

ESTUN



PAC

系列压力机控制系统

Press Automation Control

南京埃斯顿数字技术有限公司十几年来专门从事锻压机械自动化产品的研发、生产、销售及服务。在金属板材加工自动控制领域，拥有丰富的经验及良好的信誉。

公司突出的优势是为用户提供包括从方案设计、到控制系统、伺服系统、液压系统、电气控制柜的完整解决方案，让机械设备制造商在“一站式”服务模式下，免除在自动控制方面所有的后顾之忧。

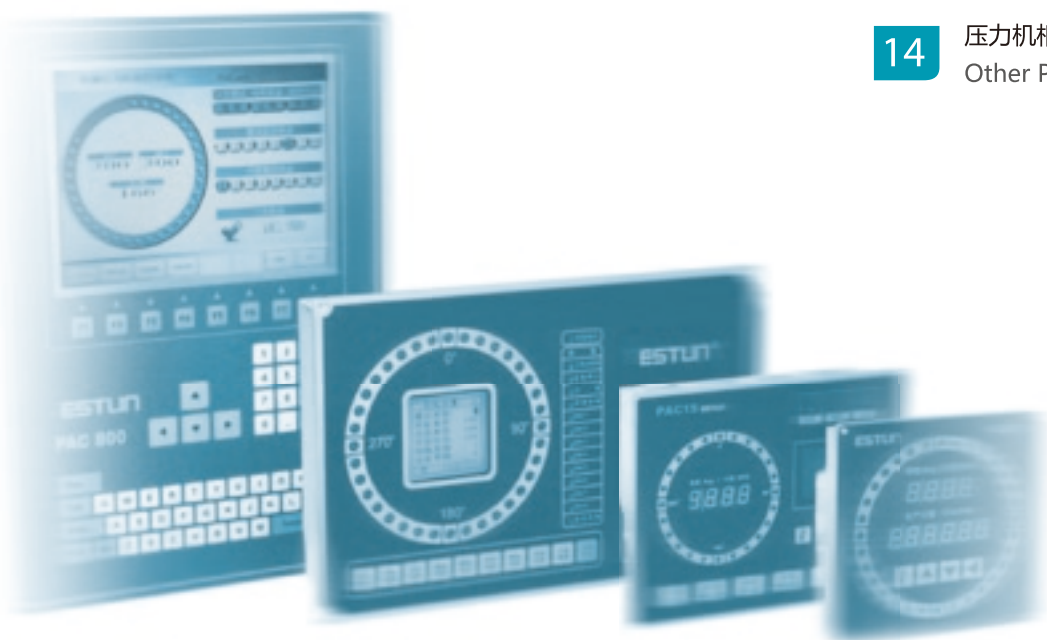
Estun Digital Technology Co., Ltd., specializes in the technical consultation, R&D, manufacturing, marketing and after-sales service of automation products for forging and stamping machinery. Our company has rich experience and enjoys a good reputation in the automation control field during the course of sheet metal forming.

The most remarkable advantage of ESTUN is the machine manufacturers are supported by ESTUN with one-stop total solution service for all their worries on the automation control industry. ESTUN is always contributing to provide customers with first-class services, from project design to production, and delivery of NC and CNC system, servo system, hydraulic system and electrical cabinets, etc.



南京埃斯顿数字技术有限公司 ESTUN DIGITAL TECHNOLOGY CO.,LTD

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PAC10E/R

机械压力机专用电子凸轮控制器

Electronic Cam Controller Special for Mechanical Press



PAC10E/R是机械压力机专用电子凸轮控制器。安装使用方便，代替机械凸轮和各种计数器。实现离合器控制，能让滑块准确停上死点；凸轮通道输出响应快，满足机床生产高质量产品的要求；能对离合器实现监控，调高机床的安全性；在面板上设定凸轮安全方便。

PAC10E/R is a special electronic cam controller dedicated to mechanical presses. It's so easy to be installed and used that it's taking the place of mechanical cams and various counters. Clutch control is available which makes slide stop exactly at top dead center. PAC10E/R provides fast response for cam channel output, which is able to meet customers' different needs of producing high quality products. With the clutch monitoring function of PAC10E/R, machine safety is greatly enhanced. In addition, cam setting is done safely and conveniently on the panel.

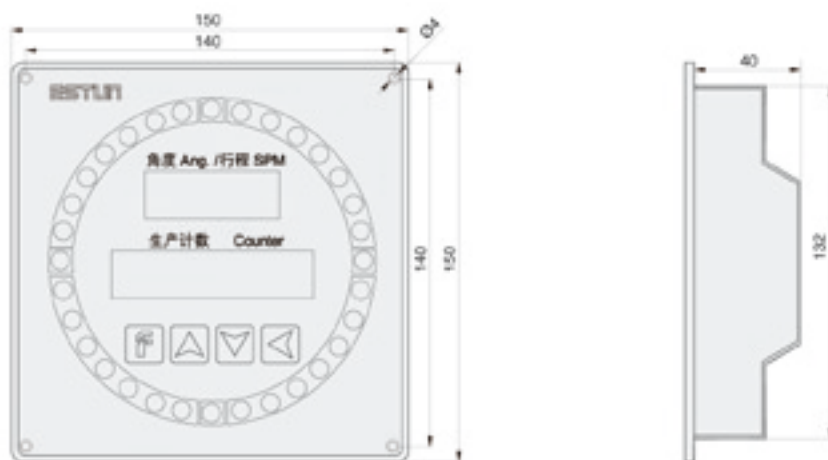
产品特性 / Features

- 冲程数/角度显示: 转速 >10 SPM时, 显示冲程数;
转速 ≤10SPM时, 显示角度值
- SPM / Angle display: When rotation speed >10 SPM, SPM is displayed.
When rotation speed ≤10SPM, angle is displayed
- 生产计数显示及设定
- Production counter display and setting
- 12组输出, 其中10组电子凸轮, 2组控制离合器
- Twelve groups of outputs, including:
Ten groups of electronic cams and two groups of controlling clutch
- 多组剪切 (裁断)
- Multi-groups shearing (Cut-Off)
- 下死点设定
- Bottom dead center setting
- 第2角度设定
- Second angle setting
- 顶点定位补正, 精确停下死点
- Automatic positioning compensation at Top dead center
Automatic and accurate stop at top dead center
- 自动计算刹车角
- Automatic computation of braking angle
- 正/反转参数设定
- Forward / Reverse rotation is programmable with parameters
- 机床高/低速度保护
- High / low SPM limiting
- 制动惯量检测
- Real time monitoring of braking inertia
- 离合器刹车计数
- Braking counter
- 各种报警提示
- Each alarm prompt
- 输入/输出端口监视
- Monitoring of I/O terminals
- 曲轴位置自纠正
- Self correction of shaft position

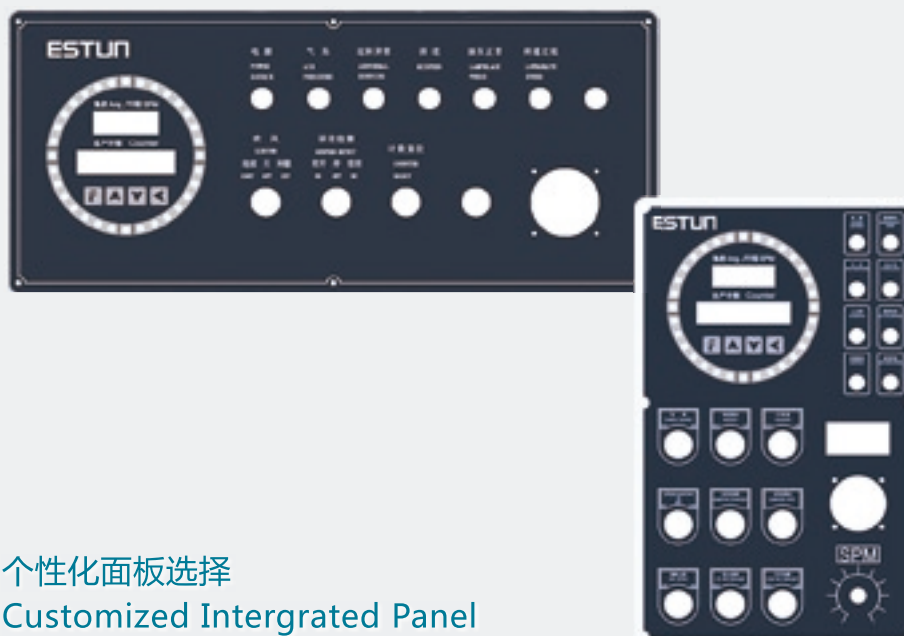
技术参数 / Technical Specification

项目	Servo Motor	规格	Servo Drive
供电电源	Power supply	DC24V±10%, 1A	
存储温度	Storage temperature	- 20~70℃	
湿度	Humidity	30~85 %	
角度显示	Angle display	0~359°	
角度设定	Angle setting	0~359°	
行程数	Strokes per minute	0~2000 SPM (360P/R)	
角度传感器	Angle sensor	360线增量编码器 (5V、差分型电压输出、带参考输入) 或旋转变压器 360 lines incremental type encoder (5V, differential type voltage output, with reference input) or resolver	
角度分辨率	Angle resolution	0.25度 0.25 degree	
指示灯	Indicator Lamps	32个曲轴位置指示灯 32 indicators to show shaft position	
显示	Display	角度/速度 (4位数数码管) 生产计数 (6位数数码管) Angle / Speed (4 digits numeral tubes) Production counter (4 digits numeral tubes)	
按键	Keys	4个微动开关 4(4) micro-switch keys	
凸轮输出	CAM output	0~359° 10组 Ten (10) groups	
输入	Input	5通道 (光耦隔离) DC24V±10%, 最大输入电流20mA 5 channels (photocoupler isolation) DC24V±10%, maximum input current: 20mA	
输出	Output	12通道 (光耦隔离) DC24V±10%, 最大输出电流50mA 12 channels (photocoupler isolation) DC24V±10%, maximum output current:50mA	

外形尺寸 / Dimension



单位: 毫米 Unit: mm



个性化面板选择
Customized Intergrated Panel

PAC15

机械压力机专用电子凸轮控制器

Electronic Cam Controller Special for Mechanical Press



PAC15是一款机械压力机专用的高档电子凸轮控制器，液晶屏显示，菜单式操作，中英文切换，在PAC10原有功能基础上增加了通讯功能、机床报警功能、凸轮扩展功能。

PAC15 is a kind of top grade electric cam controller specially designed for mechanical presses. Based on the functions of PAC10, it's providing not only LCD display and Chinese / English menu, but more functions like communication function, press capacity alarm and expandable cam functions.

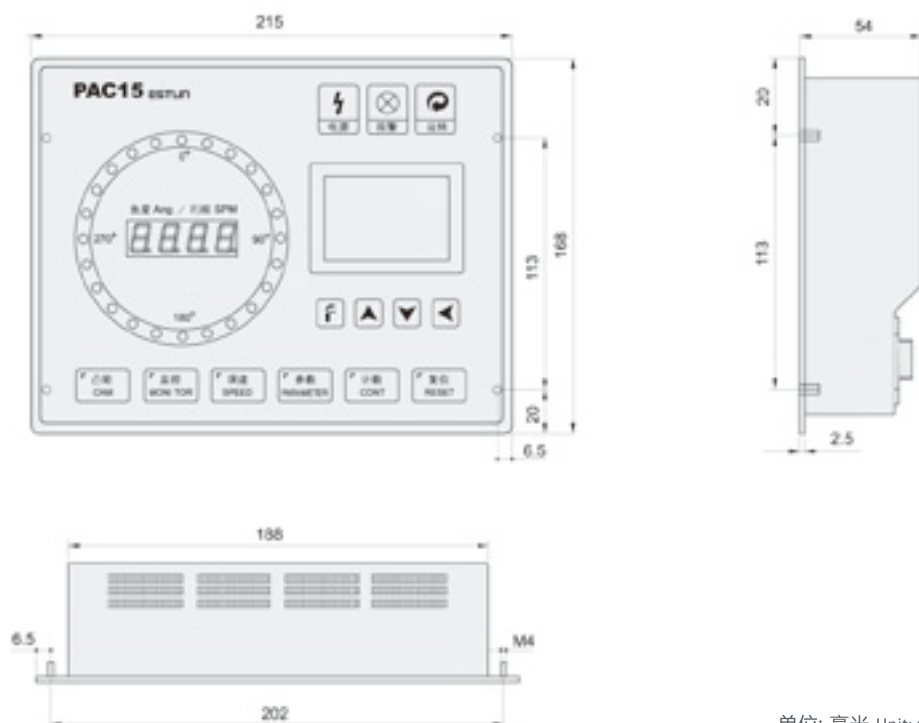
产品特性 / Features

- 液晶屏显示、设定参数信息
- 可中英文切换
- 更多的计数功能
- 8个自定义的报警信号输入通道
- 16组电子凸轮输出，可扩展
- 和变频器实现RS485通讯
- 和PLC实现RS485通讯
- 增加3个状态指示(电源、报警、运转)
- LCD display, set parameters
- Switch between Chinese and English display
- More counter functions
- 8 customized alarm signal inputs diemonitoring
- 16 groups of electric cam outputs, expandable at request
- Solution to RS485 communication with transducer
- Solution to RS485 communication with PLC
- Three machine status indicators (for power supply, alarm and run)

技术参数 / Technical Specification

项目 Servo Motor		规格 Servo Drive
供电电源	Power supply	DC24V±10%, 1.5A
存储温度	Storage temperature	- 20~70℃
湿度	Humidity	30~85 %
角度显示	Angle display	0~359°
角度设定	Angle setting	0~359°
行程数	Strokes per minute	0~2000 SPM
角度传感器	Angle sensor	旋转变压器 Resolver
角度分辨率	Angle resolution	1度 1 degree
指示灯	Indicator Lamps	24个曲轴位置指示灯 24 indicators to show shaft position
显示	Display	角度/速度 (4位数码管)、LCD128×64点阵, 4行中文显示 Angle / Speed (4 digits numeral tubes) LCD 128×64 lattice Four lines of Chineses display
按键	Keys	10个微动开关键 Ten(10) micro-switch keys
凸轮输出	CAM output	0~359° 16组 Sixteen (16) groups
输入	Input	16通道 (光耦隔离) DC24V±10%, 最大输入电流20mA 16 channels (photocoupler isolation) DC24V±10%, maximum input current: 20mA
输出	Output	18通道 (光耦隔离) DC24V±10%, 最大输出电流50mA 18 channels (photocoupler isolation) DC24V±10%, maximum output current: 50mA

外形尺寸 / Dimension



单位: 毫米 Unit: mm

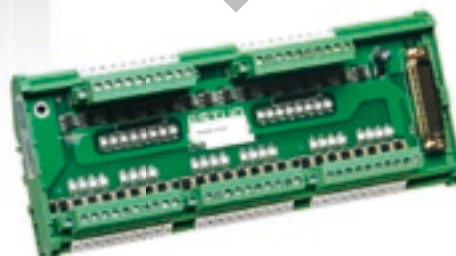
PAC200

机械压力机专用集成控制系统

Special Integrated Control System for Mechanical Presses



通讯电缆
Communication Cable



PM通讯模块
PM Communication Module

PAC200是一种机械压力机专用集成控制系统，可用于各种机械压力机的控制。集成了电子凸轮、离合器控制、模具的监控保护、润滑、剪切(裁断)、吹料、模具存储等功能。替代了PLC、触摸屏和机械凸轮控制方案，提高了机械压力机的专业化和自动化水平。

PAC200 is a special controller designed to control various kinds of mechanical presses. The controller is integrated with functions like electric cam, clutch control, die monitoring and protection, lubricating, shear, blowing material and job memory, etc. PAC200 takes the place of two previous solutions by PLC working with mechanical cam or electric cam. Easier system structure facilitates the installation and connection. Meanwhile, the automation level and safety level of mechanical press are enhanced.

产品特性 / Features

- 内置100套模具数据存儲
- 自动精确停止死点
- 离合器监控
- 12个可编程的PLS输出
- 多种润滑方式控制
- 8个可编程DM输入通道
- 采用旋转变压器作为反馈元件
- 两种过载处理方式，兼容国内大多数机床的过载安全阀
- 上死点采用软、硬件双重保护
- 液晶屏直观显示报警信息和报警记录
- 可设定模高范围，超范围报警
- 内置多种计数功能
- 液晶屏文字：中/英文显示
- 100 sets of built-in die data in memory
- Automatic and accurate stop at top dead center
- Clutch monitoring
- 12 programmable PLS output
- Different lubricating methods
- 8 programmable DM channel input
- Two ways to handle overload, compatible for overload safety valves on most domestic presses
- Double protection for top dead center overtravel: soft and hard protection
- LCD display alarm information and alarm records
- Programmable Die height range (if die height exceeds limit, system alarms)
- Different built-in counters
- LCD characters: Chinese / English

技术指标 / Technical Specification

PAC200压力机控制器 Technical Specification of PAC200		
基本规格 Specification	供电电源 Power supply	DC24V±10%, 1A
	电磁兼容 EMC	GB/T17626, GB/T18268标准 Conforming to GB/T17626 and GB/T18268 standards
	冲击振动 Shock/Vibration	JB/T8832-2001标准 Conforming to JB/T8832-2001 standard
	温度 Temperature	GB/T2423.3-93标准 Conforming to GB/T2423.3-93 standards
	工作温度 Working temperature	0~40℃
	存储温度 Storage temperature	-20~70℃
	湿度 Humidity	85%以下不积露 Below 85%, non-condensing
特性 Features	显示 Displa	LCD128×128点阵, 7行中文显示 LCD128×128 lattice, 7 lines of Chinese characters
	角度显示 Angle display	0~359° (分辨率1°) (Resolution = 1°)
	行程速度 Stroke speed	0~1500SPM
	指示灯 Indicators	角度指示灯36个, 状态指示灯13个 36 indicators for angle display and 13 indicators for status display
	按键 Keys	17个薄膜按键/微动开关 17 filmy pushbuttones / micro-switch keys
	凸轮设定 Cam setting	0~359°

RES旋转变压器 Technical specification of RES resolver

规格 Specification	供电电压/频率	Supply voltage / Frequency	7Vrms 10KHz
	变比	Variation ratio	0.5±5%
	角度误差	Angle error	±10'
	激励线圈输入阻抗	Exciting winding / Coil input impedance	100+140j

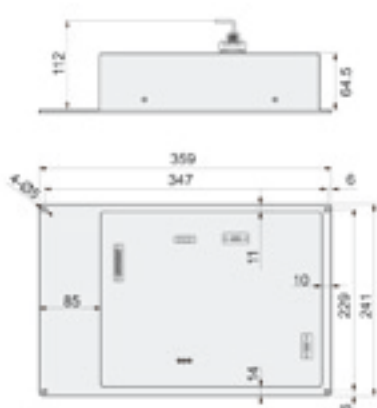
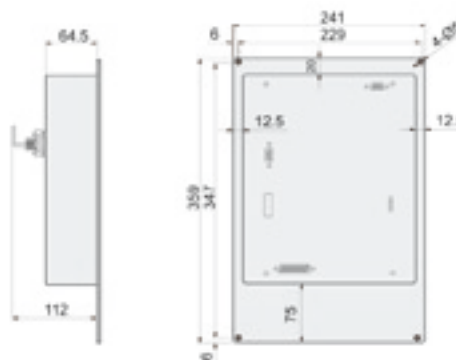
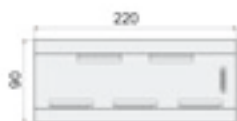
ENC模高编码器 Technical specification of ENCdie height encoder

规格 Specification	供电电压	Supply voltage	12VDC
	消耗电流	Consumption current	≤80mA
	输出类型	Output type	电压输出 voltage output
	响应频率	Response frequency	0~100KHz
	每圈脉冲数	Pulse numbers of each coil	100~300线 100~300 lines

PM通讯模块 Technical specification of PM communication module

规格 Specification	输入通道 Input channel	24点光耦隔离输入：输入电压DC24V±10%，最大输入电流20mA 24 channels (photocoupler isolation) ; Input voltage DC24V ± 10%; Maximum input current: 20mA
	输出通道 Output channel	16点晶体管输出：供电电压为+24V，输出电压为+24V，最大输出电流为0.5A 16 channels (transistor output); Power supply +24V; Output voltage +24V; Maximum output current: 0.5A

外形尺寸 / Dimension

PAC200-H横式尺寸
PAC200-H (Horizontal)PAC200-V尺寸
PAC200-V (Vertical)PM通讯模块的安装尺寸
Mounting dimension of PM communication module

单位: 毫米 Unit: mm

电气控制柜 / Relay Box



ISO9001

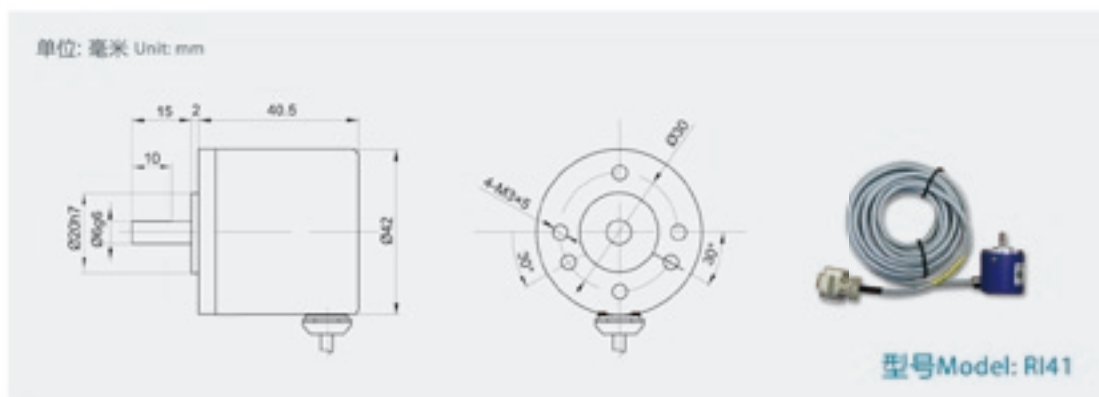


- 通过ISO9001质量体系认证
ISO9001 approved
- 采用TE、SCHNEIDER、SIEMENS等进口或知名品牌
Adopt well-know brand components
- 可根据用户要求订制
Can be customized according to user requirements

配套件及安裝尺寸 / Accessories & Dimension

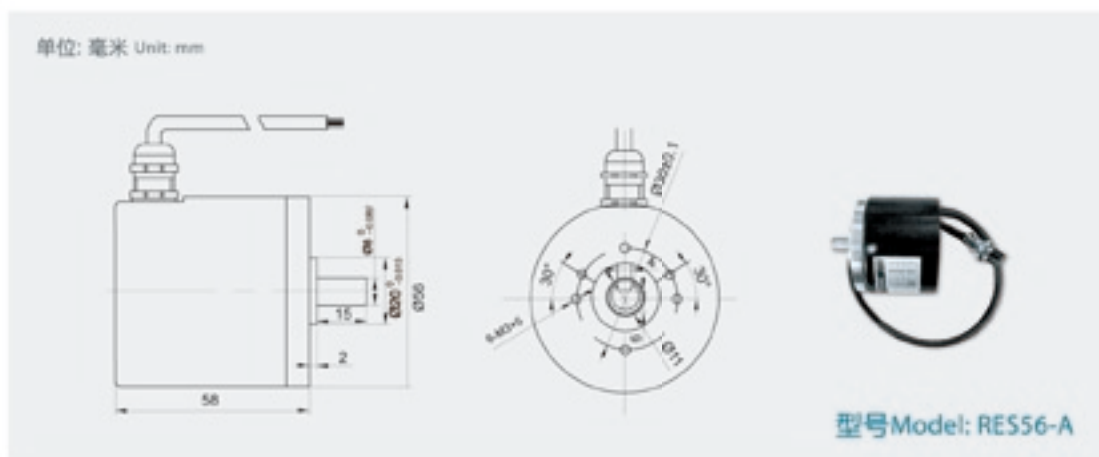
金属珊编码器安装尺寸

Dimension of encoder



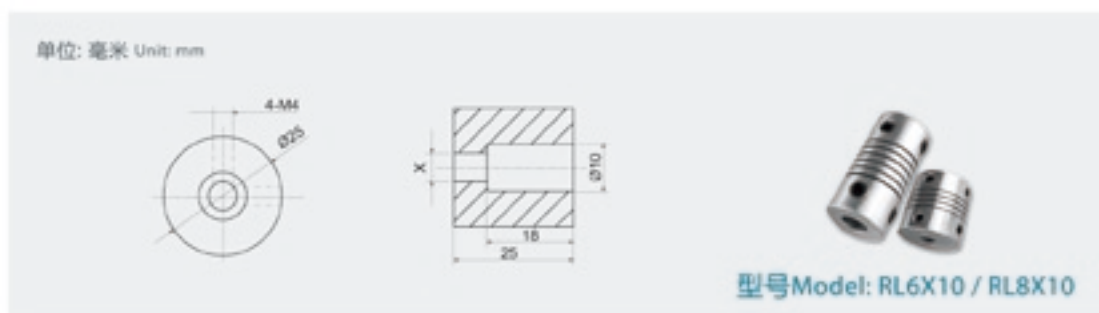
旋转变压器安装尺寸

Dimension of resolver



联轴节安装尺寸

Dimension of shaft coupling



(注) 当配套件为金属珊编码器时, x 的数值为 06; 当配套件为旋转变压器时, x 的数值为 08。

(Notes) When the accessories is encoder, X=06; when the accessories is resolver, X=08.

压力机相关产品 / Other Products



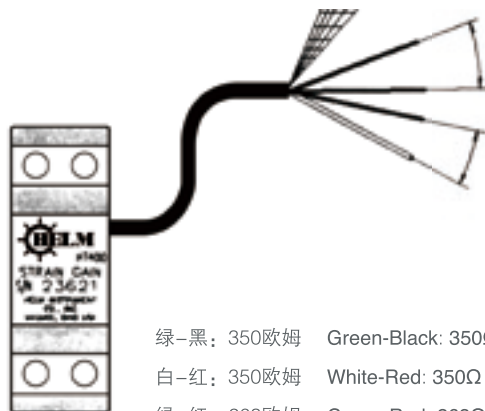
美国HELM吨位监视系统 HELM Tonnage Monitoring System

主要应用于冲压、锻造、压铸等领域。吨位监视系统通过应变传感器对机床工作时的变形进行数据采集，准确快速地显示机床工作吨位。它具有多种报警模式，实现遇警瞬间停机，以保护机床、延长模具使用寿命，保证加工工件的质量与一致性，进行生产管理等功能。

HELM吨位监视系统拥有多个系列的产品，满足用户的不同需求。

Mainly used on metal stamping, forging, compaction and assembly presses; cold forming, cold heading, injection molding and die-casting machines. Taking advantage of the most advanced strain gain transducers, HELM Tonnage Monitoring System can make data collection of the machine distortion during it's working and shows instantly the exact working tonnage of the machine. The system offers various alarm modes which can stop the machine immediately to protect the machine and prolong the service life of dies. Same quality of workpiece is ensured and production management can be implemented.

HELM company is offering a complete line of load monitoring control systems.



绿-黑: 350欧姆	Green-Black: 350Ω
白-红: 350欧姆	White-Red: 350Ω
绿-红: 263欧姆	Green-Red: 263Ω
绿-白: 263欧姆	Green-White: 263Ω
白-黑: 263欧姆	White-Black: 263Ω
黑-红: 263欧姆	Black-Red: 263Ω



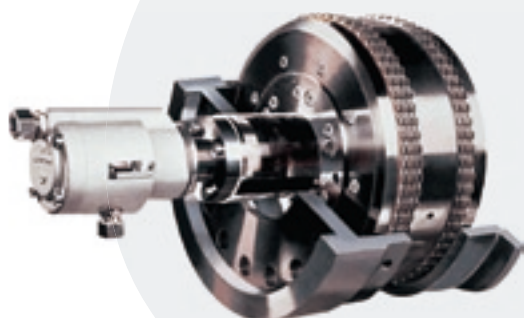


Systemtechnik
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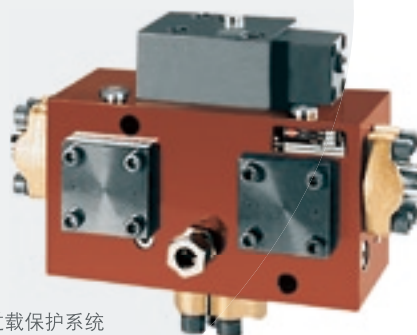
德国HERION压力机专用技术 HERION Press Technology (Germany)



液压双联安全阀、缓冲单元
Hydraulic Double Safety Valves,
Buffer Unit



液压离合器/制动器
Hydraulic Clutch / Brake



液压过载保护系统
Hydraulic Overload
Protection System

Herion公司是世界上最早从事设计和生产
液压离合器/制动器、液压双联安全阀的厂家。
拥有众多的专利技术。

Herion is the world's earliest supplier who designs
and manufactures hydraulic clutch/brake and
hydraulic double safety valves. Herion possesses
lots of patented technology and is providing
following products.



埃斯顿
与您共成长!

GROWING TOGETHER!

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内容如有更改，恕不另行通知。

