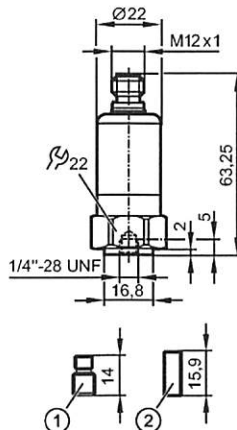


**VTV121**  
VIBRATION TRANSMITTER



- 1: Threaded adapter 1/4"-28 UNF / M8 x 1.25 mm
  - 2: Threaded adapter 1/4"-28 UNF
- tightening torque 8 Nm



**Product characteristics**

Vibration transmitter
VTV
Connection via M12 connector
Vibration transmitter to ISO 10816
Measuring range RMS: 0...50 mm/s
Analogue output 4...20 mA
2-wire connection technology

**Application**

Application	Vibration transmitter Vrms to ISO 10816
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**Electrical data**

Operating voltage	[V]	9.6...32 DC
Protection class		III

**Inputs / outputs**

Inputs / outputs total	1
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**Outputs**

analogue		
current output	[mA]	4...20
Max. load	[Ω]	max. (Ub - 9.6 V) x 50; 720 at Ub = 24 V

**Measuring / setting range**

Measuring range	[mm/s]	0...50 RMS
Frequency range	[Hz]	10...1000

**Accuracy / deviations**

Accuracy	[% of the final value]	< ± 3
Repeatability		< 0.5 %
Linearity		0.25 %

**Environment**

Ambient temperature	[°C]	-30...125
Protection		IP 67 / IP 68 / IP 69K

**VTV121**

VIBRATION TRANSMITTER

Diagnostic systems

**Tests / approvals**

EMC	EN 61000-4-2 ESD:	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated:	10 V/m
	EN 61000-4-4 Burst:	2 kV
	EN 61000-4-5 Surge:	1 kV
	EN 61000-4-6 HF conducted:	10 V
Shock resistance		400 g
MTTF	[Years]	865

**Mechanical data**

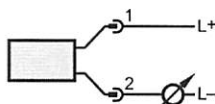
Type of sensor	Microelectromechanical system (MEMS)	
Number of measurement axes	1	
Housing materials	stainless steel 316L / 1.4404	
Type of mounting	set screw	
Weight	[kg]	0.122

**Electrical connection**

Connection	M12 connector
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**Wiring**

- 1: L+
- 2: 4...20 mA
- 3: not used



**Remarks**

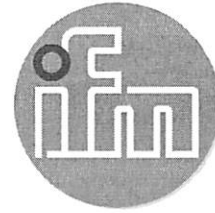
Pack quantity	[piece]	1
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ifm electronic gmbh • Friedrichstraße 1 • 45128 Essen — We reserve the right to make technical alterations without prior notice. — GB — VTV121 — 13.02.2015



**Michael J. Trask**  
 P.O. Box 1778 (29652-1778)  
 414 West Poinsett Street  
 Greer, SC 29650  
 864-848-3993 FX: 864-848-9569  
[www.traskinst.com](http://www.traskinst.com)

ifm electronic



Operating instructions  
Vibration transmitter

**efector800**  
VTV121

UK



**Michael J. Trask**

P.O. Box 1778 (29652-1778)

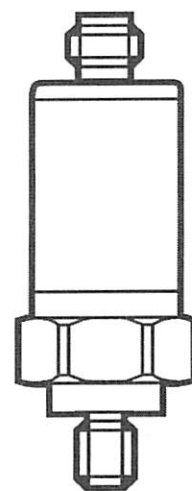
414 West Poinsett Street

Greer, SC 29650

864-848-3993 FX: 864-848-9569

[www.traskinst.com](http://www.traskinst.com)

80226822/00 01/2015



## Symbols used

▶ Instruction



Important note

Non-compliance can result in malfunctions or interference.

## 1 Safety instructions

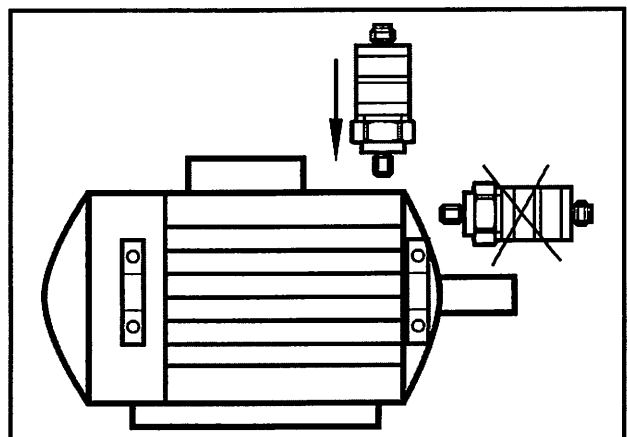
- Please read the product description prior to set-up of the unit. Ensure that the product is suitable for your application without any restrictions.
- The unit conforms to the relevant regulations and EC directives.
- Improper or non-intended use may lead to malfunctions of the unit or to unwanted effects in your application.
- That is why installation, electrical connection, set-up, operation and maintenance of the unit must only be carried out by qualified personnel authorised by the machine operator.

## 2 Functions and features

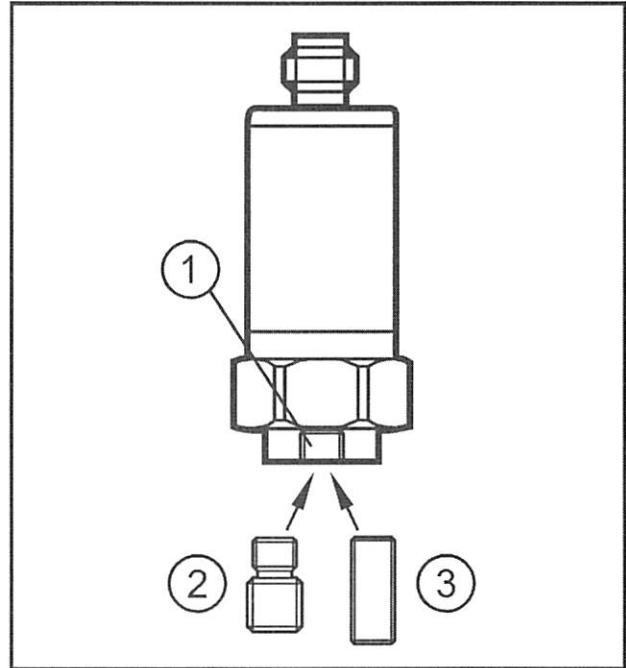
The vibration transmitter detects the vibration in the system (measured / evaluated physical unit = vibration velocity). This is converted into an analogue signal at the current output.

## 3 Installation

- ▶ Mount only in a thick housing wall (e.g. transport thread).
- ▶ Ensure that the signal direction is correct.
- ▶ Ensure a safe vibration transmission and allow no elastic intermediate layers.




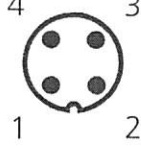
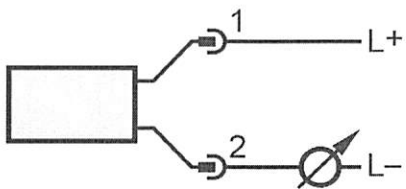
- ▶ Select either the ¼"-28 UNF / M8 (2) or the ¼"-28 UNF (3) threaded adapter and insert into the unit (1). Both adapters are supplied.
- ▶ Tighten using a 3 mm Allen key. Tightening torque 8 Nm.
- ▶ Drill and tap a hole at the mounting location:
  - M8 hole / depth min. 10 mm
  - or ¼" UNF hole / depth min. 13 mm.



- ▶ Tighten the sensor with a tightening torque of 8 Nm.

## 4 Electrical connection

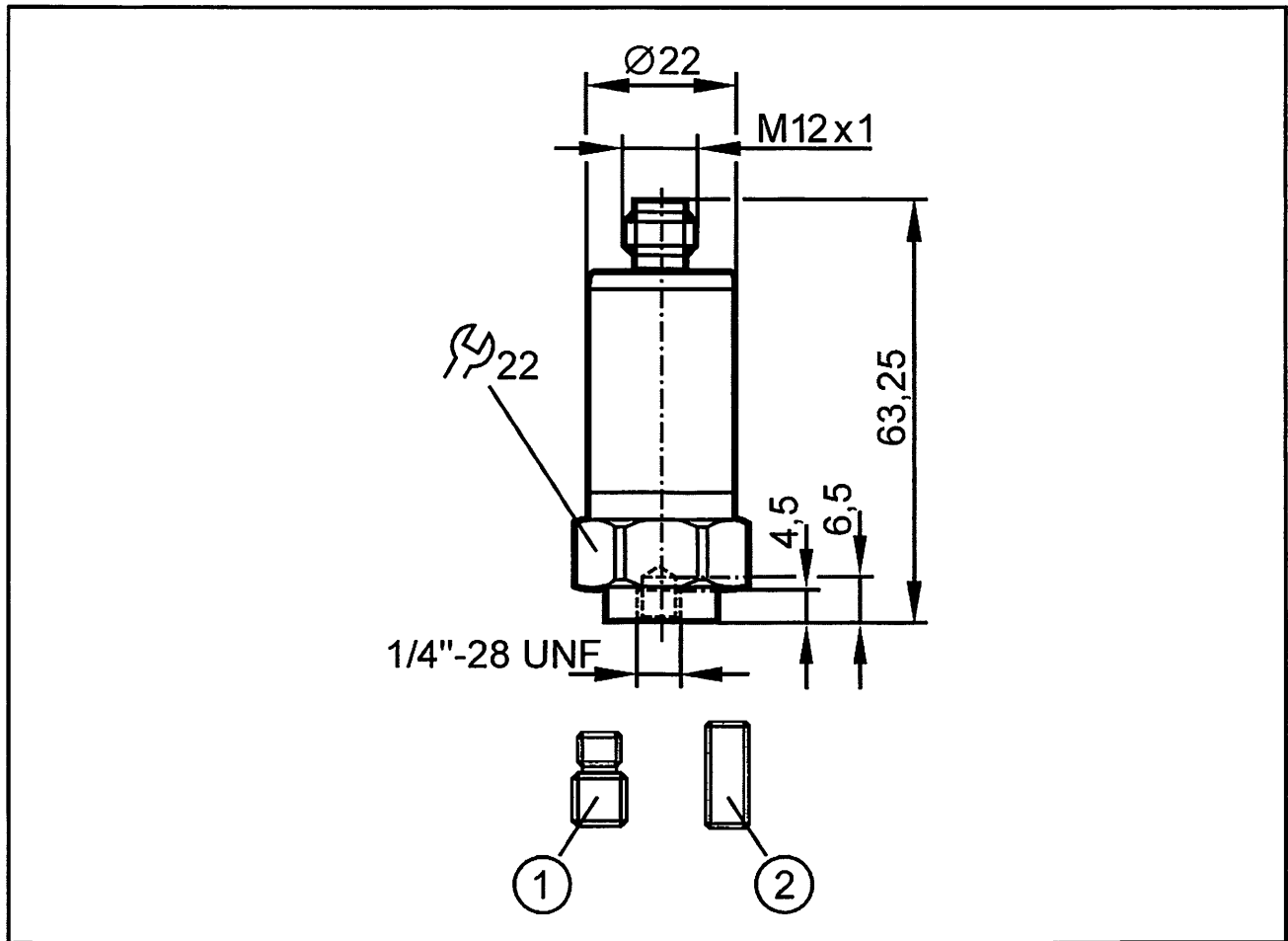
 The unit must be connected by a qualified electrician. The national and international regulations for the installation of electrical equipment must be adhered to.

M12			Pin 1: L+ (9.6...32 V DC) Pin 2: 4...20 mA Pin 3: not used (n.c.)
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### 4.1 Measuring range

$V_{eff}$	mm/s	0...50
$I_{out}$	mA	4...20
Frequency range	Hz	10...1000

## 5 Scale drawing



1: threaded adapter 1/4"-28 UNF / M8

2: threaded adapter 1/4"-28 UNF

tightening torque 8 Nm

## 6 Maintenance, repair, disposal

The operation of the unit is maintenance-free. It is not possible to repair the unit. After use dispose of the unit in an environmentally friendly way in accordance with the applicable national regulations.

## 7 Technical data

Technical data and further information at

[www.ifm.com](http://www.ifm.com) → Select your country → Data sheet search