scale (measuring range end value)
IR = Indicated Reading (measured value displayed)
* = for measurements ≥ 15 % FS, for measurements < 15 % FS accuracy 0.15 % FS

Response time	50 ms
Q_{max}	$Q_N \times 1.1$ l/min
Overload pressure P_{max}	$P_N \times 1.2$ bar
Ports:	
Temperature port (SCT-190)	M10x1
Pressure port (EMA3 port)	M16x2
Pressure port (VSTI)	1/4" BSPP
Housing	Aluminium
Seal	FKM
Parts in contact with media	Aluminium, steel, FKM
Type of protection	IP54 EN 60529

Ambient temperature (°C)	-10...+50
Storage temperature (°C)	-20...+80
Media temperature (°C)	-20...+90
Filtration	25 μ m (10 μ m for SCFT-015)
Viscosity range (cSt.) (calibrated at 21 cSt., other viscosities on request)	10..100

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Dimensional drawings



Sensors

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
T	N/A	9	9	10	9	12

All dimensions in mm



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Supply range and accessories

SCFT turbine flow meter	Order code
1.0...15/3...60/5...150/8...300/15...600/20...750 l/min	SCFT-xxx-02-02
SCK analogue connection cable	Order code
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
SCFT turbine flow meter with calibration certificate as per ISO 9001	Order code
1.0...15/3...60/5...150/8...300/15...600/20...750 l/min	K-SCFT-xxx-02-02