toflow

T112/T122

Specifiche tecniche e manuale di installazione e d'uso

Specifications and manual of installation and usage

COMHAS

SOMMARIO/SUMMARY

toflow

ITA

T1x2

SENSORE DI VELOCITÀ

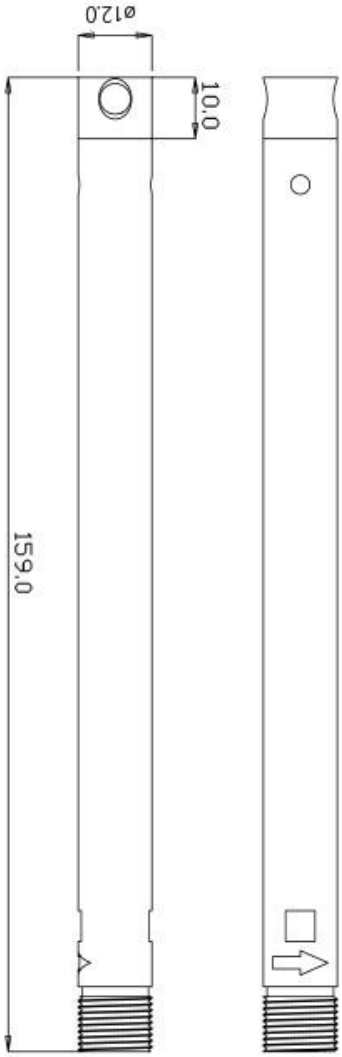
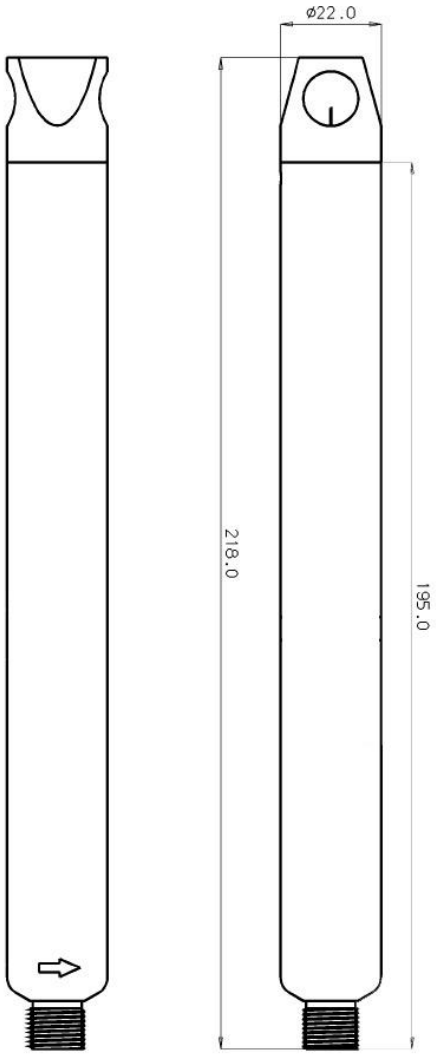
SPECIFICHE E ISTRUZIONI

SPECIFICHE TECNICHE

Fluidi:	aria e gas compatibili, non combustibili
Precisione:	±2.5% f.s. ±0.1 m/s @ 25°C ±3.5% f.s. ±0.1 m/s @ 25°C (per campo 0-3m/s)
Tempo di risposta:	1 secondo per il 95% del valor finale
Limiti di temperatura:	processo da 5 a 50°C ambiente da 0 a 50°C
Limite di pressione:	0.5 bar
Umidità limite:	5-95% ur non condensante
Requisiti di alimentazione:	18-26 VDC
Scale disponibili:	0-1, 0-3, 0-10, 0-20, 0-30 m/sec
Segnale di uscita:	0-10 V, 0-20 mA 4-20 mA collegamento 3 fili
Resistenza loop:	500 ohm max
Consumo corrente:	100 max
Collegamento elettrico:	- Connettore M12 - Cavo 3 mt - Morsettiera
Orientamento di montaggio:	la sonda deve essere allineata con il flusso d'aria
Certificazioni:	CE
Materiali:	- Sonde A,B,P Sensore in vetro/ceramica Testa di misura macromelt®/alluminio - Sonda S Acciaio inox 316, sensore in vetro/ceramica
Applicazioni:	condizionamento, misure di flusso, cappe di aspirazione, monitoraggio ventilatori, raffreddamenti ad aria, misure di velocità per intasamento filtri, ced, cc.

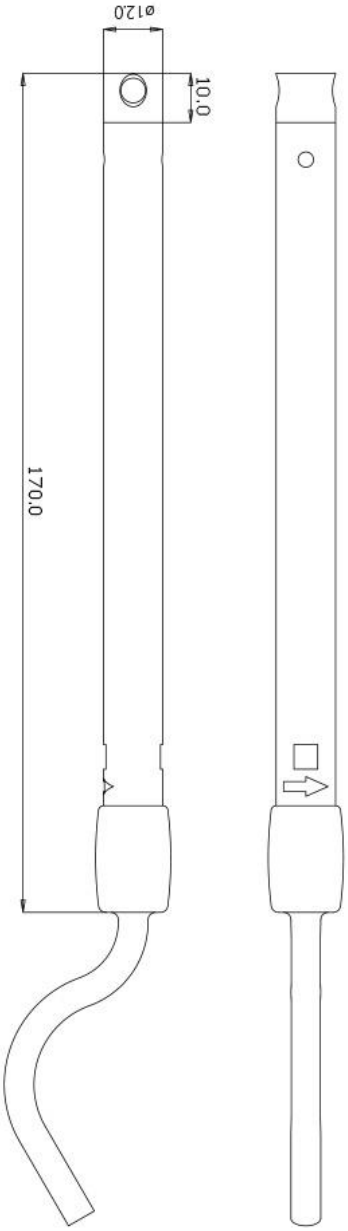
DISEGNI MECCANICI

T-Flow/M12

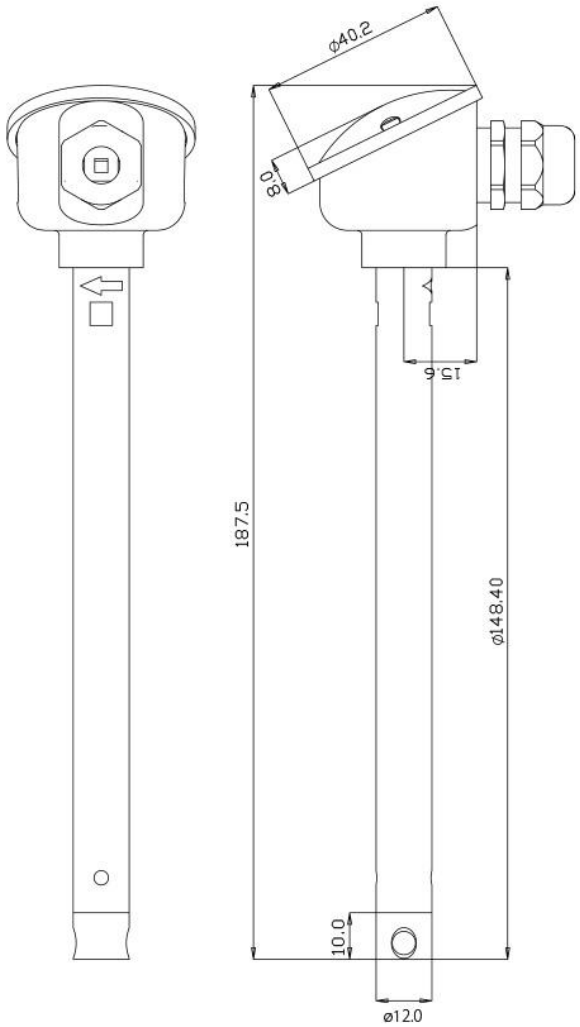
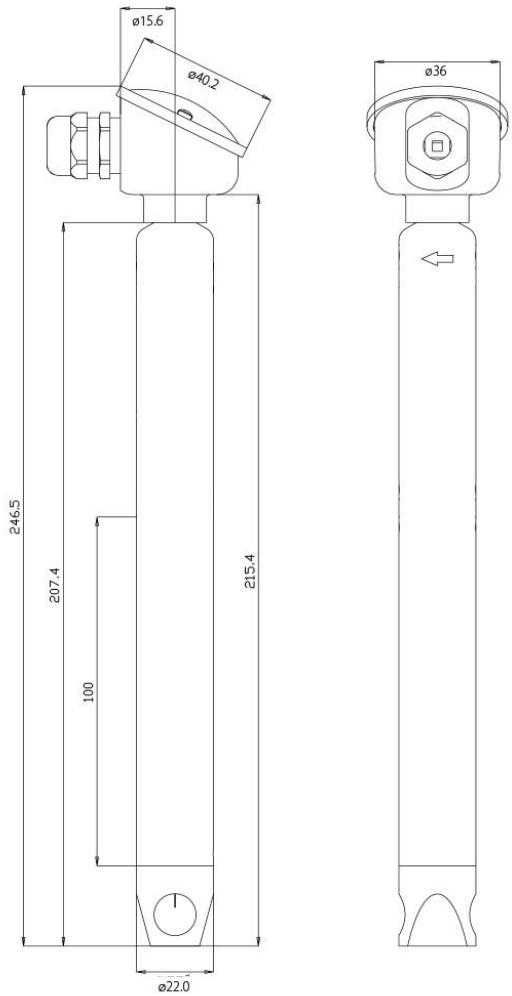
T112/M12	T122/M12
	

T-Flow/CBL

T112/CBL



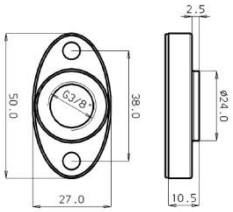
T-Flow/MRS

T112/MRS	T122/MRS
	

ACCESSORI

Serie T112

CMH-FNRC-12-N



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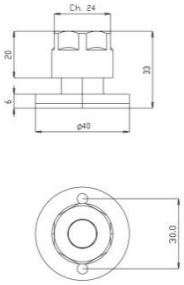
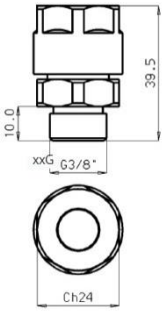


CMH-RCxx-12-N



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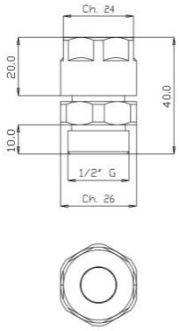
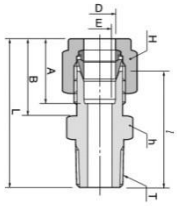


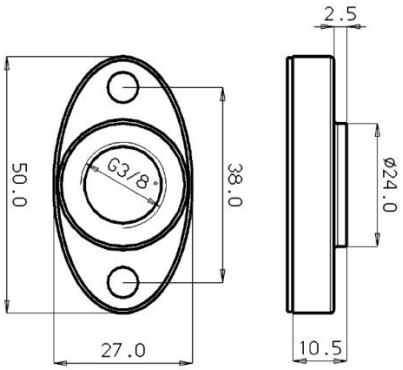
SCMT-12M-8G



D = 12
T = 1/2"
L = 48.2
A = 22.8
B = 22

Serie T122

CMH-FNRC-22-N



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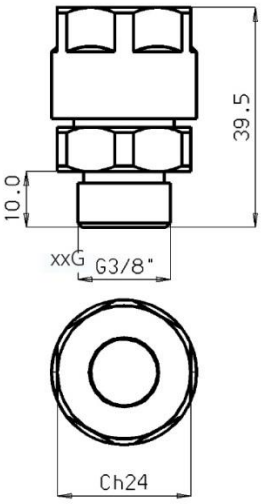


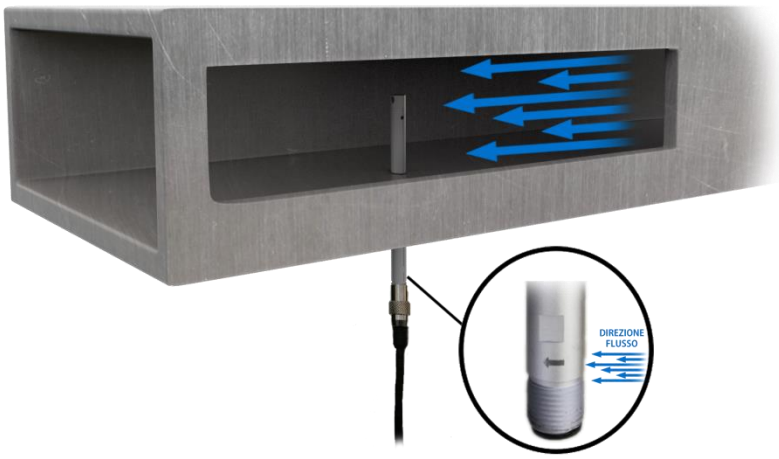
INSTALLAZIONE E UTILIZZO

Montaggio

Per un corretto utilizzo dello strumento, è necessario che il flusso sia parallelo alla freccia di riferimento presente sul fondo dello strumento, in quanto, un angolo di installazione diverso porterebbe a un errore nella lettura della velocità.

Installazione con flangia per condotte quadre

Per una corretta installazione in questo tipo do condotta, si consiglia l'utilizzo dei raccordi *FNRC (pag. 8),* in modo da poter fissare la flangia e successivamente allineare il sensore tenendolo mediante il raccordo a compressione.



Installazione con raccordo per condotte con manicotto saldato

Per questo tipo di condotta, è richiesto l'utilizzo del raccordo *RC (pag.8),* disponibile con diversi filetti.

La condotta deve essere provvista del corretto manicotto saldato sulla condotta stessa.

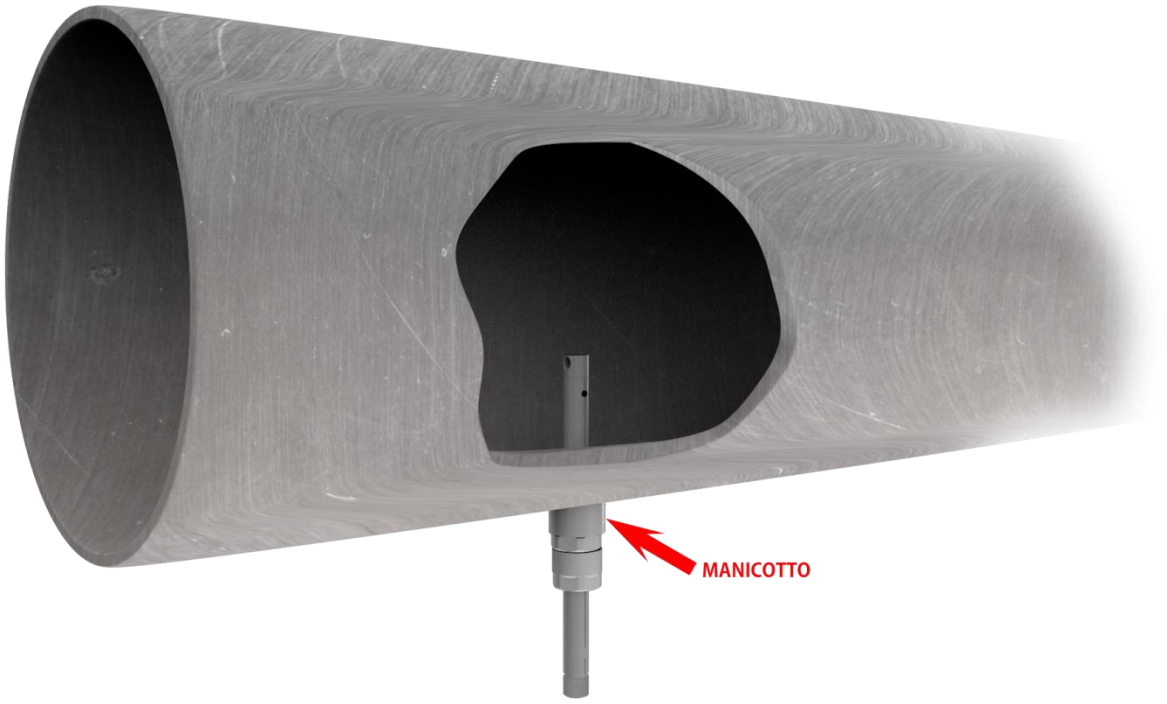
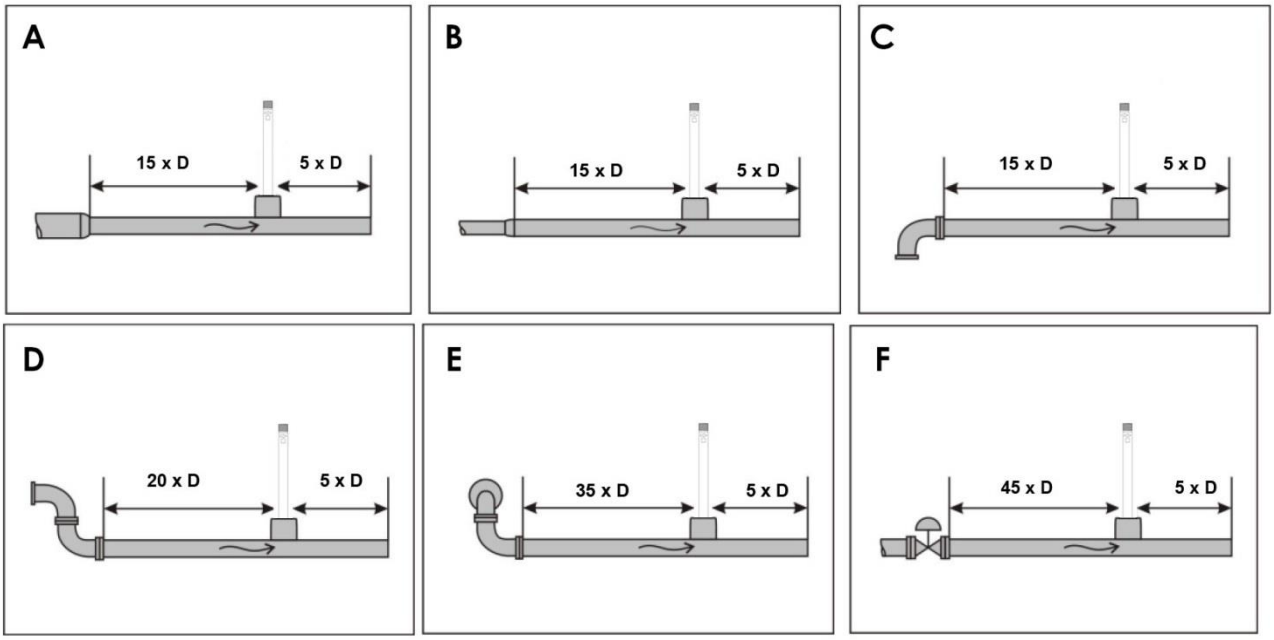


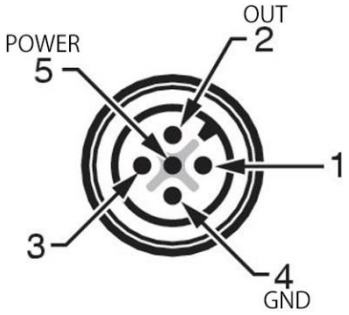
Tabella tratti rettilinei monte/valle

	Deviazione del flusso prima della misura	Lunghezza minima Diametri a monte (L1)	Lunghezza minima Diametri a valle (L2)
	Curva < 90°	12 x D	5 x D
A	**Riduzione (Tubo si restringe alla sezione di misura)**	15 x D	5 x D
B	**Espansione (Tubo si espande alla sezione di misura)**	15 x D	5 x D
C	**Angolo a 90°**	15 x D	5 x D
D	**2X angolo a 90°**	20 x D	5 x D
E	**2X angolo a 90° Su assi differenti**	35 x D	5 x D
F	**Valvola di controllo**	45 x D	5 x D

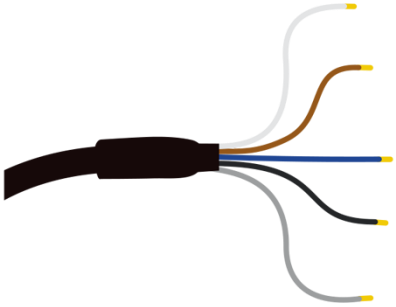


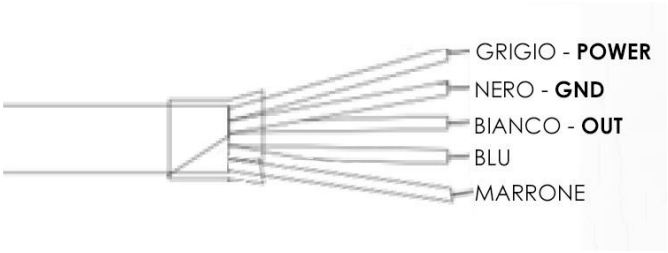
Morsetti e collegamenti

M12

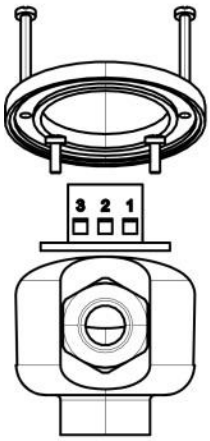


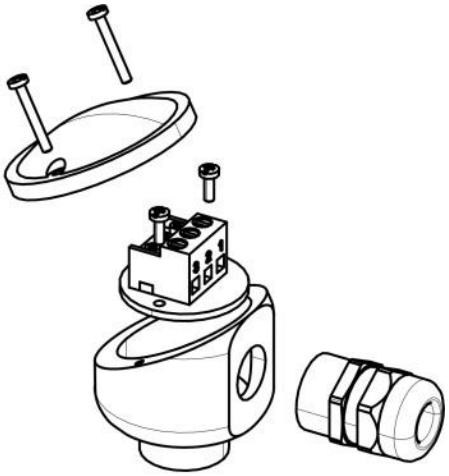
CBL





MRS





OUT	POWER	GND
3	2	1

SOFTWARE

Insieme allo strumento, è possibile acquistare il software per la configurazione del dispositivo, con cui è possibile personalizzare alcuni parametri.

È possibile scaricare il software dal nostro sito www.comhas.com nella sezione dedicata al prodotto T-FLOW.

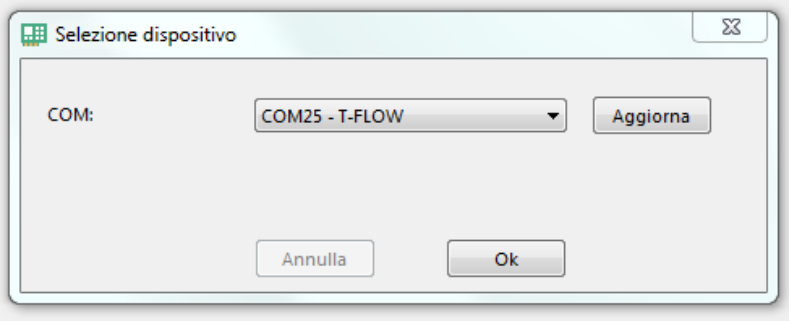
Prima di lanciare il software, è necessario collegare il dispositivo tramite il cavo

- ***CMH-CBL-USB-SP***: in caso di collegamento a morsettiera (MRS)
- ***CMH-CBL-USB-M12***: in caso di collegamento M12
- ***CMH*-CBL-USB-MRS:** in caso di collegamento con cavo (CBL)

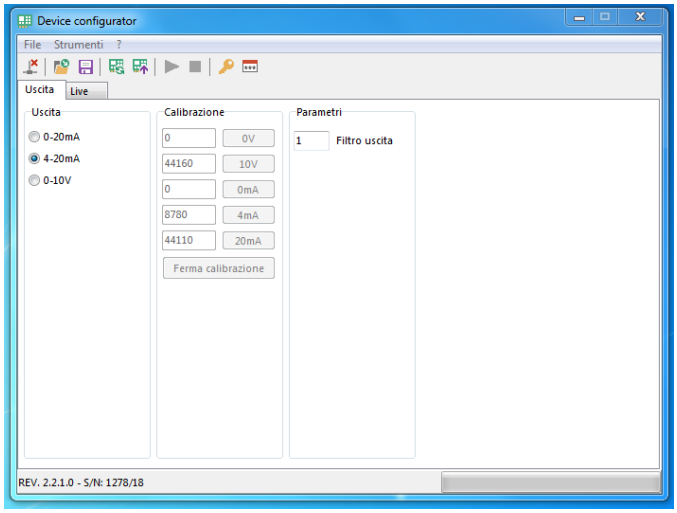
Funzioni principali

Dopo avere collegato il dispositivo tramite il cavo USB, è necessario alimentare lo strumento, seguendo le istruzioni indicate nella sezione "*Morsetti e collegamenti*".

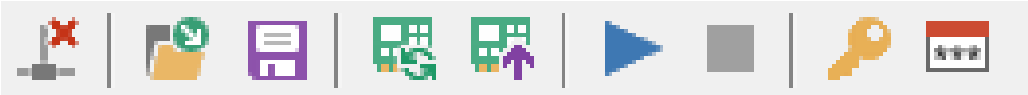
Avviando il software, accertarsi che quest'ultimo riconosca il dispositivo, come in figura sottostante.



Il software permette tramite connessione USB la configurazione del T-Flow Comhas, permettendo la selezione del tipo di uscita in corrente (0-20 / 4-20mA) o in tensione (0-10V).



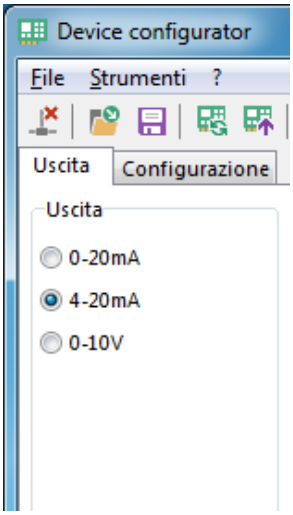
Barra dei pulsanti



	DISCONNETTE UN DISPOSITIVO
	RICARICA UNA CONFIGURAZIONE DA FILE
	SALVA UNA CONFIGURAZIONE SU FILE
	LEGGE LA CONFIGURAZIONE DEL DISPOSITIVO CONNESSO
	SCRIVE SUL DISPOSITIVO LA NUOVA CONFIGURAZIONE, LE IMPOSTAZIONI SARANNO ATTIVE SOLO DOPO LA SCRITTURA SUL DISPOSITIVO
	PERMETTE L'ACCESSO ALLA CALIBRAZIONE DELL'USCITA TRAMITE PASSWORD "*Service*"
	PANNELLO DI INSERIMENTO CHIAVI DI ATTIVAZIONI

Selezione Uscita

E' possibile selezionare l'uscita desiderata in corrente (0-20 / 4-20mA) o in tensione (0-10V), per i collegamento fare riferimento alla sezione "Morsetti e collegamenti" *(pag. 13)*.



N.B. Per salvare le modifiche apportate, è necessario premere il pulsante per sovrascrivere la nuova configurazione.

toflow

ENG

T1x2

VELOCITY TRANSMITTER FOR AIR

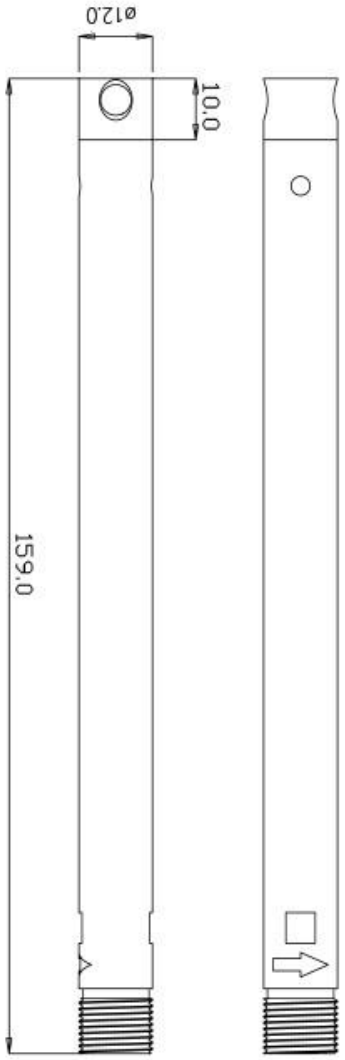
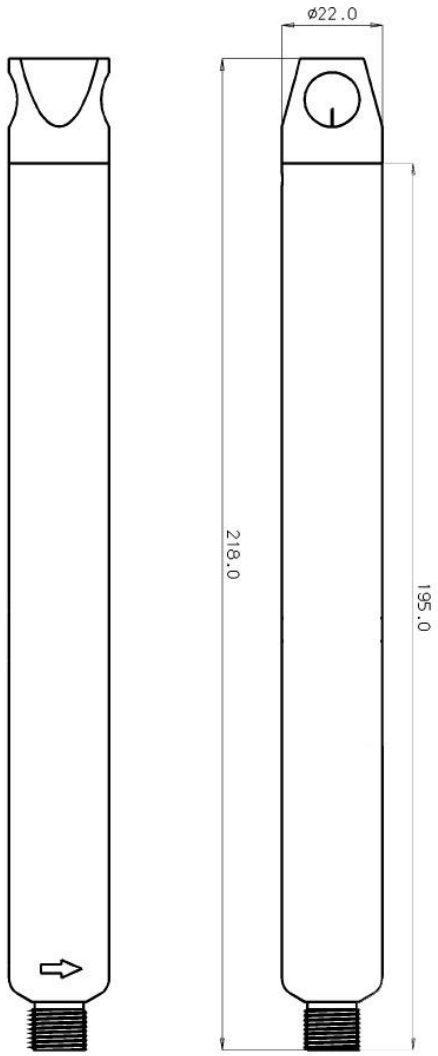
SPECIFICATIONS AND OPERATIVE INSTRUCTIONS

SPECIFICATIONS

Fluids:	air and compatible gases not combustible
Accuracy:	±2.5% f.s. ±0.1 m/s @ 25°C ±3.5% f.s. ±0.1 m/s @ 25°C (for ranges 0-3 m/s)
Response time:	1 second up to 95% of final value
Temperature limits:	process from 5 to 50°C ambient from 0 to 50°C
Limite di pressione:	0.5 bar
Umidità limite:	5-95% ur non condensing
Requisiti di alimentazione:	18-26 VDC
Scale disponibili:	0-1, 0-3, 0-10, 0-20, 0-30 m/sec
Segnale di uscita:	0-10 V, 0-20 mA 4-20 mA, 3 wires
Loop resistance:	500 ohm max
Current consumption:	100 mA max
Electrical connection:	- M12 connector - 3mts cable - Terminal block
Mounting orientation:	probe to be mounted aligned to flow direction
Certificate:	CE
Materials:	- A,B,P probes: Glass/ceramic sensor Macromelt®/aluminium measuring head - S probe 316 stainless steel, glass/ceramic sensor
Applicazioni:	air conditioning, flow measurements, flow hoods, fans monitoring, air cooling, ced, etc.

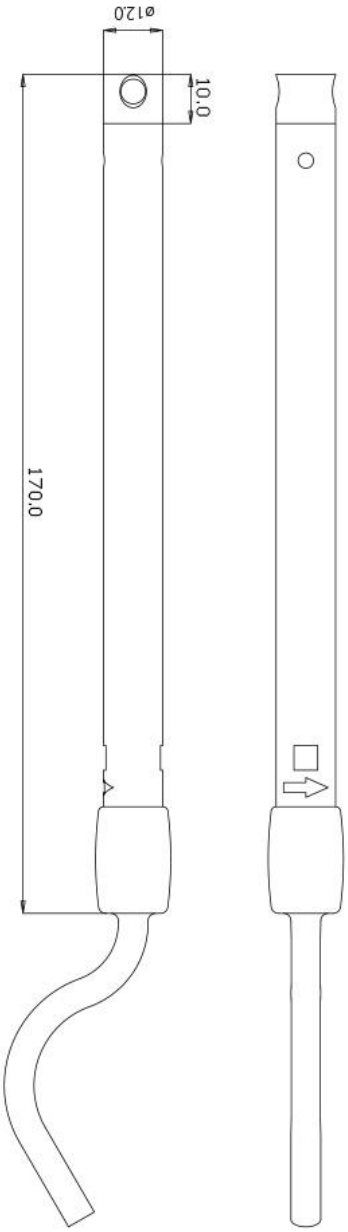
MECHANICAL DRAWINGS

T-Flow/M12

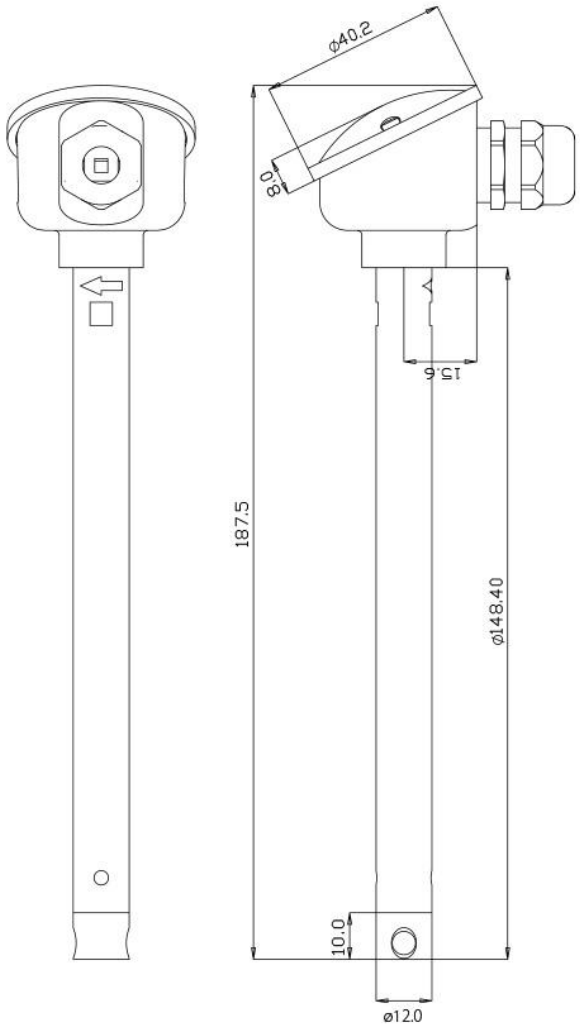
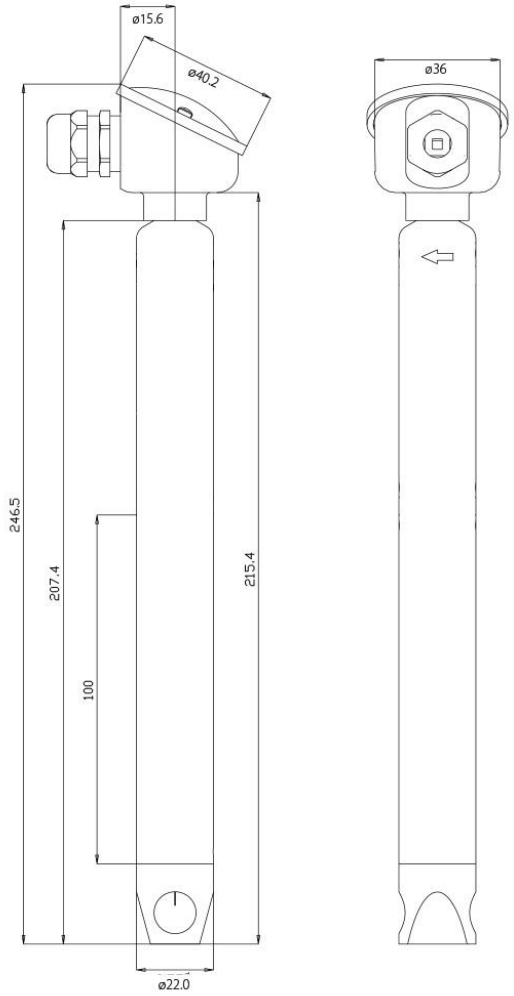
T112/M12	T122/M12
	

T-Flow/CBL

T112/CBL



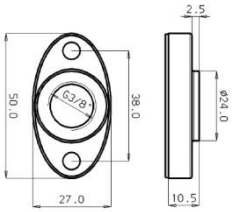
T-Flow/MRS

T112/MRS	T122/MRS
	

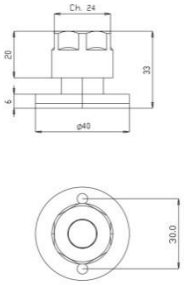
ACCESSORIES

T112 Series

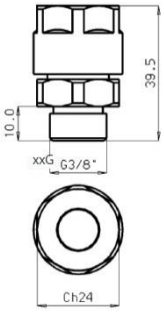
CMH-FNRC-12-N



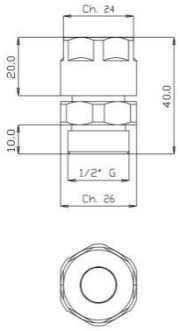
CMH-FNRC-12-P



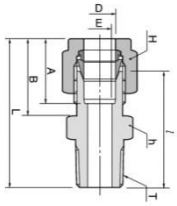
CMH-RCxx-12-N



CMH-RC1/2-12-P



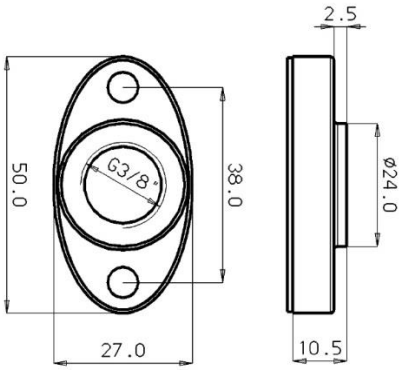
SCMT-12M-8G



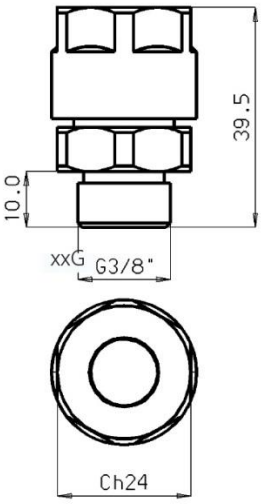
D = 12
T = 1/2"
L = 48.2
A = 22.8
B = 22

T122 Series

CMH-FNRC-22-N



CMH-RC-22-N



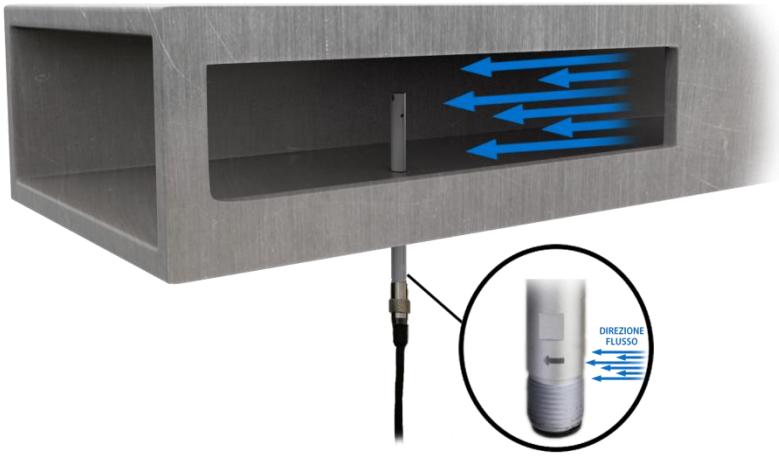
INSTALLATION AND USE

Mounting

For a correct use of the instrument, it is necessary that the flow is parallel to the reference arrow on the bottom of the instrument, because a different installation angle would lead to an error in the velocity reading.

Flange installation for square ducts

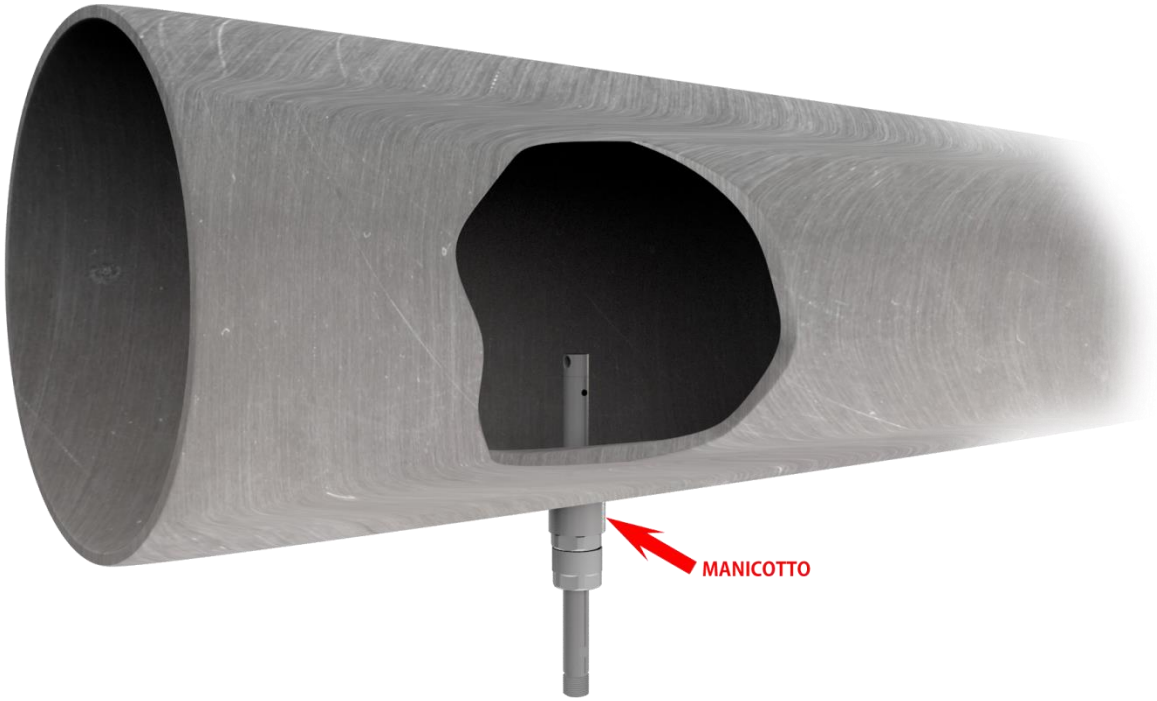
For a correct installation in this type of conduit, we recommend the use of *FNRC* fittings (page 8), in order to fix the flange and then align the sensor holding it through of the compression fitting.



Installation with pipe fitting with welded sleeve

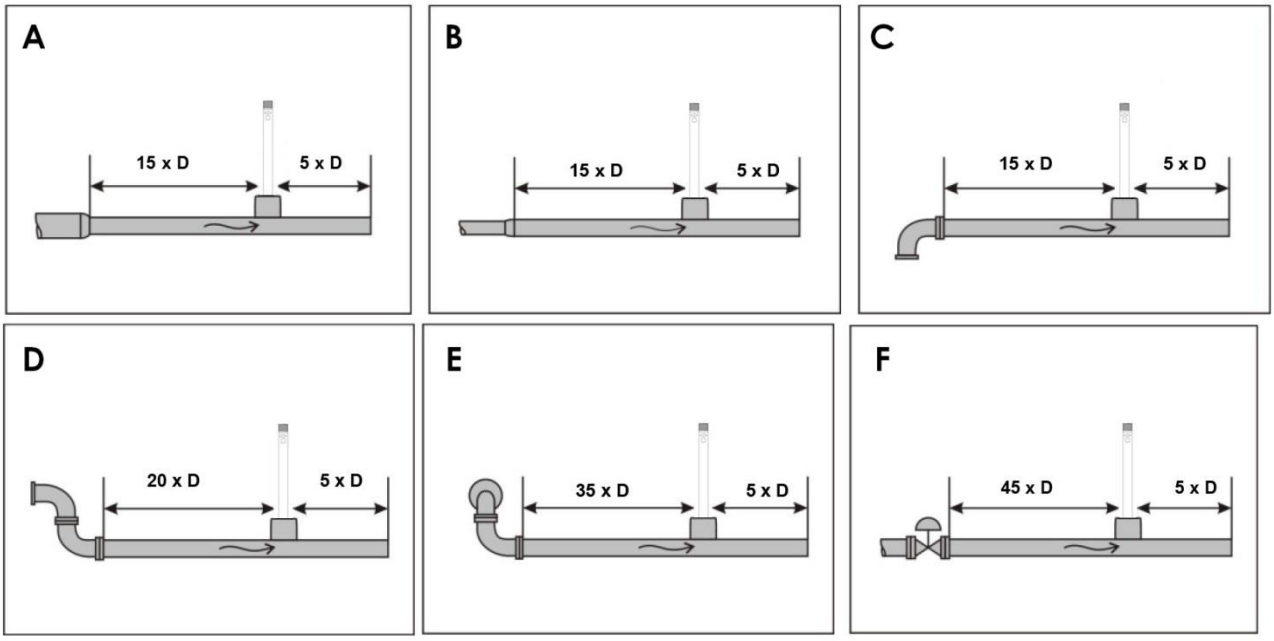
For this type of piping, the use of the RC (page 8) fitting is required, available with different threads.

The pipe must be provided with the correct sleeve welded on the pipe itself.



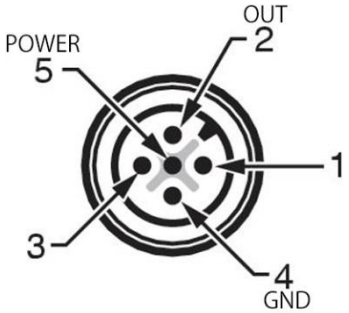
Tablet Inlet / Outlet runs

	Flow obstruction before the measurement section	Min length Inlet run (L1)	Min length Outlet run (L2)
	Slight curve < 90°	12 x D	5 x D
A	Reduction (Pipe narrows to the measurement section)	15 x D	5 x D
B	Expansion (Pipe expands to the measurements section)	15 x D	5 x D
C	90° elbow or T-piece	15 x D	5 x D
D	2X elbow at 90°	20 x D	5 x D
E	2X elbow at 90° 3-dimensional	35 x D	5 x D
F	Control valve	45 x D	5 x D

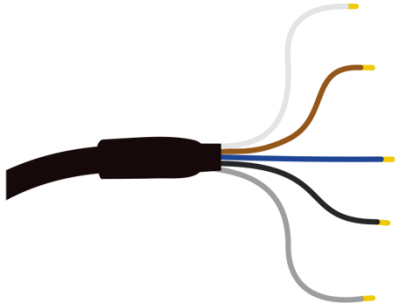


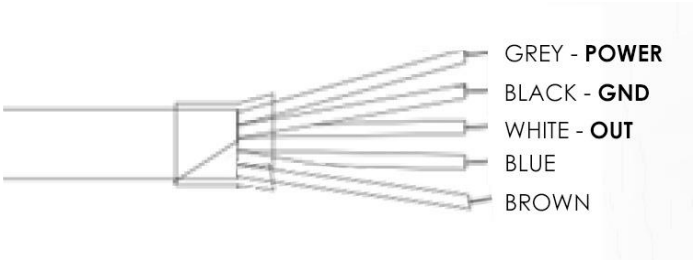
Terminals and connections

M12

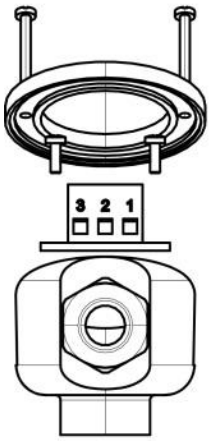


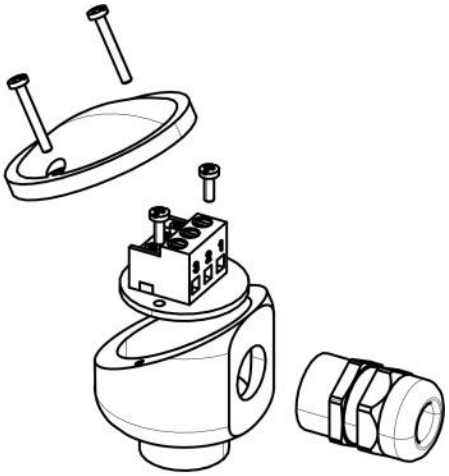
CBL





MRS





OUT	POWER	GND
3	2	1

SOFTWARE

Together with the instrument, it is possible to purchase the software for the configuration of the device, with which it is possible to customize some parameters.

You can download the software from our website www.comhas.com in the T-FLOW product section.

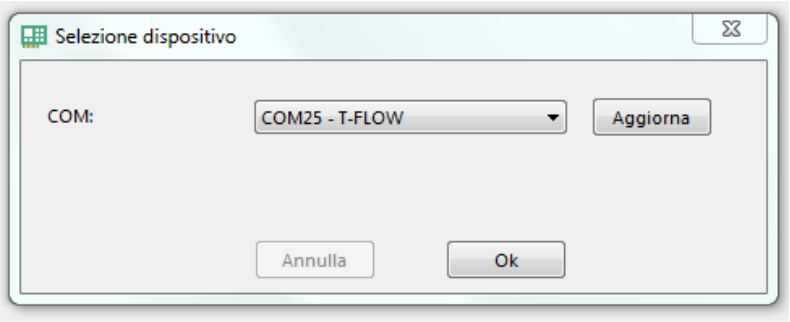
Before launching the software, the device must be connected via cable

- ***CMH-CBL-USB-SP***: in case of connection with terminal block (MRS)
- ***CMH-CBL-USB-M12***: in caso of connection with M12
- ***CMH*-CBL-USB-MRS:** in case of connection with cable(CBL)

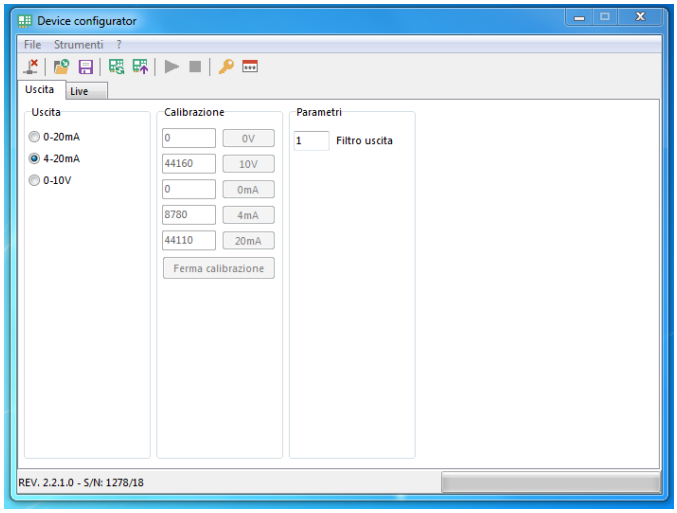
Main functions

After connecting the device via the USB cable, the instrument must be powered, following the instructions in the "Terminals and Connections" section.

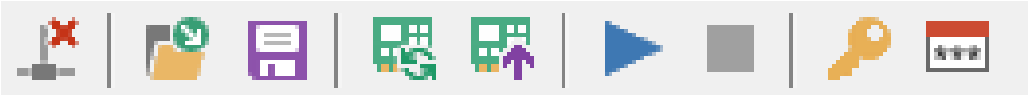
When starting the software, make sure that the software recognizes the device, as shown in the figure below.



The software allows via USB connection the configuration of the Comhas T-Flow, allowing the selection of the type of current output (0-20 / 4-20mA) or voltage (0-10V).



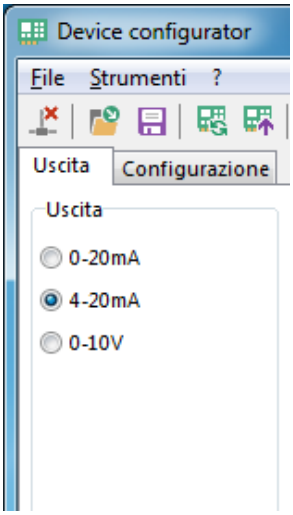
Button bar



	DISCONNECT A DEVICE
	RELOAD A FILE CONFIGURATION
	SAVE A CONFIGURATION ON FILE
	READ THE CONFIGURATION OF THE CONNECTED DEVICE
	WRITE ON THE DEVICE THE NEW CONFIGURATION, THE SETTINGS WILL BE ACTIVATED ONLY AFTER WRITING ON THE DEVICE
	ALLOWS ACCESS TO THE OUTPUT CALIBRATION THROUGH PASSWORD "Service"
	INSERTING PANEL KEYS OF ACTIVATIONS

Select output

It is possible to select the desired current output (0-20 / 4-20mA) or voltage (0-10V), for the connections refer to the section "Terminals and connections" *(pag.28)*.



NOTE! To save the changes, you need to press the button to overwrite the new configuration.