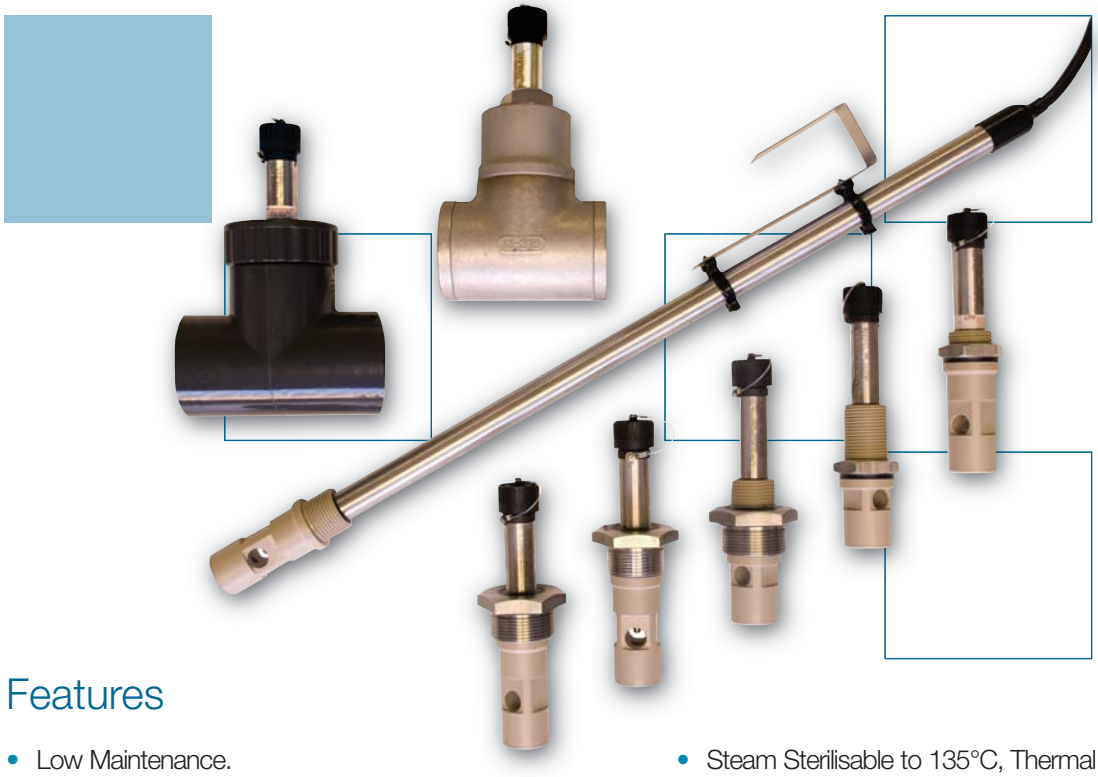
LTH Electronics

www.lth.co.uk

ECS40

Series PEEK™ Electrodeless Conductivity Sensors



Features

- Low Maintenance.
- Hygienic, Inline, Dip and Tank Mounting Options.
- Ideal for Brewing, Dairy, Food and Process Applications.
- Conductivity and Solution Concentration Measurements.
- Steam Sterilisable to 135°C, Thermal Shock Resistant.
- IP67 Connection Simplifies Installation and Maintenance.
- Fast Temperature Response t90 < 10 secs

The Electrodeless method of measuring conductivity has many advantages over conventional methods.

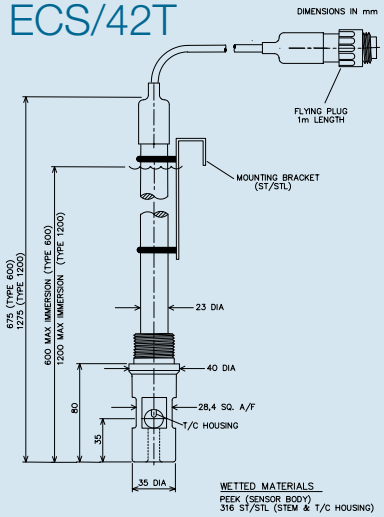
In particular the sensors will operate with virtually zero maintenance and provide reliable measurements over extended time periods.

The ECS40 sensors can be mounted inline, in a tank wall, large bore pipe or in an open tank using a variety of fittings. The option of several different hygienic flanges caters for the majority of applications.

The sensor is manufactured in PEEK™ a food grade material with excellent chemical resistance and high temperature performance. The construction of the sensor allows it to operate at 100°C continuously, withstand thermal shocks commonly associated with CIP applications and the sensor can be steam sterilised up to 135°C.

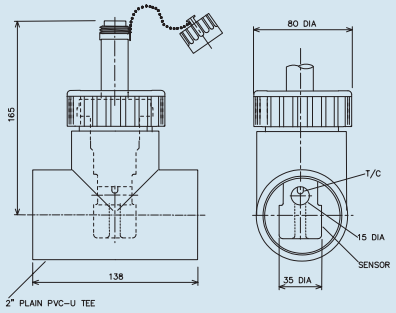
The sensors are fitted with Pt1000 temperature sensors and are compatible with all LTH Electrodeless conductivity instruments. The temperature sensor is mounted in direct contact with the medium via a stainless steel jacket with an alternative PEEK jacket available for applications where stainless steel might be unacceptable. Connection is made via an IP67 plug which simplifies installation and maintenance.

ECS/42T



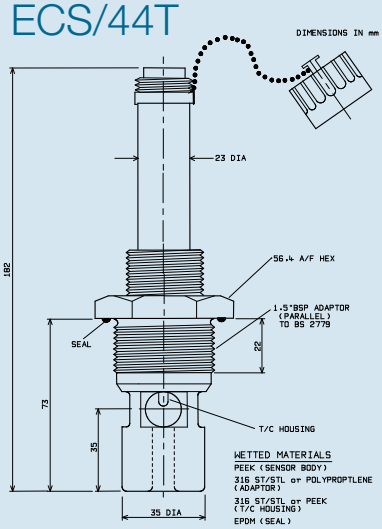
WETTED MATERIALS
PEEK (SENSOR BODY)
316 ST/STL (STEM & T/C HOUSING)

ECS/43T



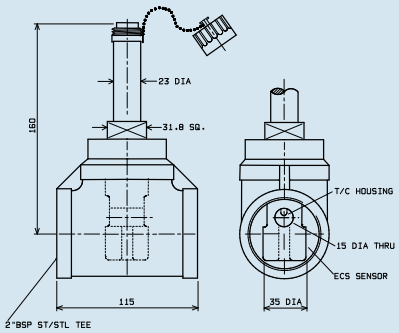
WETTED MATERIALS
PEEK (SENSOR)
PVC-U
316 ST/STL (T/C HOUSING)
EPDM SEALS

ECS/44T



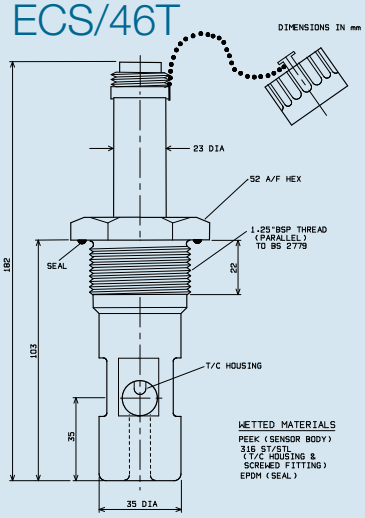
WETTED MATERIALS
PEEK (SENSOR BODY)
316 ST/STL or POLYPROPTLENE
(ADAPTOR)
316 ST/STL or PEEK
(T/C HOUSING)
EPDM (SEAL)

ECS/45T



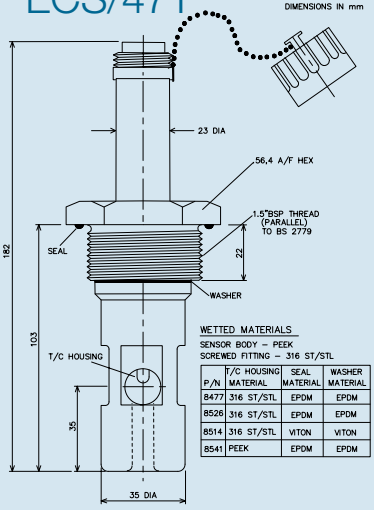
WETTED MATERIALS
PEEK (SENSOR BODY)
316 ST/STL
(T/C HOUSING &
SCREWED TEE)
EPDM (SEAL)

ECS/46T



WETTED MATERIALS
PEEK (SENSOR BODY)
316 ST/STL
(T/C HOUSING &
SCREWED FITTING)
EPDM (SEAL)

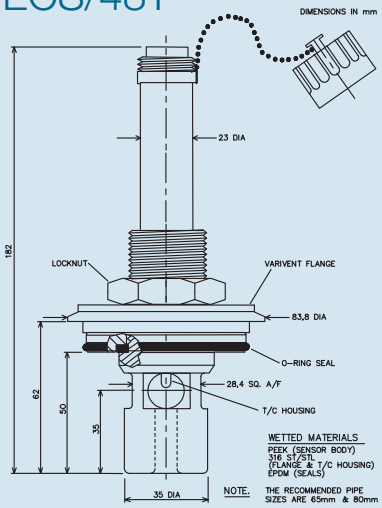
ECS/47T



WETTED MATERIALS
SENSOR BODY - PEEK
SCREWED FITTING - 316 ST/STL

P/N	T/C HOUSING MATERIAL	SEAL MATERIAL	WASHER MATERIAL
8477	316 ST/STL	EPDM	EPDM
8526	316 ST/STL	EPDM	EPDM
8514	316 ST/STL	VITON	VITON
8541	PEEK	EPDM	EPDM

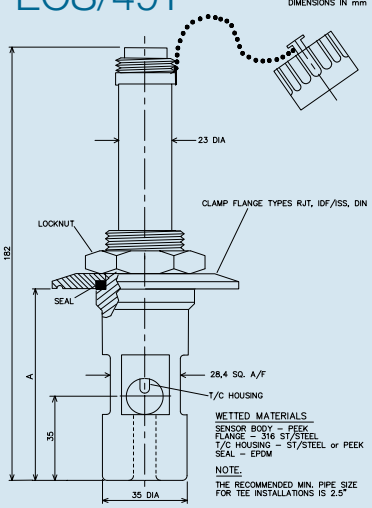
ECS/48T



WETTED MATERIALS
PEEK (SENSOR BODY)
316 ST/STL
(FLANGE & T/C HOUSING)
EPDM (SEALS)

NOTE:
THE RECOMMENDED PIPE
SIZES ARE 65mm & 80mm

ECS/49T



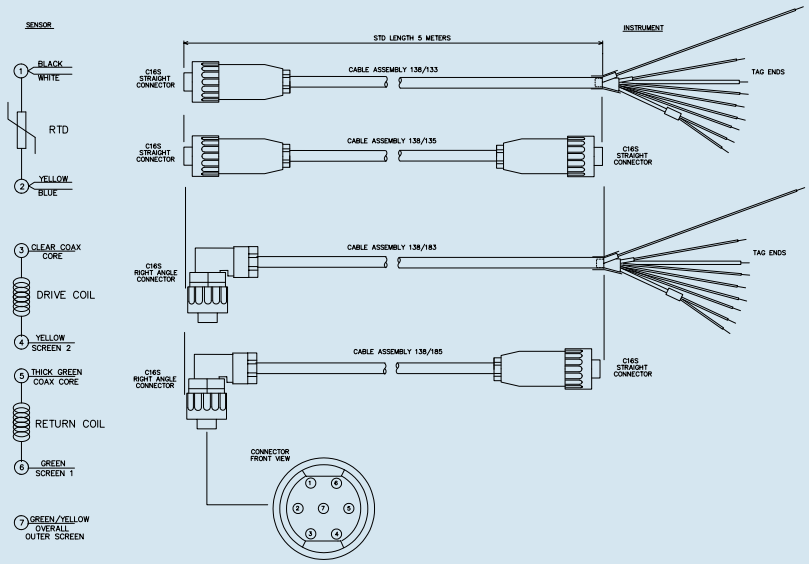
WETTED MATERIALS
SENSOR BODY - PEEK
FLANGE - 316 ST/STEEL
T/C HOUSING - ST/STEEL or PEEK
SEAL - EPDM

NOTE.
THE RECOMMENDED MIN. PIPE SIZE
FOR TEE INSTALLATIONS IS 2.5"

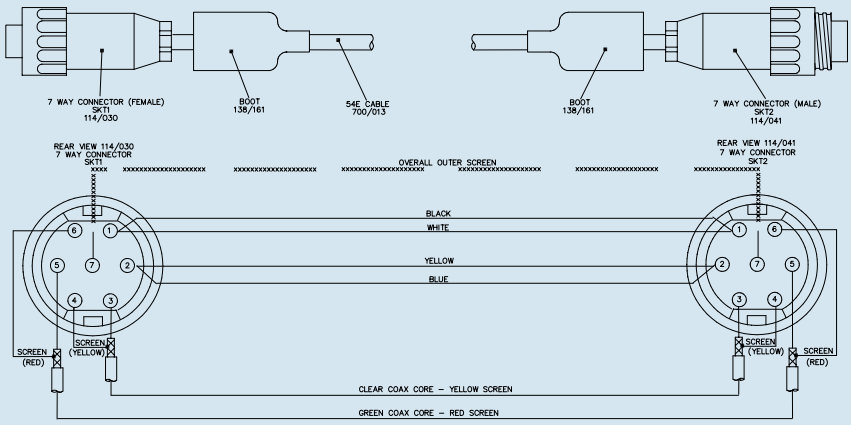
LTH Electronics

www.lth.co.uk

Cable Options



Cable Assembly 138/332



Specification

Hygienic Flanges

Standard Sizes
RJT: 2”, 2.5”, 3”
Tri clamp: 2”, 3”
IDF/ISS: 2”, 2.5”, 3”
DIN 1185: 50mm, 80mm

Suffix T

Common Specification

Temperature sensor: Class A Pt1000 RTD

Temperature Maximum continuous, 100˚C, subject to material compatibility with solution. Short term 30 mins 135˚C.

Thermal shock: 10˚C per second.

Response T90 Less than 10s - stainless steel temperature pocket.
Less then 2.5 mins - PEEK temperature pocket.

Notes: Flanges for the ECS49 sensors must be ordered seperately. Minimum pipe size for insertion sensors 2.5”, 63.5mm. Optional PEEK temperature pocket avialable. Temperature, pressure and solution composition will influence the life expectancy of the measurement sensor. Varivent® is the registered trademark of Tuchenhagen Gmbh.

LTH Electronics Ltd, Chaul End Lane, Luton, Bedfordshire. LU4 8EZ England
Telephone: +44 (0)1582 593693 Fax: +44 (0)1582 598036
email: sales@lth.co.uk web: www.lth.co.uk

LTH Electronics

www.lth.co.uk

Order Codes

ECS40 Series Electrodeless Conductivity Sensor Connection Cables

Type No	Part No	Description
54E/C16	138/133	5 metres of type 54E Electrodeless conductivity sensor cable fitted with C16P connector.
54E/C16	138/320	10 metres of type 54E Electrodeless conductivity sensor cable fitted with C16P connector.
54E/C16	138/321	15 metres of type 54E Electrodeless conductivity sensor cable fitted with C16P connector.
54E/C16	138/324	20 metres of type 54E Electrodeless conductivity sensor cable fitted with C16P connector.
54E/C16	138/325	30 metres of type 54E Electrodeless conductivity sensor cable fitted with C16P connector.
54E/C16	138/332	5 metre Conductivity sensor connection cable for use with wall mounting HET63 conductivity transmitter.
54E/C16	138/333	10 metre Conductivity sensor connection cable for use with wall mounting HET63 conductivity transmitter.

*Other cable lengths available on request, please contact our sales department for further details.

ECS40 Series PEEK Electrodeless Conductivity Sensors. Cables to be ordered separately

Type No	Part No	Description
ECS42T	8515	600mm PEEK DIP Electrodeless conductivity sensor with temperature compensation and stainless steel dip tube. Fitted with 0.5m of cable & C16 connector. Wetted materials PEEK & stainless steel.
ECS42T	8516	1200mm PEEK Dip Electrodeless conductivity sensor with temperature compensation and stainless steel dip tube. Fitted with 0.5m of cable & C16 connector. Wetted materials PEEK & stainless steel.
ECS43T	8523	Inline Electrodeless conductivity sensor supplied in a 2" BSP PVC Tee with PT1000 temperature compensation. Wetted materials PEEK, 316 Stainless Steel, PVC, EPDM O Ring. Maximum temperature: 60°C, Maximum pressure: 100psi (6.5 Bar).
ECS44T	8529	1.5" BSP Male threaded Short PEEK Electrodeless conductivity sensor. Wetted materials PEEK, 316 Stainless Steel & EPDM O ring. Maximum temperature: 100°C, Maximum pressure: 150psi (10 Bar).
ECS44T PK/PP	8518	ECS/44T 1.5" BSP Male threaded Short PEEK Electrodeless conductivity sensor with Polypropylene adaptor & PEEK temperature pocket. Wetted materials PEEK, 316 Stainless Steel & EPDM O ring. Maximum temperature: 90°C, Maximum pressure: 100psi (6.5 Bar).
ECS45T	8525	Inline PEEK Electrodeless conductivity sensor supplied in a 2" BSP 316 Stainless Steel tee. Wetted materials PEEK, 316 Stainless Steel, EPDM O Ring. Maximum temperature: 100°C, Maximum pressure: 100psi (6.5 Bar).
ECS46T	8524	1.25" BSP Male threaded insertion PEEK Electrodeless conductivity sensor. Wetted materials PEEK, 316 Stainless Steel & EPDM O ring. Maximum temperature: 100°C, Maximum pressure: 150psi (10 Bar).
ECS47T	8526	1.5" BSP Male threaded insertion PEEK Electrodeless conductivity sensor. Wetted materials PEEK, 316 Stainless Steel & EPDM O ring. Maximum temperature: 100°C, Maximum pressure: 150psi (10 Bar).
ECS47T V	8514	1.5" BSP Male threaded insertion PEEK Electrodeless conductivity sensor. Wetted materials PEEK, 316 Stainless Steel & Viton O ring. Maximum temperature: 100°C, Maximum pressure: 150psi (10 Bar).
ECS47T PK/PP	8519	ECS/47T 1.5" BSP Male threaded PEEK Electrodeless conductivity sensor with Polypropylene adaptor & PEEK temperature pocket. Maximum temperature: 90°C, Maximum pressure: 100psi (6.5 Bar).
ECS48T	8528	PEEK Electrodeless conductivity sensor for use with a Varivent flange, or one of the other hygienic flange kits. Wetted materials PEEK, 316 Stainless Steel and EPDM seal. Maximum temperature: 100°C, Maximum pressure: 100psi (6.5 Bar).
ECS49T	8527	PEEK Electrodeless conductivity sensor for use with one of the hygienic flange kits. Wetted materials PEEK, 316 Stainless Steel and EPDM seal. Maximum temperature: 100°C, Maximum pressure: 100psi (6.5 Bar).
ECS49T PK	8534	Peek Electrodeless Conductivity Sensor with PEEK temperature pocket for use with sanitary flange kits. The sensor is fitted with PT1000 temperature compensation & C16 connection plug. Wetted materials PEEK, 316 stainless steel, EPDM seal. Maximum temperature: 100°C, Maximum pressure: 100 psi (6.5 Bar).

CE These products comply with current European Directives

Issue: 0314
Part No. 6265

bsi. UKAS MANAGEMENT SYSTEMS 003

Certificate No. FM 13843