



OIML BASIC CERTIFICATE OF CONFORMITY



OIML Member State
SWEDEN

OIML Certificate No.
R117/1995-SE1-13.01 Revision 1
This revision replaces earlier versions

Issuing Authority

Name: SP Technical Research Institute of Sweden
Address: PO Box 857, SE-501 15 Borås, Sweden
Person responsible: Lennart Aronsson

Applicant

Name: Wayne Fueling Systems Sweden AB
Address: Hanögatan 10, SE-211 24 Malmö, Sweden

Manufacturer of the certified type:

the applicant or

Name: Wayne Industria e Comercio Ltda
Address: Estrada Timbó 126--Higienópolis, 2106-280--Rio de Janeiro, --RJ-- Brazil

Identification of the certified type

One or two sided fuel pumps/dispensers for motor vehicles type, further characteristics see page 2-5.

- Wayne Helix 1000 Fuel dispenser (Small Style)
- Wayne Helix 2000 Fuel dispenser (Small Style)
- Wayne Helix 4000 Fuel dispenser (H-Style Narrow)
- Wayne Helix 5000 Fuel dispenser (H-Style Wide)
- Wayne Helix 6000 Fuel dispenser (C-Style)

This Certificate attests the conformity of the above identified type (represented by the samples identified in the associated OIML Basic Type Evaluation Report) with the requirements of the following Recommendation of the International Organization of Legal Metrology (OIML):

OIML R 117 Edition: 1995 (E)
OIML R 118 Edition: 1995 (E)

for accuracy class: **0.5**

This Certificate relates only to the metrological and technical characteristics of the type of instrument covered by the relevant OIML Recommendation identified above. This Certificate does not bestow any form of legal international approval. The conformity was established by the results of tests and examinations provided in the associated OIML Basic Type Evaluation Report:

No. 3P02046Rev1 dated December 14, 2015 that includes 27 pages

Certificate history

Issue No	Date	Description of modification
1	July 3, 2013	
2	Dec 14, 2015	Added models Helix 1000, Helix 6000 B2B, Helix 4U, volume sensor iMeter2 and iMeter DM2-X UREA, metallic head, printer at dispenser, NPCL/SINP communication, new displays, liquid DEF, increased max flow rate to 200 l/min

Date: December 14, 2015

The OIML Issuing Authority

**SP Technical Research Institute of Sweden
Certification**

Lennart Aronsson
Supervisor

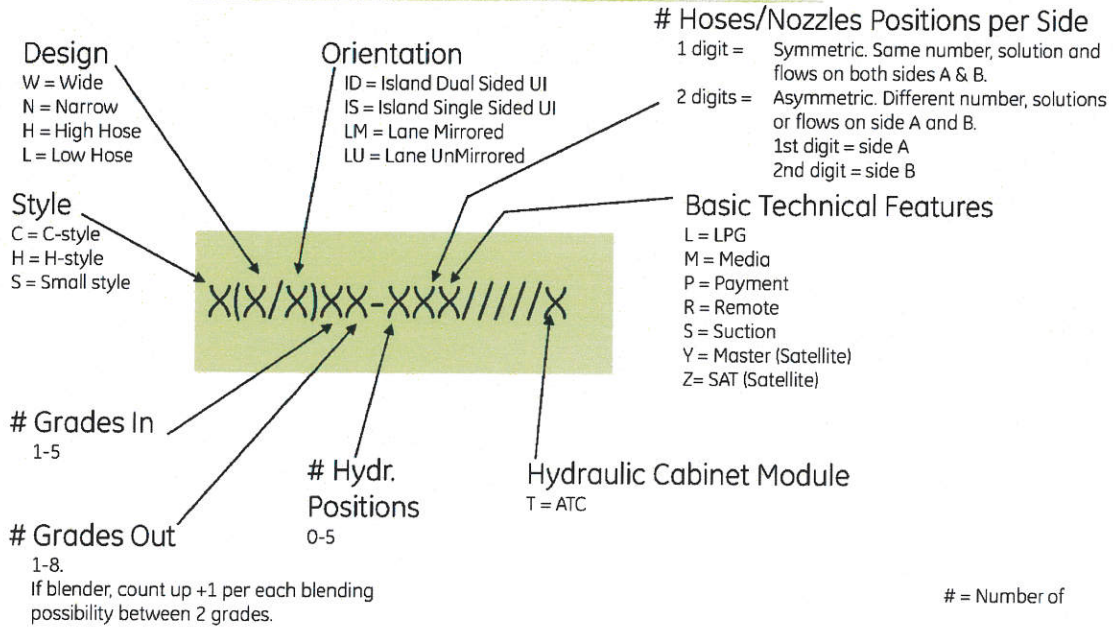
Kerstin Mattiasson
Evaluator



SP Technical Research Institute of Sweden

Postal address Phone / Fax Reg.number E-mail / Internet
SP +46 10-516 50 00 556464-6874 info@sp.se
Box 857 +46 33-13 55 02 www.sp.se
SE-501 15 Borås
SWEDEN

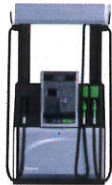
Product designation:



Style
C = C-style



H = H-style



S = Small style



Design
H = High Hose



W = Wide



H = High Hose



L = Low Hose

N/A

N = Narrow



L = Low Hose



Orientation

I = Island



D = Dual sided UI



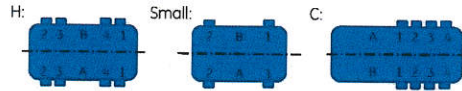
S = Single sided UI



L = Lane



M = Mirrored



U = UnMirrored



Description of the certified type

The models are one or two sided fuel pumps/dispensers for motor vehicles for one or two customer per side. The pumps/dispensers can be equipped with a built-in payment terminal (Wayne iXPay™ secure payment platform) for cards and a preset function may be installed. A display, Wayne iX™ Media platform, may be installed, at the same position as the payment

SP Technical Research Institute of Sweden

Postal address: SP, Box 857, SE-501 15 Borås, SWEDEN
Phone / Fax: +46 10-516 50 00, +46 33-13 55 02
Reg. number: 556464-6874
E-mail / Internet: info@sp.se, www.sp.se

SP has been authorised by the Swedish CIML-member to issue and sign OIML-certificates. SP ref 10 70 28
Important note: Apart from the mention of the certificate's reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated OIML Basic Type Evaluation report is not permitted, though either may be reproduced in full.



terminal. The pumps/dispensers may be equipped with printer for receipt printing at the pumps/dispensers.

For DEF, heating is installed to keep the liquid from freezing. As an option a pump circulates liquid downstream the meter between deliveries, through the coax hose to a container (max volume 2,55 litre in circulation system) to avoid freezing.

The pumps/dispensers may be equipped with vapour recovery system with vapour pump, regulating proportional valves and an electronic board connected to the iGEM CPU board. The vapour flow is controlled by the electronic board or the iGEM CPU board. Optionally also a vapour recovery monitoring system consisting of a Vapour meter and belonging Intrinsic safe barrier may be used. Means for vapour recovery must not influence the accuracy of measurements such that the maximum permissible error is exceeded.

Measuring system (fuel dispenser) description

A complete measuring system consists of one or two electronic module and one to six hydraulic modules in the same housing. If one pump and air separator is serving more than one nozzle simultaneously the total maximum flow rate through these nozzles is limited by the air separator (90 l/min per air separator) and the volume sensor (according to "Volume sensor flowrate range" under "Data". For higher flow rate another hydraulic module have to serve the same nozzle. For further information see block diagram, page 4.

Module function description

Electronic module function

(iGEM) is an electronic subsystem and it consists mainly of: calculator, indicating device, and keyboard with preset. This module can handle up to 6 motors, 6 pulse transmitters (each handling a single equipped or a duplex volume sensor), 12 nozzles and 14 solenoid valves. The module is able to serve up to two customers at a time.

Hydraulic function modules

Measurement transducer function is a hydraulic subsystem and it consists mainly of: volume sensor (single equipped side A, single equipped side B or duplex) and pulse transmitter.

Pump and air separator function is a hydraulic subsystem and it consists mainly of: Compact Pumping Unit (CPU) including air separator, motor and non-return valve.

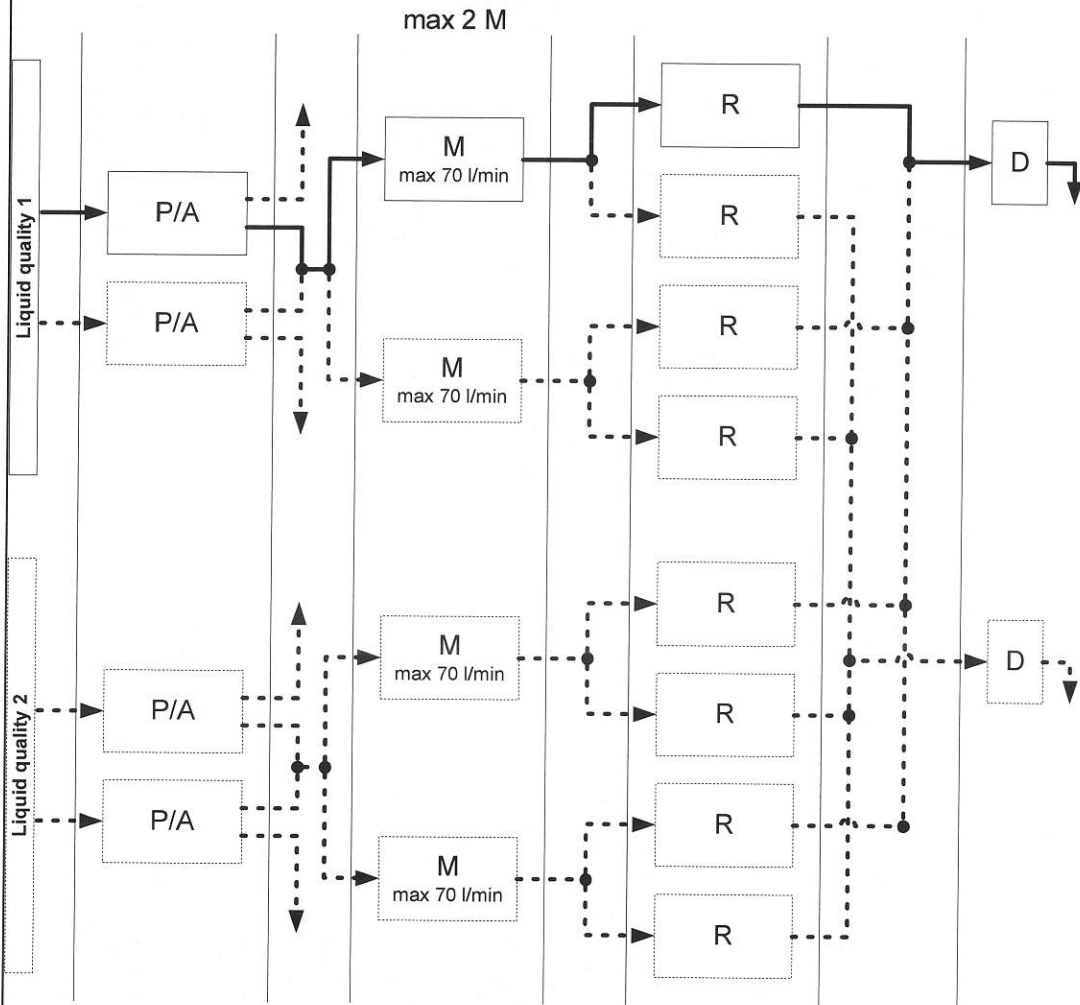
Regulating function is a hydraulic subsystem and it consists mainly of: solenoid valves for flow rate regulation, blending and on/off.

Delivery function is a hydraulic subsystem and it consists mainly of: hoses, nozzles and nozzle switch, this includes also satellite function.

Central pump function is a hydraulic subsystem and it consists mainly of: delivery of air free liquid according to OIML R117, item 5.1.3 and security valve.

If the measuring system is equipped with a central pump (an additional "R") an external (central) pump is used instead of an internal pump. The external system must comply with OIML 117, item 5.1.3 (i.e. it shall be equipped with an arrangement that prevents air to come into the system).

Block diagram describing permitted ways, and some restrictions, to produce one delivery product for one customer. Each such configuration shall be a subset of the diagram. To produce multiple delivery products for a customer the block diagram is used several times.



P/A = pressurizing and air separation	CPU, (dispenser bottom,) cover, motor, non-return valve (and security valve)
M = measuring	volume sensor and pulse transmitter
R = regulating	solenoid valve
D = delivering	hose, nozzle and nozzle switch



OIML BASIC CERTIFICATE OF CONFORMITY

OIML Member State
SWEDEN

OIML Certificate No.
R117/1995-SE1-13.01 Revision 1
This revision replaces earlier versions



Data

Maximum flow rate (q_{max})	40 to 200 l/min
Minimum flow rate (q_{min})	$\geq 0,2$ l/min
Minimum measured quantity (mmq)	2,0 l or 5,0 l or 20 l. As option, 5,0 l can be used on any configuration except for hose longer than 10 m. For DEF 5,0 l only.
Scale interval, volume display	0,01 l
Maximum volume (6 digits)	9 999,00 l (programmable)
Maximum price (7 digits)	99 990,00 Price (programmable)
Maximum unit price (5 digits)	999,99 Price/l (programmable)
Pressure range	0,12 - 0,3 MPa
Liquid temperature range	-30°C to +55°C, -25°C to +55°C only for FAME/RME -5°C to +35°C only for DEF
Ambient temperature range	-40°C to +60°C -25°C to +55°C for DEF +5°C to +55°C for iGEM printer
Type of liquids, volume sensor iMeter and Xflo™	Petrol, kerosene, diesel, ethanol or FAME/RME
volume sensor iMeter DM2-X UREA	DEF (Diesel Exhaust Fluid, e.g. AdBlue)
Volume sensor flow rate range, iMeter Duplex (each meter) and Single	0,2 to 70 l/min 4 to 70 l/min only for FAME/RME 2 to 40 l/min only for DEF
iMeter2 Duplex (each meter) and Single	1,6 to 70 l/min 4 to 70 l/min only for FAME/RME
Xflo™ Duplex (each meter) and Single	0,2 to 70 l/min only for Petrol 4 to 80 l/min 4 to 70 l/min only for FAME/RME
Mixture conditions, two liquids	5% to 95% (designation only e.g. 92, 95, 98 octane not 50/50, 70/30 etc)
The ratio between maximum and minimum flow rate should be at least 10 for single quality and 5 for blending quality.	

*

* *

SP Technical Research Institute of Sweden

Page 5 of 5 pages

Postal address	Phone / Fax	Reg. number	E-mail / Internet
SP	+46 10-516 50 00	556464-6874	info@sp.se
Box 857	+46 33-13 55 02		www.sp.se
SE-501 15 Borås			
SWEDEN			

SP has been authorised by the Swedish CIML-member to issue and sign OIML-certificates. [SP ref 10 70 28](#)

Important note: Apart from the mention of the certificate's reference number and the name of the OIML Member State in which the certificate was issued, partial quotation of the certificate or of the associated OIML Basic Type Evaluation report is not permitted, though either may be reproduced in full.