

**Fastening Control System for QE & QM Series Electric Tools**  
**Système d'Asservissement pour les Séries Electriques QE et QM**  
**Schraubersteuerungen für Schrauber der QE/QM- Serie**  
**Systema de Gestión de Par para Llaves Eléctricas QE y QM**  
**Sistemi di Gestione della Coppia per Chiavi Elettriche QE e QM**

**DC  
Control**



Standard Ethernet and I/O connections optimize communication and line integration.

Les ports Ethernet et E/S standard optimisent la communication et l'intégration sur ligne.

Standardmäßig vorhandene-Ethernet und E/A-Anschlüsse optimieren die Kommunikation und die Integration in Ihre Montagelinien.

Conexión estándar Ethernet y E/S optimizan la comunicación y la integración de la línea.

Conessioni standard Ethernet ed I/O ottimizzano la comunicazione e l'integrazione della linea.

Program up to eight basic fastening configurations and access all 256 stored in memory.

Programmez jusqu'à 8 configurations de vissage de base et accédez aux 256 configurations enregistrées dans la mémoire.

Programmierung von bis zu acht verschiedenen Schraubprogrammen plus Zugriff auf alle 256 im Speicher.

Programa hasta ocho configuraciones de base de puesta en marcha y acceso a todas las 256 en memoria.

Programma fino ad otto configurazioni base di avvitatura ed ha accesso a tutte le 256 in memoria.

Removable cover provides easy access to connections and terminals.

Le couvercle amovible permet un accès aisé aux ports et aux bornes.

Ein abnehmbarer Deckel ermöglicht einen leichten Zugriff auf Anschlüsse und Klemmen.

Protección extraíble permitiendo un fácil acceso a las conexiones y a los terminales.

Protezione rimovibile permette facile accesso alle connessioni ed ai terminali.

Parameter Transfer Key (PTK) enables quick upload, recovery, transfer, and storage of configuration sets.

La touche de transfert des paramètres (PTK) permet le chargement, la récupération, le transfert et l'enregistrement rapides des configurations.

Parameter-Transfer-Stick (PTK) ermöglicht schnelles Hochladen, Wiederherstellen, Übertragen und Speichern von Konfigurationssätzen.

Parameter transfer key (PTK) permite un veloz UPLOAD, restablecimiento, transferencia y memorización del set de configuración.

Parameter Transfer Key (PTK) permette veloce up load, ripristino, trasferimento e memorizzazione di set di configurazione.

Professional 1/4 VGA 216-color display is visible from 20 ft (6.1 m).

L'écran professionnel 1/4 VGA à 216 couleurs est visible jusqu'à 6 m.

Das professionelle 1/4 VGA 216-Farbdisplay ist aus einer Entfernung von 6 m klar zu erkennen.

Pantalla profesional VGA 216 colores visibles de 6 m.

Display professionale 1/4 VGA 216 colori, visibile da 6 m.

The controller has 1,000 cycles of end-of-run automatic data storage.

Enregistrement auto. des données de 1000 cycles en fin de course.

Die Steuerung verfügt über einen automatischen Datenspeicher der letzten 1000 Zyklusdatensätze.

El controlador tiene 1000 ciclos de memoria automática de datos, al final de la ejecución.

L'unità di controllo dispone di 1000 cicli di memorizzazione automatica dati di fine esecuzione

Dual-mode power supply: 90 – 120 VAC and 200 – 240 VAC.

Alimentation électrique double : 90 – 120 VAC et 200 – 240 VAC.

Duale Stromversorgung: 90 – 120 V Wechselspannung und 200 – 240 V Wechselspannung.

Doble modalidad de alimentación 90-120 VAC 200-240 VAC.

Doppia modalità di alimentazione: 90-120 VAC e 200-240 VCA.

Internal maximum ambient operating temperatures of 0 – 50° C ensure reliable use in demanding conditions without risk of overheating.

La température de fonctionnement interne de 0° à 50° garantit une utilisation fiable dans des conditions exigeantes, sans risque de surchauffe.

Interne max. Betriebstemperaturen von 0° – 50° C gewährleisten einen zuverlässigen Einsatz unter erschwerten Bedingungen ohne die Gefahr einer Überhitzung.

Temperatura ambiental interna máxima de 0°- 50°C aseguran un uso fiable en condiciones difíciles sin riesgos de recalentamiento.

Temperature ambientali interne di operatività massime di 0°-50°C (32°-122° F) assicurano un uso affidabile in condizioni difficili senza rischi di surriscaldamento.

Easy installation and set-up with convenient bracketing system.

Installation simple grâce au système de fixation incorporé.

Einfache Installation und Einrichtung mit komfortablem Halterungssystem.

Fácil instalación con práctico sistema de soporte.

Facile installazione con pratico sistema di supporto.



**Insignia  
Display  
IC1D**

One-line digital display shows torque or angle.

Un affichage numérique 1 ligne indiquant le couple ou l'angle.

Einzeilige digitale Anzeige zeigt Drehmoment oder Winkel an.

Pantalla digital de una línea os muestra el par o el ángulo.

Display digitale one-line mostra la coppia o l'angolo.

200 cycles of end-of-run automatic data storage.

Enregistrement auto. des données de 200 cycles en fin de course.

Automatischer Datenspeicher der letzten 200 Schraubdatensätze

Memorización auto. de datos de 200 ciclos al final de la ejecución

Memorizzazione automatica dati di 200 cicli fine esecuzione.

Use ICS Connect to program and select from 256 basic configurations stored in memory.

Utilisez ICS Connect pour programmer et faire votre choix parmi les 256 configurations enregistrées dans la mémoire.

Programmierung und Auswahl aus 256 im Speicher abgelegten einfachen Konfigurationen über ICS Connect.

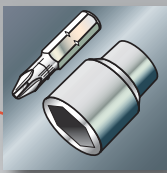
Usar ICS Connect para programar y seleccionar entre 256 configuraciones de base memorizadas.

Usate ICS Connect per programmare e selezionare tra 256 configurazioni base memorizzate.



**Insignia Module IC1M**

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## Insight IC1 Display & IC1 Module

Model identification codes  
 Codification des références  
 Modellnummern-Code  
 Códigos de identificación  
 Codici identificazione modello

Example:  
 Exemple:  
 Beispiel:  
 Ejemplo:  
 Esempio:

**IC1D3A1AWS**

Insight  
Display  
IC1D

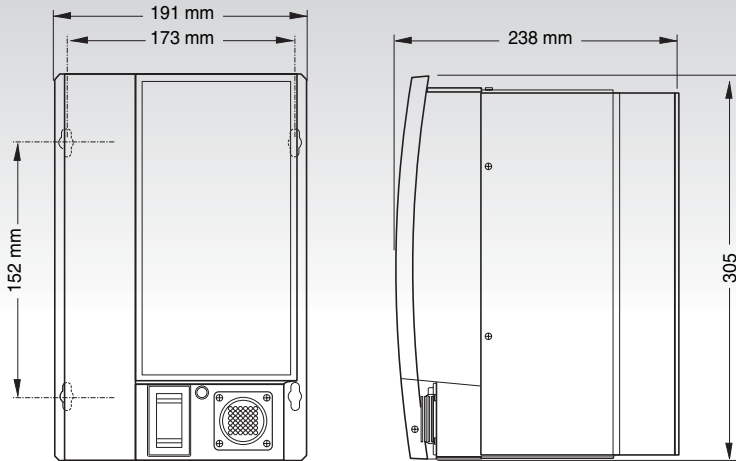


Insight  
Module  
IC1M



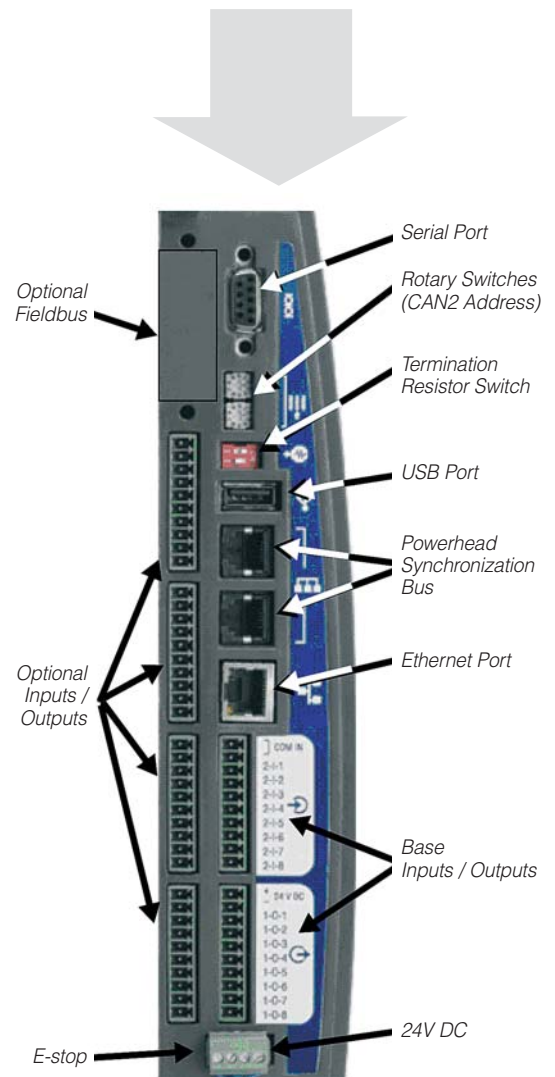
Insight Product Definition	Configuration Insight	Optionen für Insight	Configuración Insight	Configurazioni Insight
<b>Model</b> IC = INSIGHT Controller	<b>Modèle</b> IC = INSIGHT Controller	<b>Modell</b> IC = INSIGHT Controller	<b>Modelo</b> IC = INSIGHT Controller	<b>Modello</b> IC = INSIGHT Controller
<b>Number of Tools or Spindles</b> 1 = one tool/spindle	<b>Nombre d'outils ou de broches</b> 1 = Un outil/broche	<b>Anzahl der Werkzeuge oder Spindeln</b> 1 = 1 Werkzeug/1 Spindel	<b>Número de herramientas o husillos</b> 1 = 1 herramienta/husillo	<b>Numero di utensili e/o mandrini</b> 1 = un utensile/mandrino
<b>User interface</b> D = DISPLAY, with user interface M = MODULE, without user interface	<b>Interface utilisateur</b> D = DISPLAY, avec interface utilisateur M = MODULE, sans interface utilisateur	<b>Anzeigesystem</b> D = DISPLAY, mit Anwender Schnittstelle M = MODULE, ohne Anwender Schnittstelle	<b>Paquete de luces</b> D = DISPLAY, con interfaz utilizador M = MODULE, sin interfaz utilizador	<b>Indicatori luminosi</b> D = DISPLAY, con interfaccia utilizzatore M = MODULE, senza interfaccia utilizzatore
<b>Power Supply</b> 1 = 115 VAC, US plug 2 = 220 V, US cable pigtail 3 = 230 VAC, cable pigtail, european standard	<b>Alimentation électrique</b> 1 = 115 V, prise USA 2 = 220 V, câble nu USA 3 = 230 VAC, câble nu, norme européenne	<b>Netzteil</b> 1 = 115 V, US-Stecker 2 = 220 V, US (ohne Stecker) 3 = 230 V Kabel ohne Stecker (Europastandard)	<b>Alimentación eléctrica</b> 1 = 115 V, USA 2 = 220 V, USA cable solo 3 = 230 V - cable solo - estándar europeo	<b>Alimentazione elettrica</b> 1 = 115 V, USA 2 = 220 V, USA cavo b.t. 3 = 230 VCA a norme europee
Optional equipment	Equipements en option	Zonderzubehör	Equipo opcional	Equipaggiamento a richiesta
<b>I/O (input &amp; output options)</b> A = Standard I/O interface board B = One additional I/O board for single spindle	<b>I/O (options d'entrée et de sortie)</b> A = Interface standard B = Une carte additionnelle pour système multifonctions à une broche	<b>E/A-Optionen</b> A = Standard-Eingänge/Ausgänge B = Eine zusätzliche Leiterplatte (Mindestanforderung für 2-Spindel-Regler)	<b>I/O (opciones de entrada y salida)</b> A = Interface estándar para unidad básica B = Una tarjeta adicional para sistema multifunción a un husillo	<b>I/O (input &amp; output opzioni)</b> A = Interfaccia standard B = Una scheda addizionale per sistema multifunzione a un mandrino
<b>Communication Package</b> 1 = Serial and Ethernet 3 = Option 1 + Profibus 4 = Option 1 + Devicenet 5 = Option 1 + Interbus-S 6 = Option 1 + EtherNet/IP, Modbus-TCP	<b>Kit de communication</b> 1 = Série et Ethernet 3 = Option 1 + Profibus 4 = Option 1 + Devicenet 5 = Option 1 + Interbus-S 6 = Option 1 + EtherNet/IP, Modbus-TCP	<b>Kommunikationssystem</b> 1 = Seriell und Ethernet 3 = Option 1 + Profibus 4 = Option 1 + Devicenet 5 = Option 1 + Interbus-S 6 = Option 1 + EtherNet/IP, Modbus-TCP	<b>Paquete de comunicación</b> 1 = Ethernet y paralelo 3 = Opción 1 + Profibus 4 = Opción 1 + Devicenet 5 = Opción 1 + Interbus-S 6 = Opción 1 + EtherNet/IP, Modbus-TCP	<b>Kit di comunicazione</b> 1 = Seriale e Ethernet 3 = Opzione 1 + Profibus 4 = Opzione 1 + Devicenet 5 = Opzione 1 + Interbus-S 6 = Option 1 + EtherNet/IP, Modbus-TCP
<b>Parameter Transfer Key</b> A = Standard (no key) B = Parameter transfer key included	<b>Clé de transfert des paramètres</b> A = Standard (sans clé) B = Clé de transfert incluse	<b>Parameter Übernahme Stick</b> A = Standard (kein Stick) B = Mit Parameter Übernahme Stick	<b>Llave de transferencia de parámetros</b> A = Standard (sin llave) B = Llave de transferencia incluido	<b>Chiave trasferimento parametri</b> A = Standard, senza chiave B = Chiave inclusa
<b>Mounting Style</b> W = Standard wall mount C = Cabinet mount	<b>Type de montage</b> W = Montage mural C = Montage en cabine	<b>Befestigung</b> W = Standard-Wandträger C = Schrankträger	<b>Tipo de montaje</b> W = Montaje estándar a pared C = Montaje en pieza	<b>Tipo de montaggio</b> W = Montaggio standard a muro C = Montaggio in armadio
<b>Software Package</b> S = Standard XX = Customised software	<b>Programmes</b> S = Standard XX = Programme personnalisé	<b>Softwarepaket</b> S = Standard XX = Kundenspezifische Lösung	<b>Paquete software</b> S = Estándar XX = Programa personalizado	<b>Pacchetto software</b> S = Standard XX = Pacchetto personalizzato

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## Insight IC1Display & IC1Module

<b>Measurement accuracy</b>	Torque : $\pm 0.2\%$ of torque full scale $\pm 1$ count of angle (degrees)
<b>Measurement resolution</b>	$\pm 0.025\%$ of torque full scale
<b>Torque transducer bridge excitation</b>	$\pm 5\text{VDC/GND}$
<b>Torque transducer zero offset/drift compensation</b>	$\pm 0.4\%$ of full scale
<b>Input Signal Sensitivity</b>	2.0 mV/V
<b>Calibration</b>	Values read from spindle memory Automatic digital correction
<b>Frequency response (torque filter)</b>	Selectable 75 Hz, 150 Hz, 350 Hz, 500 Hz, 750 Hz
<b>Keypad (IC-D only)</b>	Membrane keypad containing four hot keys, four function keys, numerical keypad and directional keypad
<b>Display</b>	IC-D--3.5-inch diagonal, 320px by 240px, 8-bit 65K backlit color (QVGA) flat panel display. IC-M--5- character, 7-segment numerical LED display.
<b>Parameter sets</b>	256
<b>Number of cycles stored in memory</b>	IC-D: 1,000. IC-M: 200.
<b>Statistics Data Memory</b>	100,000 per spindle
<b>Communications</b>	Serial RS232, Ethernet, USB, Optional Profibus or DeviceNet.
<b>I/O</b>	8 inputs/8 outputs, with behavior assignable through ISC software. With optional I/O card, an additional 16 inputs and outputs are available.
<b>Indicators</b>	Power ON lamp
<b>Optional devices</b>	DeviceNet Card, Profibus Card, Additional I/O, Cabinet Mounting Bracket.
<b>Input voltage</b>	Single Phase 120 Volts, 50/60 Hz, 16 Amps Single Phase 230 Volts, 50/60 Hz, 8 Amps
<b>Ambient operating conditions</b>	0-50° C, 20/90% non-condensing humidity
<b>Enclosure</b>	IP-52
<b>System Weight</b>	5.6 kg (12.4 pounds)



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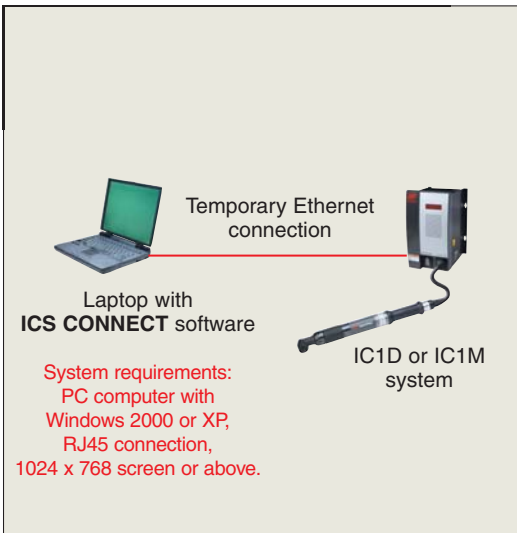
Paired with an Insight IC1D or IC1M controller and a PC computer, our groundbreaking ICS Software Suite makes it possible to more precisely control and monitor your fastening process.

Associé à un contrôleur Insight IC1D ou IC1M et installé sur un ordinateur PC, le logiciel ICS permet une gestion complète de votre processus de vissage. Il combine une simplicité de programmation à des solutions de traçabilité et de contrôle de la Qualité de premier ordre.

Zusammen mit einer Insight-Steuerung IC1D oder IC1M und einem PC Computer ermöglicht es unsere bahnbrechende ICS-Softwarereihe Ihren Verschraubungsvorgang präziser zu steuern und zu überwachen. Das Optimieren Ihres Systems ist genau so einfach wie das Auswählen eines der vier Pakete.

Junto a una unidad de control Insight IC1D o IC1M y a un ordenador PC, software ICS es absolutamente nuevo en su tipología, permite de controlar y guiar con más precisión vuestro proceso de puesta en marcha.

Abbinato ad un'unità di controllo Insight IC1D o IC1M ed ad un computer PC, Software Suite ICS, assolutamente innovativo nel suo genere, permette di controllare e monitorare più precisamente il Vostro processo di avvitatura.



**ICS Connect**

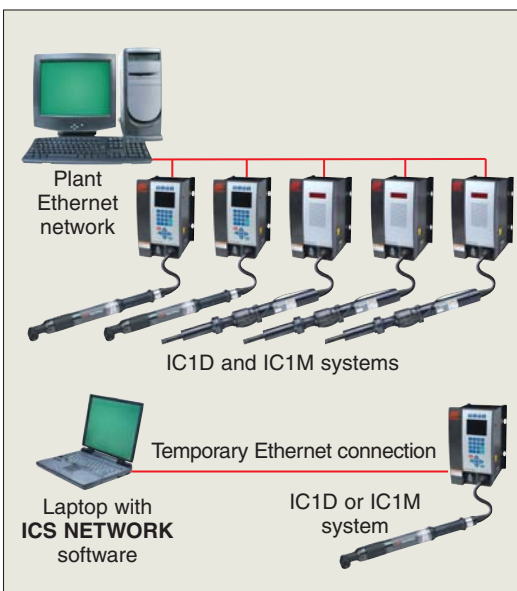
ICS Connect provides operators the ability to access and program basic fastening strategies, as well as view cycle data with a single IC1D or IC1M controller via a one-to-one Ethernet connection. ICS Connect is supplied standard with all IC1D and IC1M controllers.

ICS Connect permet aux opérateurs de programmer et d'accéder à des stratégies de vissage de base ainsi que de consulter les données de cycle avec un contrôleur IC1D ou IC1M via une connexion Ethernet de type 1:1. ICS Connect est fourni en standard avec tous les contrôleurs.

ICS Connect ermöglicht es dem Bediener, auf einfache Verschraubungsstrategien zuzugreifen und diese zu programmieren sowie Zyklusdaten über eine IC1D oder IC1M Einkanalsteuerung via direktem Ethernet-Anschluss anzuzeigen. ICS Connect wird standardmäßig mit allen IC1D- und IC1M-Steuerungen geliefert

ICS Connect abastece a los operadores la habilidad de acceso y de programar, estrategias de fijación base, como también de controlar datos de ciclo con una unidad de control única IC1D o IC1M conectada directamente a través de Ethernet. ICS Connect lo abastecemos estándar con todas las unidades de control IC1D y IC1M.

ICS Connect fornisce agli operatori l'abilita' di accedere a, e di programmare, strategie base di avvitatura, come pure di visionare dati di ciclo con un' unità di controllo singola IC1D o IC1M connessa direttamente via Ethernet. ICS Connect viene fornito standard con tutte le unità di controllo IC1D e IC1M.



**ICS Network**

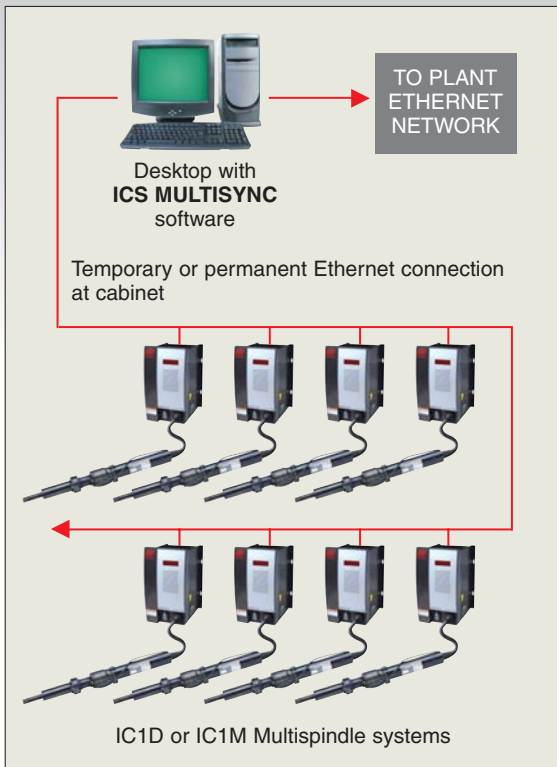
ICS Network enables programming of multiple IC1D and IC1M controllers connected through a local area network (LAN) or direct connection. This option also allows operators to program advanced fastening strategies including yield and prevailing torque control.

ICS Network permet la programmation de plusieurs contrôleurs IC1D et IC1M raccordés par un LAN ou une connexion directe. Cette option permet également aux opérateurs de programmer des stratégies de vissage avancées y compris le vissage à la limite élastique et le couple de traînée pour écrou frein.

ICS Network ermöglicht die Programmierung mehrerer IC1D- und IC1M-Steuerungen über ein lokales Datennetz (LAN) oder über einen Direktanschluss. Diese Option ermöglicht es dem Bediener außerdem, moderne Verschraubungsstrategien einschließlich Streckgrenze und Selbstschneidedrehmoment zu programmieren.

ICS Network permite la programación de unidad de control múltiple IC1D y IC1M conectadas con una red local (LAN) o con conexión directa. Esta opción permite además al operador de programar estrategias de puesta en marcha que incluyan el control de "enervation" y de par dominante.

ICS Network permette la programmazione di unità di controllo multiple IC1D e IC1M connesse con una rete locale (LAN) o a connessione diretta. Questa opzione permette inoltre all'operatore di programmare strategie avanzate di avvitatura comprendenti il controllo di snervamento e di coppia dominante.



### ICS MultiSync

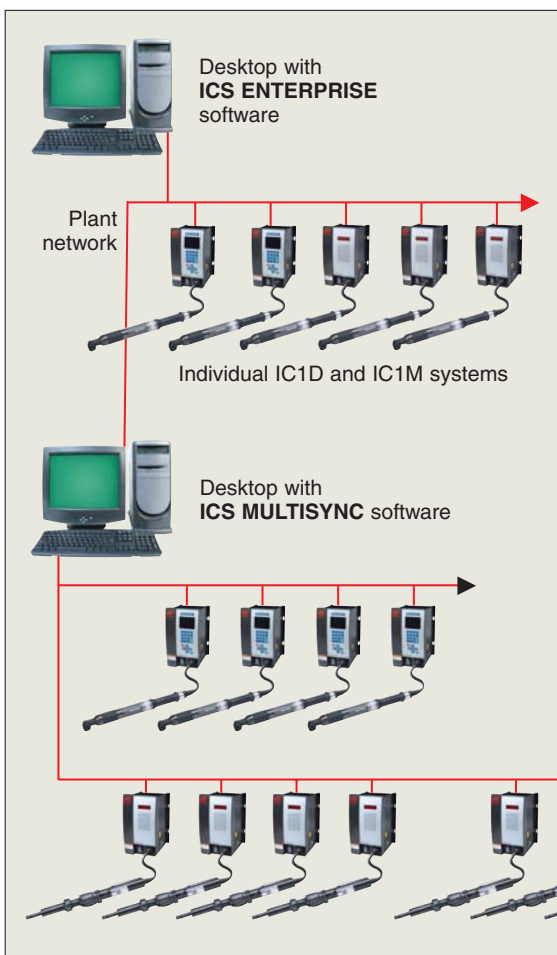
The ICS MultiSync package facilitates set-up and control of multispindle systems consisting of up to 100 spindles in groups of up to 40 spindles. This package also offers advanced multispindle fastening strategies, remote monitoring, and data archiving.

Le progiciel MultiSync facilite le paramétrage et le contrôle des systèmes à broches multiples (jusqu'à 100) par groupes pouvant atteindre 40 broches. Ce progiciel permet également des stratégies de vissage avancées à plusieurs broches, le contrôle à distance et l'archivage des données.

Das ICS-MultiSync-Paket ermöglicht die Einrichtung und Steuerung von Mehrfachspindelsystemen, die aus bis zu 100 Spindeln bestehen, die in Gruppen von bis zu 40 Spindeln synchronisiert arbeiten. Dieses Paket enthält außerdem moderne Mehrfachspindel-Verschraubungsstrategien, eine ferngesteuerte Überwachung und eine Datenarchivierung.

El paquete ICS MultiSync facilita la configuración y el control de sistemas multihusillos donde encontramos hasta 100 husillos divididos en grupos de un máximo de 40 husillos. Este paquete ofrece además estrategias de puesta en marcha multihusillo avanzada, control a distancia y archivo de datos.

Il pacchetto ICS MultiSync facilita il set-up ed il controllo di sistemi multimandrino comprendenti fino a 100 mandrini suddivisi in gruppi di al massimo 40 mandrini. Questo pacchetto offre inoltre strategie di avvitatura multimandrino avanzate, monitoraggio a distanza ed archiviazione dati.



### ICS Enterprise

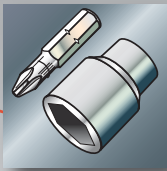
ICS Enterprise offers advanced programming and management of a network of up to 500 IC1D or IC1M controllers using QE tools, QM spindles, or multispindle systems. Also enables ODBC-compliant database archiving, searching, and statistics processing.

ICS Enterprise permet la programmation et la gestion avancées d'un réseau pouvant comporter jusqu'à 500 contrôleurs IC1D ou IC1M utilisant des outils QE, des broches QM ou des systèmes à broches multiples. Permet également l'archivage de bases de données compatibles ODBC, la recherche et la réalisation de statistiques.

ICS Enterprise bietet eine moderne Programmierung und eine moderne Netzwerk-Verwaltung von bis zu 500 IC1D oder IC1M Steuerungen, die QE Werkzeuge, QM Spindeln oder Mehrfachspindelsysteme verwenden. Außerdem ermöglicht ICS Enterprise eine ODBC-kompatible Datenbankarchivierung, Datenorganisation und Statistikverarbeitung.

ICS Enterprise ofrece la programación avanzada y la gestión de una red compuesta de un máximo de 500 unidades de control IC1D o IC1M que trabajan con herramientas QE, husillos QM o sistemas multihusillo. Además permite el archivo de base de datos compatibles ODBC, la investigación y la elaboración estadística.

ICS Enterprise offre la programmazione avanzata e la gestione di una rete composta da un massimo di 500 unità di controllo IC1D o IC1M che operino con utensili QE, mandrini QM, o sistemi multimandrino. Inoltre permette l'archiviazione di database compatibile ODBC, la ricerca e l'elaborazione di statistiche.



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**Insight software feature matrix**

	<b>Insight IC1M</b>	<b>Insight IC1D</b>	<b>Via ICS Connect</b>	<b>Via ICS Network</b>	<b>Via ICS MultiSync</b>	<b>Via ICS Enterprise</b>
<b>Software Programming</b>						
Max Number of Configs	256	256	Unlimited	Unlimited	Unlimited	Unlimited
Max Number of Steps	32 per config.	32 per config	1	32 per config	32 per config	32 per config
Prog. Params. Editable		●	●	●	●	●
Gang count		●	●	●	●	●
Autoincrement		●	●	●	●	●
Quick Setup		●	●	●	●	●
Advanced Setup			●	●	●	●
Config Name		Display only	●	●	●	●
CW/CCW Tightening		●	●	●	●	●
Tubenut Operation		●	●	●	●	●
Adjustable Acceleration				●	●	●
Optional EOR for each Step				●	●	●
Synchronizing Spindles					●	●
Copy protection			●	●	●	●
<b>Data Archiving</b>						
No. of stored EOR Records	200	1000	Unlimited (manual)	Unlimited (manual)	Unlimited (auto.)	Unlimited (auto.)
Databases data can be transferred to					ODBC	ODBC
Backup data to server					●	●
<b>Powerhead</b>						
Powerhead Operation					●	●
Max No. of Spindles in Powerhead					40	40
Max No. of Groups					8	8
Fault Backout					●	●
Fault Backout Options					None, spindle, group, powerhead	
Final Fault Backout					●	●
Final Fault Backout Options					None, spindle, group, powerhead	
Synchronization Method					Via CANBUS	
<b>Software General</b>						
Date/Time Set		●	●	●	●	●
System Name			●	●	●	●
Display Software versions		●	●	●	●	●
Language Selection		●	Only ICS Language	Only ICS Language	Only ICS Language	Only ICS Language
NTP Function		●	●	●	●	●
E.O.R. Onscreen filter			●	●	●	●
E.O.R. viewable onscreen	Primary value only	●	●	●	●	●
Load New Software via Ethernet	●	●	●	●	●	●
<b>Tool Programming</b>						
TR Adjust		●	●	●	●	●
ASC Adjust		●	●	●	●	●
TR and ASC Reset		●			●	●
Auto Calibration Function			X with ETA	X with ETA direct connect only		
Torque Units Selection		●	●	●	●	●
Start Mode Selection		●	●	●	●	●
Tool Operation Selection		●	●	●	●	●
Special Fn Switch Programming		●	●	●	●	●
Configuration Mode Selection		●	●	●	●	●
PM Alarms				●	●	●
View Memory Chip Data			●	●	●	●
<b>Passwords</b>						
Number of Passwords	0	1	Unlimited	Unlimited	Unlimited	Unlimited
Auto Timer lockout		●				
Adjustable Lockout Timer		●				
<b>Statistics</b>						
Sample and Population Stats		●	●	●	●	●
Stats Values Calculated		Cp,Cpk,Mean,SD, Capability, CAM, Max value, Min value, % No. Rejects, % No Pass,No.Rej Hi, No. Rej Lo, Mean Shift, Range, No.for sigma		Cp,Cpk,Mean,SD, Capability, CAM, Max value, Min Value % No. Rejects, % No Pass, No.Rej Hi, No. Rej Lo,Mean Shift, Range, No.for sigma, Target		
Stats Alarms				●	●	●
Stats Alarms Output	●	●				
Max Sample Stats Size	200	1000	1000	1000	1000	1000
Powerhead Stats		●			●	●
Mean Range Charts				●	●	●
Histograms				●	●	●
Pareto chart				●	●	●
Stats E-mail alarms				●	●	●
Stats can be calculated from user defigned data				●	●	●
<b>Tightening Curves</b>						
Curve Types					Torque vs Angle, Torque vs Time, Current vs Time, Current vs Angle	
Max No. of Curves Stored on Cont.	Last Reject Last Cycle	Last Reject Last Cycle				
Display Curves On Screen				●	●	●



	Insight IC1M	Insight IC1D	Via ICS Connect	Via ICS Network	Via ICS MultiSync	Via ICS Enterprise
Print Tightening Curves				●	●	●
Print Tightening Curve Data				●	●	●
Full View				●	●	●
Zoom Function				●	●	●
No. of curves that can be overlaid				1	10	10
Archive curves					●	●
Parameter values shown on curve				●	●	●
<b>Tightening Strategies</b>						
Torque Control		●	●	●	●	●
Torque Control with Y. Override				●	●	●
Angle Control		●	●	●	●	●
Angle Control with Y. Override				●	●	●
Yield Control				●	●	●
Prevailing Torque				●	●	●
Drag Torque				●	●	●
Backout				●	●	●
Fault Backout					●	●
Final Fault Backout					●	●
Retorque				●	●	●
Wait				●	●	●
Jog				●	●	●
Bypass					●	●
<b>Communications</b>						
Serial E.O.R. Data out		●	●	●	●	●
Serial Custom E.O.R. Data			●	●	●	●
Host Data Out		●	●	●	●	●
PFCS				●	●	●
Barcode Passive				●	●	●
Barcode Active				●	●	●
Barcode setup onscreen				●	●	●
Field Bus setup onscreen				●	●	●
Ethernet Programming			●	●	●	●
<b>Diagnostics</b>						
Error Codes	●					
Text Errors		●	●	●	●	●
System Test		●	●	●	●	●
Store System Test Results			●	●	●	●
View Input Statuses		●	●	●	●	●
Set Output Statuses		●	●	Only if connected 1 to 1	●	●
View Outputs			●	●	●	●
Assignable inputs			●	●	●	●
Assignable Outputs			●	●	●	●
Event Log			●	●	●	●
View Event Log			●	●	●	●
Tool Test		●	●	Only if connected 1 to 1	●	●
Lamp Test		●	●	Only if connected 1 to 1	●	●
<b>Help</b>						
HelpOn Screen Help Menu			●	●	●	●
Wizard Text		●				
<b>Printed Reports</b>						
No. of Reports	0	0	5	6	9	11
Report Types			Cycle Log, Stats, Parameter Dump, Diagnostics, Event log			
				+ Tightening Curve,	+ Tightening, Curve Histogram, Pareto, Mean/Range	+ Tightening, Curve Histogram, Pareto, Mean/Range VIN, Custom
Parallel Output			●	●	●	●
Export to file			●	●	●	●
<b>Hardware</b>						
Screen Size	14 mm high x 5 character	9.6 cm (9/16 in) diag				
Screen Type	Red LED	1/4 VGA Color LCD	XVGA or better	XVGA or better	XVGA or better	XVGA or better
Keypad		●	●	●	●	●
Keypad Type		25 key Membrane	PC Keyboard	PC Keyboard	PC Keyboard	PC Keyboard
Status lights		On Screen				
Power On indication	●	●				
GFI	●	●				
Mounting Design	Wall or Cabinet mounting plate					
Field Bus	X (optional)					
No. of I/O	Base 8, Max 24	Base 8, Max 24				
Type of I/O	Opto	Opto				
Serial Port	X (1)	X (1)				
Ethernet	●	●				
Max number of Spindles	1	1	1	500	100	500
Method of identifying physical location	Rotary dial switch	Rotary dial switch				
CCT Breaker switch	●	●				
<b>Weight</b>						
Weight	5.6 kg (12.4 lb)	5.6 kg (12.4 lb)				

Accessories for Insight IC1Display & Insight IC1Module  
 Accessoires pour Insight IC1Display et Insight IC1Module  
 Zubehör für Insight IC1Display und Insight IC1Module  
 Accesorios para Insight IC1Display y Insight IC1Module  
 Accessori per Insight IC1Display e Insight IC1Module

Socket tray Boîte à douilles Nusskasten Bandeja de bocas Vassoio porta bussola	4 positions 8 positions	1
Remote selector switch Sélecteur de mode à distance Wählschalter (extern) Interruptor selector a distancia Interuttore di selezione remoto	4 positions 8 positions	2
Emergency stop button Bouton d'arrêt d'urgence Notausschalter Pulsador de parada de emergencia Pulsante di emergenza		3
Signal tower, type LCE-FB Tour de signalisation, type LCE-FB Signalturn, Typ LCE-FB "Signal tower", tipo LCE-FB "Signal tower", tipo LCE-FB		4
Reset station Poste de remise à zéro Reset-Schalter (extern) Estación de reposición Reset di stazione		5
Wall mounting bracket Kit pour fixation murale du controleur Wandmontagehalterung Sopporite para montaje mural Staffa montaggio a muro		
Cabinet mounting bracket Kit de fixation du controleur en armoire Schaltschrank-Montagehalterung Sopporite para montaje en armario Staffa montaggio armadio		
Parameter tranfer key Clé de transfert des paramètres Parameter Transfer Stick Llave de tranferenciade partametros Chiave trasferimento parametri		6

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