

OPW[®]

**Fluid Transfer Group
Europe B.V.**

A **DOVER**™ COMPANY

Tank Truck Equipment



WORLD-CLASS TECHNOLOGY, SERVICE AND SUPPORT

INTRODUCTION

Welcome to the OPW Fluid Transfer Group

For over 50 years OPW Fluid Transfer Group Europe is dedicated to provide expert solutions for the safe handling, processing, monitoring and transportation of hazardous bulk products.

A motivated team of professionals understand customer needs as well as applicable legislation and local requirements.

Engineering skills and a sophisticated production facility in combination with modern logistics offer our clients the flexibility and innovation required to keep and enhance their marketplace.

This together with our long expertise and customer focus makes OPW Fluid Transfer Group what it is today, one of the global leaders in the market.

Our focus is primarily on Hydrocarbon and Chemical products. Our expertise concentrates on road tankers and railcar transport; loading-, unloading- and transloading facilities and the safe quick and dry-disconnect coupling systems.

Nowadays safeguarding the environment, equipment and people is key, OPW Fluid Transfer Group line of products offer worldclass solutions for your Transportation needs as well as your Loading Terminal facilities.

Zero Harm ,Total Integrity is our motto.

Sincerely yours,
OPW Fluid Transfer Group Europe BV

H. Gilde
Managing director

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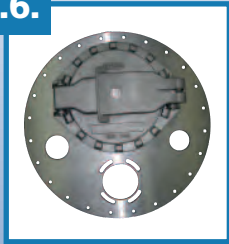
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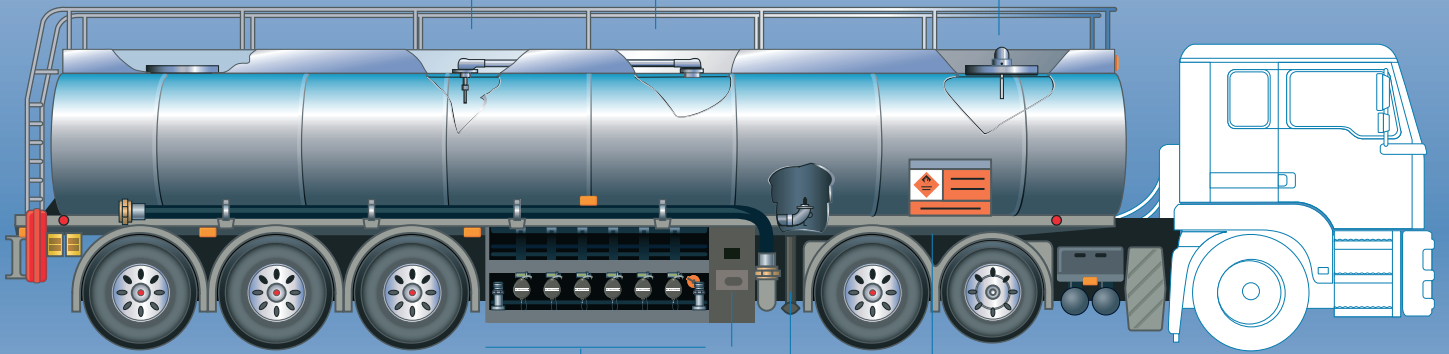


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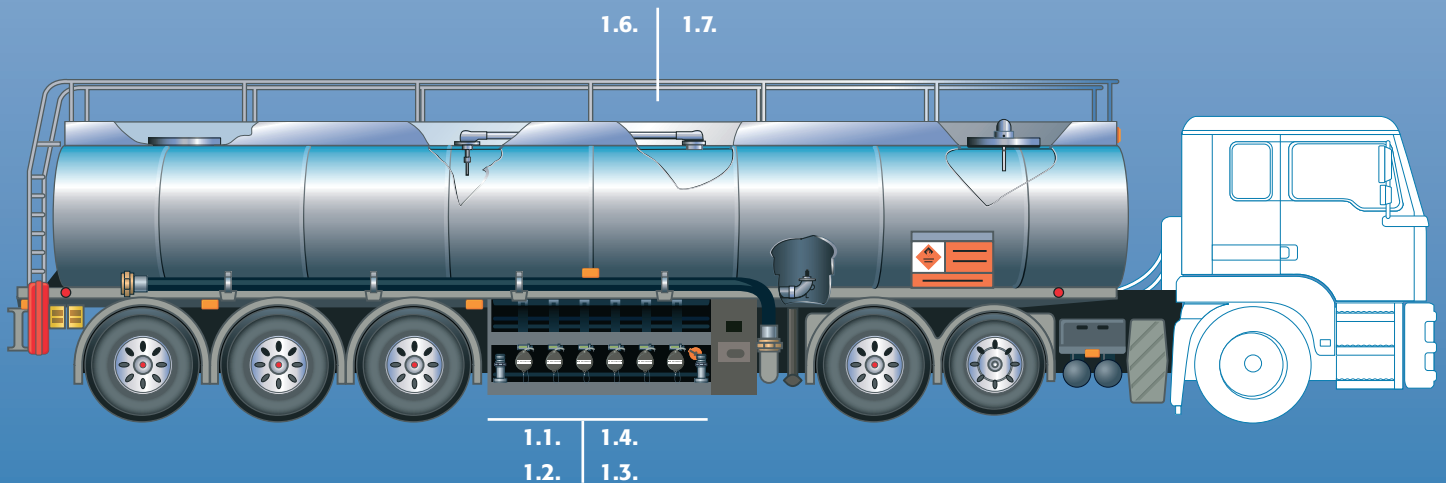
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API Tank Truck Adaptor

FEATURES AND BENEFITS

CIVACON's API bottom loading adaptors are precisely engineered to match standard loading couplers and increase service performance.



891BA, API Adaptor



891BA, API Adaptor with Air Interlock model 200



891NB, API Adaptor

- **Designed in accordance** with API RP 1004 and EN13083
- **Two piece** lightweight aluminium construction for maximum strength and weight reduction
- **4" TTMA** mounting flange
- **Nominal size 4"** or DIN100
- **Rotatable** hard-coated nose piece for maximum service life
- **Flat bottom** ensures complete drainage
- **Minimum number of internals** to minimize pressure drop and improve flow rate
- **Bushed running surfaces** for efficient operation
- **Stainless Steel** internals for maximum service life
- **Viton GFLT** seals
- **Compatible** with diesel, bio diesel, gasoline, ethanol and methanol
- **Heavy duty** poppet with an acetal resin bearing for smoother opening characteristics
- **Easy-grip** aluminium lever
- **Mounting lugs** for model 300/301 air interlock valve
- **Grease nipple** on handle for easy maintenance

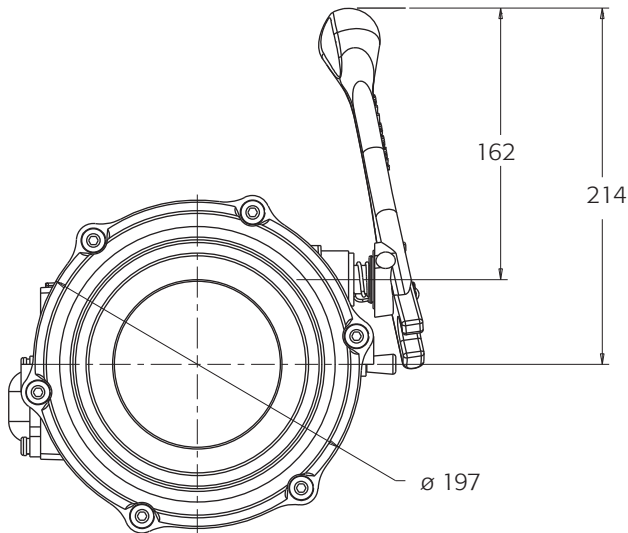
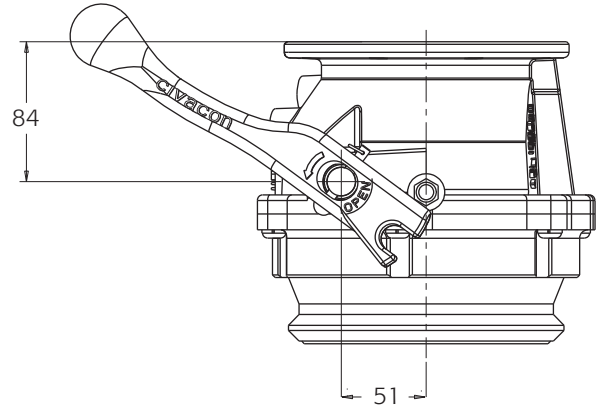
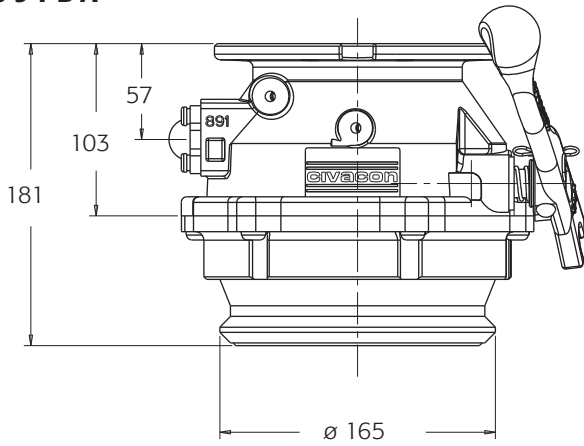
CERTIFICATES



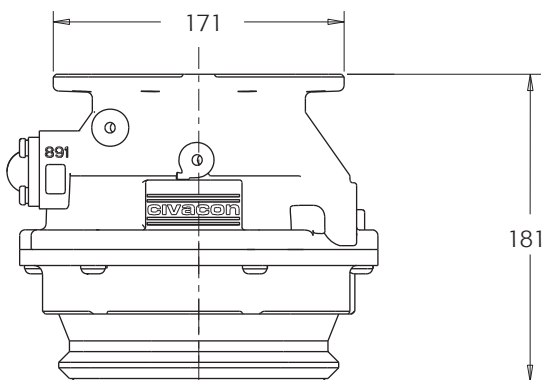
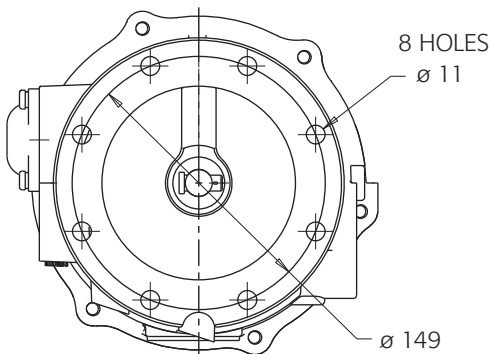
891, EN13083

SPECIFICATIONS

891 BA



891 NB



General Spec's API Tank Truck Adapter

- Nominal size 4" or DIN100
- Maximum flow rate 2.500 litre/minute
- Seal Viton GFLT
- Working temperature -40°C to +70°C
other temperatures in request
- Weight 891BA 5,1 Kg
891N & 891NB 4,2 Kg

All dimensions are in mm

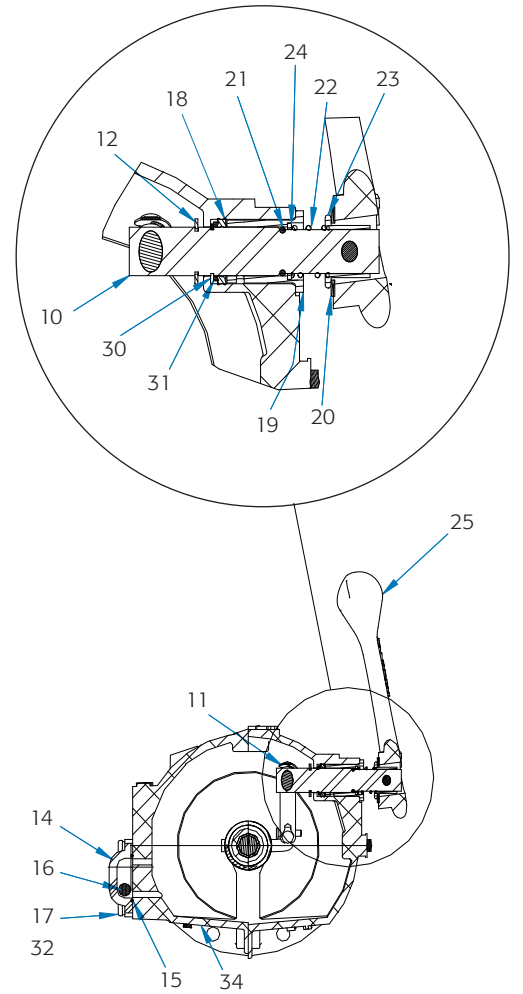
SPARE PARTS

Repair kit

891HRK	Handle repair kit
891ORK	O-Ring Repair Kit
891SRK	Shaft Repair Kit
891BRK	Sight Glass Repair Kit
Spare part only supplies as complete kit	

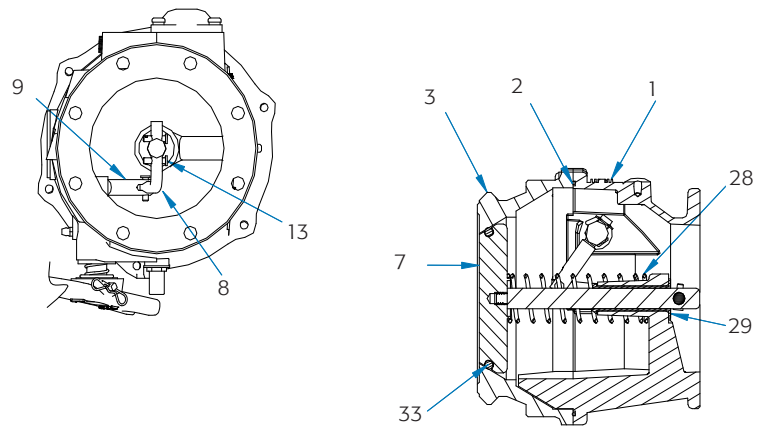
Item	Part Nr	Description	QTY	Item	Part Nr	Description	QTY
1	11548	BODY, MACHINED	1	19	11536	BEARING ^{1 4}	1
2	11905	O-RING	1	20	10840	NYLON WASHER ^{1 4}	1
3	11550	ADAPTOR FACE	1	21	H06924M	O-RING ^{1 2 4}	1
4	10806M	LOCK WASHER	6	22	H20182M	SPRING ^{1 4}	1
5	11534	SCREW	6	23	11490	HUB ^{1 4}	1
6	H20051M	STOP PIN	1	24	H20199M	NYLON WASHER ^{1 4}	1
7	11850	POPPET	1	25	11460	HANDLE ¹	1
8	11545	LINK, POPPET/HANDLE	1	26	H08901M	FULCRUM PIN ^{1 4}	1
9	11544	LINK, SHAFT	1	27	11623	BOWTIE CLIP ^{1 4}	1
10	11543	SHAFT ^{1 4}	1	28	11664	SPRING	1
11	11661	E-CLIP	1	29	11665	BEARING	1
12	11662	E-CLIP	1	30	11703	RETAINING RING	1
13	11618	CLEVIS PIN	3	31	11704	WASHER ^{1 4}	1
14	11365M	SIGHT GLASS ³	1	32	H20057M	LOCK WASHER ³	4
15	H51437M	O-RING ³	1	33	H20058M	O-RING ²	1
16	H51384M	FLOAT BALL ³	1	34	12080	PLUG, 3/8" NPT	1
17	11366M	SCREW ³	4				
18	11705	QUAD RING ^{1 2 4}	1				

1—Included in 891HRK, 2—Included in 891ORK, 3—Included in 891BRK, 4—Included in 891SRK



RELATED PRODUCTS

Art. number	Description
300/301	Air interlock valve
875-AL40	API dust cap
11240	4" TTMA sight glass
11293M	Guard bar interlock
GASK0052	4" TTMA gasket
FAL0009	4" TTMA flange aluminium
FST0025	4" TTMA flange steel



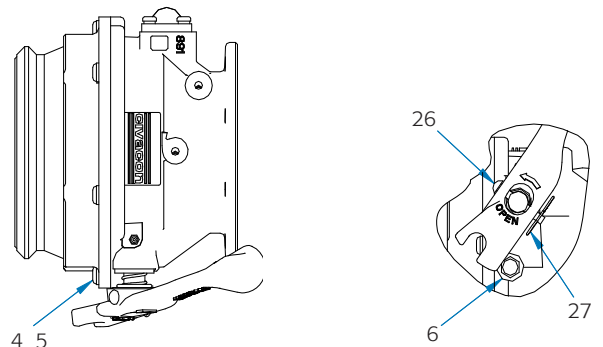
ORDERING SPECIFICATIONS

891 API Adaptor with Handle

891BA 4" API bottom loading adaptor with aluminium handle and sight glass

891 API Adaptor without Handle

891N 4" API non-openable bottom loading adaptor
 891NB 4" API non-openable bottom loading adaptor with sight glass



875 AL40 Dust Cap

FEATURES AND BENEFITS

CIVACON's 875 API Dust Cap is lightweight, corrosion resistant and designed for the protection of API RP 1004 tank-truck adaptors complying to ADR.



875 AL40, Dust Cap

CERTIFICATES

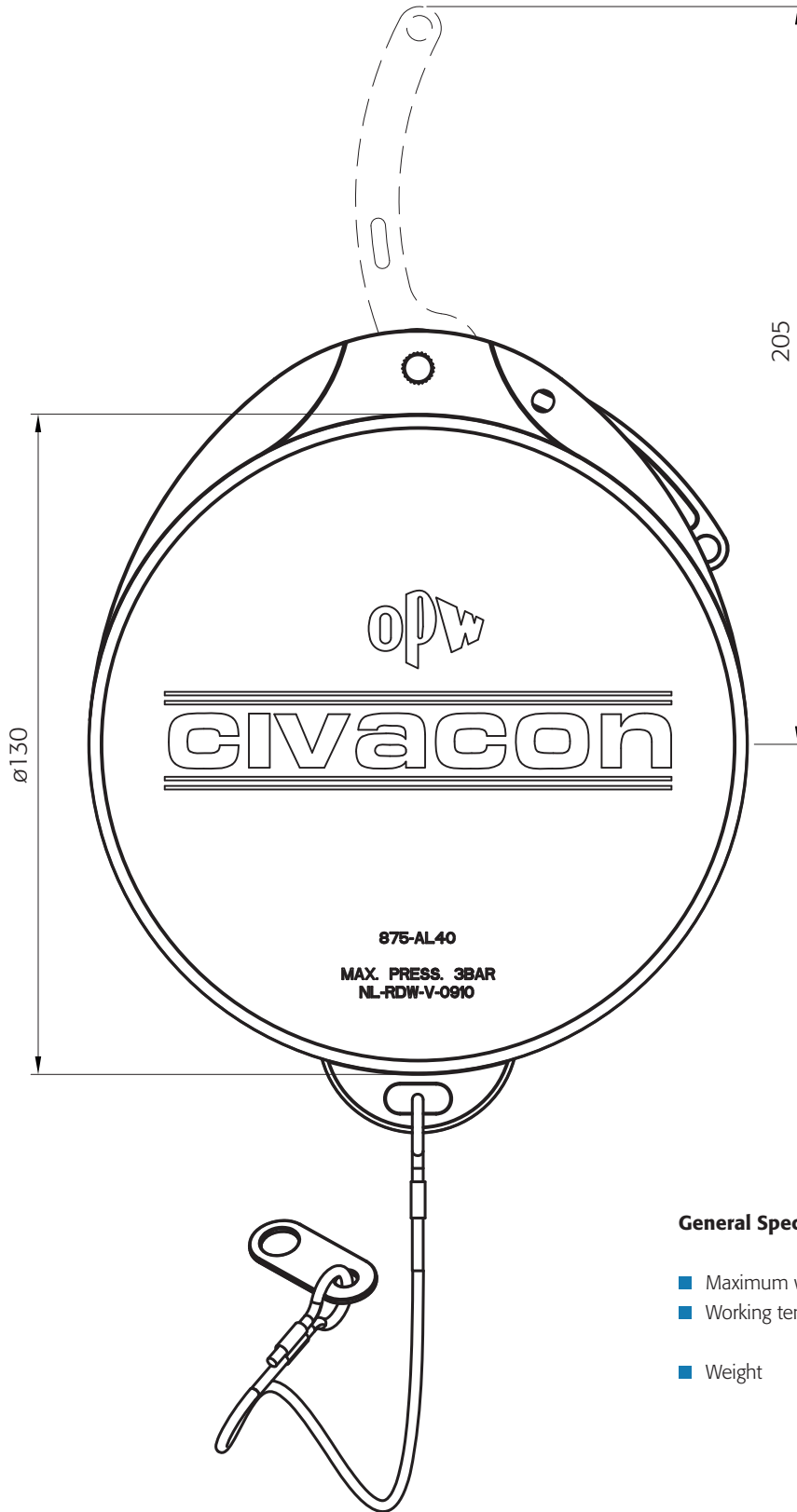


875-AL40, ADR

- **Certified per ADR 4.3.4.1.1** up to 3 bar
- **Lightweight** pressure die-cast aluminium construction for maximum strength and weight reduction
- **Easy use** due to radial cam and lug design
- **Buna-N seal**
- **Glass-filled nylon** cams to reduce wear
- **Locking hole** for wire security seal
- **Private branding** on API Dust Cap is optional

SPECIFICATIONS

875 AL40 DUST CAP



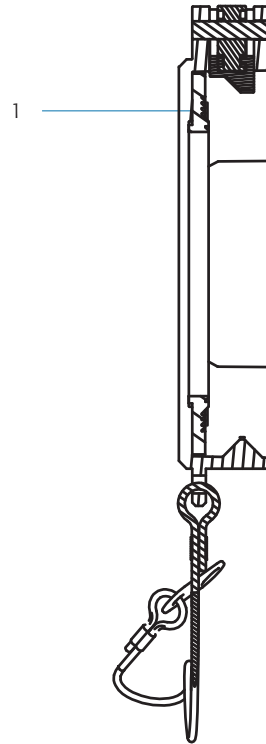
General Spec's 875-AL40 Dust Cap

- Maximum working pressure 3 bar
- Working temperature -40°C to +70°C
other temperatures in request
- Weight 1 Kg

All dimensions are in mm

SPARE PARTS

Item	Part number	Description
1	H71271	Buna-N seal

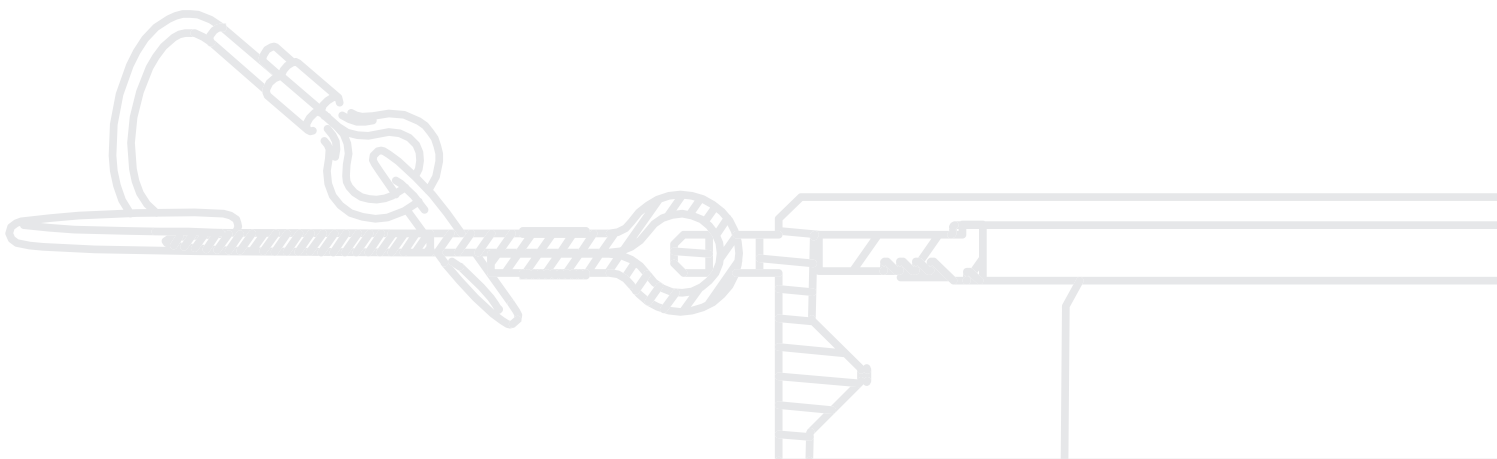


RELATED PRODUCTS

Art. number	Description
891-series	4" API Bottom Loading Adaptors

ORDERING SPECIFICATIONS

875-AL40	API Dust Cap
875-AL40-NOLABEL	API Dust Cap without inscription
875-AL40-(private label)	API Dust Cap with private branding



Gravity Coupler

FEATURES AND BENEFITS

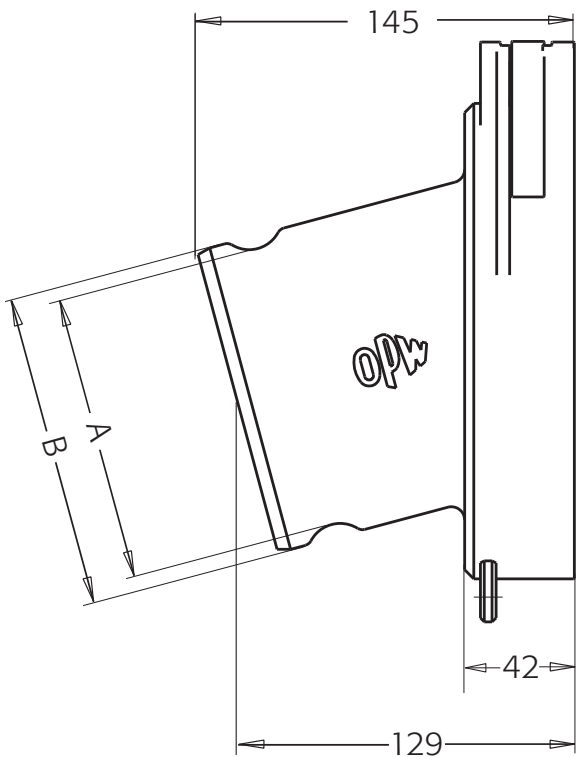
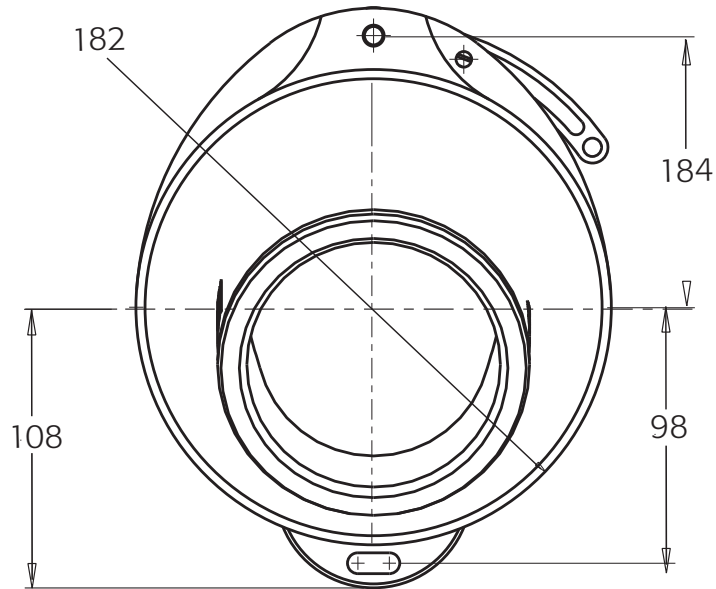
The 876 Gravity Coupler optimizes the connection between 4" API Adaptors and 3" or 4" hose connections, ensuring safe and fast unloading. The 876 has been designed with an over centre CAM for easy connection.



- **Designed in accordance** with API RP 1004, ADR and EN13083
- **Pressure die-cast** lightweight aluminium construction for maximum strength and weight reduction
- **Innovative design** for:
 - improved high-flow rates
 - minimum pressure drop
 - complete draining capacities to prevent contamination
- **Compatible with** diesel, bio diesel, gasoline, ethanol and methanol
- **Viton GFLT** seal
- **Over Centre CAM** - holds on adaptor top & bottom
- **No wear** of API adaptor surface
- **15° angle** for improved unloading
- **Single piece** 3" and 4" CAM and Groove
- **One hand** operation, simple robust mechanism

SPECIFICATIONS

876-SERIES



	A	B
3"	72,1	91,4
4"	109,2	119,6

General Spec's 876 Gravity Coupler

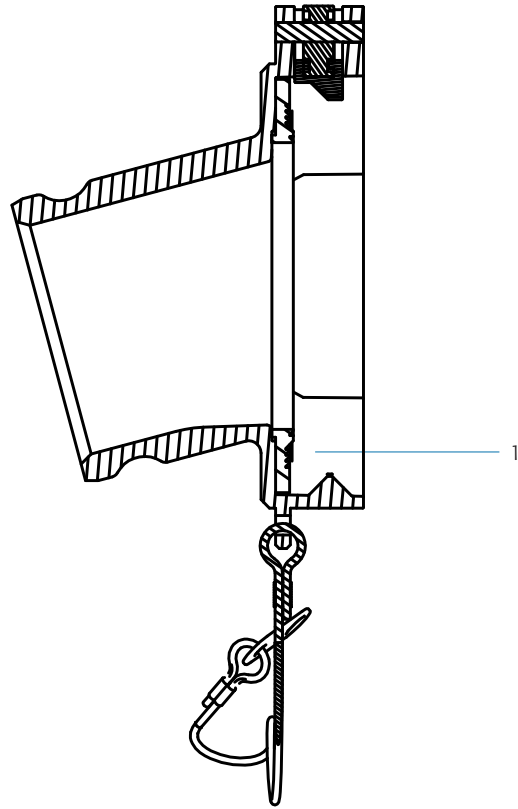
- Nominal size 4" or DIN100
- Working temperature -40°C to +70°C
 other temperatures in request
- Weight 3" kamlok outlet 1,4 Kg
 4" kamlok outlet 1,8 Kg

All dimensions are in mm

SPARE PARTS

Repair kit

1	H71271	Buna-N seal
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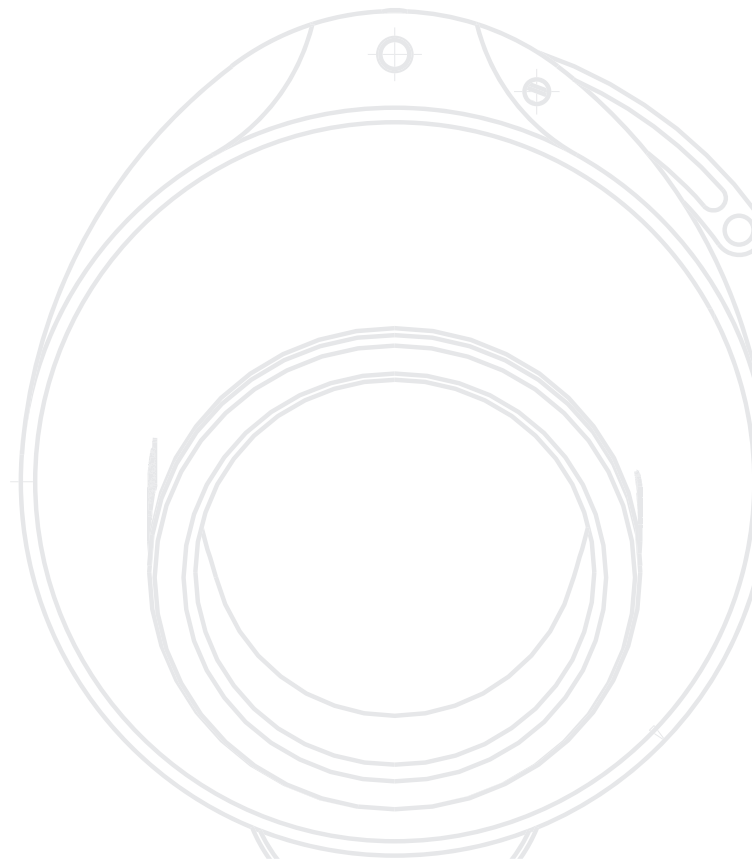


RELATED PRODUCTS

Art. number	Description
891-series	4" API Bottom Loading Adaptor

ORDERING SPECIFICATIONS

876-AL40	4" Gravity Drop Adaptor with 4" male kamlok outlet
876-AL4030	4" Gravity Drop Adaptor with 3" male kamlok outlet



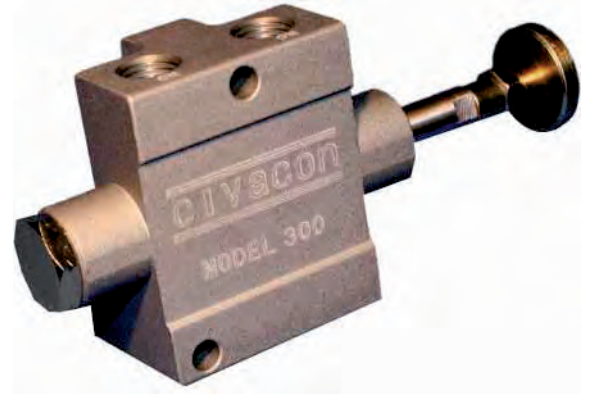
300 / 301 Air Interlock Valve

FEATURES AND BENEFITS

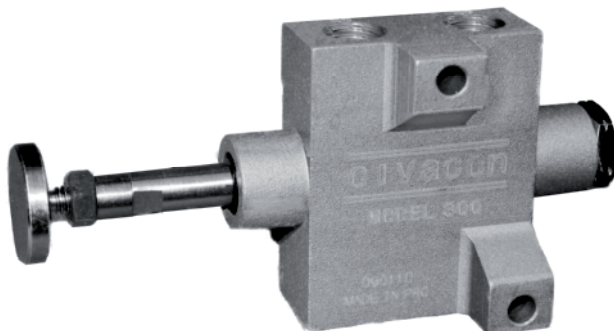
Civacon's New Model 300 Series Air Interlock Valve is the perfect solution for all your petroleum transport interlock needs.

From drive-off protection on APIs and Vapor Adaptors, to interlocking guard bars and cabinet doors, our Model 300 Air Interlock Valve fits right in. The Model 300 valve is a drop-in replacement for our earlier models and for competitive brands. The fit and function remain identical to previous models. Their new durable yet lightweight hard-coat anodized aluminum body, stainless steel internals and hardware deliver extreme durability, extended life and provide superior protection from chemicals and the elements.

This completely new design uses industry standard Parker Brand™, premium AS568B standard O-rings. Our valve features a unique and innovative "closed loop breather" design that requires no vent hole in the rear end cap. This provides a completely sealed design that won't "breathe in" moisture or contamination while in use. Maintenance requirements have been minimized for long, trouble-free operation.



300, Air Interlock front

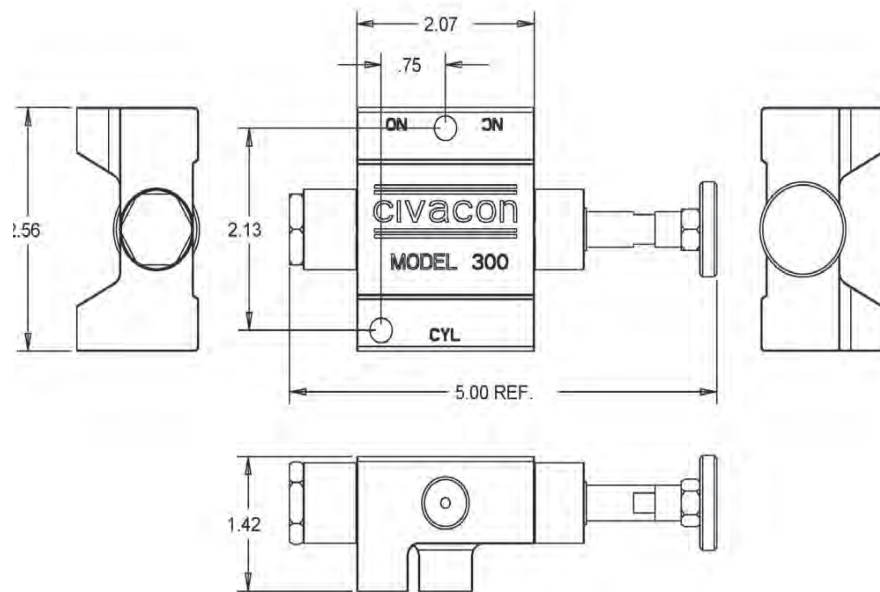


300, Air Interlock back

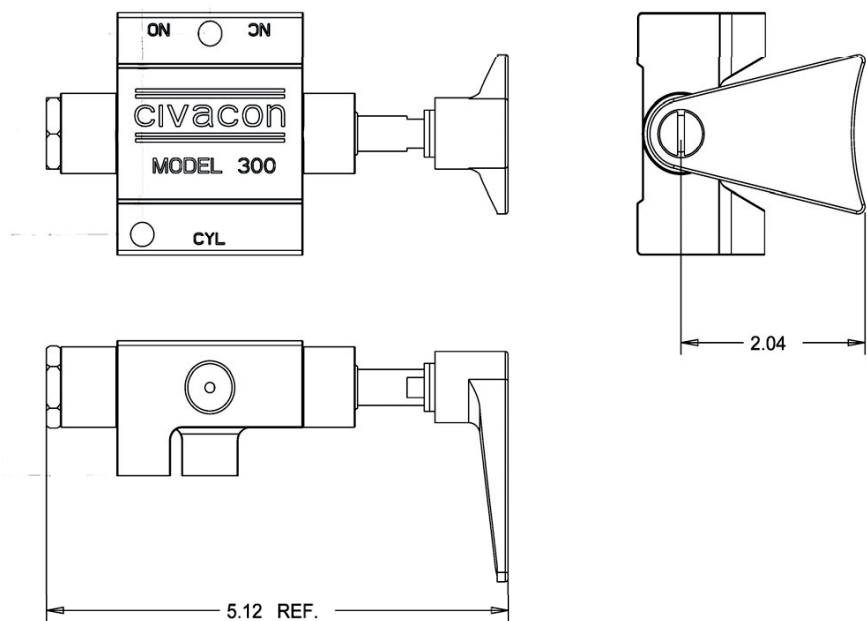
- **Corrosion resistant** nickel-plated aluminium body
- **Main shaft** wiper seal will prevent contaminations from entering seal area
- **Universal mounting** fits all civacon API bottom loading adaptors and vapour recovery adaptors
- **Stainless steel** operating shaft and spring eliminating corrosion
- **Lightweight** aluminium end cap
- **Different end cap** designs possible to meet specific requirements
- **Electrically** continuous

SPECIFICATIONS

MODEL 300



MODEL 301

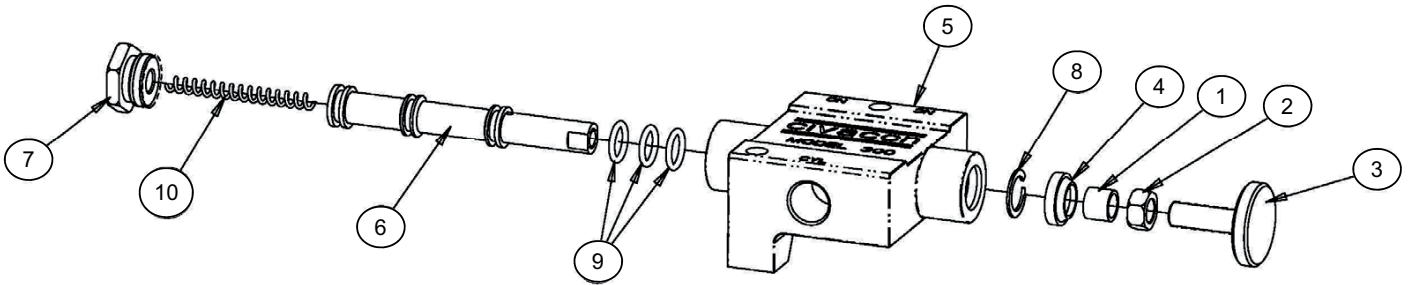


General Specifications

■ Valve type	3-way
■ Air connection	1/8"
■ Air hose	6 mm
■ Weight	model 300 250 g
	model 301 265 g

All dimensions are in mm

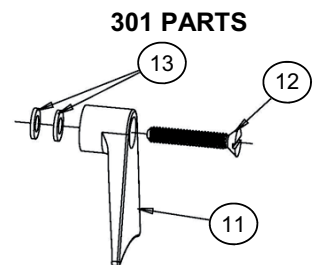
SPARE PARTS



Item	Part #	Qty	Description	Item	Part #	Qty	Description
1	200 - 5 ¹	1	Brass Spacer Sleeve	8	12199	1	Spiral Retaining Ring
2	200 - 6 ¹	1	Hex Nut , 1/4 x 20 SS	9	H20506M ²	3	O - Ring Size 2-012 Buna N (Parker)
3	200 - 7	1	Round Push Button	10	H20507M ²	1	Spring
4	12159	1	Wiper Seal	Model 301 Parts Shown Below			
5	12165	1	Body	11	11393	1	Push Plate
6	12167 ²	1	Stainless Steel Shaft	12	12013	1	Screw FLHD 1/4 x 20 x 1 1/2 LG 18-8 SS
7	12168	1	Rear End Cap / Spring Retainer	13	H20312M	2	Flat Washer

¹ - included in 200 RK

² - included in 300 RK

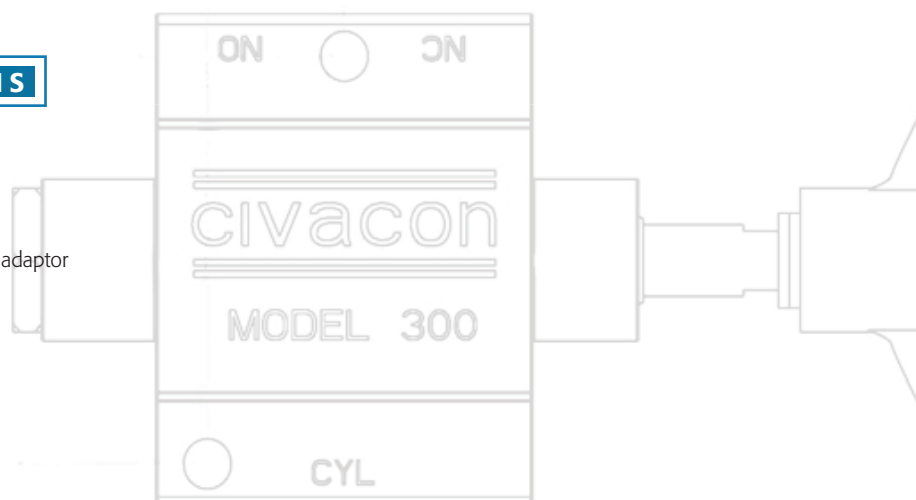


RELATED PRODUCTS

Art. number	Description
633LVB	4" High flow vapour recovery adaptor equipped with sight glass
891-series	4" API bottom loading adaptor

ORDERING SPECIFICATIONS

300	Air Interlock Valve with push button, 3-way, for 4" 891-series API bottom loading adaptor
301	Air Interlock Valve with elongated push button, 3-way, for 4" 633LVB high flow vapour recovery adaptor



EURO-Line Bottom Valves

FEATURES AND BENEFITS

CIVACON's EURO100-Line Bottom Valves are designed for increased safety, durability and service performance. The EURO100-Line high flow bottom valves are available as Compact 100-1 series, Super Compact 100-2 series and 4" TTMA or TW 100-3 series.



EURO100-Line, Bottom Valve Super Compact



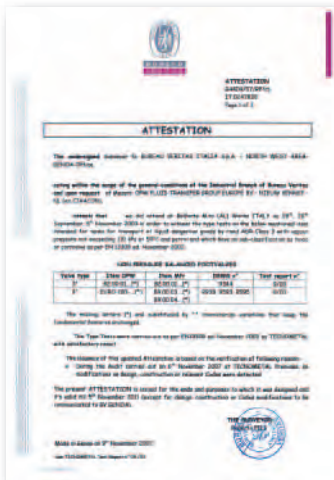
EURO100-Line, Bottom Valve 4" TTMA or TW



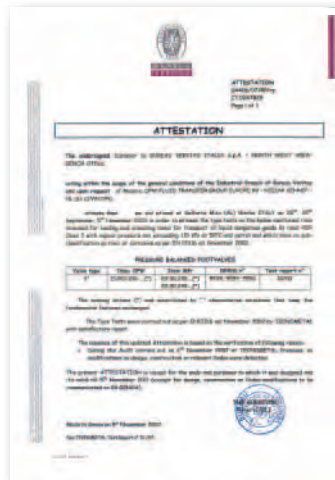
EURO 100-Line, Bottom Valve Compact

- **All EURO100-Line Bottom Valves** in accordance with EN13308 (Non Pressure Balanced) , EN13316 (Pressure Balanced), ADR and API RP 1004
- **Available models:**
Compact, Super Compact and 4" TTMA or TW outlet
- **Pressure balanced** or non pressure balanced operation
- **Sequenced** or non-sequenced operation
- **4" or DN100** connection
- **Lightweight pressure** die-cast for improved strength and reduced weight
- **Hard anodized and** stainless steel internals
- **Stainless steel** filter/strainer
- **Shear Groove** to prevent spillage in case of an accident
- **Superior flow rate:**
- up to 2.500 litres/minute
- no moving parts in the flow path
- **Viton GLFT seals**
- **Valve service** inside of the compartment
- **Manually openable** in case of emergency

CERTIFICATES



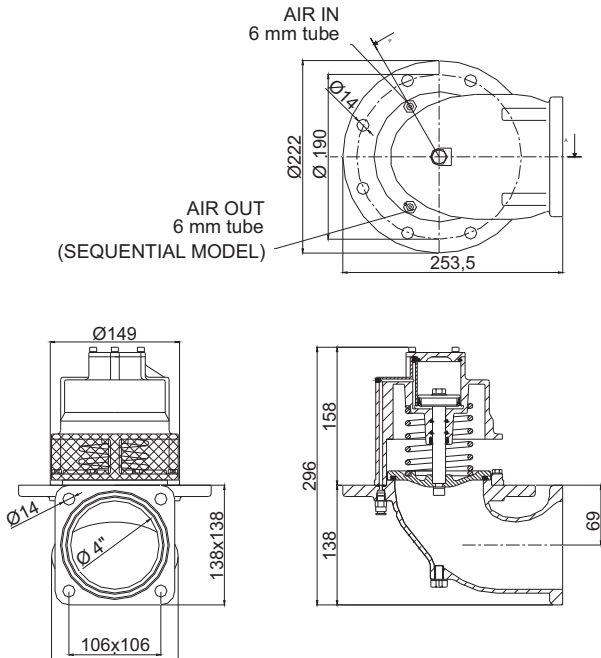
EURO100, EN13308



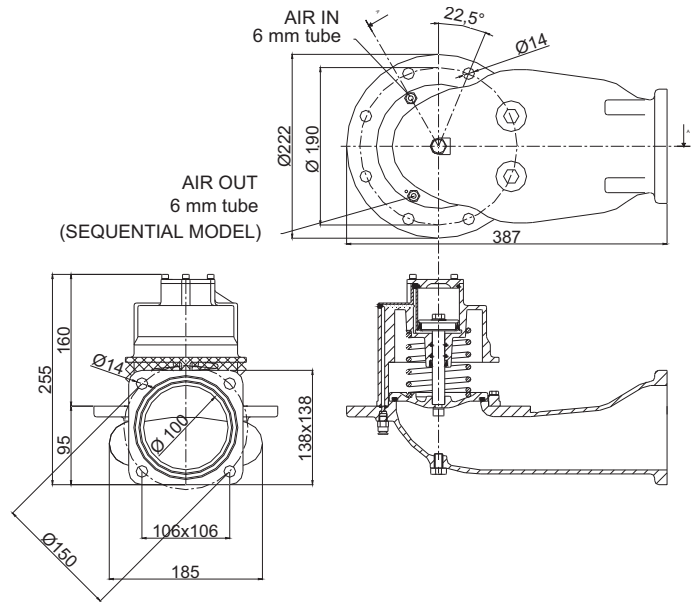
EURO100, EN13316

SPECIFICATIONS

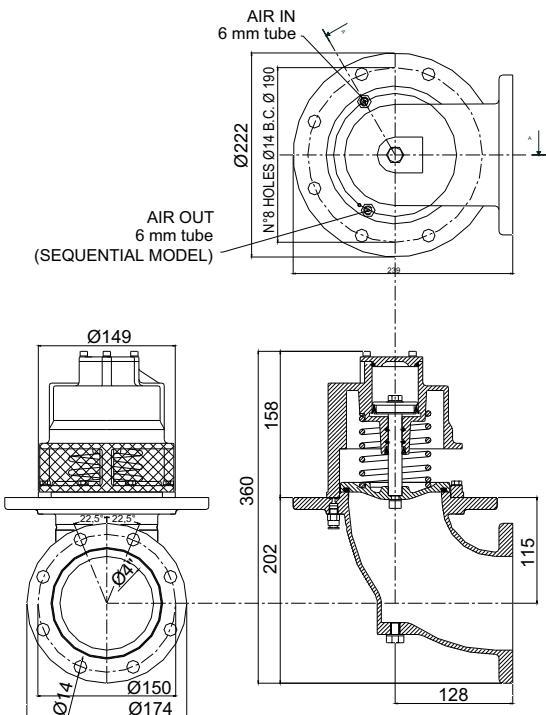
EURO100-1 SERIES



EURO100-2 SERIES



EURO100-3 SERIES



General Spec's EURO100-Line Bottom Valves

- Nominal size 4" or DN 100
- Working pressure 5 bar (500 kPa)
- Operating air pressure 4 bar
- Maximum flow rating 2.500 litre/minute
- Seals Viton GFLT
- Working temperature -20 °C to 70 °C
other temperatures on request
- Weight EURO100-1 4,6 kg
EURO100-2 5,5 kg
EURO100-3 4,7 kg

All dimensions are in mm

SPARE PARTS

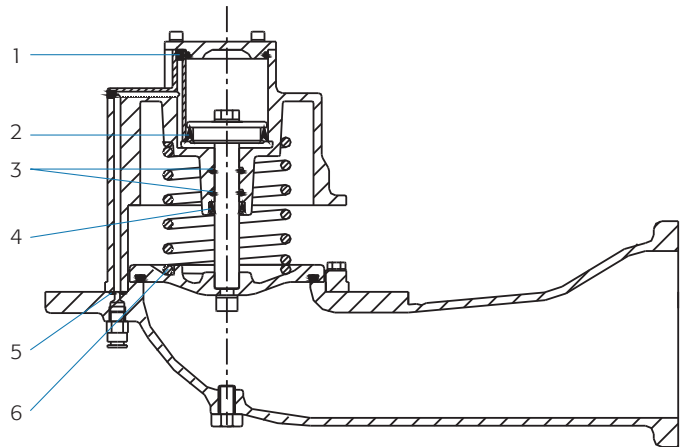
Repair kit

EURO100RK

Seal kit for EURO100-series
Bottom Valve

Contents EURO100RK Repair kit

Item	Part number	Description
1	89-60-75/V	O-ring (Viton)
2	26-60-27	Gasket (Viton)
3	26-60-26	O-ring (Viton)
4	82-30-53	Gasket (Viton)
5	89-60-76/V	O-ring (Viton)
6	92-60-70	O-ring (Viton)



RELATED PRODUCTS

Art. number	Description
SF-100-ST40	Steel sump flange
10-02-43	Aluminium sump flange
10-01-74/EU	Aluminium square outlet flange
10-01-84	Gasket for square outlet flange

ORDERING SPECIFICATIONS

Compact Model: EURO100-1 series

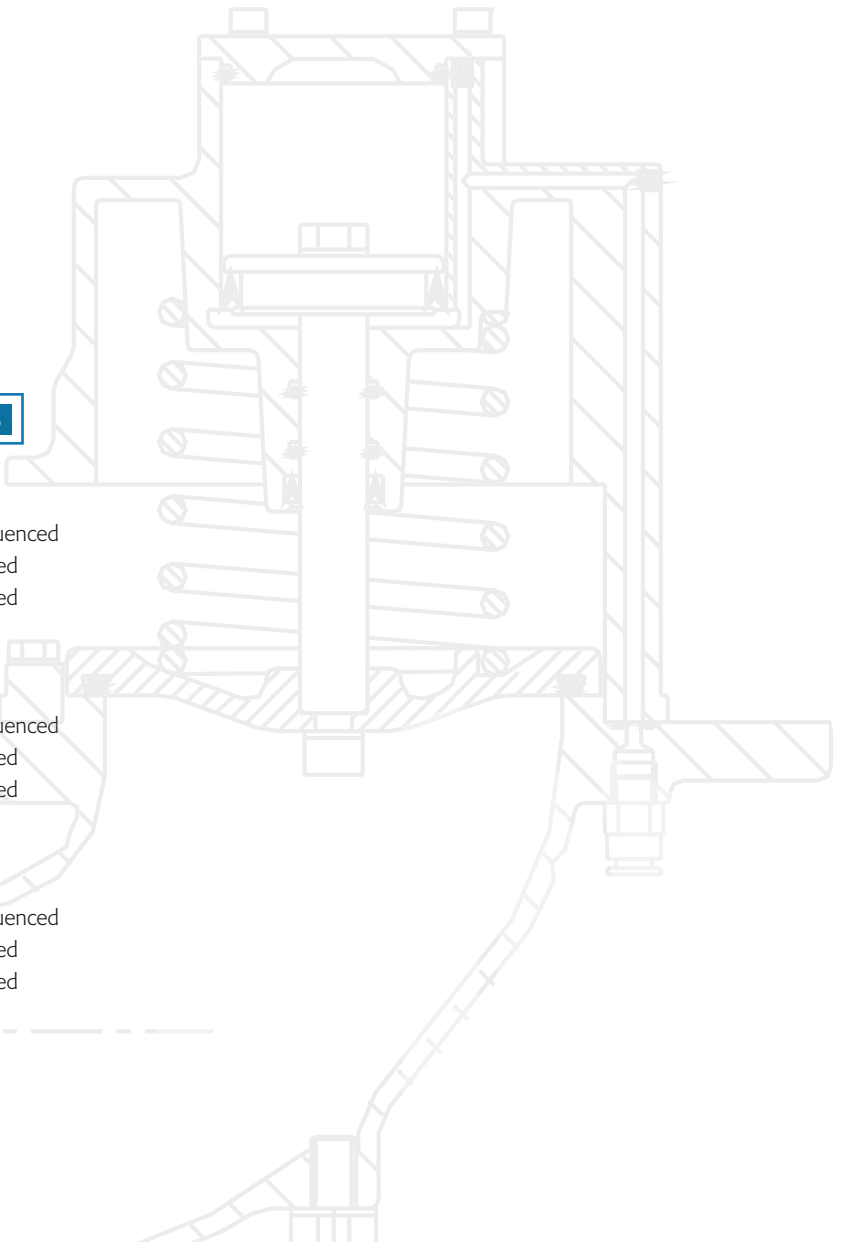
EURO100-1-AL40	4" non-pressure balanced, non sequenced
EURO100-1S-AL40	4" non-pressure balanced, sequenced
EURO100-1B-AL40	4" pressure balanced, non sequenced
EURO100-1BS-AL40	4" pressure balanced, sequenced

Super Compact Model: EURO100-2 series

EURO100-2-AL40	4" non-pressure balanced, non sequenced
EURO100-2S-AL40	4" non-pressure balanced, sequenced
EURO100-2B-AL40	4" pressure balanced, non sequenced
EURO100-2BS-AL40	4" pressure balanced, sequenced

4" TTMA Outlet Model: EURO100-3 series

EURO100-3-AL40	4" non-pressure balanced, non sequenced
EURO100-3S-AL40	4" non-pressure balanced, sequenced
EURO100-3B-AL40	4" pressure balanced, non sequenced
EURO100-3BS-AL40	4" pressure balanced, sequenced



Manhole Cover T400-series

FEATURES AND BENEFITS

CIVACON T400 manhole-cover is designed to achieve optional customer flexibility for manhole-cover applications. The T400 is composed from a Pressure-activated Fill-cover for additional tanker security and separate base-cover to meet specific requirements.



T400-PFC01A, Pressure Activated Fill-cover



H71521, Base Plate model



K1-T400-240217GJ, Manhole Cover Assembly

CERTIFICATES



PAF, EN13314

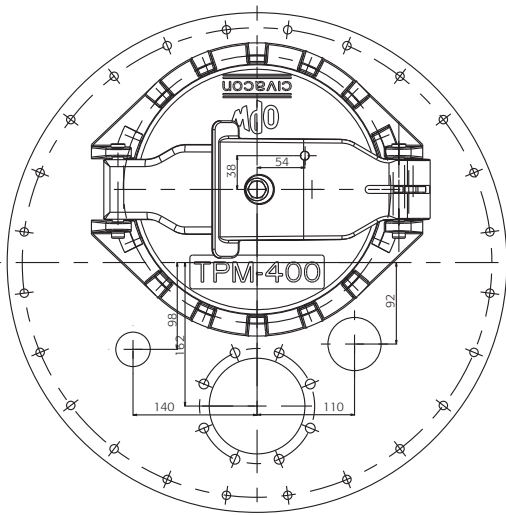
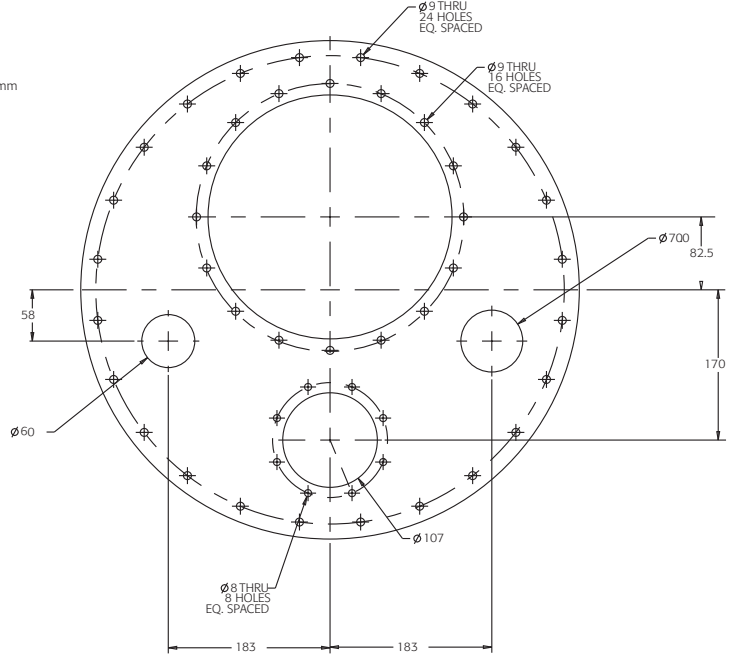
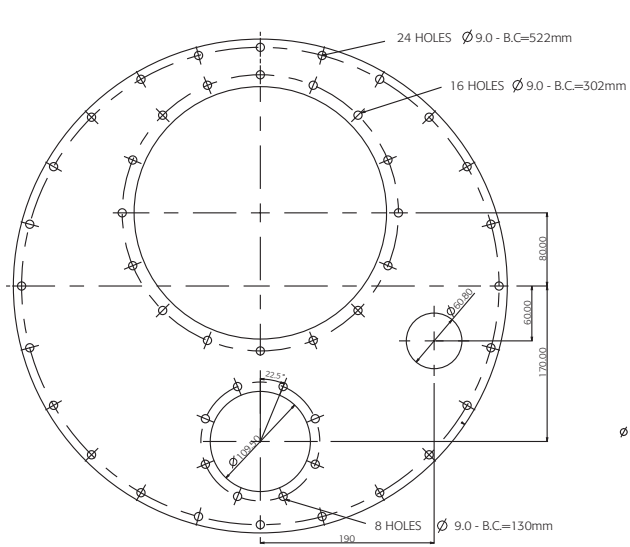


T400, EN13317

- **Complies** with EN13314 (fill-cover) and EN13317 (base-cover)
- **Pressure and vacuum vent** fitted as standard for tank breathing. Various ratings available to suit operational requirements. Two vents may be fitted if required.
- **Spring-loaded Pressure-activated fill cap** provides emergency fire engulfment and venting
- **Emergency venting** capacity 7000m³/h air at 350mb.
- **Automatic sealing of the P/V vent** in a roll over situation
- **20" base-plate** for access compliance with ADR.
- **Two-stage opening** allows safe release of residual compartment pressure before fully opening fill cap.
- **Lockable** – available with key lock
- **Secure 24-bolt fixing** as required by ADR.
- **Lightweight pressed aluminium base-plate** material complies with EN13094.
- **Security facility** for padlock, wire or plastic seal.

SPECIFICATIONS

BASE PLATE EXAMPLES



General Spec's Manhole Cover T400-series

- Base plate
 - Standard 20"
 - Customer specified (material, hole pattern, dimension ...)
- Weight 20" base plate

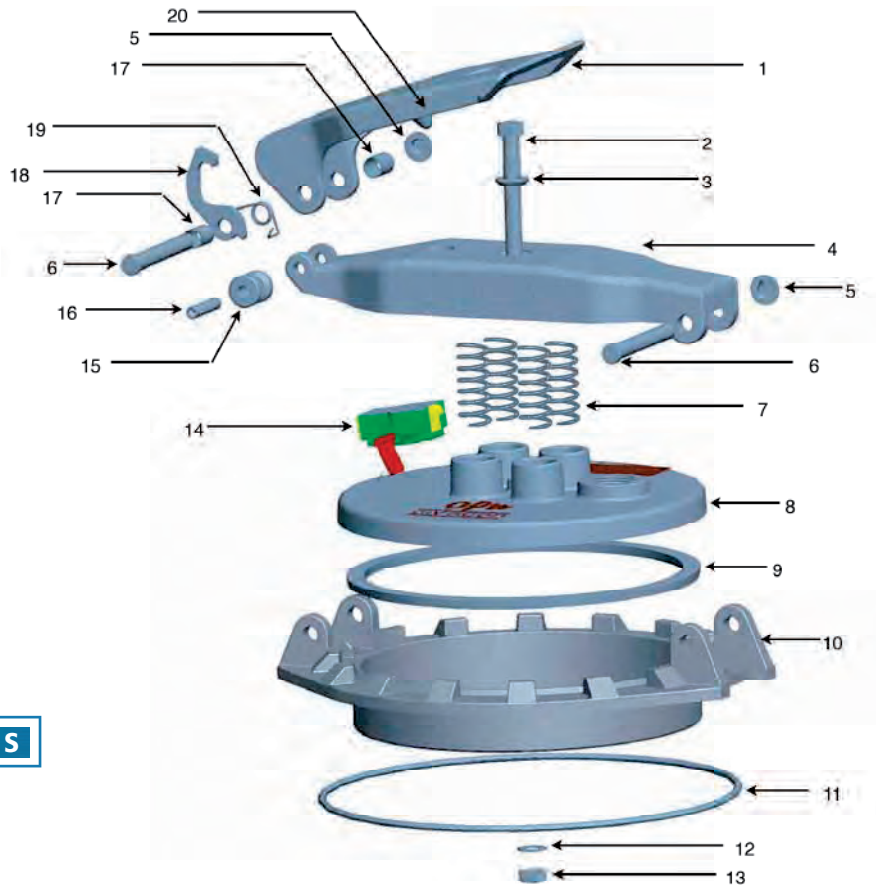
Aluminium	2,8 Kg
Carbon steel	7,8 Kg
Stainless Steel	7,9 Kg
- Weight PAF

6,7 Kg

All dimensions are in mm

SPARE PARTS

Item	Part number	Description
1	11733	Latch
2	11735	Screw
3	11737	Swivel Plug
4	11731	Strong Back
5	1020	Pal Nut
6	4679	Hinge Pin
7	11728	Spring
8	11682	Fill Lid
9	12022	Cover Seal
10	11680	Frame
11	11740	O-Ring
12	9874	Seal Washer
13	1926	Nut
14	11979	Lock Assembly (Optional)
15	11730	Latch Roller
16	11732	Roller Pin
17	11743	Latch Bushing
18	11736	Latch Hook
19	11729	Latch Spring
20	11952	Lock Pin (Optional)



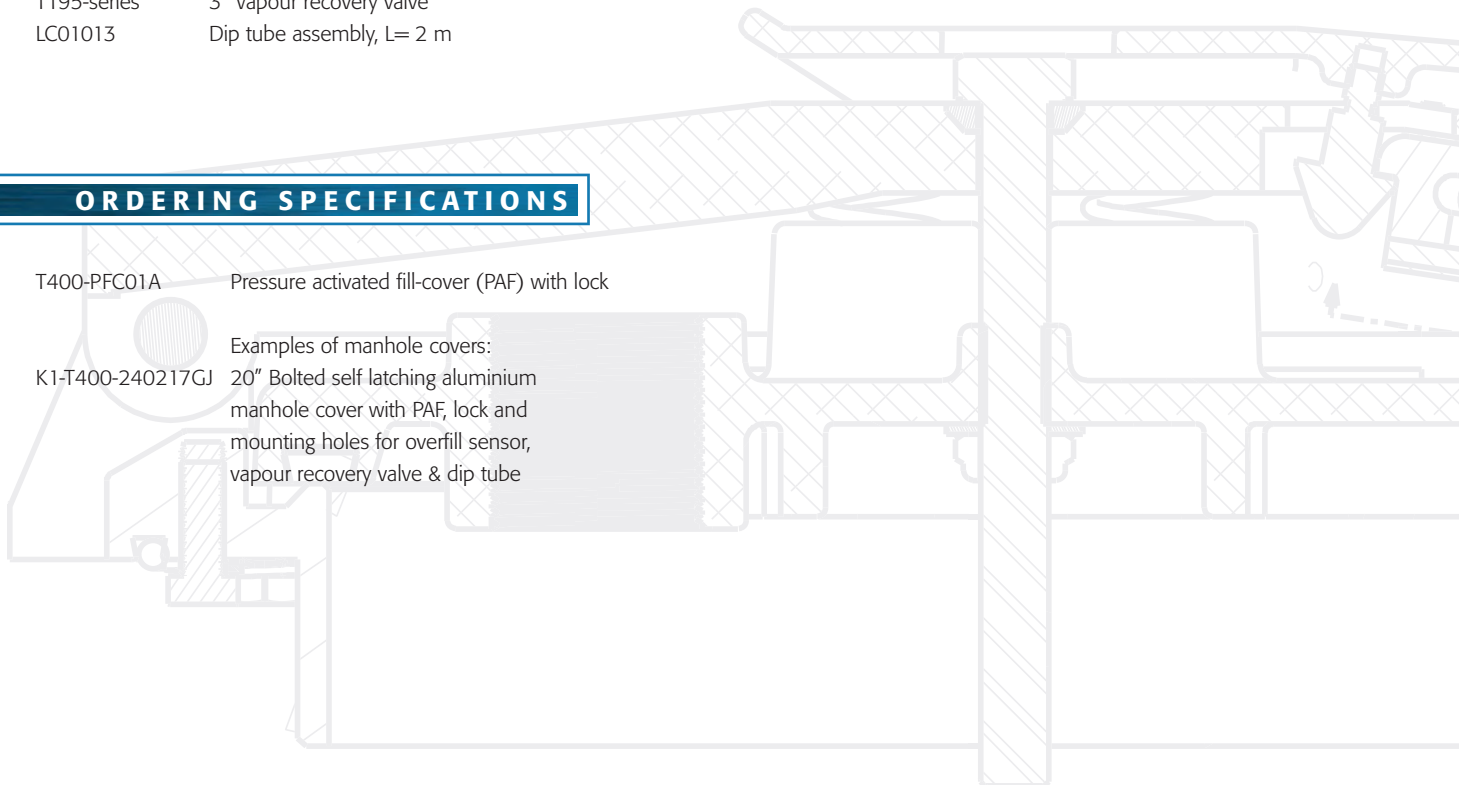
RELATED PRODUCTS

Art. number	Description
1112-series	5-Wire optic overfill sensor
1552-series	2-Wire optic overfill sensor
NV3000E	Internal pressure/vacuum vent
T195-series	3" Vapour recovery valve
LC01013	Dip tube assembly, L= 2 m

ORDERING SPECIFICATIONS

T400-PFC01A Pressure activated fill-cover (PAF) with lock

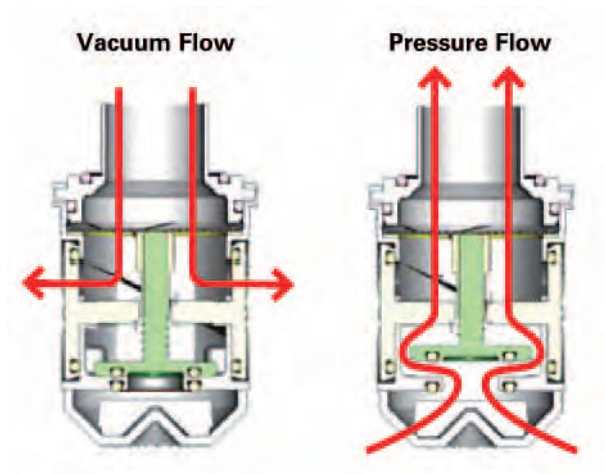
Examples of manhole covers:
K1-T400-240217GJ 20" Bolted self latching aluminium manhole cover with PAF, lock and mounting holes for overfill sensor, vapour recovery valve & dip tube



Pressure Vacuum Vent

FEATURES AND BENEFITS

CIVACON's NV3000E high-flow pressure vacuum vent is designed for durability, safety and service performance.



NV3000E, Pressure Vacuum Vent

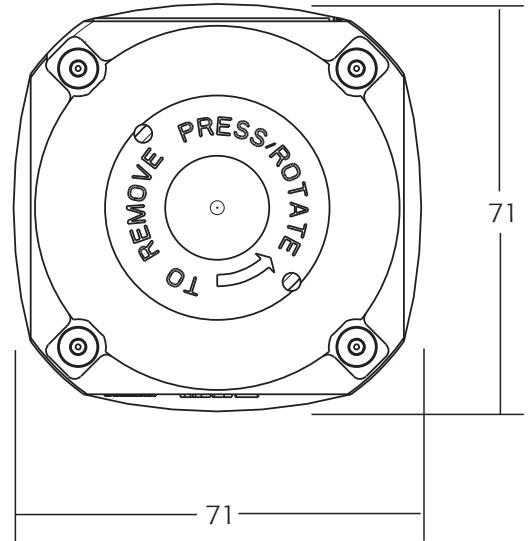
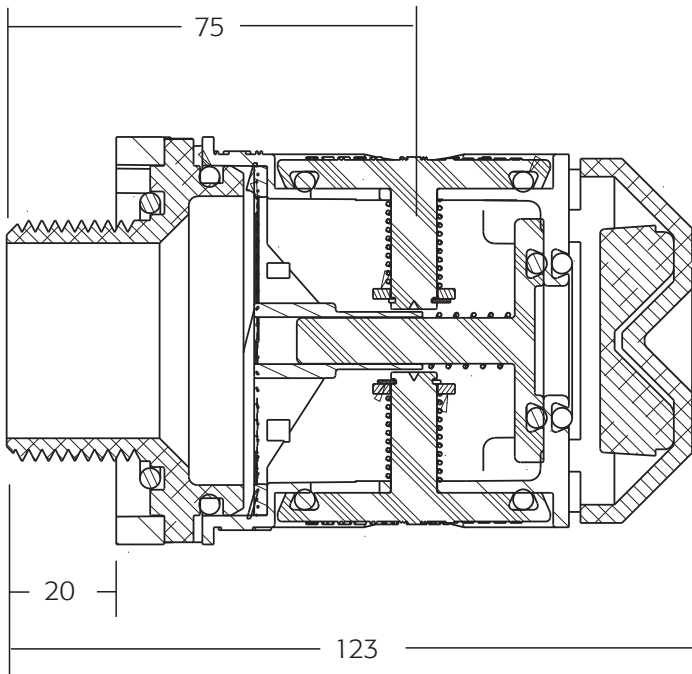
CERTIFICATES



NV3000E, EN 14595

- **In accordance** with EN14595
- **Pressure Die-Cast** aluminium design, stainless steel and acetal components for durability and longer life time
- **Automatic sealing** in case of a tanker rollover
- **Pressure Flow capacity** of 41 m³/h at 200 mbar
- **Vacuum Flow capacity** of 155 m³/h at 70 mbar
- **Lightweight** durable design (400 gram)
- **Removable** filter for easy serviceability
- **Viton GFLT** seals
- **Quick-Strip-In-place** design, no tools required
- **Suitable for** all Civacon 10" pressure activated fill-covers (PAF)
- **Double** dovetail grooves for poppet O-rings for a more secure and longer-lasting seal
- **1 1/4 BSPP** connection

SPECIFICATIONS



General Specifications NV3000E

- Pressure Flow 41 m³/h at 200 mbar
- Vacuum Flow 155 m³/h at 70 mbar
- Connections 1 ¼ BSPP
- Weight 400 gram

All dimensions are in mm

SPARE PARTS

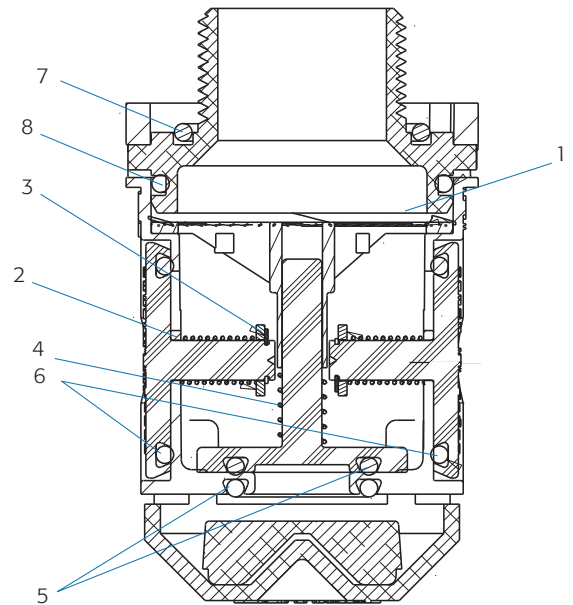
Article Nr.
NV3000RK

Description
Repair Kit NV3000E

Spare part only supplied as complete kit

Contents Repair Kit NV3000RK

Item	Article Nr.	Description	Qty.
1	11745	Wave Spring	1
2	H71328	Vacuum Spring	2
3	H71329	Retaining Clip	2
4	H71330	Pressure Spring	2
5	9428	O-Ring 2-213 Viton A	1
6	11943	O-Ring 2-220 Viton A	2
7	6479	O-Ring 2-224 Buna-N	1
8	H71335	O-Ring 2-227 Viton A	1



RELATED PRODUCTS

Art. number
T400-series

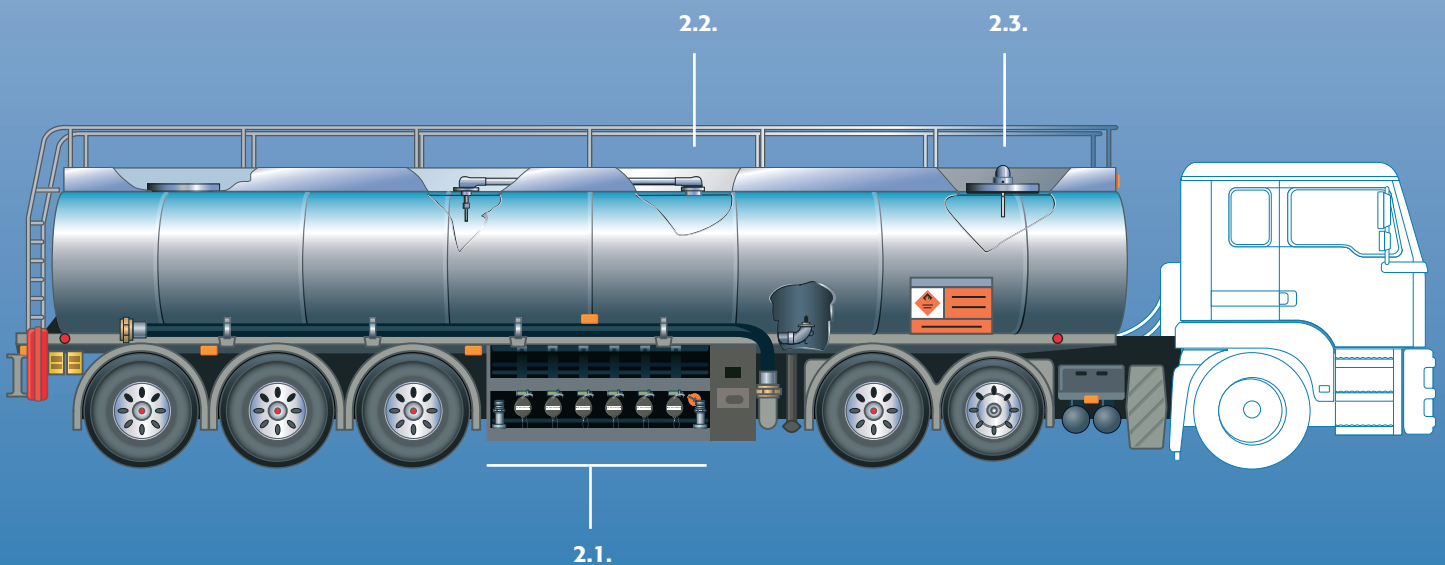
Description
Manhole cover assembly

ORDERING SPECIFICATIONS

NV3000E Pressure vacuum vent assembly (EN14595)

2.1. Vapour Recovery Adaptor	633LVB	30
2.2. Vapour Recovery Valve	T195-series	33
2.3. Vapour Line Valve	1995TWD	36

VAPOR RECOVERY COMPONENTS



Vapour Recovery Adaptor

FEATURES AND BENEFITS

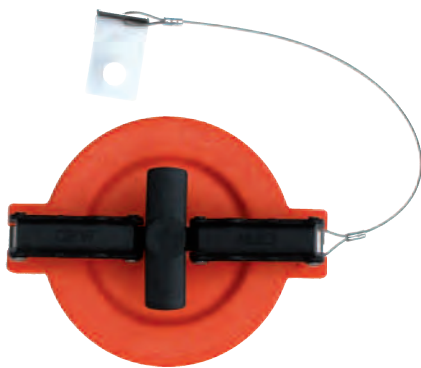
CIVACON's 4" Vapour Recovery Adaptor is designed to maximize efficiency and service performance of vapour recovery with a minimum pressure drop.



633LVB, Vapour Recovery Adaptor with 300/301 Air Interlock



633LVB, Vapour Recovery Adaptor with 300/301 Air Interlock



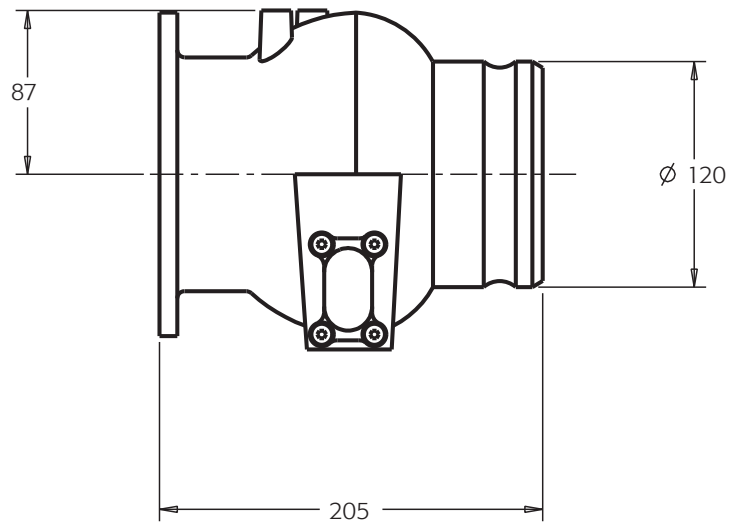
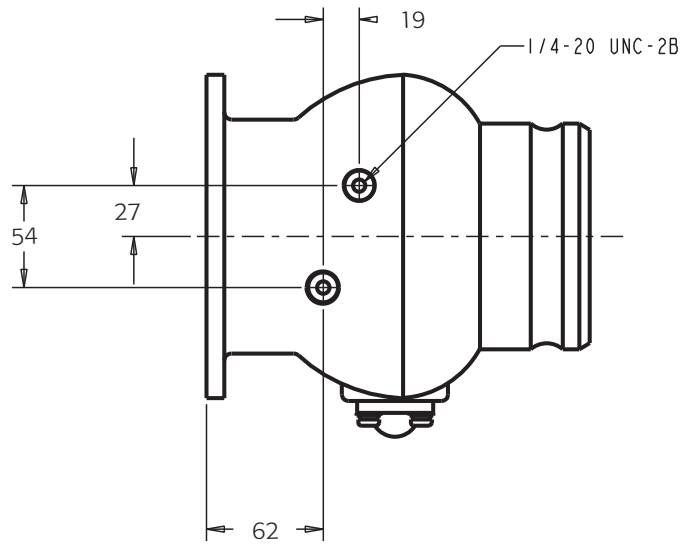
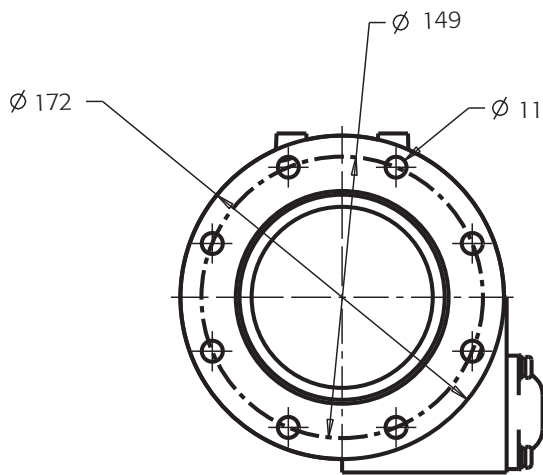
1711T-CA-PL, Dust Cap

CERTIFICATES



- **In accordance** with API RP 1004, ADR and EN13081
- **Lightweight** pressure die-cast construction for maximum strength and weight reduction
- **4" TTMA** mounting flange
- **Nominal size 4"** or DIN100
- **Minimum number of internals** to minimize pressure drop and improve flow rate
- **Bushed running surfaces** for efficient operation
- **Stainless Steel** internals for maximum service life
- **Viton GFLT** seals
- **Compatible** with diesel, bio diesel, gasoline, ethanol and methanol
- **Heavy duty** poppet for smoother opening characteristics
- **Mounting lugs** for model 300/301 air interlock valve
- **Standard equipped** with sight glass and drain plug

SPECIFICATIONS



General Specifications 633LVB-201

- Nominal size 4" or DIN 100
- Flange 4" TTMA
- Working temperature -40°C to +70°C
other temperatures in request
- Weight 3,5 Kg

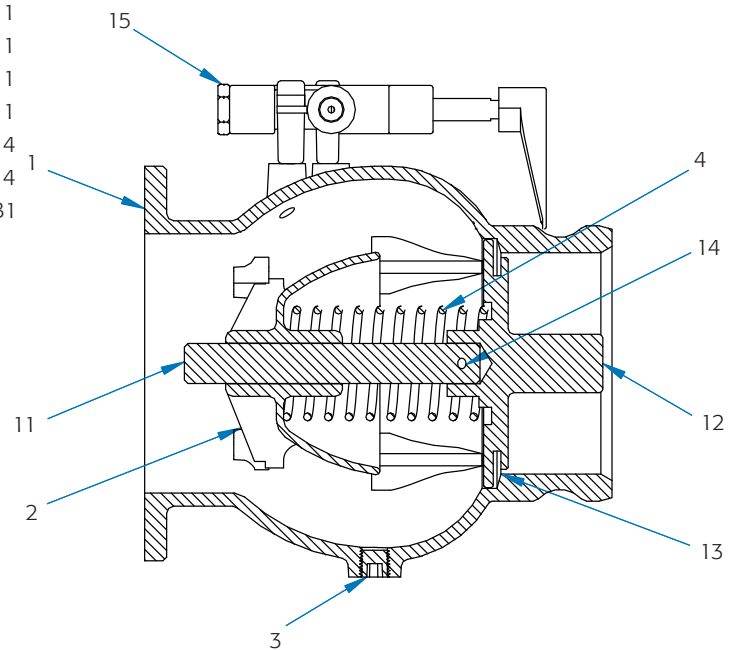
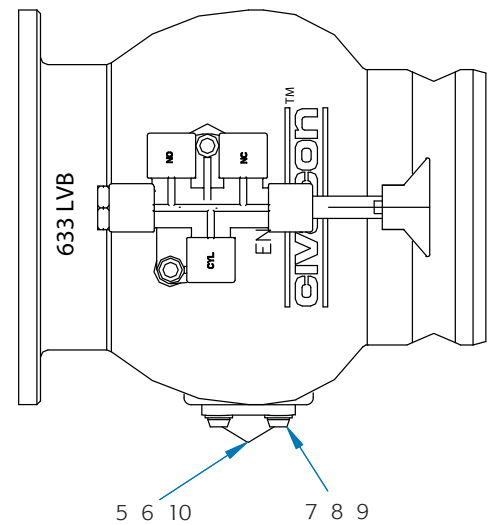
SPARE PARTS

Repair kit

H20009 Poppet Assembly
891BRK Sight Glass Repair Kit

Item	Part Nr	Description	Quantity
1	11666	Body Vapor Valve Machined	1
2	C02779M	Bellows Ribbed Support 861/866	1
3	10068	Plug, Pipe, 1/4npt Brass Flush-Seating Tank Truck	1
4	H20007M	Spring, Straight Compression,633LVH Series	1
5	11365M ¹	Sight Glass	1
6	H51384M ¹	Ball, Float Green 10mm Hollow Hdpp	1
7	11366M ¹	Scrw Btnhd Hex 1/4-20 X 5/8" Ss	4
8	H20009	Poppet Sub Assy For 633LVH-AL40	1
9	C51410A	Poppet, Machined	1
10	H08841RA	Shaft	1
11	H09193M	Cotter Pin	1
12	H20750M	Viton Gasket	1
13	H05608M	Carton, 7-1/2 X 7-1/2 X 7-1/2	1
14	H51437M ¹	O-Ring -023 Buna N	1
15	H20057M ¹	Lock Washer S.S.	4
16	H20312M	Washer	4
17	300/301	Assy, Air Interlock Valve (3 Way) Alum 633LVH/LVB1	1

1-Included in 891BRK



RELATED PRODUCTS

Art. number	Description
1711T-CA-PL	Duratuff cap with cable
300/301	Air interlock valve (3-way)
T195-series	High flow vapour recovery valve
1995TWD-2	Vapour line valve
NV3000E	Pressure vacuum vent

ORDERING SPECIFICATIONS

633LVB	4" High flow vapour recovery adaptor equipped with sight glass
633LVB-201	4" High flow vapour recovery adaptor equipped with sight glass and model 300/301 interlock valve



Vapor Recovery Vent

FEATURES AND BENEFITS

The Civacon T195SV Vapor Recovery Vent is designed and tested for temperature range rated at -40°C to 71°C.

A newcap design threads into the top of the vent allows for a better seal and corrosion free design.

The new design retrofits the current 1985SV and 1986SV.

The presence of a locking ring prevents additional leak paths that were created by the bolt on feature of the previous 1985SV.

The locking ring allows more freedom for mounting the vent to the normal TTMA bolt pattern.

Seals have been improved to be more compatible with chemicals that could potentially come into contact with them.

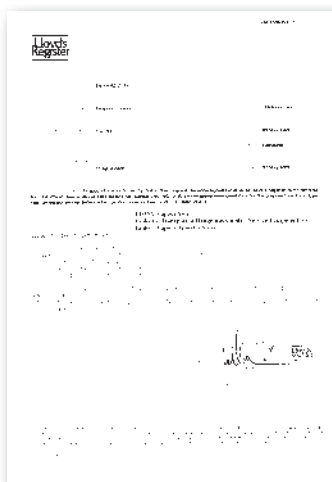


T195SVE, Vapor recovery vent

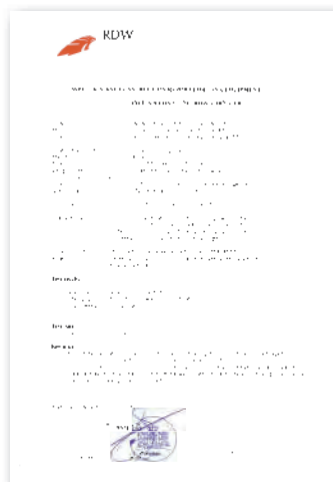


- Lightweight aluminum body
- Double Piston Seals
- Improved Seal Chemical Compatibility and Temperature Rating
- New Cap Design
- Added Exhaust Port to help vent close faster
- Improved Flow Rating and Pressure Drop Reduction
- New Rotation Features allows you to mount the vent from 0 - 45°
- Locking Ring prevents additional leak paths from the Vapor System

CERTIFICATES

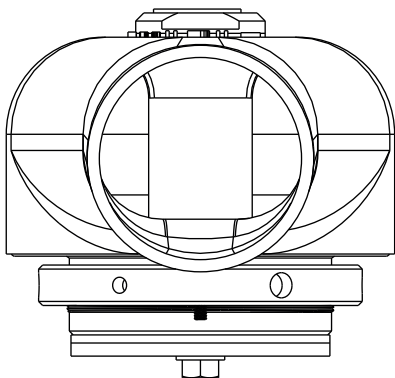
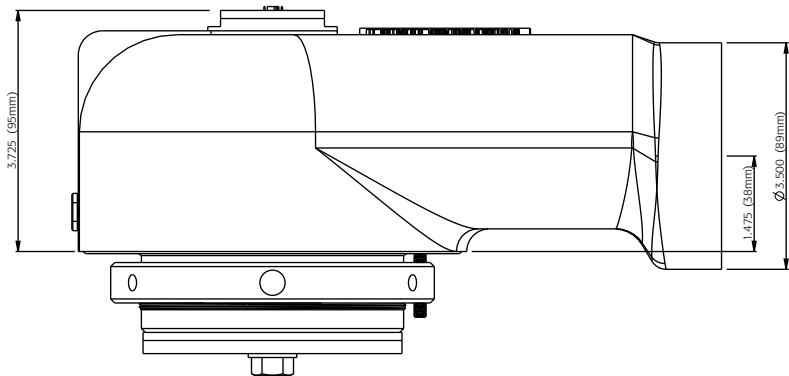
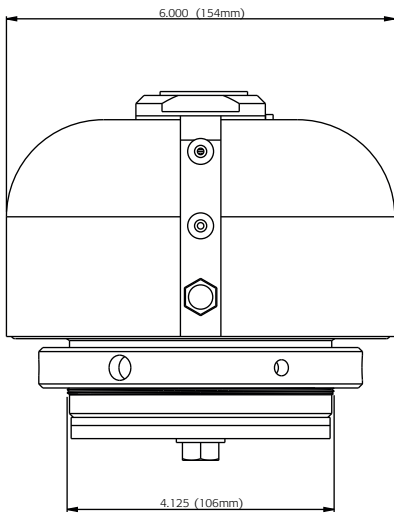
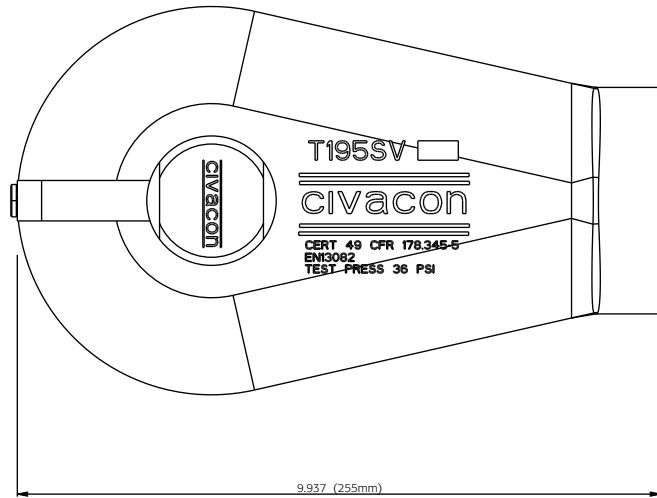


EN13082



EN13082

SPECIFICATIONS



General Specifications T195SVE

- Pressure Drop 0,5 mbar at 2,400 lpm
- Connections 1/8" BSP
- Weight 2,5 kg

All dimensions are in mm

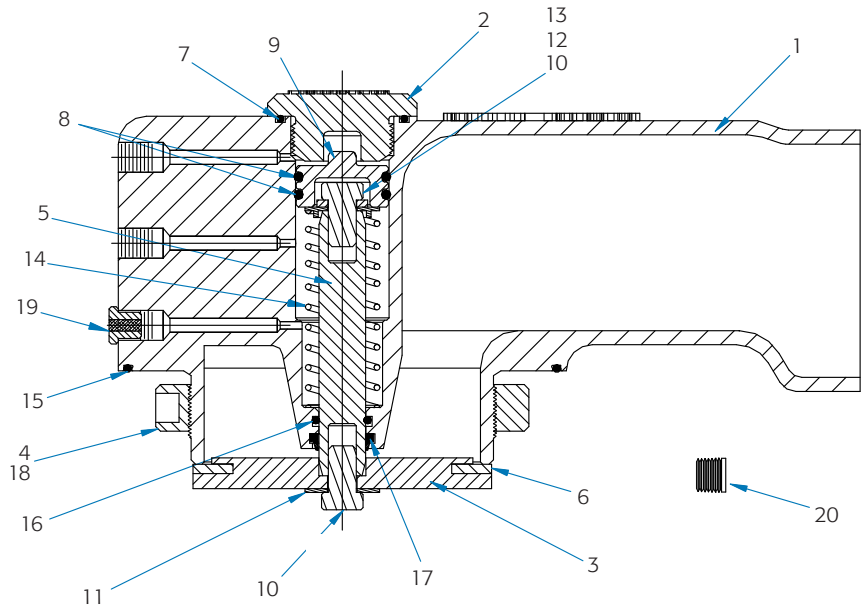
SPARE PARTS

Repair kit

T195SVRK

Item	Part Nr	Description	QTY.
1	11669	BODY	1
2	11672	CAP	1
3	11677	POPPET	1
4	11678	LOCKING RING	1
5	11673	SHAFT	1
6	11699	GASKET, VITON GF ¹	1
7	11692	O-RING, VITON GF ¹	1
8	11776	O-RING, FLUOROSILICON ¹	2
9	11772	PISTON ¹	1
10	H20518M	SCREW	2
11	11774	SEAL WASHER	1
12	1760	LOCK WASHER	1
13	11990	SPRING GUIDE	1
14	11694	SPRING	1
15	11695	O-RING, VITON GF ¹	1
16	10681M	O-RING, VITON GF ¹	1
17	116961	WIPER	1
18	11697	SET SCREW	1
19	11775	EXHAUST FITTING	1
20	H70319	PLUG, 1/8" NPT	1

1—Included in repair kit,

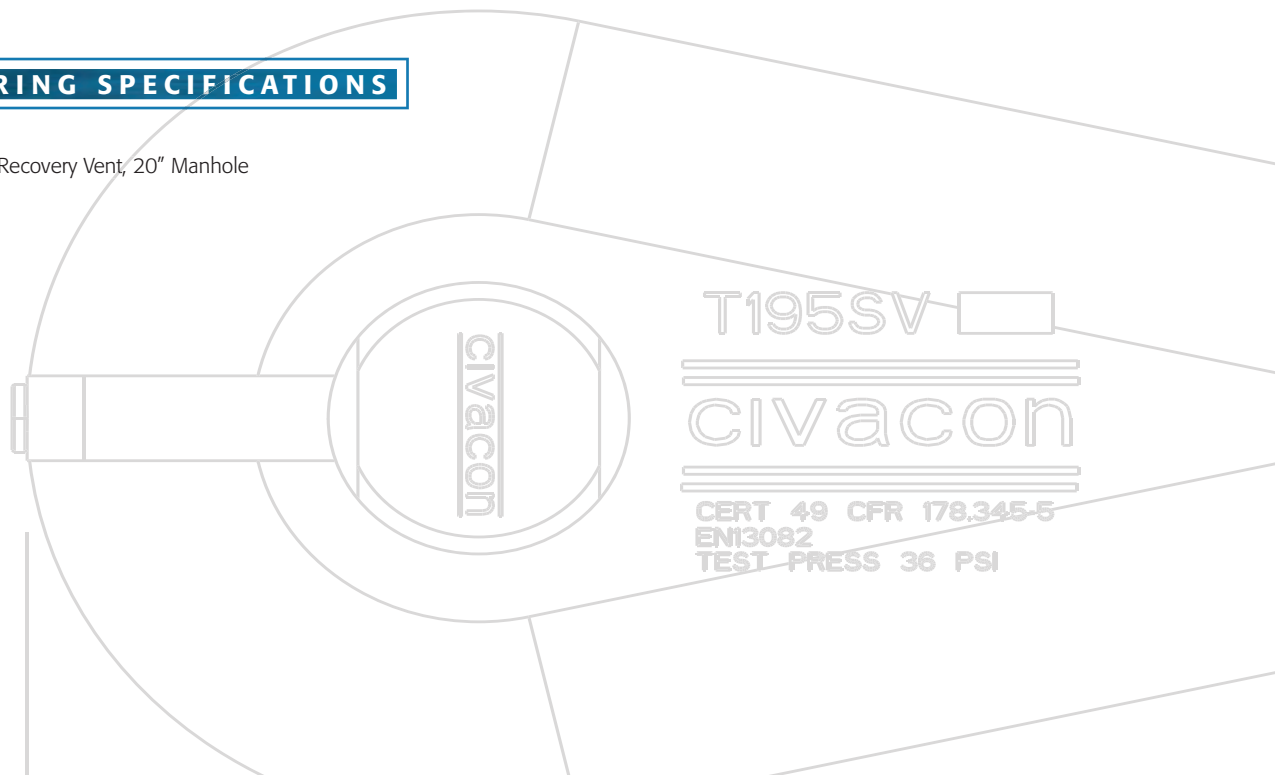


RELATED PRODUCTS

Art. number	Description
1112-series	5-Wire optic overfill sensor
1552-series	2-Wire optic overfill sensor
T400-series	Manhole cover assembly
NV3000E	Internal pressure/vacuum vent

ORDERING SPECIFICATIONS

T195SVE - Vapor Recovery Vent, 20" Manhole



Vapour Line Valve

FEATURES AND BENEFITS

CIVACON's vapour line valve provides additional safety and security when carrying hazardous liquids. Pressure is vented into the atmosphere when it is not sealed for vapour transfer. In case of vapour transfer, vapour line valve is closed.



1995TWD-2, Vapour Line Valve



1995TWD-2, Vapour Line Valve

- **In accordance with** API RP 1004 and EN13082
- **Stainless Steel** flame arrestor covering inlet/outlet port
- **Mounting flange** 3" TW
- **Compact design** in 3" (±80 mm)
- **Constructed of Aluminum** with corrosion-resistant trim
- **Operates in** temperature range of -20°C to +70°C
- **Self-opening at vacuum** of 6 kPa (60 mbar)
- **VITON® GFLT seals** compatible with all fuel grades and additives

CERTIFICATES

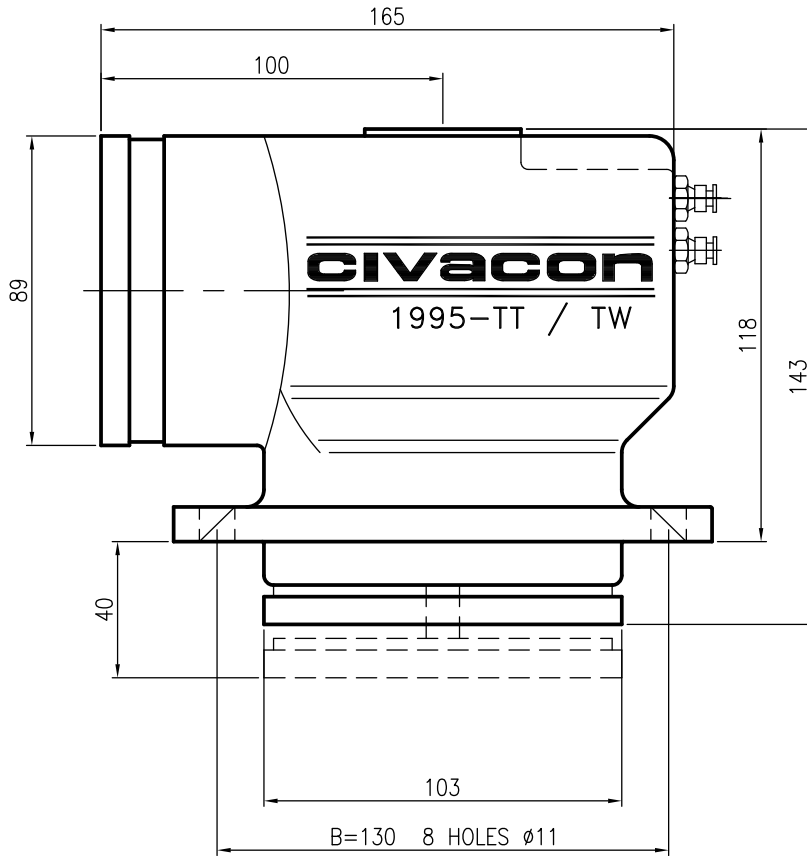


1995TWD-2, RDW



1995TWD-2, EN13082

SPECIFICATIONS



General Spec's 1995 TWD-2 Vapour Line Valve

- Nominal size 3"
- Working pressure 5 bar (500 kPa)
- Working temperature -20°C to +70°C
- Mounting flange 3" TW
- Seals Viton GFLT
- Weight 2,2 Kg

All dimensions are in mm

SPARE PARTS

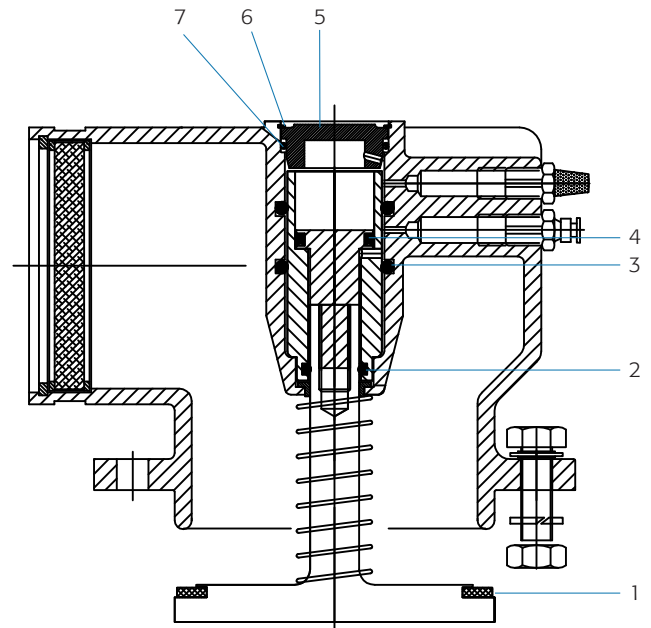
Repair kit

1995TWD-RK

Item	Part Number	Description
1	H20069M	Disc
2	H70312M	O-ring
3	H70216M	O-ring
4	H70311M	Quad ring
5	H20516M	Plug
6	H20066M	Retaining ring
7	H20249M	O-ring

Contents 1995TWD-RK

Spare parts only supplied as complete kit

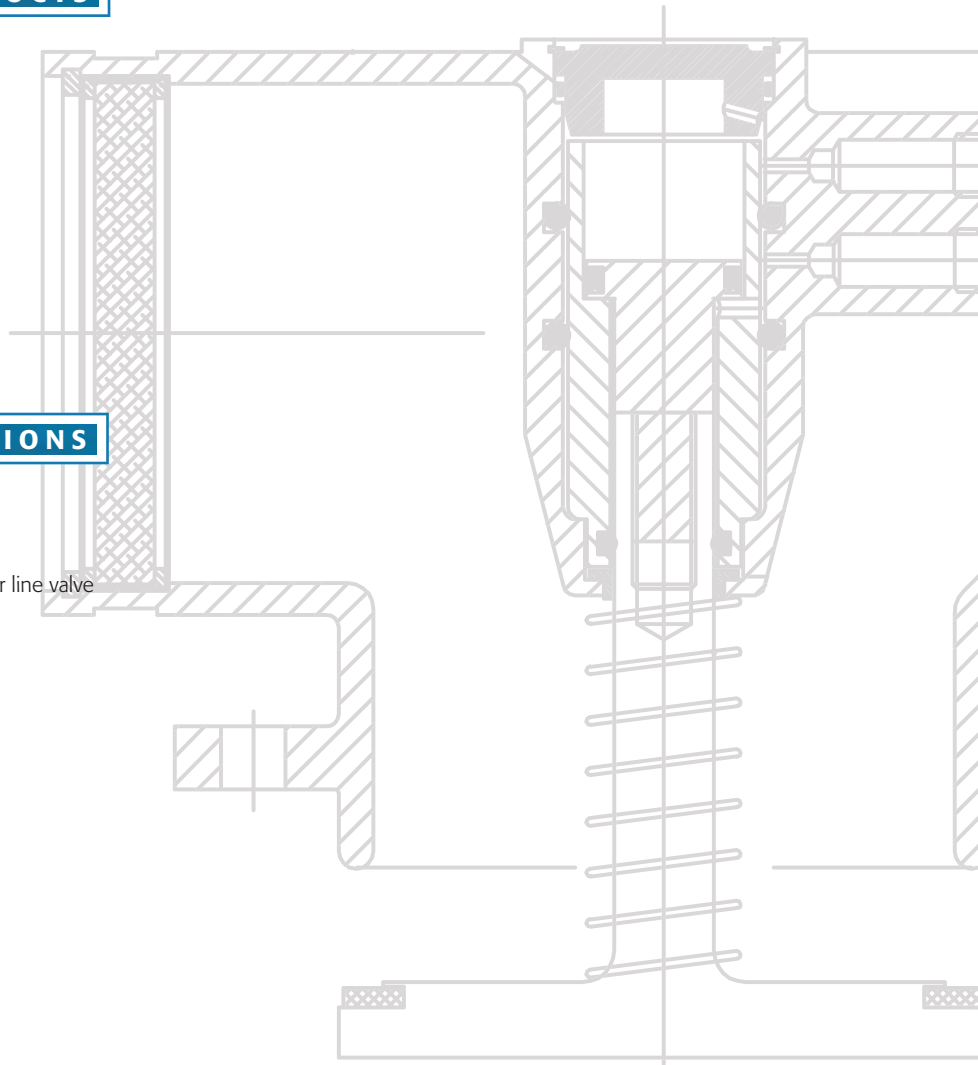


RELATED PRODUCTS

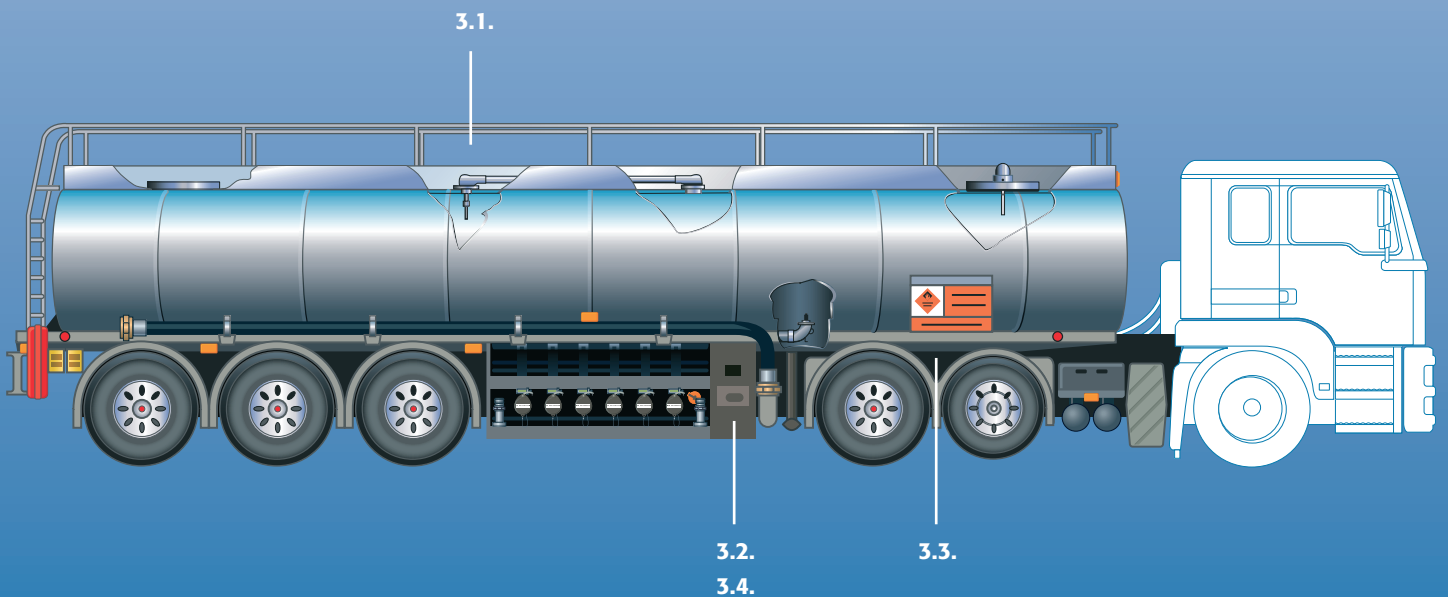
Art. number	Description
T195-series	Vapour recovery valve
633LVB	Vapour recovery adaptor

ORDERING SPECIFICATIONS

1995TWD-2	3" Sequenced vapour line valve with TW-flange
1995TWD-SV	3" Sequenced smart vent vapour line valve with TW-flange



3.1. Overfill Prevention Sensor	1112-series, 5-wire Optic 1552-series, 2-wire Optic	40
3.2. Socket	4103-series 4403-series	43
3.3. Retain Overfill Monitoring	3205E	48
3.4. Retain Sensor	1000R	51
3.5. Tester	1397E-1398E	54



2+5-Wire Overfill Sensors

FEATURES AND BENEFITS

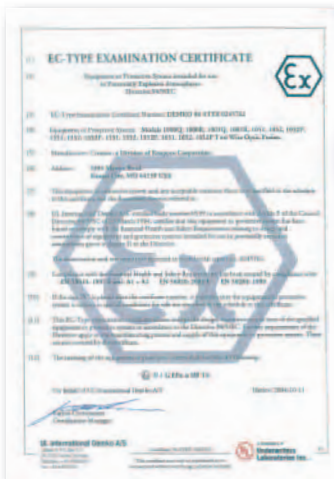
Optic overfill sensors detect the presence of liquid at a preset level. The new Civacon Universal 2+5-Wire Sensor is fully compatible with all our current Sensors and Monitors, as well as all industry standard signal formats. These new Universal Sensors feature an exclusive, digital electronic circuitry design that will work directly with 2&5-wire loading racks when wired directly to a blue "optic" socket, as well as with all Onboard Monitors like our Liberty™.

The new Civacon Universal 2&5-Wire Sensors are a direct replacement for our existing Liberty™ optic sensors. With their universal industry compatible signal format, they are a perfect choice for all of your overfill detection sensor applications. All of the features & benefits of these new sensors are also available in our new 2-wire sensor version as well (see separate data sheet).

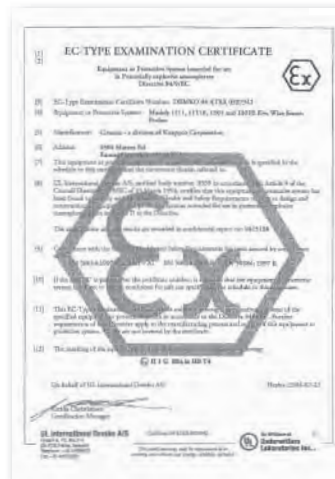


- **Product Number Materials**
- **1552 & 1112E-XXXX Sensor Cap** - Glass Filled Nylon
- **Cap O-ring seals** - Silicone
- **Sensing Length Adjustability**
Sensor Housing - Aluminum
- **Locking Nut** - Plated Steel
- **Product Range** Sensor Shaft - Aluminum
- **Viscosity** of less than 1000 SSU Prism
- **Snap Ring** - Stainless
- **Approvals** Europe (ATEX)
- **Weight 1.15 lbs.** (0.521 kg)
- **Operating Temperature** -40° F (-40° C) to 160° F (71.1° C)
- **Storage Temperature** -70° F (-56.6°) to 280° F (137.7° C)
- ****Special length sensors** are available upon request
- **In accordance** with EN13922
- **Intrinsically safe operation**
- **ATEX certified**
- **Continuously self checking**

CERTIFICATES

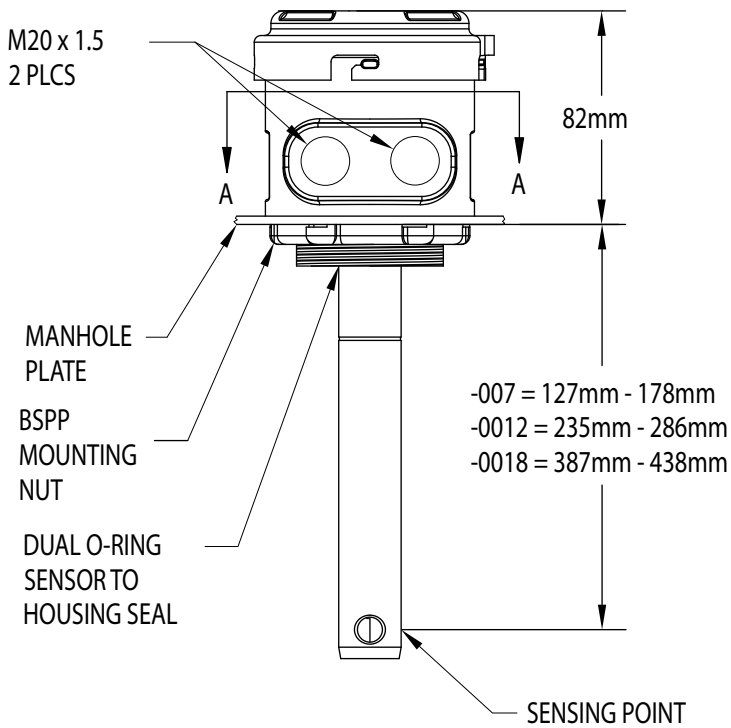
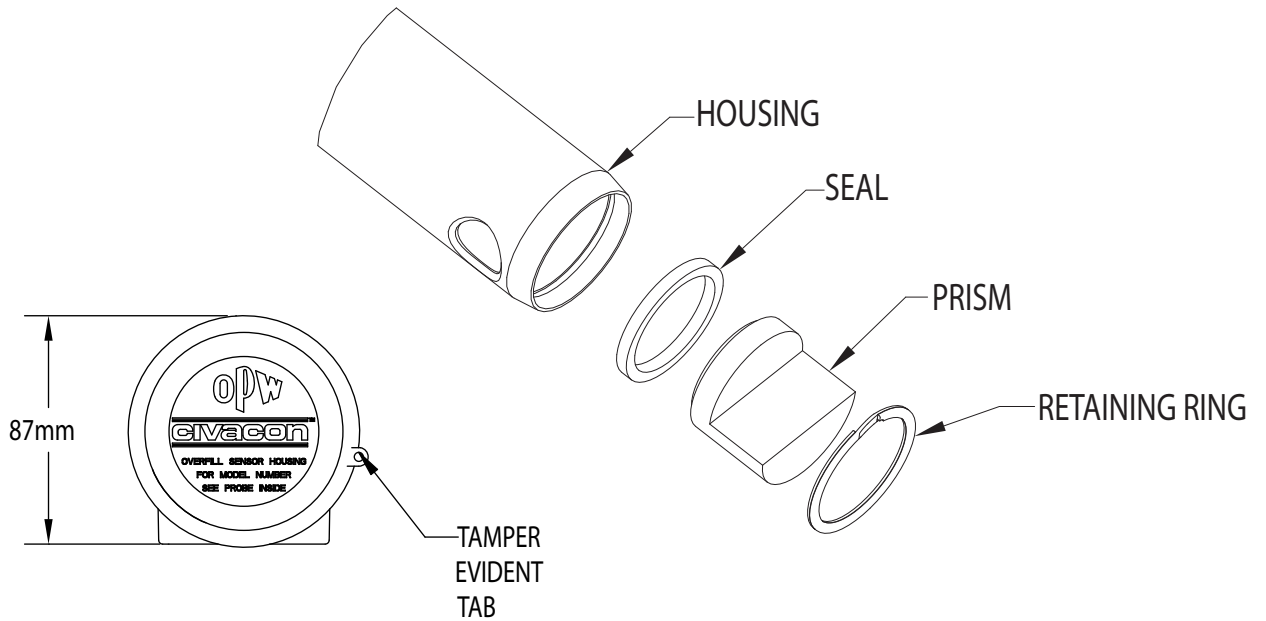


2-Wire, ATEX, EN13922



5-Wire, ATEX, EN13922

SPECIFICATIONS



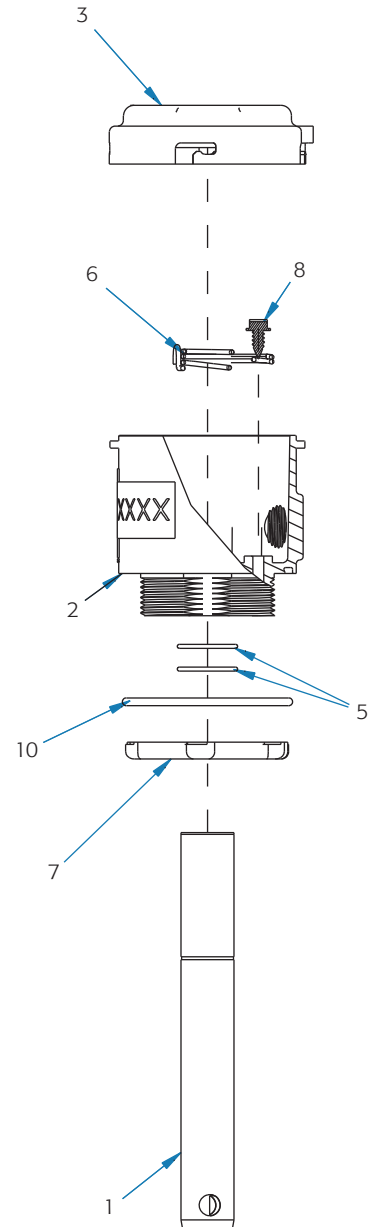
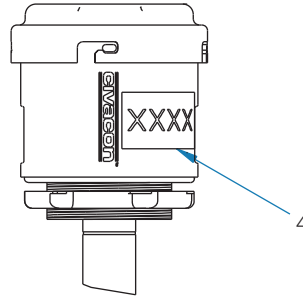
General Specifications 2 + 5 Wire Overfill Sensors

■ Zone specification	Zone 0
■ Working Temperature	-20°C to +70°C
■ Signals	Intrinsically safe
■ Weight	1.15 lbs (0,521 kg)

All dimensions are in mm

SPARE PARTS

Item	Part Number	Description	QTY
1	1301-0018GE	Replacement optic overfill sensor no housing 18" probe	1
2	H52840	Housing machined	1
3	H52936M	Cap probe housing with u-cup	1
4	H52301M-1112E	Label sensor 1112ge	1
5	H52842M	O-ring 2-021 buna	2
6	H52595M	Plug, pipe, rehab kit m20x1.5	1
7	H52477M	Lock ring	1
8	H52898M	Screw	1
9	H52845M	Spring	1
10	H52844M	O-ring	1

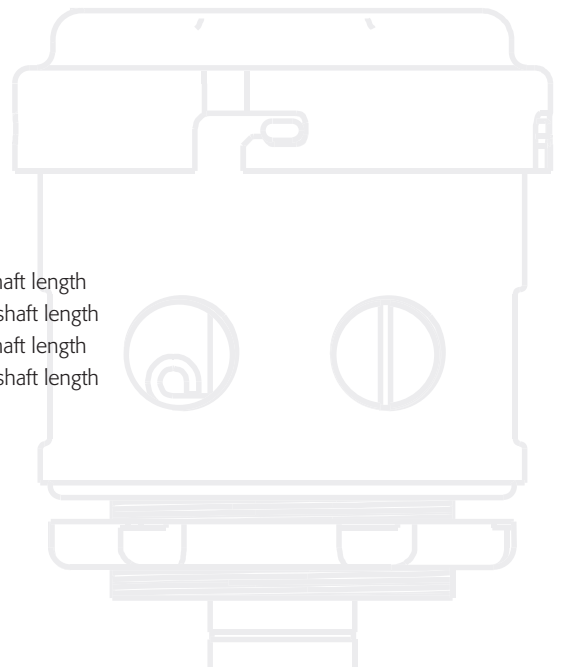


RELATED PRODUCTS

Art. number	Description
4103-series	6-Pin Optical Socket
4403-series	10-Pin Optical/Thermistor Socket
2100E-L30	30m 5-Wire straight cable conform EN13922
EL05116	Cable Gland blue
EL00001E	Ground Bolt
1552-series	2-Wire Optic Quick Start Sensors
1000R	2-Wire Optic Bottom Retain Sensor
1391-1391	Optic System Tester
1398E-X001	Truck tester, 4-J-slotted, black plug
1397E-X001	Truck tester, 3-J-slotted, blue plug
T400-series	20" Manhole Cover
3205E	On-board Monitoring System
SCS-300	Sealed Parcel Delivery System

ORDERING SPECIFICATIONS

1112-007E	Adjustable 5-wire optic sensor with 2-inch BSP housing 7-inch shaft length
1112-0018E	Adjustable 5-wire optic sensor with 2-inch BSP housing 18-inch shaft length
1552-007E	Adjustable 2-wire optic sensor with 2-inch BSP housing 7-inch shaft length
1552-0018E	Adjustable 2-wire optic sensor with 2-inch BSP housing 18-inch shaft length



Sockets

FEATURES AND BENEFITS

CIVACON's Sockets are designed for optimal communication between tank-truck and EN13922 rack systems.



4103E Socket

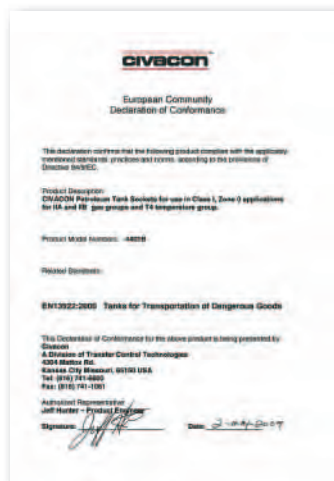


4403E Socket



4403B Socket

CERTIFICATES

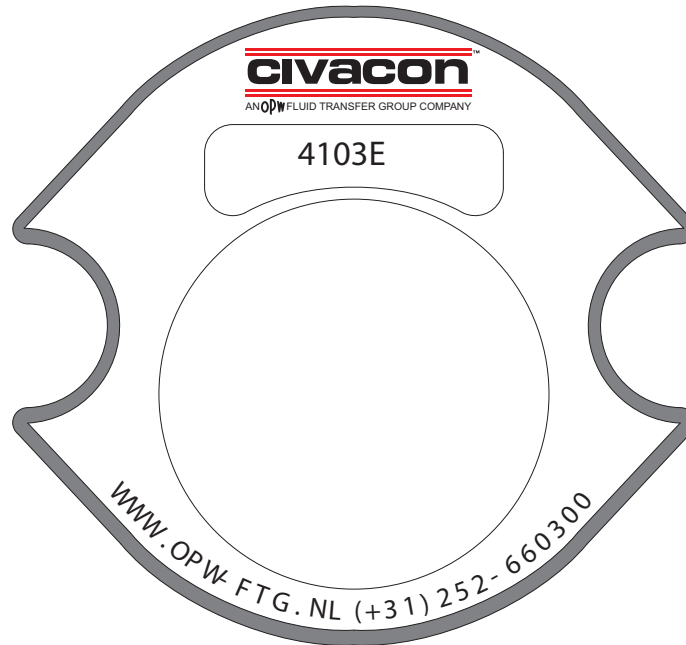


EN13922 Conformation declaration

- In accordance with API standards
- 4403-model in accordance with EN13922
- Pressure switch standard on 4103PS and 4403B in accordance to VOC requirements
- Simple and durable connection using 3 J-slots (4103-model) or 4 J-slots (4403-model)
- Colour coded labels and caps for easy identification
- Brake interlock switch on 4403SQS
- Grounding pin incorporated in all models
- Connecting up to
 - 8 thermistor sensors
 - 8 2-wire optic sensors
 - 12 5-wire optic sensors

SPECIFICATIONS

4103E



4403E



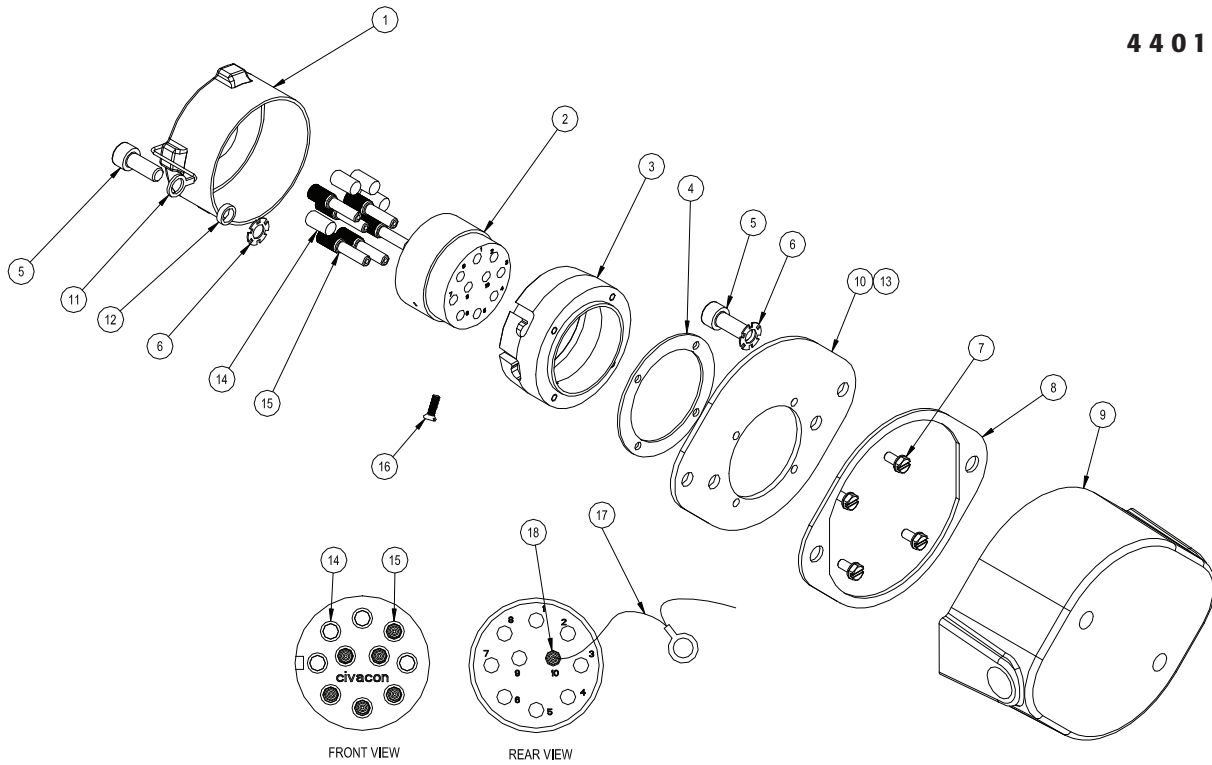
General Spec's 4103 & 4403 Sockets

■ Weight	4103E-EURO	1,1 Kg
	4103PS	1,3 Kg
	4403B & 4403E	1,2 Kg

All dimensions are in mm

SPARE PARTS

4401E

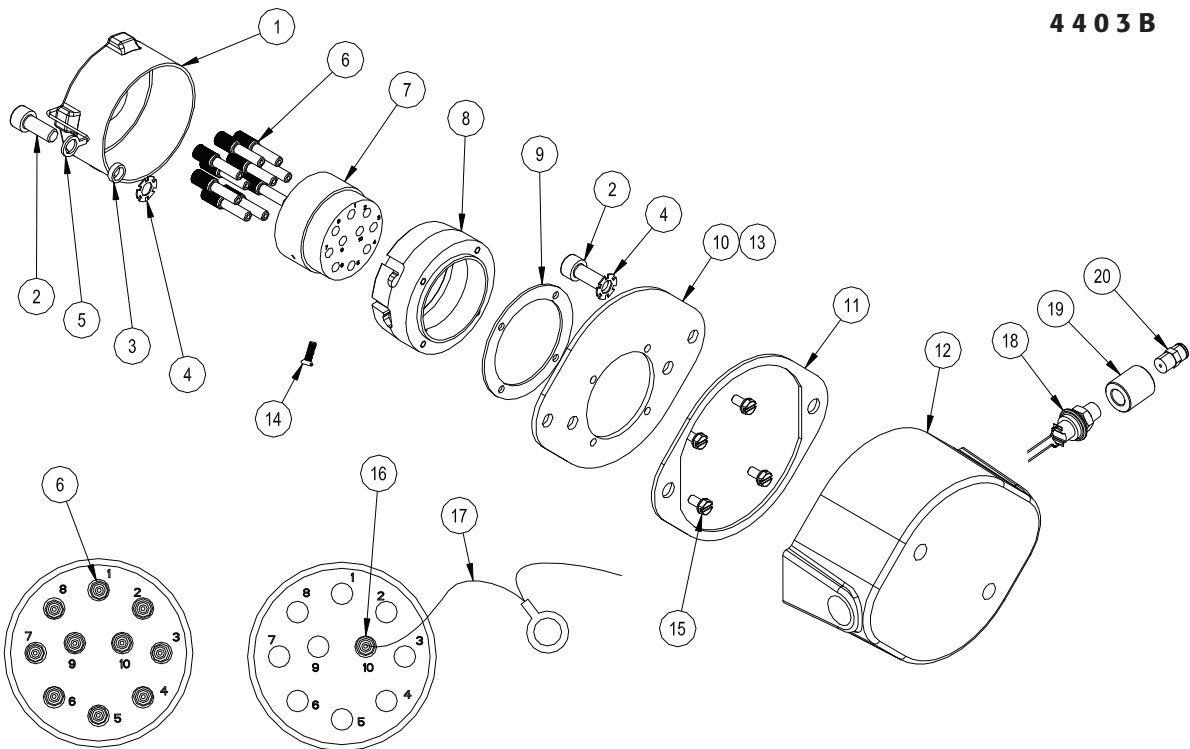


ITEM	PART NUMBER	DESCRIPTION	QTY.	ITEM	PART NUMBER	DESCRIPTION	QTY.
1	H50025M ¹	DUST CAP, BLUE	1	12	H50291M	SPACER	1
2	C40011M	CONTACT BLOCK	1	13	H53038M-4103E	LABEL	1
3	C40151A-3	"J" SLOT SOCKET - 3	1	14	H50617M	INSERT	4
4	H52479M	GASKET, NEOPRENE	1	15	H50616M	CONTACT, BUTTON	6
5	H52538M	SCREW, M8 x 1.25 x 20mm	2	16	H50074M	SCREW, #6-32 1/2"	1
6	H50250M	WASHER, 5/16 SS	2	17	H50618M	GROUND WIRE	1
7	H53048M	SCREW, #8-32 3/8"	4	18	H50623M-2	SCREW, #6-32 3/8"	
8	H50064M	GASKET, NEOPRENE	1	REPAIR KITS			
9	D52537A	BODY	1	4150-4150	DUST CAP		
10	H52962M	PLATE	1				
11	H50288M ¹	CABLE	1				

¹ - Included in 4150-4150

SPARE PARTS

4403B

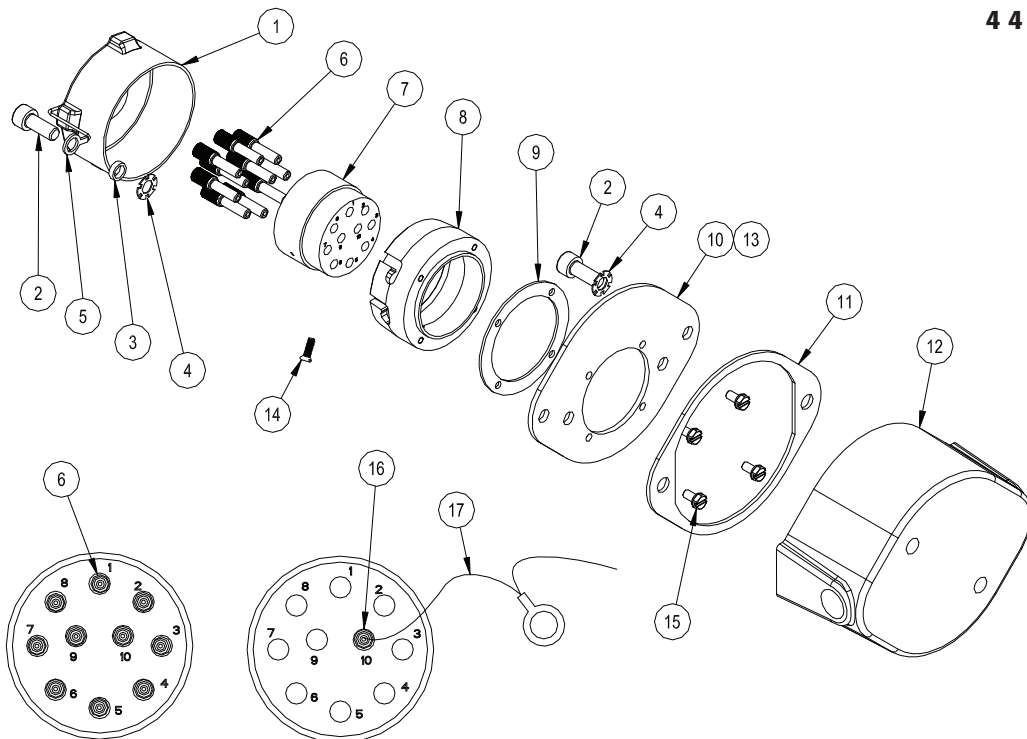


ITEM	PART NUMBER	DESCRIPTION	QTY.	ITEM	PART NUMBER	DESCRIPTION	QTY.
1	H52535M ¹	DUST CAP, BLACK	1	12	D52537A	BODY	1
2	H52538M	SCREW, M8 x 1.25 x 20mm	2	13	H53038M-4403B	LABEL	1
3	H50291M	SPACER	1	14	H50074M	SCREW, #6-32 1/2"	1
4	H50250M	WASHER, 5/16 SS	2	15	H53048M	SCREW, #8-32 3/8"	4
5	H50288M ¹	CABLE	1	16	H50623M-2	SCREW, #6-32 3/8"	1
6	H50616M	CONTACT, BUTTON	10	17	H50618M	GROUND WIRE	1
7	C40011M	CONTACT BLOCK	1	18	H52650M	PRESSURE SENSOR	1
8	C40151A-4	"J" SLOT SOCKET - 4	1	19	H52830M	ADAPTOR	1
9	H52479M	GASKET, NEOPRENE	1	20	H52651M	AIR FITTING	1
10	H52962M	PLATE	1				
11	H50064M	GASKET, NEOPRENE	1				

Spare partnumber: 18, 19 and 20 parts of 4403B

SPARE PARTS

4403E



ITEM	PART NUMBER	DESCRIPTION	QTY.
1	H50065M ¹	DUST CAP, GREEN	1
2	H52538M	SCREW, M8 x 1.25 x 20mm	2
3	H50291M	SPACER	1
4	H50250M	WASHER, 5/16 SS	2
5	H50288M ¹	CABLE	1
6	H50616M	CONTACT, BUTTON	10
7	C40011M	CONTACT BLOCK	1
8	C40151A-4	"J" SLOT SOCKET - 4	1
9	H52479M	GASKET, NEOPRENE	1
10	H52962M	PLATE	1
11	H50064M	GASKET, NEOPRENE	1

ITEM	PART NUMBER	DESCRIPTION	QTY.
12	D52537A	BODY	1
13	H53038M-4403E	LABEL	1
14	H50074M	SCREW, #6-32 1/2"	1
15	H53048M	SCREW, #8-32 3/8"	4
16	H50623M-2	SCREW, #6-32 3/8"	1
17	H50618M	GROUND WIRE	1

REPAIR KITS	
4450-4450	DUST CAP

1 - Included in 4450-4450

RELATED PRODUCTS

Art. number	Description
2100E-L30	30m 5-Wire straight cable conform EN13922
ELO5116	Cable gland HSK-K -EX; M20x1,5; 6-12mm blue
ELO0001E	Ground bolt
1112-series	5-Wire optic overflow prevention sensor
1552-series	2-Wire optic quick start overflow prevention sensor
1000R	2-Wire optic bottom retain sensor
1391-1391	Optic system tester
1398E-X001	Truck tester, 4-J-slotted, black plug
1397E-X001	Truck tester, 3-J-slotted, blue plug
3205E	Onboard monitoring system
SCS-300	Sealed parcel delivery system

ORDERING SPECIFICATIONS

4103E	6- pin Socket for optic sensors, BASEEFA
4103PS	4103E with pressure switch conform 94/63EC (VOC)
4403B	10- pin Socket with pressure switch for optical and /thermistor sensors, black label and cap, in accordance to EN13922 and VOC
4403E	10-pin Socket for thermistor sensors with green label and cap

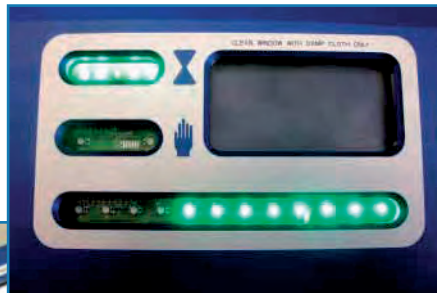
Retain Overfill Monitoring 3205E

FEATURES AND BENEFITS

OPW Model 3205E ROM (Retain Overfill Monitoring) monitor secondary overflow prevention system incorporating retained product monitoring used in tank truck loading operations. ROM indicates Wet/dry conditions, wire short cuts, grounding conditions and shorted sensors by means of advanced diagnostics by means of LED and separate display.

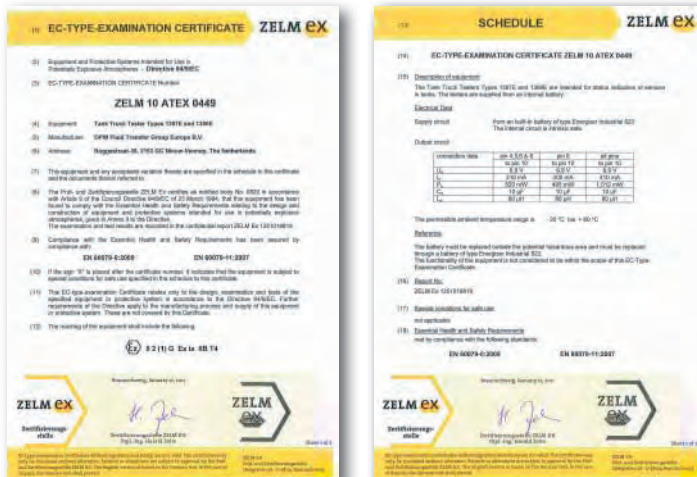


3205E

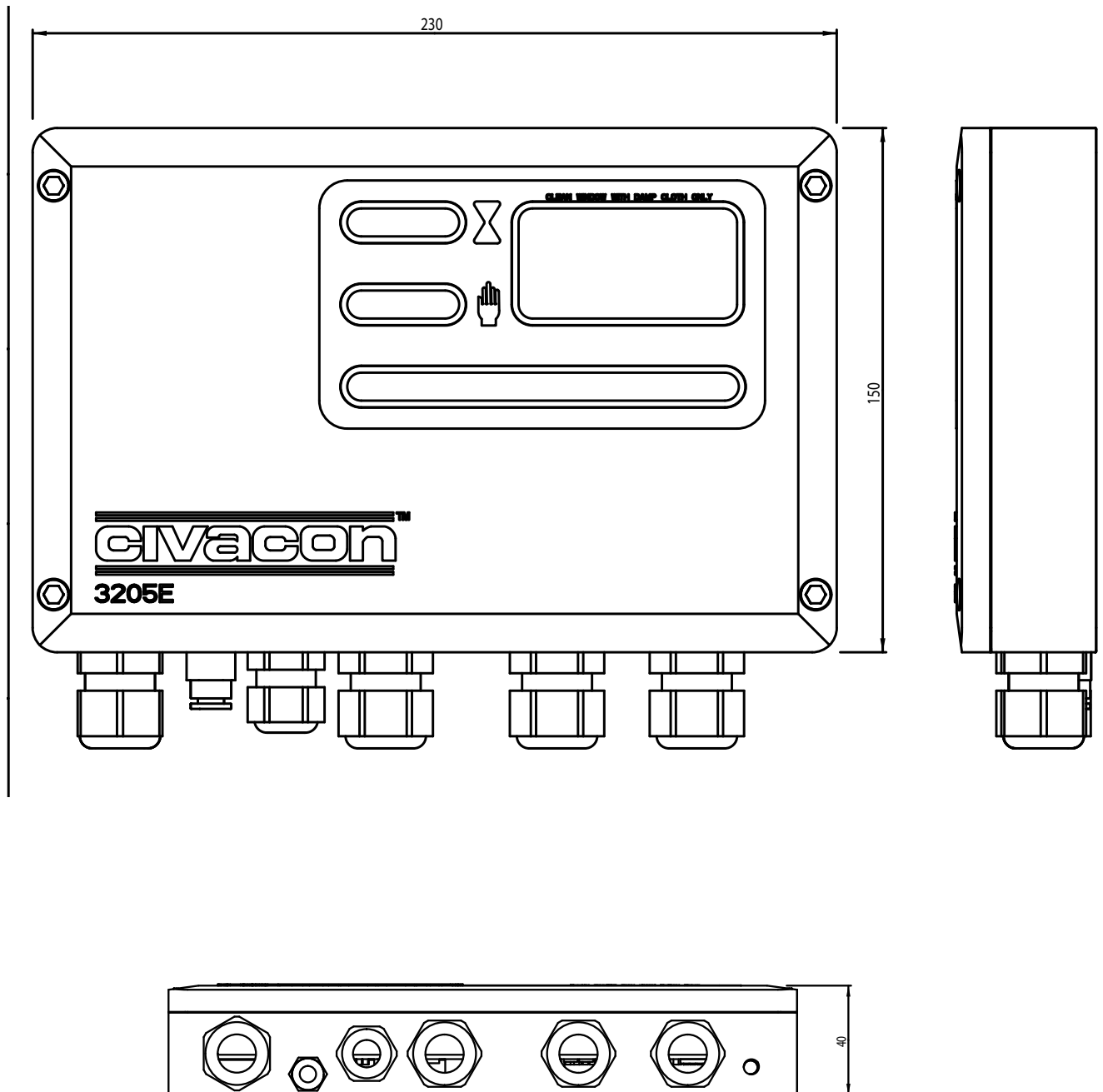


- **In accordance with ATEX**
- **Compartment empty and overflow detection** in one unit
- **Compatible** with all industry standard sensors and rack monitors
- **After system alerts**, loading cannot proceed without activation of the reset circuit
- **Reset circuit** for bottom sensors only
- **Bottom retain sensor** override timer cancels override timing when plug is removed from socket
- **ROMII Plus monitor automatically** closes bottom valves for additional security if connected.
- **Support for** up to 8 compartment tankers using 2-wire optic overflow and bottom sensors
- **Support for** up to 12 compartments using 5-wire optic overflow sensors
- **Number of installed sensors** automatically configured at installation
- **Timer with progress indicator**
Infrared function key
- **Individual LED indication** per auxiliary input device
- **LED indication per compartment and status symbols on display**
- **LED socket connection** status for proper connection assurance
- **Working temperature** from -40°C to +70°C

CERTIFICATES



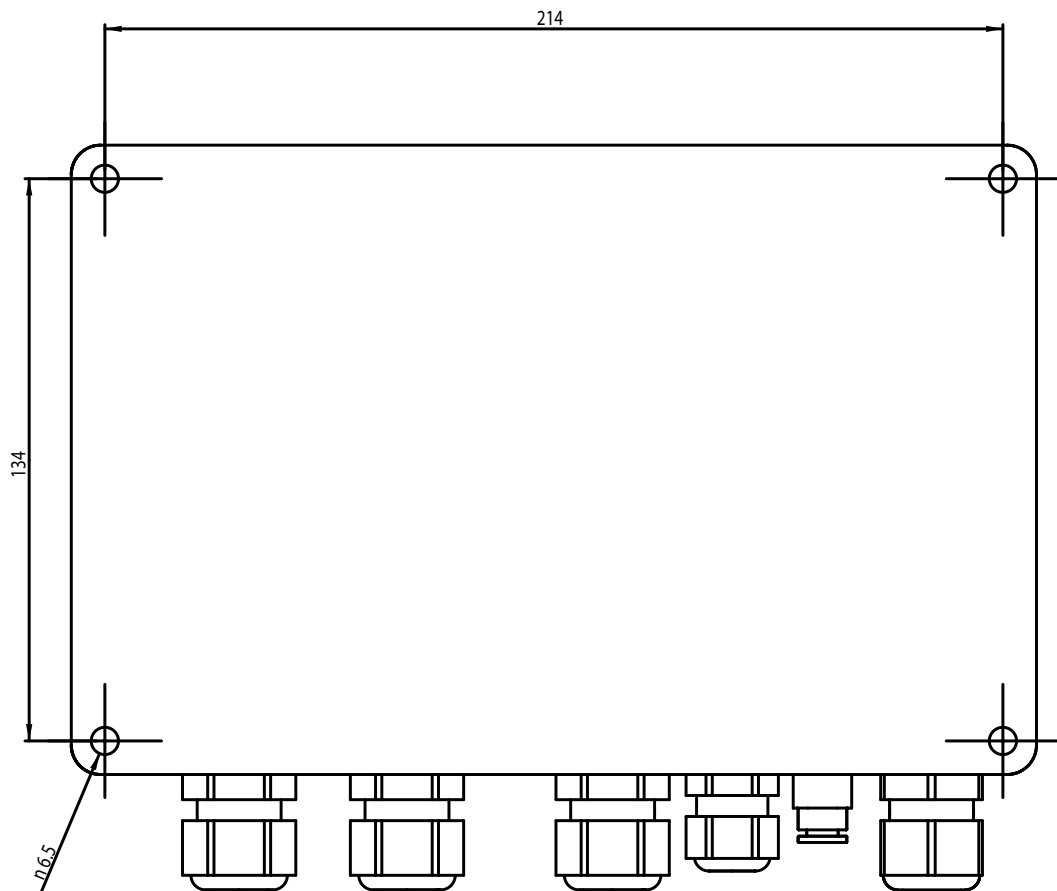
SPECIFICATIONS



General Spec's ROMII Plus Onboard Monitoring System

- Power 24 VDC
- Working temperature -40°C to +70°C
- Weight 2,2 Kg

All dimensions are in mm



RELATED PRODUCTS

Art. number	Description
4103-series	6-pin Socket for optic sensors
4403-series	10-pin Socket for optic and thermistor sensors
2100E-L30	30m 5-Wire straight cable conform EN13922
EL05116	Cable gland HSK-K -EX; M20x1,5; 6-12mm blue
EL00001E	Ground bolt
1112-series	5-Wire optic overfill prevention sensor
1551-series	2-Wire optic quick start overfill prevention sensor
1000R	2-Wire optic bottom retain sensor
7215-7215	30m 10-Wire straight cable, 45 meter (150 FT)
PHS-10	Protection hose set for 7215-7215

ORDERING SPECIFICATIONS

3205E	ROM onboard monitoring system
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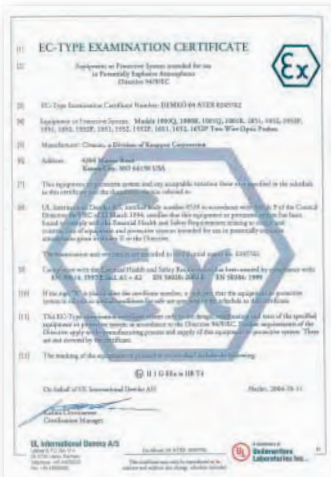
2-Wire Optic Bottom Sensors

The CIVACON'S 2-Wire Optic Bottom Sensors are designed for compartment empty detection of liquid petroleum products. Not only are they instantly permissive and specially designed for optimal communication with our Rack Monitors (conforming to EN13922), but they are also compatible with all other brands of Rack Monitors which conforms to EN13922 standards.



- In accordance with:
 - EN13922
 - ATEX
 - API RP 1004
- Certified for use in zone 0
- Intrinsically safe signals
- Instant permissive signal (no warm up time)
- Continuously checking of system operation such as wiring, sockets and sensor itself
- Temperature range -20°C to +70°C
- Easy adjustable shaft when shorter length is necessary
- Immediate system shutdown (250 ms) in case of compartment 'wet' detections
- Immediate re-permit in case of compartment 'dry' detection of compartment 'dry' detection

CERTIFICATES

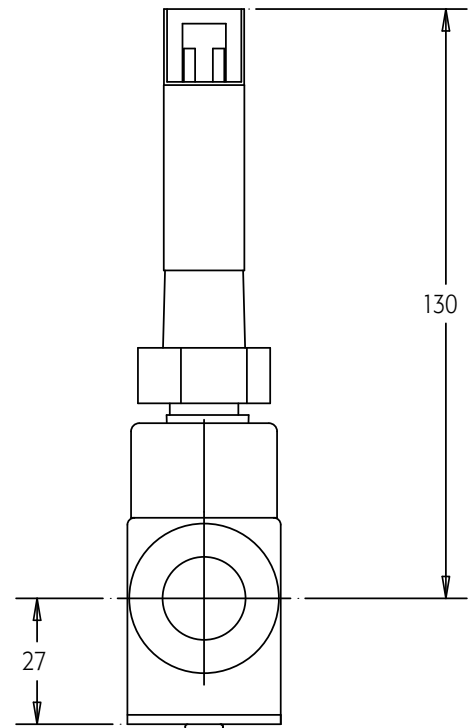
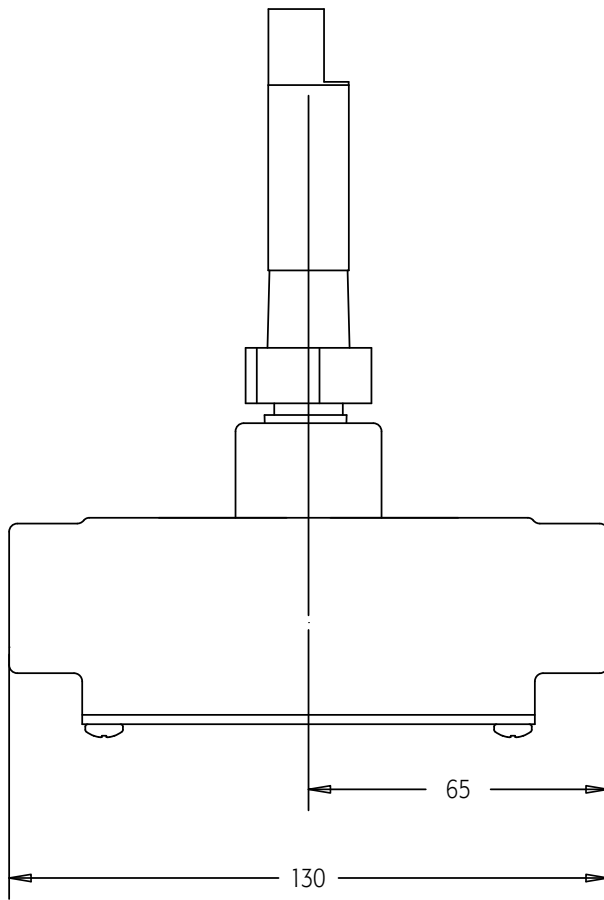
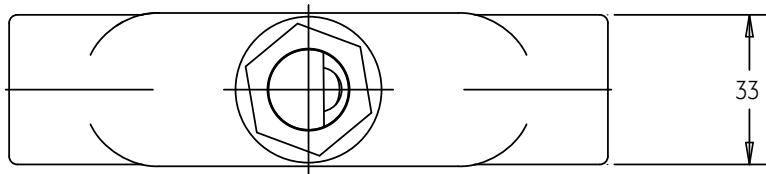


ATEX, EN13922



ATEX, EN13922

SPECIFICATIONS



General Spec's Bottom Sensor

■ Zone specification	Zone 0
■ Working Temperature	-20°C to +70°C
■ Signals	Intrinsically safe
■ Weight	320 g

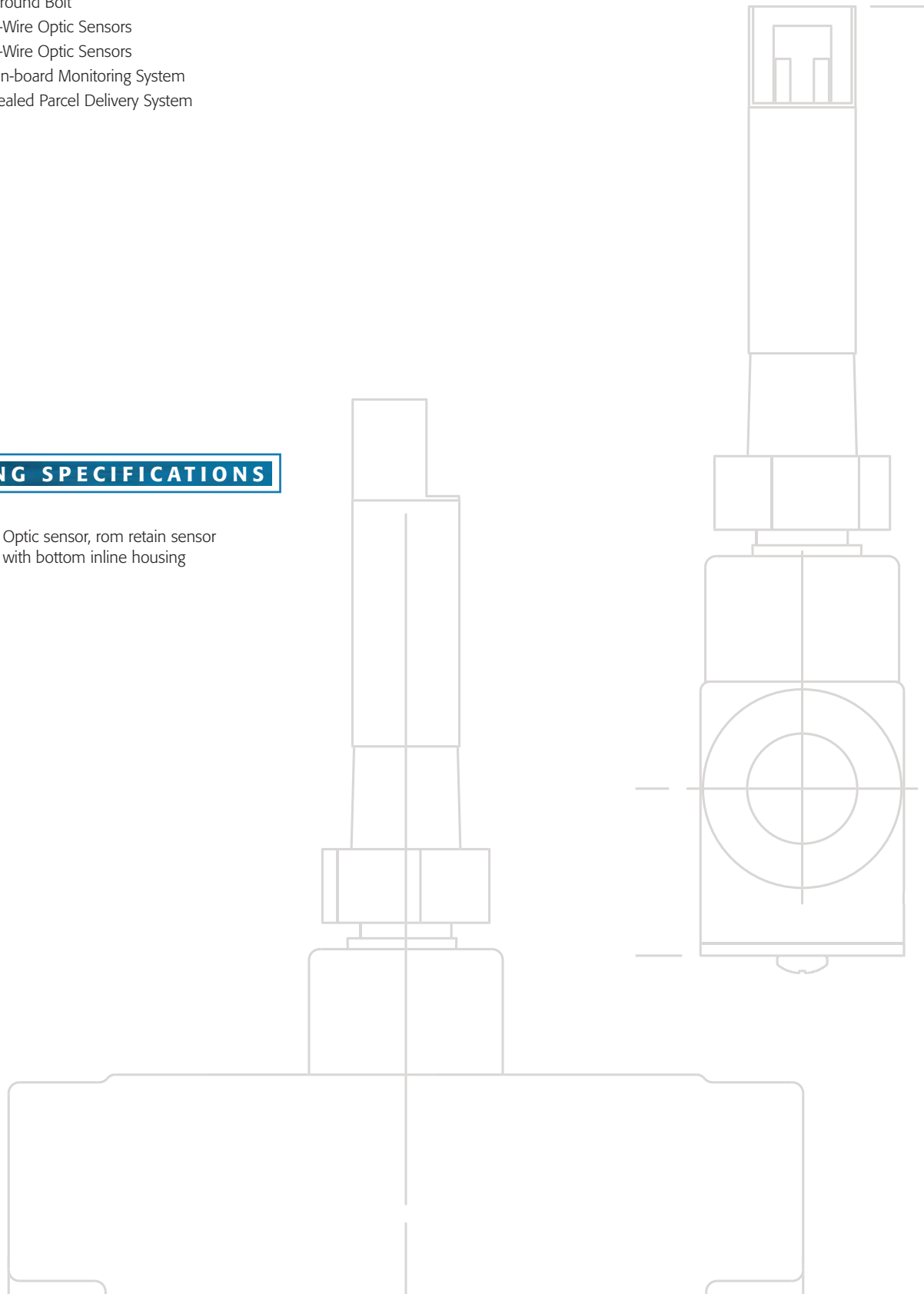
All dimensions are in mm

RELATED PRODUCTS

Art. number	Description
4103-series	6-Pin Optical Socket
4403-series	10-Pin Optical Socket
2100E-L30	30m 5-Wire straight cable conform EN13922
EL05116	Cable Gland HSK-K –EX, M20x1,5, 6-12mm blue
EL00001E	Ground Bolt
1112-series	5-Wire Optic Sensors
1552-series	2-Wire Optic Sensors
3205E	On-board Monitoring System
SCS-300	Sealed Parcel Delivery System

ORDERING SPECIFICATIONS

1000R	Optic sensor, rom retain sensor with bottom inline housing
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TESTER TYPE 1397E-1398E

FEATURES AND BENEFITS

The 1397E –xx tester is a new simple handheld tester for tank trucks equipped with 5-wire overfill sensors.

The 1397E –xx tester give users, the possibility to do a quick diagnosis from the grounding and the overfill sensors.



1397E



1398E

LED indicator explanation

The tester is equipped with two LEDs on the back of the plug

One white led (with the text GND)

One bi-color LED (with the text dry/wet)

The white LED informs the user over the grounding status.

LED off: Bad or no grounding

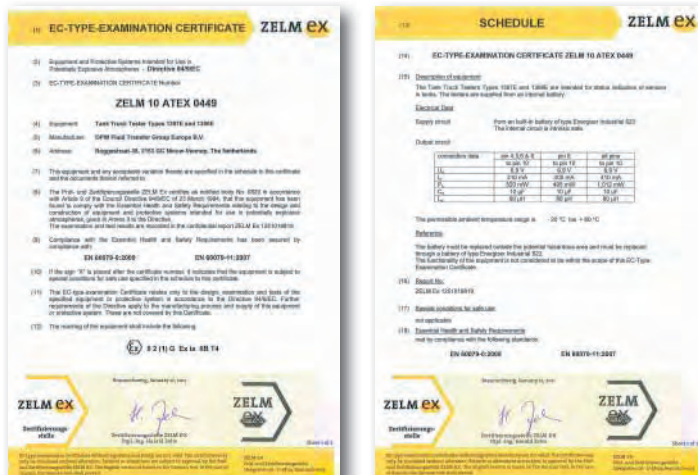
LED flashing: grounding OK

The bi-color LED indicator flashes green when the sensors are permissive.

The bi-color LED indicator flashes red when the sensors are non-permissive.

The flash pattern of the LED indicator depends upon the number of compartments; LED indicator flashes every 5-seconds Number/times of flashes indicates number of sensors A long flash of 1-second represents 5-compartments A short flash of 250 ms represent 1-compartments Example; 7-compartments is indicated by one long and two short flashes.

CERTIFICATES

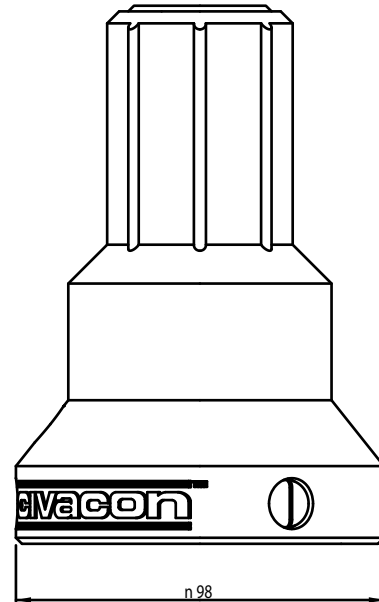
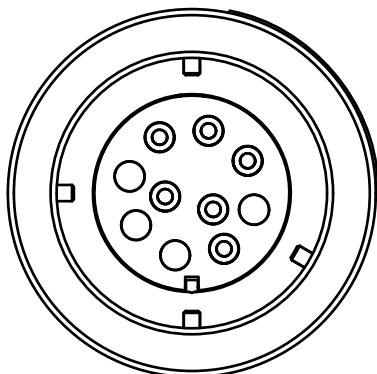
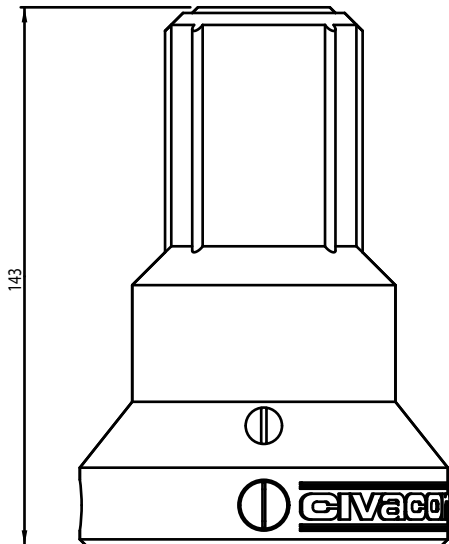
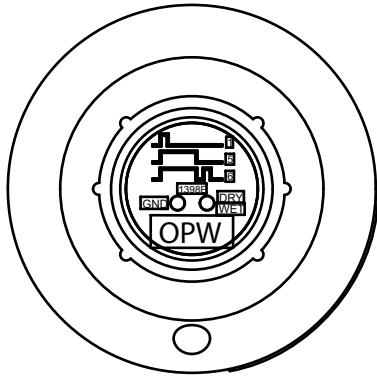


ATEX 0449

- **No operating** action required
- **Led indicator** for amount of compartments
- **Separate Led indicator** for ground verification
- **Test ground** loop and ground bolt
- **Fitted** ATEX emergizer
- **Available** for 3-J and 4-J slots
- **Extra diagnostic** information available
- **Robust** housing
- **Small housing**, can be located in truck cabin
- **Auto switch off** when removed from socket

SPECIFICATIONS

1397E / 1398E



RELATED PRODUCTS

Art. number	Description
2100E-L30	30m 5-Wire straight cable conform EN13922
EL05116	Cable gland HSK-K -EX; M20x1,5; 6-12mm blue
EL00001E	Ground bolt
1112-series	5-Wire optic overfill prevention sensor
1552-series	2-Wire optic quick start overfill prevention sensor
1000R	2-Wire optic bottom retain sensor
1391-1391	Optic system tester
1398E-X001	Truck tester, 4-J-slotted, black plug
1397E-X001	Truck tester, 3-J-slotted, blue plug
ROMII-Plus	Onboard monitoring system
SCS-300	Sealed parcel delivery system

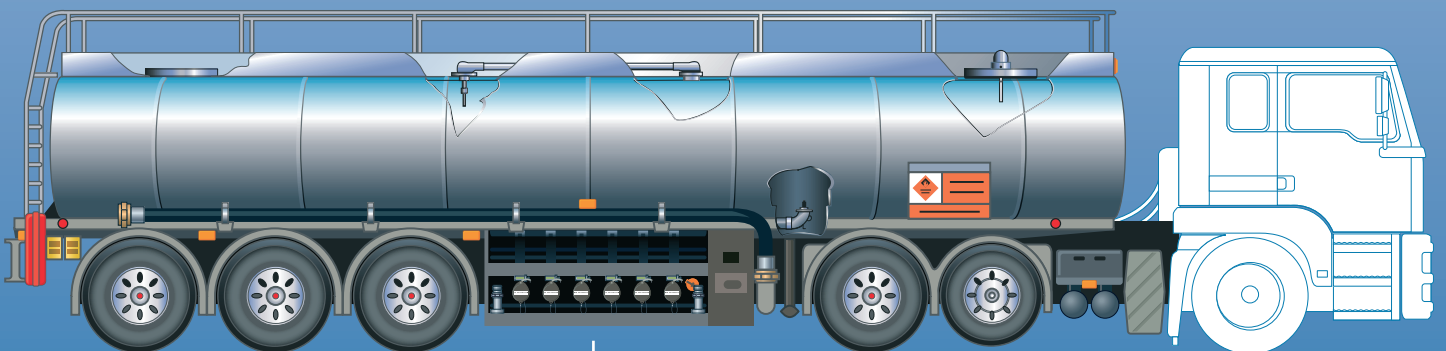
ORDERING SPECIFICATIONS

- 1397E-3J Truck tester for 3J socket
- 1398E-4J Truck tester for 4J socket

4.1. CIVAFLO Manifolds

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CIVAFLO MANIFOLD SYSTEMS



4.1.

Civaflo Manifold

FEATURES AND BENEFITS

The CIVAFLO Single and double Manifold by CIVACON helps improve the quality and performance of your delivery service.



CIVAFLO COMPONENTS

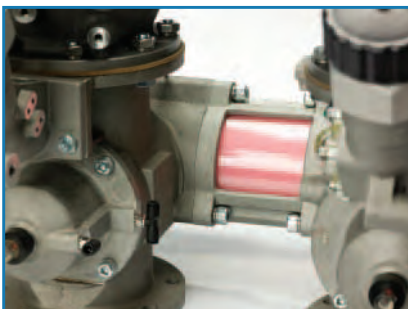


Optional Product Return Spout

Designed to facilitate quick line changes, the product return spout is centrally located and angled to provide for easy connection. A sight glass on the spout allows the driver to see the return product flow to help facilitate accurate product changes.

Guard Bar Assembly

An air interlock switch is activated from the system control panel to provide access to manifold connections. This feature prevents unauthorized access to fuel compartments and restricts access to the manifold/API couplers unless the PGI and Operator Interface Unit are coordinated during the offloading process to ensure that the appropriate fuel connections are made.



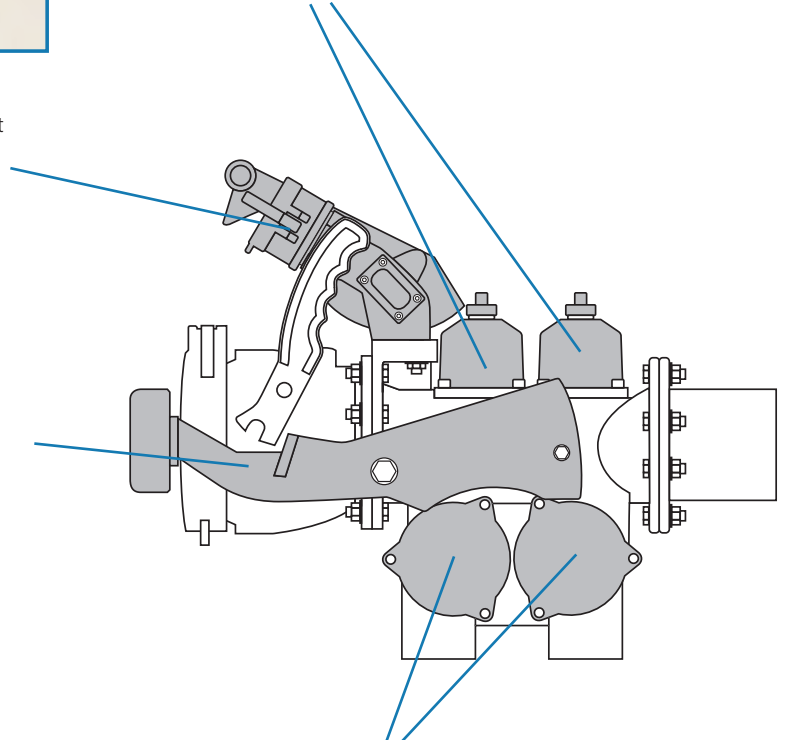
Manifold Sight glass

No more guess work - Having made the compartment selection, the full width product site glass allows the driver to confirm his selection is correct.



Manifold Valve

The air activated manifold chamber is a double-acting cylinder assembly that guarantees valve opening/closing every time. Its closed loop pneumatic system keeps debris from entering the valve. The manifold chamber open/close status is clearly indicated by a "red" indicator visible through the transparent lens located on the top of each manifold valve.

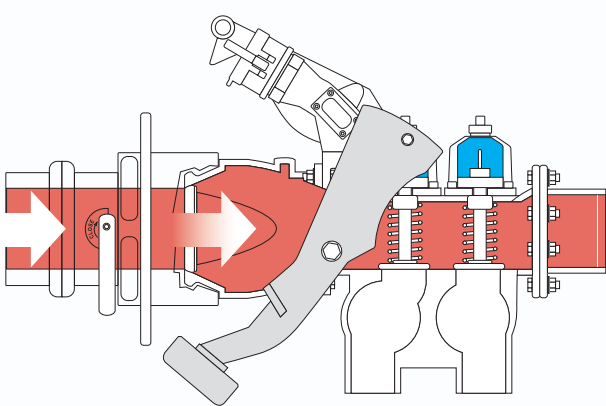


Interlocked/Independent Manifold Galleries

Two different fuel types can be dispensed from the same vehicle. By simply selecting between the two independent manifold galleries. The air activation system only allows one manifold to be opened at any time. The manifold galleries are specific to either the gasoline or the diesel PTO and pump, this means that the manifold chambers are discriminate depending on the fuel selected to ensure that cross contamination is never a problem.

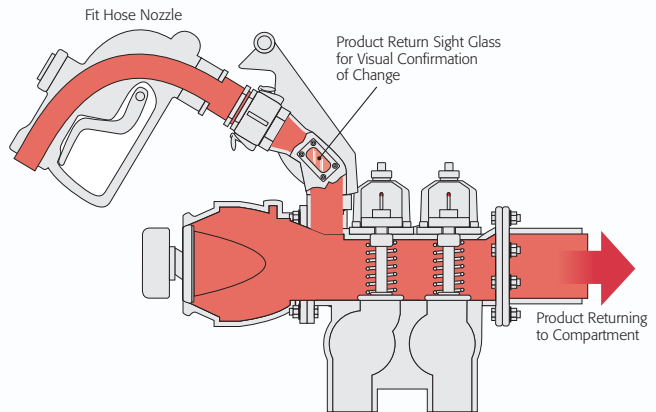
MANIFOLD OPERATION

The Civaflo dual manifold provides a wide range of options depending on your particular loading or unloading arrangement:



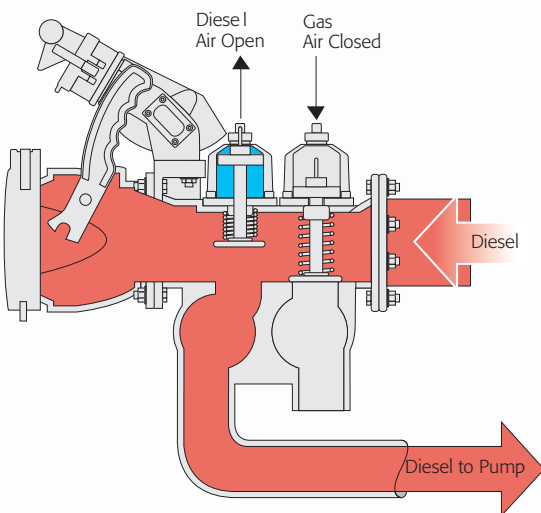
Bottom Loading

The guard bar is released to provide access to the API coupler. Both manifold valves remain closed providing for high, unobstructed flow rates.



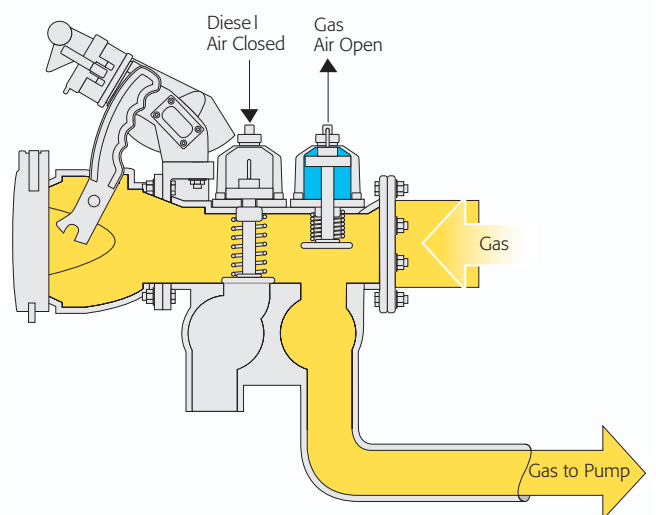
Product Return

An interlock switch that receives a signal from the operator interface unit and main control unit releases the guard bar. A tight-fill nozzle is connected to the return spout to allow for the return of fuel left in the hose to the appropriate fuel compartment. A sight glass on the spout allows the driver to see the return product flow to help facilitate accurate product changes.



Pump Unloading – Manifold and Valve Operation

During pump unloading, the appropriate manifold and valve is selected to allow the flow of fuel into the collection tubes, through the pump and then dispensed through the meter and hose.



OPW Fluid Transfer Group: One Company, Five Brands



Dedicated engineered and patented solutions for pipe, tube and hose connections used for extreme applications high/low temperature & pressure and nuclear.

Examples: RapidLOK™ for flange replacement; save vents and drains; locking quick connect; product recovery systems; cryogenic couplings; autoclave check valves ...

www.hiltap.com



Mechanical and electronic components and systems for the safe loading, transportation and offloading of hazardous fluids on road tankers. Examples: flat bottom API's; bottom valves; vapour recover valves; overflow prevention system; sealed parcel delivery system; onboard monitoring system; crossover prevention system ...

www.civacon.com



Mechanical and electronic components and systems for the safe storage, transfer and loading of hazardous fluids at chemical plants, refineries and terminals.

Examples: loading arms for fuels, chemicals, bitumen; rack monitoring system; quick disconnects (kamlok®, autolok™); dry disconnects (epsilon™, drylok™, kamvalok®); floating suction assemblies ...

www.opw-es.com



Components and systems for the safe loading, transportation and offloading of hazardous fluids and dry bulk on pressure & non-pressure railroad tank cars and dry bulk road tankers.

Examples: pressure & vacuum relief valves; needle valves; top transfer valves; valve actuator systems; overflow prevention systems ...

www.midlandmfg.net



Components for pneumatic tank trailers, rail cars, chemical and pharmaceutical plants, and any application requiring the processing, movement and storage of dry bulk or liquid materials.

Example: butterfly valves; ball valves; sample systems; actuators; aeration systems; swing check valves ...

www.suresealinc.com



From the European Head office near Amsterdam The Netherlands, these 5 OPW Fluid Transfer Group brands are supported. In addition Loading Arms, Tank Truck equipment and its related accessories are designed and manufactured here to serve the OPW FTG Europe BV territory.

www.opw-ftg.nl