

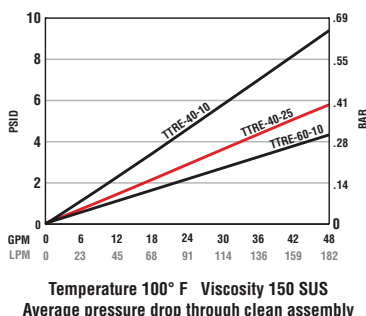
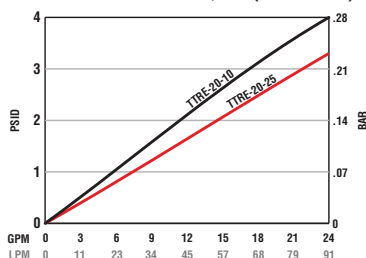


# Tank Top Return Filter

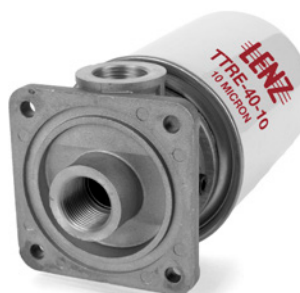
Models TTR-20, 22, 40, 60

## Specifications

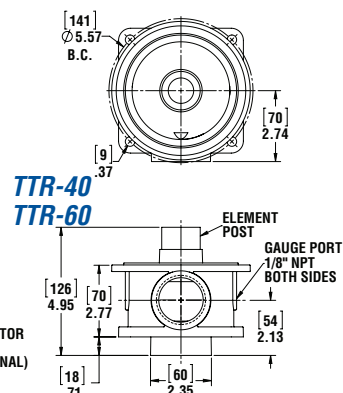
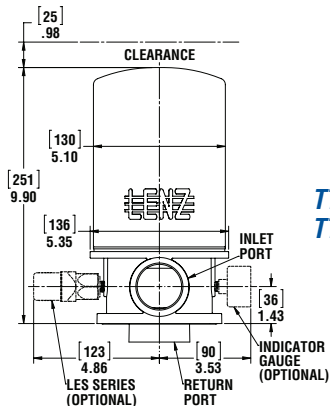
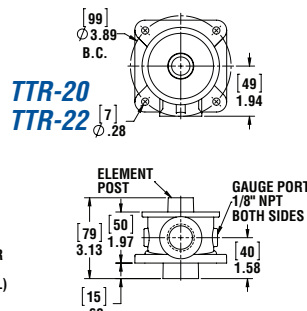
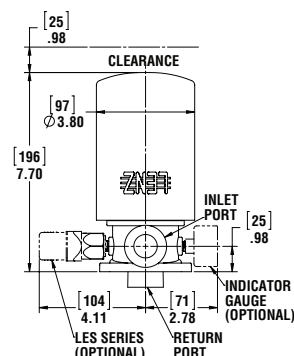
- Aluminum casting
- Working pressure 150 PSI (10 Bar)
- Flows to 40 GPM (150 LPM)
- Operating temperature -22°F to +250°F (-30°C to +121°C)
- Buna seals
- 3/4", 1 1/2" NPT ports (std)
- Compatible with mineral oils HH, HL, HM, HR, HV, HG according to ISO 6734/4
- Anti-drain diaphragm in element to minimize spillage for element changes
- 15 PSID bypass valve in the element
- TTR-20 3/4" NPT Port, 3/4" BSPP POST
- TTR-22 3/4" NPT Port, 1"-12 UNF
- TTR-40, 60 1 1/2" NPT Port, 1 1/4" BSPP POST
- SAE ports available on TTRA-20, 22 (non stock)



TTR-20, TTR-22

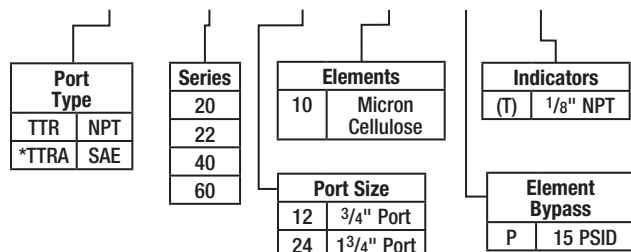


TTR-40, TTR-60



## Assembly Ordering Code

TTR - 20 - 12 - 10 - P - T



\*SAE consult Lenz for delivery  
Consult factory on 25 micron elements for availability.

## Replacement Elements

Model NO.	Media	AREA in	AREA CM	RATING b(x)=2 /20/75	DIRT HOLDING CAPACITY	Element THREAD
TTRE-20-10	10 Micron Cellulose	356	2308	10μ/22μ/33μ	13	3/4" BSPP
TTRE-22-10	10 Micron Cellulose	356	2308	10μ/22μ/33μ	13	1"-12 UNF
TTRE-40-10	10 Micron Cellulose	868	5600	10μ/22μ/33μ	28	1 1/4" BSPP
TTRE-60-10	10 Micron Cellulose	1216	7850	10μ/22μ/33μ	32	1 1/4" BSPP

Beta Rating Of 2 = 50 % Efficiency  
Beta Rating Of 20 = 95 % Efficiency  
Beta Rating Of 75 = 98.7 % Efficiency  
Note: 80 PSI Pressure Drop Maximum  
Without Bypass Valve In Filter Head

See Technical Bulletin TB.FIL04.708, TB.FIL09.708, TB.FIL11.708, TB.FIL13.708, TB.FIL16.708, for further information at (Technical Data - [www.lenzinc.com](http://www.lenzinc.com))



**For indicator gauge specifications and ordering information see pages 38a-39a**

\*Indicators ordered and shipped separately



## General Filter Specifications

### Bypasses

Differential opening set value + - 10%

### Medias

<b>Cellulose</b>	Resin impregnated paper
<b>Synthetic</b>	Inorganic micro fiber
<b>Wire Mesh</b>	140 micron, 100 mesh stainless Steel
<b>Water Removal</b>	10 micron resin impregnated paper

### Compatibility of Fluids with

#### Filter Heads & Bowls Per ISO 6743/4

**Mineral oils** (types HH, HL, HM, HR, HV)  
**Water based emulsions** (types HFAE, HFAS)  
**Synthetic fluids** (types HS, HFDR, HFDS, HFFU)  
**Water glycol** (types HFC)



LIT-1252-Bypass



LIT-1252-10P



CP-752-10

#### Compatibility of Fluids with Filter Elements Per ISO 2943

**Mineral oils** (types HH, HL, HM, HR, HV, HG) ISO 6743/4  
**Synthetic fluids** (types A & M series only)  
**Water based emulsions** consult Lenz for further information

## Compatibility of Fluids with Seals Per ISO 6743/4

### Nitrile (Buna N)

**Mineral Oils** (HH, HL, HM, HR, HV, HG)  
**Water emulsion** (HFAE, HFAS)  
**Water glycol** (HFC)

### Viton seals

**Synthetic fluids** (types HS, HFDR, HFDS, HFDU)

### Indicator Options

<b>Visual</b>	Suction & return visual gauges
<b>Electrical</b>	Suction & return electrical switches
<b>Differential</b>	Return indicators

### Mineral Oil Types

<b>HH</b>	Non inhibited refined mineral oils
<b>HL</b>	Refined mineral oils with anti-oxidation and anti-rust properties
<b>HM</b>	HL fluids with improved anti wear
<b>HR</b>	HL oils with VI improvers
<b>HV</b>	Lubricants with high viscosity
<b>HG</b>	HM oils with anti-stick slip properties

### Water Based Emulsion Types

<b>HFAE</b>	Oil water emulsions or aqueous fluids which are further with additional letters
<b>HFAS</b>	Solutions of chemicals containing minimum 80% of water
<b>HFC</b>	Aqueous solutions with viscosity-increasing additives and minimum 35% mass water

### Synthetic Fluid Types

<b>HFDU</b>	Fire resistant fluids of other compositions
<b>HFDS</b>	HFD based upon phosphoric acid ester
<b>HS</b>	Synthetic fluids with no specific fire resistant properties
<b>HFDR</b>	HFD based on halogen-containing compounds





## 2" Diameter Filter Indicating Gauges



### MC-12

Return Line Indicating Gauge  
for 15 PSI Filter Applications  
2" Multi color

0-12 PSI Green  
12-15 PSI Yellow  
15-60 PSI Red (Service Filter)  
(To be used with "T" Indicator Port Location)



### MC-20

Return Line Indicating Gauge  
for 25 PSI Filter Applications  
2" Multi color

0-20 PSI Green  
21-24 PSI Yellow  
25-60 PSI Red (Service Filter)  
(To be used with "T" Indicator Port Location)



CHANGE FILTER

### CP-2

Compound Indicating Gauge  
(Suction or Return Line)

10" to 30" Vacuum is a Red Danger Area.  
0-60 PSI  
A Red "Change Filter" Sticker for the  
Pressure side is included with each gauge  
for application after the pressure factor  
is determined.  
(To be used with "T" or "S" Indicator Port Location)



### GLY-MC-20

Glycerin Filled  
Return Line Indicating Gauge  
for 25 PSI Filter Applications  
2" Multi color

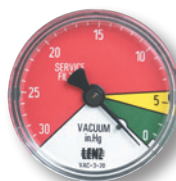
0-20 PSI Green  
21-24 PSI Yellow  
25-60 PSI Red (Service Filter)  
(To be used with "T" Indicator Port Location)



### 135080

Suction Line Indicating Gauge for  
5 PSI vacuum filter application  
2" Multi color

0-9" HG Green  
9-11" HG Yellow  
11-30" HG Red (Service Filter)  
(To be used with "S" Indicator Port Location)



### VAC-3-20

Suction Line Indicating Gauge  
for 3 PSI vacuum filter applications  
2" Multi color

0-3" HG Green  
4-6" HG Yellow  
6-30" HG Red (Service Filter)  
(To be used with "S" Indicator Port Location)

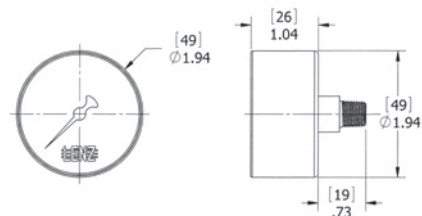


### Differential Indicator DP-75

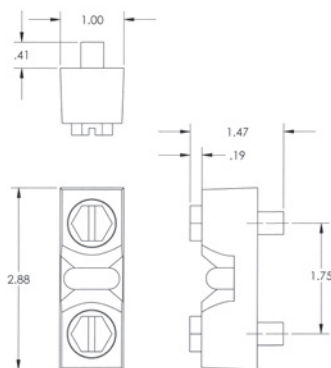
Simple differential sliding  
indicator which changes from  
green to red at 7 PSID.

0 - 7 PSID. Green Clean  
7 - 10 PSID. Red Service Filter  
CP Series (500, 750, 1010, 1280,  
1580)

\*Indicators ordered and shipped separately



### DIAL INDICATOR



### DP-75



## Electrical Filter Indicators

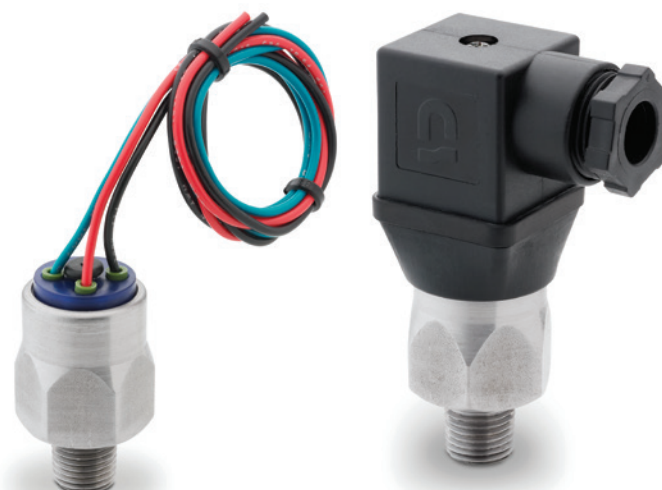
### Field Adjustable

#### Specifications:

- 1/8 NPT connection
- 3 AMP 12/24 VDC, 125/250 VAC IP67
- +/- 2% repeatability of full set point range @ 70°F
- Operating temperature 40°F to +250°F (-40°C to 121°C)
- 1,000,000 cycles mechanical range
- Maximum pressure 500 (25 BAR) PSI
- Steel housing, zinc plated
- Buna N diaphragm
- SPDT snap action switch

#### Options:

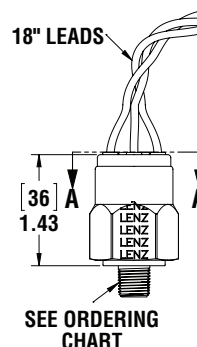
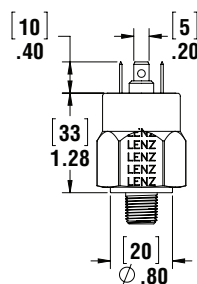
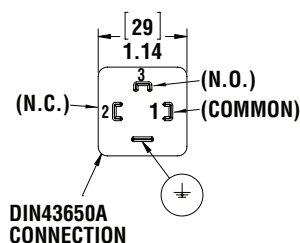
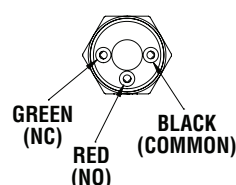
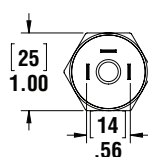
- EPDM seals -10°F – 250°F (-23°C – 121°C)
- Viton seals 0 – 250°F (-18°C – 121°C)
- Flying leads



LES-FL

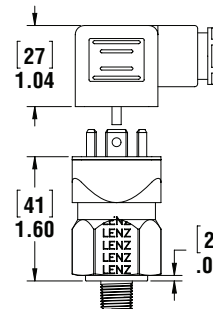
LES-HC

Model	Adjustment Range	Average Differential	Set Pressure
P1	3-20 PSI (.2-1.4 BAR)	2-5 PSI (.13-0.4 BAR)	15 PSI
P2	15-80 PSI (1.03-6 BAR)	4-7 PSI (.27-0.5 BAR)	22 PSI
V1	5-28 in Hg (160-948mb)	2-4 INHg (67-135mb)	5 Hg



SEE ORDERING CHART

LES-FL



LES-HC

## Switch Ordering Code

LES – P1 – 2N – B – HC –

Series	Adjustment Range	Thread	Seals	Electrical Connection	Options
LES	P1 3-20 PSI P2 15-80 PSI V1 5-30" HG Rising	2N 1/8" NPT 4N 1/4" NPT 4S 7/16"-20 6S 9/16"-18	B Buna V Viton E EPDM	FL Flying Leads HC Din Clamp	Omit SS Stainless Housing IL Ind Light

\*Indicators ordered and shipped separately

Switch can be used in AC or DC Service.  
For other options consult factory.  
Switch does not indicate differential pressure

See Technical Bulletin TB.FIL23.912, or further information at  
(Technical Data – [www.lenzinc.com](http://www.lenzinc.com))