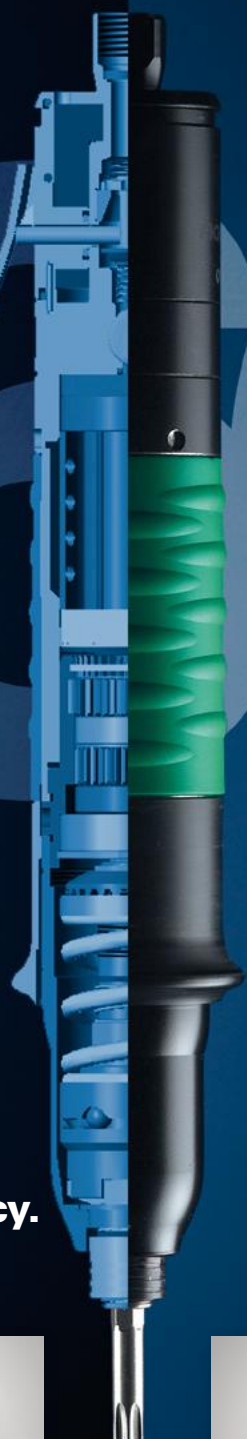


26C



Speed. Efficiency. Accuracy.

The power of innovation.



**Straight, pistol
26C air screwdrivers**

- Torque range: from 0,4 to 12 Nm
- Automatic shut-off

Fiam[®]
PEOPLE AND SOLUTIONS

Searching for excellence, developing ideas.

Are you looking for innovation, practicality and accuracy?

Only the range of 26C tools can satisfy your needs. A modern 260 Watt power range, ideal in every type of industrial assembly: to overcome the performance's challenge with **different functionality levels** and thanks to the **control of the whole assembly process**.

For this reason each 26C tool is also designed to monitor the tightening cycle (poka-yoke system, anti-error system) or the assembled component, ensuring extraordinary results.

PAGE 4 Level 1

Screwdrivers with TRACS2 and TRACS3 torque control

Accurate, reliable, constant tightenings, cycle after cycle.
High torque repeatability on hard and soft joints.

PAGE 10 Level 2

Screwdrivers with TRACS2 and TRACS3 torque control + SCREWS COUNTING

26C tools with pneumatic pick up signal, subsequently converted into electric signal: it reports if the clutch shuts-off during the time set in the program. Therefore it allows to discriminate the screws that have been tightened incorrectly with consequent quality improvement of the assembled product.

Straight screwdriver



"Forward" pistol screwdriver



Pistol screwdriver



Control levels of the assembly process



Level 1

TRACS2 and TRACS3 torque control.

- TRACS CLUTCH
- ACCURATE TIGHTENINGS
- HIGH REPEATABILITY

Pistol UpGrip screwdriver



Level 2

TRACS2 and TRACS3 torque control + screws counting.

- TRACS CLUTCH
- ACCURATE TIGHTENINGS
- HIGH REPEATABILITY
- COUNTING OF TIGHTENED SCREWS
- OK / KO CYCLE
- MONITORING OF THE TIGHTENING TIME

Solution with TOM monitoring unit

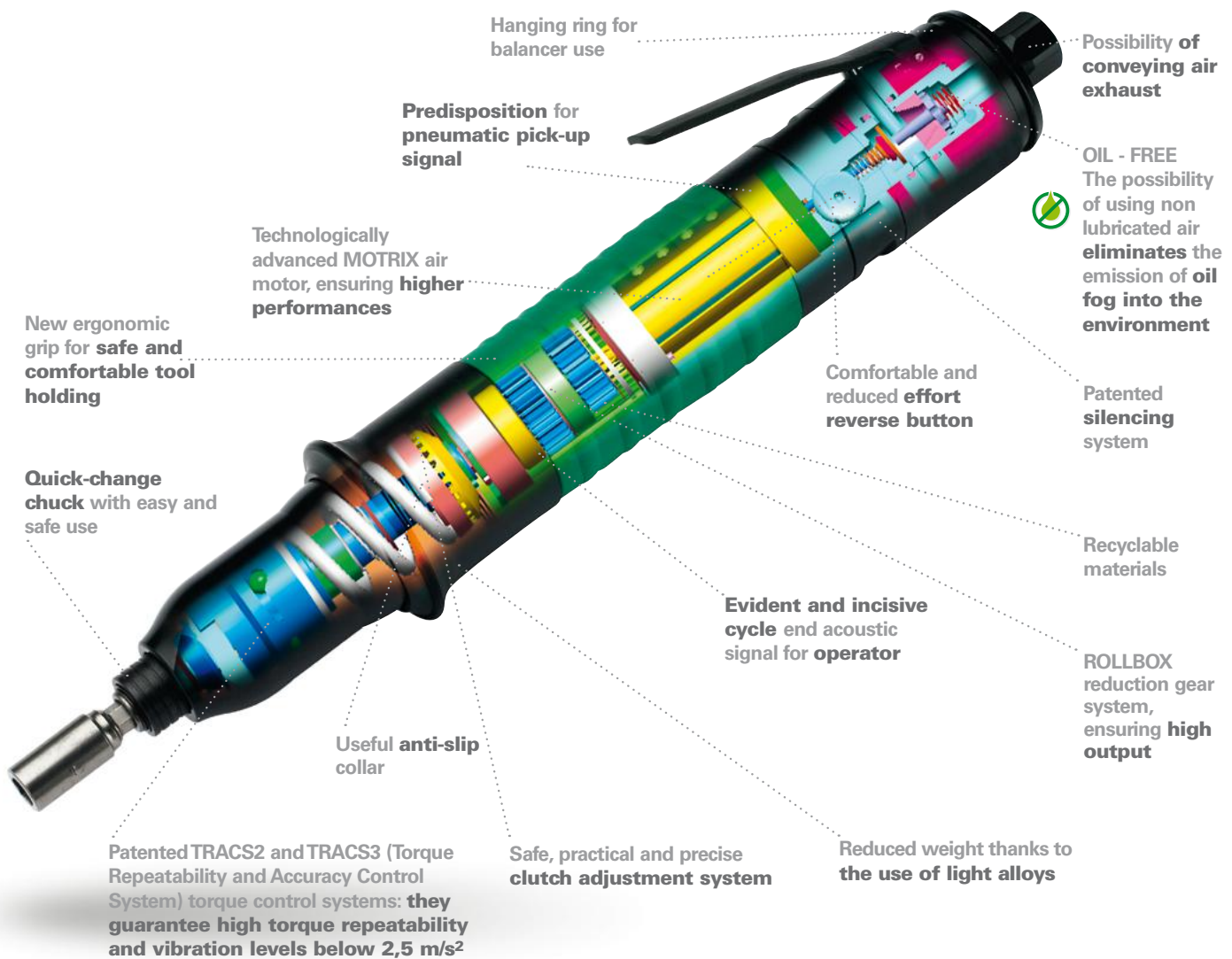


All Fiam innovation in your hands

For over 65 years Fiam has been moving towards the **future** and **research**. So it has designed the modern 26C air screwdrivers, increasing quality and performances.

Straight, pistol and pistol UpGrip tools are characterized by **their extreme handiness and ergonomic grip**: ideal for working with high productivity and minimum effort.

Modern solutions ideal in **mechanical, electrical, electronics and furniture fields**.





Reversibility next to starting button and triple air inlet

This range of tools is particularly suitable for applications where screw loosening is recurring as into electric/electronic fields, assembly of wires harness and when it is necessary to untighten several times to realign parts when not correctly tightened on the component. **Reversibility next to the start button** allows a **practical and fast change of rotation**.

If in addition to the reversibility, the screwdriver is equipped with **triple air inlet**, it is possible to use the **same pistol grip** for different **working lay-out** with rapid sequence.



The pistol UpGrip model

Exclusive pistol UpGrip model that allows a comfortable access to those working places otherwise unreachable by the traditional air screwdrivers.

These situations can occur in different fields, such as those of the appliances field (e.g. in the assembly of the ovens). The air feed from the top and ergonomic studies of the grip have brought to the design of **an extremely light, balanced and particularly handy tool**.

For all further details, please apply to the **Fiam Technical Consultancy Service**.

26C...APU





Be demanding

Reliability

Long lifetime of the components thanks to careful design and to quality of the productive process which results in less maintenance and repair costs

MOTRIX: newly conceived air motor ensures **long lifetime, high specific power and maximum torque**

ROLLBOX: new reduction gear system has been designed to guarantee **maximum output, long lifetime of the kinematic chain and reduced noise level**

TRACS2 and TRACS3 (Torque Repeatability and Accuracy Control System): for torques respectively up to 5 Nm and 12 Nm, they are the **new tightening torque control systems** that ensure a very **high torque repeatability**, i.e. a very low Mean Shift value also in the presence of variability of the joint softness level. These systems maintain same torque values for hundreds of thousands of cycles. The TRACS systems guarantee a **high quality improvement** in the tightening process



The reversibility cursor can be positioned on the right or left of the start button: an advantage to make assembly operations more practical and faster, even for left-handed operators.

Don't be satisfied with the maximum

Productivity

Considerable increase of the efficiency of the tightening cycle thanks to innovative systems

MOTRIX: innovative project principles guarantee a higher rotating speed of the new air motor with equal tightening torque, with evident **reduction of tightening cycle time**

TRACS2 and TRACS3: the modern torque control systems reduce to a minimum level the need of quality control at the end of the assembly process, with a remarkable **increase of the tightening cycle productivity**

Quick change chuck: it favours **easier and safer** bit replacement; it is available upon request, also for use of double insert bits

Clutch adjustment system: safe, practical and accurate

Grip design: it permits **extraordinary ease in handling** the screwdriver with **less operator fatigue** and significant increase of the productivity

More evident and incisive cycle end acoustic signal: emitted by the tightening torque control system permits the operator **to pass on to the next tightening cycle more rapidly**

26C...3I and 26C...R models: suitable for applications where **screw loosening is frequently recurring**; the comfortable reversibility lever next to the start button allows to start the tool and reverse direction using the same hand making faster assembly operations with a considerable increase of the productivity

Perfection is
in your hands

Ergonomics

Optimization of the tool performances in regard to ergonomics and operator safety

Ergonomic grip: designed according to modern biomechanics principles paying particular attention to the features of the female hand. The grip is manufactured with an ergonomic sheath made of no slip material making it easier to hold the screwdriver, increasing the hand grip, **improving the handling, the thermal isolation and operator's comfort**

TRACS2 and TRACS3: the modern torque control systems **reduce the reaction to the operator's hand**. Thanks to the immediate automatic air shut-off system with the careful study of the internal gears, the vibration levels are below 2,5 m/s²

Comfortable low effort reverse button (for straight models) / cursor (for pistol models): they reduce finger fatigue; they can be used by both right and left hand operators

Start lever for straight models: the **handling of the tool** is easier reducing fatigue and the effort of the operator



26C...APA

"Forward" pistol grip: indicated when balancing systems cannot be used, and where it does not need a particular push along the fastening axis

Anti-slip collar for straight models: it avoids that the hand slips towards the tightening point, above all in case of big thrust on the screw, **increasing the safety and reducing the operator's fatigue**

Possibility of conveying air exhaust away from the operator

Reduced weight thanks to the use of light alloys

Arranged for hanging ring for balancer use eliminating any operator's effort

Patented silencing system: these screwdrivers are extremely noiseless and are equipped with a controlled spread of the exhaust air

26C...3I and 26C...R models: la **reversibility switch and starting button** can be activated by the same hand, allowing a practical change of rotation

26C...3I models: the **3 different inlets available for air supply** allow the operator using the screwdriver in the best position depending on type of use and working lay-out



26C...AP

Pistol grip indicated for situations in which screwdriving operations require thrust along the screwdriving axis

This screwdriver is particularly suitable to the female hand

Naturally
innovative

Ecology

Innovative systems designed paying even more attention with respect to environment and of its safeguard

MOTRIX: the advanced technological design of the air motor permits very **high decrease of compressed air consumption**, without affecting tool performance

ROLLBOX: thanks to the new inner kinematic motions which optimize efficiency, the available power is being transmitted with **minimum dispersions**

TRACS2 and TRACS3: the torque control system has a high running speed which **reduces the working time of the screwdriver and the compressed air consumption**



Oil - Free: 26C screwdrivers work at maximum efficiency without need of lubrication guaranteeing in such the

absence of oil exhaust into the working environment

ECO-CONTRIBUTION WEEE ACQUITTED: Fiam carries out its obligations of producer, with full respect for the environment, and **without any extra charge for the customer**



DIFFERENT ACCESSORIES TO IMPROVE THE ERGNOMICS OF THE WORKING AREA.

Type of screwdriver	Code	Grip	Tightening torque on soft joint				Idle speed	Starting system	Reversibility	Weight	Dimensions (mm)	Air consumption	Accessories	Noise level*	Vibrations	
			min. Nm	max. Nm	min. in lb	max. in lb										
Model		Type	Nm	Nm	in lb	in lb	rpm	Type	Type	kg	lb	ØxLxh	l/s	Drive	dBA	m/s ²
26C4A	114814350		0,4 ÷ 4		3.54 ÷ 35.4		2000			0,80	1.76	40x235	4,5	⊕ F 1/4"	75	<2,5
26C5A	114814351		0,4 ÷ 5		3.54 ÷ 44.25		1350			0,80	1.76	40x235	6	⊕ F 1/4"	75	<2,5
26C8A	114814352		3,5 ÷ 8		30.975 ÷ 70.8		1000			0,90	1.98	40x255	6	⊕ F 1/4"	75	<2,5
26C10A	114814353		3,5 ÷ 9,5		30.975 ÷ 84.075		850			0,90	1.98	40x255	6	⊕ F 1/4"	75	<2,5
26C12A	114814354		3,5 ÷ 12		30.975 ÷ 106.2		400			0,90	1.98	40x255	6	⊕ F 1/4"	75	<2,5
26C4AL	114814950		0,4 ÷ 4		3.54 ÷ 35.4		2000			0,85	1.87	40x234	6	⊕ F 1/4"	75	<2,5
26C5AL	114814951		0,4 ÷ 5		3.54 ÷ 44.25		1350			0,85	1.87	40x234	6	⊕ F 1/4"	75	<2,5
26C8AL	114814952		3,5 ÷ 8		30.975 ÷ 70.8		1000			0,93	2.05	40x254	6	⊕ F 1/4"	75	<2,5
26C10AL	114814953		3,5 ÷ 9,5		30.975 ÷ 84.075		850			0,93	2.05	40x254	6	⊕ F 1/4"	75	<2,5
26C12AL	114814954		3,5 ÷ 12		30.975 ÷ 106.2		400			0,93	2.05	40x254	6	⊕ F 1/4"	75	<2,5
26C4AP	114814576		0,4 ÷ 4		3.54 ÷ 35.4		2000			0,87	1.91	38x190x155	7	⊕ F 1/4"	73	<2,5
26C5AP	114814577		0,4 ÷ 5		3.54 ÷ 44.25		1300			0,87	1.91	38x190x155	7	⊕ F 1/4"	73	<2,5
26C8AP	114814578		3,5 ÷ 8		30.975 ÷ 70.8		1000			0,97	2.13	38x210x155	7	⊕ F 1/4"	73	<2,5
26C10AP	114814579		3,5 ÷ 9,5		30.975 ÷ 84.075		800			0,97	2.13	38x210x155	7	⊕ F 1/4"	73	<2,5
26C12AP	114814580		3,5 ÷ 12		30.975 ÷ 106.2		400			0,97	2.13	38x210x155	7	⊕ F 1/4"	73	<2,5
26C4APA	114814586		0,4 ÷ 4		3.54 ÷ 35.4		2000			0,95	2.09	39x195x160	7	⊕ F 1/4"	73	<2,5
26C5APA	114814587		0,4 ÷ 5		3.54 ÷ 44.25		1300			0,95	2.09	39x195x160	7	⊕ F 1/4"	73	<2,5
26C8APA	114814588		3,5 ÷ 8		30.975 ÷ 70.8		1000			1,05	2.31	39x210x160	7	⊕ F 1/4"	73	<2,5
26C10APA	114814589		3,5 ÷ 9,5		30.975 ÷ 84.075		800			1,05	2.31	39x210x160	7	⊕ F 1/4"	73	<2,5
26C12APA	114814590		3,5 ÷ 12		30.975 ÷ 106.2		400			1,05	2.31	39x210x160	7	⊕ F 1/4"	73	<2,5

Models with Pistol UpGrip

26C4APU	114814584		0,4 ÷ 4		3.54 ÷ 35.4		2000			1,05	2.31	39x194x160	7	⊕ F 1/4"	73	<2,5
26C5APU	114814585		0,4 ÷ 5		3.54 ÷ 44.25		1300			1,05	2.31	39x194x160	7	⊕ F 1/4"	73	<2,5
26C8APU	114814581		3,5 ÷ 8		30.975 ÷ 70.8		1000			1,05	2.31	39x215x160	7	⊕ F 1/4"	73	<2,5
26C10APU	114814582		3,5 ÷ 9,5		30.975 ÷ 84.075		800			1,05	2.31	39x215x160	7	⊕ F 1/4"	73	<2,5
26C12APU	114814583		3,5 ÷ 12		30.975 ÷ 106.2		400			1,05	2.31	39x215x160	7	⊕ F 1/4"	73	<2,5

Models with reversibility next to starting button

26C4APA-2000-R	114814601		0,4 ÷ 4		3.54 ÷ 35.4		2000			0,93	2.05	37x207x155	7	⊕ F 1/4"	73	<2,5
26C5APA-1350-R	114814602		0,4 ÷ 5		3.54 ÷ 44.25		1300			0,93	2.05	37x207x155	7	⊕ F 1/4"	73	<2,5
26C8APA-1000-R	114814603		3,5 ÷ 8		30.975 ÷ 70.8		1000			1,06	2.33	37x207x155	7	⊕ F 1/4"	73	<2,5
26C10APA-800-R	114814609		3,5 ÷ 9,5		30.975 ÷ 84.075		800			1,06	2.33	37x207x155	7	⊕ F 1/4"	73	<2,5
26C12APA-400-R	114814610		3,5 ÷ 12		30.975 ÷ 106.2		400			1,06	2.33	37x207x155	7	⊕ F 1/4"	73	<2,5

Models with reversibility next to starting button and triple air inlet

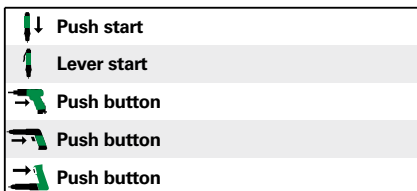
26C4APA3I	114814595		0,4 ÷ 4		3.54 ÷ 35.4		2000			0,97	2.13	37x212x155	7	⊕ F 1/4"	73	<2,5
26C5APA3I	114814594		0,4 ÷ 5		3.54 ÷ 44.25		1300			0,97	2.13	37x212x155	7	⊕ F 1/4"	73	<2,5
26C8APA3I	114814593		3,5 ÷ 8		30.975 ÷ 70.8		1000			1,10	2.42	37x212x155	7	⊕ F 1/4"	73	<2,5
26C10APA3I	114814592		3,5 ÷ 9,5		30.975 ÷ 84.075		800			1,10	2.42	37x212x155	7	⊕ F 1/4"	73	<2,5
26C12APA3I	114814591		3,5 ÷ 12		30.975 ÷ 106.2		400			1,10	2.42	37x212x155	7	⊕ F 1/4"	73	<2,5

Legend

26 = Power of the motor in Watt/10 • C = Screwdriver • 4 = Maximum tightening torque in Nm • A = Air shut-off system • L = Lever • P = Pistol grip • PA = 'Forward' pistol grip • PU = UpGrip pistol grip • 31 = 3 inlets (3 air inlets) • R = Reversibility

Legend

Reversibility: all models are suitable for tightening and untightening operations



- The figures shown are measured at a pressure of 6,3 bar (ISO 2787) the recommended operating pressure.
- Tightening torque values have been measured in accordance with ISO 5393 standard.
- Noise level has been measured in accordance with ISO 3744 and ISO 15744 standards.
- *Additional factor: 3 dBA spread in method and production (ISO 15744).
- Vibrations level have been measured in accordance with ISO 28927-2 standards.
- Accessory drive: female hexagonal drive 1/4", 6,35 mm (ISO 1173).
- The code number must be used when ordering.

The data given in the table are indicative and can be changed without prior notice. The torque values are purely indicative and may be influenced by the softness of the type of joint, by the type and length of the screw, by the pressure and quantity of air supply, and by the type of accessory used. The values indicated for noise and vibration levels were obtained in the laboratory, performing tests that comply with the standards stated, but alone are not sufficient for calculating risks. Values measured in the single work places may be higher than those stated. The values of actual exposure and consequent risks are specific and depend on the operator's method of work, the type of work piece and the work place, as well as the operator's time of exposure and his physical conditions. Fiam cannot be held responsible for any consequences deriving from the use of the information in the table when evaluating risks in the work place over which Fiam has no control. For all further details, please apply to the Fiam Technical Consultancy Service.

Other technical features

TRACS clutch spring		Assembled on the tool grey colour - Ø wire 3,2 mm Code 595103202		Supplied black colour - Ø wire 2,2 mm Code 595102204	
Model	Tightening torque on soft joint Nm	in lb	Tightening torque on soft joint Nm	in lb	
26C4...	1 ÷ 4	8.85 ÷ 35.40	0,4 ÷ 1,3	3.54 ÷ 11.51	
26C5...	1 ÷ 5	8.85 ÷ 44.25	0,4 ÷ 1,3	3.54 ÷ 11.51	
Model	Air inlet	Recommened hose bore			
26C...	1/4" gas	Ø 8 mm			



26C air screwdrivers are designed for use with lubricated and unlubricated compressed air

Standard equipment (supplied with the tool)	Models available upon request	Straight models	Pistol models	
<ul style="list-style-type: none"> • Clutch adjustment key • Additional clutch spring (only for 26C4/5.. models) • Hanging ring • Air inlet coupling to activate the air inlet from above or behind depending on workplace requirements (only for 26C...3l models) • Use and maintenance manual • Eco-friendly packaging 	Lever models for left hand operators	X		
	Models with anti-slip collar with different dimensions	X		
	Models with only right hand rotation	X	X	
	Models with only left hand rotation	X	X	
	Models with lever + push start (or push button + push start)	X	X	
	Models for double insert bits	X	X	
	Models with screws sunction	X		
	Models with low speeds	X	X	
	Angle models: see catalogue nr. 26 and contact Fiam Technical Consultancy Service			

Accessories available upon request

- Bits, sockets, etc., balancers, exhaust silencers and other compressed air system accessories: see Accessories catalogue.
- Collar bracket for arm stands and auxiliary grips to be used with straight models.
Code 692039006 for 26C4.. and 26C5...models
Code 692039007 for other models 26C8/10/12...



- Auxiliary grip: when carrying out **more than one assembly cycle** or when the **torques are higher than 4Nm** (straight tools) or **than 10 Nm** (pistol tools), it is recommended to use an auxiliary grip which permits a reduction of the **torque reaction dividing work load on both hands** (ISO 11148-6 standard).



- Flexible coupling with 360° rotation to ease rotation of supply hose, avoiding throttling of the compressed air (only for 26C...3l models).



Many configurations for every need. Please apply to the Fiam Technical Consultancy Service.

26C screwdrivers with TRACS2 and TRACS3 torque control + SCREWS COUNTING

0% error, 100% accuracy.

Did you lose any screws? The **'screws count'** function will help you: therefore in case of high production rate, you won't risk any omission. Moreover, the feed-back signal and the end one to pass to next piece **accelerate the production cycles and ensure control on the assembled products.** So dead times will decrease and quality will increase.

The solution includes:

- Lever or push button air shut-off **26C SCREWDRIVERS equipped with pneumatic pick-up signal (ported)**
- **COMPUTERIZED MONITORING UNIT TOM** (Tightening Operation Monitor): it allows the **monitoring of the tightening cycle through the double-signal pressure** coming from the screwdrivers, subsequently converted into electric signal.



A proved system against pressure changes.

The use of two pneumatic signals (tool start and clutch operated) guarantees the system functioning **regardless of the pressure changes, critical point in many production lines.**

A considerable advantage in respect to other poka-yoke systems, which are more difficult to programme and use a single signal: which are considerably affected by pressure fluctuations.

Tightening Operation Monitor

Model	Description	Code	Dimensions (mm)	Electric feed
TOM	Monitoring unit	685001062	width 208 x depth 128 x height 42	24V, 110/230V, 50/60 Hz

Standard equipment

- Feeder • Feed cable • Use and maintenance manual • Eco-friendly packaging

TOM Tightening Operation Monitor is also available in the configuration BOX TOM, that includes: **TOM unit and all its accessories already wired in a single box.**

This **“Plug and Play” solution is easy to introduce into assembly lines and extremely practical** since you just need to connect the air line and the power supply to start production immediately.

Model	Description	Code	Dimensions (mm)	Electric feed
BOX TOM	Monitoring unit	685001086	h 265 mm (without tower-light) x depth 165 x width 300	24V, 110/230V, 50/60 Hz

Standard equipment

BOX TOM includes:

- TOM monitoring unit • Tool locking/unlocking device • Cable to connect TOM with locking/unlocking device • Transducer • Tower light • Feeder • Feed cable • Use and maintenance manual • Eco-friendly packaging



MODEL “STOP BY TIME” AVAILABLE UPON REQUEST - Code 685001087

Used when it is necessary to **tighten** threaded elements controlling shut-off by **depth rather than torque** through the control of tightening time.

It allows the tightening of the threaded elements with a tolerance of 360° compared to target depth.

It is to order with the tool locking unit to activate the arrest “to time” of the screwdriver together to cables and Cables multi-dock (see pag. 11). When the time set by the operator is reached, the tools stops for a programmable time. There will be an OK signal (and not an error that requires a RESET as the standard version does). You can set up to 8 different times, one for each program available.

Model	Code
TOM “STOP BY TIME”	685001087
TOM BOX “STOP BY TIME”	685001089

Transducer for TOM

TOM needs to be purchased along with Fiam transducer, one for each tool (except when TOM is connected to EasyDriver CA).

Completely designed and manufactured by Fiam, it is a single box that receives two pneumatic signals (input) through two hoses of different colors: black for starting signal and green for torque signal; equipped with led indicator and unique electric connecting cable (output) to carry the electrical signal to the TOM unit. Reduced dimensions and weight, easier to calibrate.

Model	Code
Transducer for TOM	687041041



What is it necessary to choose?



Features

20 INPUTS	<ul style="list-style-type: none"> • 8 for programmes selection, 6 for remote functioning: switching off, program activation, tool stop, tool loosening, program reset <p>Availables with contacts 24V/GND (both pull-up and pull-down) for a great compatibility with the bench buttons (i.e: reset, block, unblocking etc.) and to be interface with the PLC of the client</p>
24 OUTPUTS	<ul style="list-style-type: none"> • For results, active program, screwdriver status and possible electro-valve activation, auxiliary output, signal waste piece, in cycle signal (to check the beginning and the end of tightening cycle, useful i.e. set/unset the pieces jigs)
AUTOMATIC CHECK OF TIGHTENING TIME	<ul style="list-style-type: none"> • Which can be adjusted by setting the cycle time thus discriminating the different KO results
SINGLE PROGRAM 99 tightenings	<ul style="list-style-type: none"> • Tightening with min/max time equal for all screws • Screws count • 3 different acoustic signals: tightening end, single program end, error
SEQUENCE PROGRAM 99 tightenings x 8	<ul style="list-style-type: none"> • More single programmes (up to 8) in sequence • 4 different acoustic signals: tightening end, single tightening end, sequence (OK/NOK) • It can be selected from PC • For each tightening sequence it is possible to program the maximum number of tightening attempts fro NOK screws
RS 232 SERIAL PORT	<ul style="list-style-type: none"> • To print the following results in sequence: Date / hour - Number active output - Result – Tightening Time – Screw number - Program number - Sequence
PASSWORD	<ul style="list-style-type: none"> • Two modalities: one does not allow the operator changing menu's parameters; the other, in addition to former's possibilities, in case of error and consequent unit stop, allows the line manager to reactivate the process by means of a password or key (optional)
TIME	<ul style="list-style-type: none"> • It can be activated without buffer-battery to be replaced
MEMORY	<ul style="list-style-type: none"> • Parameters for statistics (they can printed through RS232): OK piece - NOK Screws - Pressed resets (NOK pieces) - Number of screws counted by TOM (data not resettable) – It stores data related to last 6,000,000 screws
LEVER RELEASED CONTROL	<ul style="list-style-type: none"> • In production processes where the operators tighten so fast that release the lever before the clutch shuts-off
REMOTE FUNTIONING	<ul style="list-style-type: none"> • From external PLC (or sensor) it is possible to stop the tool with the dedicated locking/unlocking unit. For instance, when we work with jigs, the tool is activated only when parts are correctly positioned
MASKED TIME	<ul style="list-style-type: none"> • This feature disable any controls for a set time during which TOM does not detect possible incorrect operations by the worker (for instance "unintentional starts" with push-to-start screwdrivers)
RELEASE TIME	<ul style="list-style-type: none"> • This function allows to better identify the OK tightenings, even if the lever is released in a very short time after the clutch shut-off (for example, if the operator is particularly fast to tighten and release the lever)
RUNCYCLE	<ul style="list-style-type: none"> • For pallet lines where, for instance, jigs locking device needs to be activated and then release the jig when the piece is assembled. Replaces some activities that are normally controlled by a PLC

Models available upon request

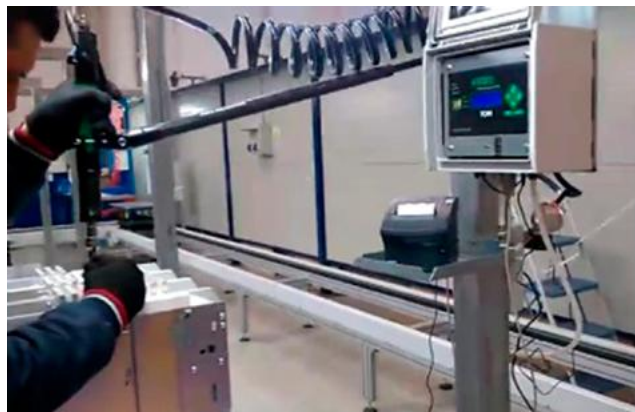
- **Multi-dock connector:** connecting up to 8 tools (each tool has a dedicated program) that can operate individually depending on TOM programming.
Code 685001065
- **Tool locking/unlocking device:** it permits to TOM unit to enable/disable connected tool. For 26C models: code 685001069
- **Cables**
Code 685001071: to connect TOM with locking/unlocking device when a single screwdriver is used.
Code 685001072: to connect multi-dock connector with locking/unlocking device when several screwdrivers are used
- **Tower-light:** It allows immediate, visual display of the tightening outcome. Code 687041018
- **Connecting hoses** (air and signals) for use of the transducer for TOM. A very compact solution, completely spiral shape, which maintains a tidy work area for the operator. The hoses are 2.5 M long (measured with stretched hose and including 35 mm useful linear hose for connections)
Spiral multi-hose for TOM D12 code 693011027
Spiral multi-hose for TOM D10 code 693011026
- **Cover:** It prevents intentional or unintentional contacts and damages to TOM unit. It prevents modifications / tampering by unauthorized personnel.
Code 687041043
- For further information see cat. 99 - TOM Monitoring Unit.

Advantages of the TOM unit vs a PLC

	TOM	PLC
LAY OUT	Compact unit compared to the PLC	To provide the same features, the PLC must be integrated with other devices (additional modules which are bigger)
	Robust: the cover is made of sheet metal 1 mm thick	The PLCs are made of plastic and must be further protected by an additional electric panel
	It doesn't require switchboard and wiring for installation	The PLC provides an electric panel instead
	Possibility to position it directly on the production line to be used by the operator to read	The PLC needs a operator panel and/or external buttons
CHEAPNESS	Integrated and easy user interface	It is necessary an operator panel to connect and adequately program
	TOM is a complete system equipped with 16 IN and 24 OUT, RS232 for data and watch	To have all these functions, it is necessary to add expansions
	Complete firmware compatible with all screwdrivers , with all setting times and calibrations and many other functions	It is required a complete programming according to the different screwdrivers to connect
	Firmware already tested by Fiam and ready to use	A program developed by the customer, in addition to costs for software development and time (often some months), requires a time for verification and resolution of the programming errors
USE	Rapid start up: a few seconds to start	Long cycle of start; the PLC always require more time to start
	Rapid visualisation of the remaining screws thanks to additional display	For the PLC, it is required an additional monitor positioned close to the user
	Fast calculation: instantaneous response to events (both screwdriver and inputs / outputs). Very rapid reading: even in the case of 1 tightening with very high cadences, counts are not lost	Slower times of answer in case of tightenings with high work rate
	Easily interfaced to signal and transmit the data with all PLC	The PLC to communicate with other devices must have additional interfaces



TOM connected with the plant's system



Process under control and print of tightening results

Screwdrivers with pneumatic pick-up signal

Type of screwdriver		Grip	Tightening torque on soft joint				Idle speed	Starting system		Reversibility	Weight	Dimensions (mm)	Air consumption	Accessories	Noise level*	Vibrations
Model	Code		Nm	Nm	in lb	in lb		Type	Type							
26C4AL-2CS	114807255		0,4 ÷ 4,0		3.54÷35.4		2000			0,85	1.87	40x234	6	F 1/4"	75	<2,5
26C5AL-2CS	114807256		0,4 ÷ 5,0		3.54÷44.25		1350			0,85	1.87	40x234	6	F 1/4"	75	<2,5
26C8AL-2CS	114807257		3,5 ÷ 8,0		30.975÷70.8		1000			0,93	2.05	40x254	6	F 1/4"	75	<2,5
26C10AL-2CS	114807258		3,5 ÷ 9,5		30.975÷84.075		850			0,93	2.05	40x254	6	F 1/4"	75	<2,5
26C12AL-2CS	114807259		3,5 ÷ 12		30.975÷106.2		400			0,93	2.05	40x254	6	F 1/4"	75	<2,5
26C4A-CS	114807519		0,4 ÷ 4,0		3.54÷35.4		2000			0,85	1.87	40x235	6	F 1/4"	75	<2,5
26C5A-CS	114807520		0,4 ÷ 5,0		3.54÷44.25		1350			0,85	1.87	40x235	6	F 1/4"	75	<2,5
26C8A-CS	114807521		3,5 ÷ 8,0		30.975÷70.8		1000			0,93	2.05	40x262	6	F 1/4"	75	<2,5
26C10A-CS	114807522		3,5 ÷ 9,5		30.975÷84.075		850			0,93	2.05	40x262	6	F 1/4"	75	<2,5
26C4A-CS	114807523		3,5 ÷ 12		30.975÷106.2		400			0,93	2.05	40x262	6	F 1/4"	75	<2,5
26C4AP-2CS	114807224		0,4 ÷ 4,0		3.54÷35.4		2000			0,87	1.91	38x190x155	7	F 1/4"	73	<2,5
26C5AP-2CS	114807225		0,4 ÷ 5,0		3.54÷44.25		1300			0,87	1.91	38x190x155	7	F 1/4"	73	<2,5
26C8AP-2CS	114807226		3,5 ÷ 8,0		30.975÷70.8		1000			0,97	2.13	38x210x155	7	F 1/4"	73	<2,5
26C10AP-2CS	114807227		3,5 ÷ 9,5		30.975÷84.075		800			0,97	2.13	38x210x155	7	F 1/4"	73	<2,5
26C12AP-2CS	114807228		3,5 ÷ 12		30.975÷106.2		400			0,97	2.13	38x210x155	7	F 1/4"	73	<2,5
26C4APA-2CS	114807229		0,4 ÷ 4,0		3.54÷35.4		2000			0,95	2.09	39x195x160	7	F 1/4"	73	<2,5
26C5APA-2CS	114807230		0,4 ÷ 5,0		3.54÷44.25		1300			0,95	2.09	39x195x160	7	F 1/4"	73	<2,5
26C8APA-2CS	114807231		3,5 ÷ 8,0		30.975÷70.8		1000			1,05	2.31	39x210x160	7	F 1/4"	73	<2,5
26C10APA-2CS	114807232		3,5 ÷ 9,5		30.975÷84.075		800			1,05	2.31	39x210x160	7	F 1/4"	73	<2,5
26C12APA-2CS	114807233		3,5 ÷ 12		30.975÷106.2		400			1,05	2.31	39x210x160	7	F 1/4"	73	<2,5

Models with reversibility next to starting button

26C4APA-2000-R-2CS	114814596		0,4 ÷ 4,0		3.54÷35.4		2000			0,93	2.05	37x207x155	7	F 1/4"	73	<2,5
26C5APA-1350-R-2CS	114814597		0,4 ÷ 5,0		3.54÷44.25		1300			0,93	2.05	37x207x155	7	F 1/4"	73	<2,5
26C8APA-1000-R-2CS	114814598		3,5 ÷ 8,0		30.975÷70.8		1000			1,06	2.33	37x234x155	7	F 1/4"	73	<2,5
26C10APA-800-R-2CS	114814599		3,5 ÷ 9,5		30.975÷84.075		800			1,06	2.33	37x234x155	7	F 1/4"	73	<2,5
26C12APA-400-R-2CS	114814600		3,5 ÷ 12		30.975÷106.2		400			1,06	2.33	37x234x155	7	F 1/4"	73	<2,5

Models with reversibility next to starting button and triple air inlet

26C4APA3I-2CS	114807463		0,4 ÷ 4,0		3.54÷35.4		2000			0,94	2.07	37x212x155	7	F 1/4"	73	<2,5
26C5APA3I-2CS	114807464		0,4 ÷ 5,0		3.54÷44.25		1300			0,94	2.07	37x212x155	7	F 1/4"	73	<2,5
26C8APA3I-2CS	114807465		3,5 ÷ 8,0		30.975÷70.8		1000			1,07	2.35	37x212x155	7	F 1/4"	73	<2,5
26C10APA3I-2CS	114807466		3,5 ÷ 9,5		30.975÷84.075		800			1,07	2.35	37x212x155	7	F 1/4"	73	<2,5
26C12APA3I-2CS	114807467		3,5 ÷ 12		30.975÷106.2		400			1,07	2.35	37x212x155	7	F 1/4"	73	<2,5

Legend

26C = Power of the motor in Watt/10 • C = Screwdriver • 2 = Maximum tightening torque in Nm • A = Air shut-off system • L = Lever • P = Pistol grip • 30 = Head at 30° • 90 = Head at 90° • PA = 'Forward' pistol grip • 2CS = Double-signal pressure • 3I = 3 inlets (3 air inlets) • R = Reversibility

Legend

Reversibility: all models are suitable for tightening and untightening operations

Lever start
Push button

- The figures shown are measured at a pressure of 6,3 bar (ISO 2787) the recommended operating pressure.
- Tightening torque values have been measured in accordance with ISO 5393 standard.
- Noise level has been measured in accordance with ISO 3744 and ISO 15744 standards.
- *Additional factor: 3 dBA spread in method and production (ISO 15744).
- Vibrations level have been measured in accordance with ISO 28927-2 standards.
- Accessory drive: female hexagonal drive 1/4"; 6,35 mm (ISO 1173).
- The code number must be used when ordering.

The data given in the table are indicative and can be changed without prior notice. The torque values are purely indicative and may be influenced by the softness of the type of joint, by the type and length of the screw, by the pressure and quantity of air supply, and by the type of accessory used. The values indicated for noise and vibration levels were obtained in the laboratory, performing tests that comply with the standards stated, but alone are not sufficient for calculating risks. Values measured in the single work places may be higher than those stated. The values of actual exposure and consequent risks are specific and depend on the operator's method of work, the type of work piece and the work place, as well as the operator's time of exposure and his physical conditions. Fiam cannot be held responsible for any consequences deriving from the use of the information in the table when evaluating risks in the work place over which Fiam has no control. For all further details, please apply to the Fiam Technical Consultancy Service.

Standard equipment (supplied with the tool)

- Clutch adjustment key
- Additional clutch spring (only for 26C4/5...models)
- Air inlet coupling to activate the air inlet from above or behind depending on workplace requirements (only for models with triple air inlet)
- Hanging ring
- Use and maintenance manual
- Eco-friendly packaging

Models available upon request

- Pistol UpGrip models are available upon request with pneumatic pick-up signal
- Many configurations for every need. Please apply to the **Fiam Technical Consultancy Service**

Accessories available upon request



BT-MG MAGNESIUM TELESCOPIC ARMS

Telescopic arms in magnesium alloy, designed and produced by Fiam, extremely resistant to mechanical stress thus guaranteeing reliability and long life span, thanks to accurate manufacturing process and applied innovative materials.

Designed with different telescoping extension elements (3 for all models and 2 for BT-MG 10...), they are conform for working areas according to various productive needs. Double terminal coupling guarantees great handiness and maximum freedom of action also for inclined tightening operations. They can be easily installed on existing workplaces on ceiling or wall using a simple plate with reduced dimensions.

Model	Code	Max torque Nm in lb		Max work range (mm)	Min work range (mm)	Ø max tool (mm)
BT-MG 10 800	692071420	10	88.50	625	455	26.5-50
BT-MG 10 1000	692071421	10	88.50	825	655	26.5-50
BT-MG 15 800	692071409	15	132.70	860	505	26.5-50
BT-MG 15 1000	692071401	15	132.70	1070	575	26.5-50
BT-MG 15 1500	692071404	15	132.70	1580	745	26.5-50
BT-MG 40 800	692071410	40	354	860	505	26.5-50
BT-MG 40 1000	692071402	40	354	1070	575	26.5-50
BT-MG 40 1500	692071405	40	354	1580	745	26.5-50
BT-MG 40 2000	692071407	40	354	2120	925	26.5-50



BT-MG MAGNESIUM TELESCOPIC ARMS WITH POSITIONING DEVICE

The illustrated BT-MG arms as described above, can be equipped with a device for the detection of the correct position of the screwdriver on the tightening point. The models, come in two versions:

- BT-MG TPM1 arms...: models with single angle movement detection

- BT-MG TPM-2 arms...: models with angle and linear movement detection.

The arms must be integrated with the TPM monitoring unit code **692078019** and with the TOM monitoring unit code **685001062**.

The system locates the positions of the screwdriver on the different tightening points and it memorizes the sequence (up to 35 positions/program for 8 programs). For more information, please see the on-line catalogue.

+

TPM



Code 692078019

+

TOM



+

Cable TPM/CA



Code 692079181

MODELS WITH SINGLE ANGLE MOVEMENT DETECTION

Model	Code	Max torque Nm in lb		Max work range (mm)	Min work range (mm)
BT-MG 15 800 - TPM1	692071425	15	132.70	985	630
BT-MG 15 1000 - TPM1	692071426	15	132.70	1195	700
BT-MG 15 1500 - TPM1	692071427	15	132.70	1705	870
BT-MG 40 800 - TPM1	692071428	40	354	985	630
BT-MG 40 1000 - TPM1	692071429	40	354	1195	700
BT-MG 40 1500 - TPM1	692071430	40	354	1705	870
BT-MG 40 2000 - TPM1	692071431	40	354	2245	1050

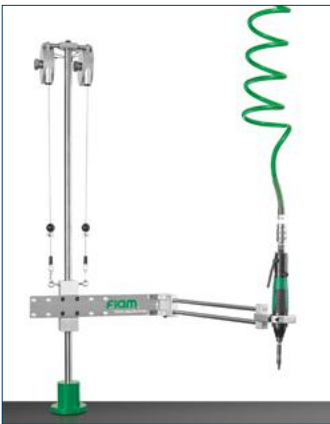
MODELS WITH ANGLE AND LINEAR MOVEMENT DETECTION

Model	Code	Max torque Nm in lb		Max work range (mm)	Min work range (mm)
BT-MG 15 800 - TPM2	692071422	15	132.70	985	630
BT-MG 15 1000 - TPM2	692071412	15	132.70	1195	700
BT-MG 15 1500 - TPM2	692071415	15	132.70	1705	870
BT-MG 40 800 - TPM2	692071423	40	354	985	630
BT-MG 40 1000 - TPM2	692071413	40	354	1195	700
BT-MG 40 1500 - TPM2	692071416	40	354	1705	870
BT-MG 40 2000 - TPM2	692071418	40	354	2245	1050

Accessories available upon request



BC Cartesian Arm



BCA Cartesian Arm



Cartesian Arm with a position monitoring device

CARTESIAN ARMS BC AND BCA

The new Fiam Cartesian arms represent fundamental solutions for ergonomics workplace. They are completely designed and manufactured by Fiam and can be used with any type of tool with a diameter up to 50 mm and weight up to 11 kg. A universal clamp is supplied but, upon request, numerous accessories are available for correctly fitting different Fiam tools to ensure maximum safety and functionality.

Available in 2 versions:

- Cartesian Arms
- Articulated Cartesian arms

All models are also available with positioning device for processing angular and linear movement detection on the work point (See previous page).

Description	Code	Max torque		Max load	Max tool diameter
		Nm	in lb	kg	mm
Cartesian Arm BC12	692031031	12	106,20	2	32÷50
Cartesian Arm BC25	692031032	25	221,25	2	32÷50
Cartesian Arm BC40	692031033	40	354	2	32÷50

Description	Code	Max torque		Max load	Max tool diameter
		Nm	in lb	kg	mm
Articulated Cartesian Arm BCA12	692031035	12	106,20	2	32÷50
Articulated Cartesian Arm BCA25	692031036	25	221,25	2	32÷50
Articulated Cartesian Arm BCA40	692031037	40	354	2	32÷50

CARTESIAN ARMS WITH A POSITION MONITORING DEVICE

All Fiam Cartesian arms can be fitted with a **position monitoring device** and, **combined with the TPM monitoring unit**, help make tightening systems very suitable for "Poka-Yoke" processes, while increasing the efficiency and speed of the production cycle.

The guided positioning system operates as follows:

- It works through "self-learning": it locates the screwdriver position at the various tightening points and stores them together with the sequence of actions and the number of screws (up to 35 positions/program and up to 8 programs).
- The TPM unit display offers a graphical system to guide operators progressively as they approach the tightening point.
- The screwdriver is enabled when it is at the first stored position (the TPM display shows POS.OK and the POS-OK LED on the telescopic arm lights).
- Each time a screw is tightened, the REMAIN display shows how many screws are left, indicating that it is ready to pass on to the next screw.
- The END signal comes on when the stored cycle is complete, and gives the OK to proceed with a new work cycle.
- During the memorization process, a precision tolerance can be programmed within the range: for example, for a length of 1 mm ± 10% approximately; for the angle 0.1 degrees (maximum tolerances).

There are three models available for all air and electric Fiam tightening solutions:

- Arms BC... TMP-1: models with **single angle** movement detection
- Arms BC... e BCA... TPM-2: models with **angle and linear** movement detection.

For more information please see catalog 79 "Accessories for ergonomic workplace" or contact Fiam Technical Consultancy Service.

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