

## BKS600 Series Digital Web Guide Controller

The BKS600 series microprocessor equipped web guide controllers are designed for the increasing demands of high machine speeds, ease of integration and simple operation. They can be combined with any of the sensors and steering frames of the FMS product range. If required, the correction value can also be used as an analog output signal for controlling a hydraulic valve.

The BKS600 series web guide controllers are suitable for all types of web processing machines such as printing presses, coating machines and for the converting of paper, plastic, sheet metal, etc.

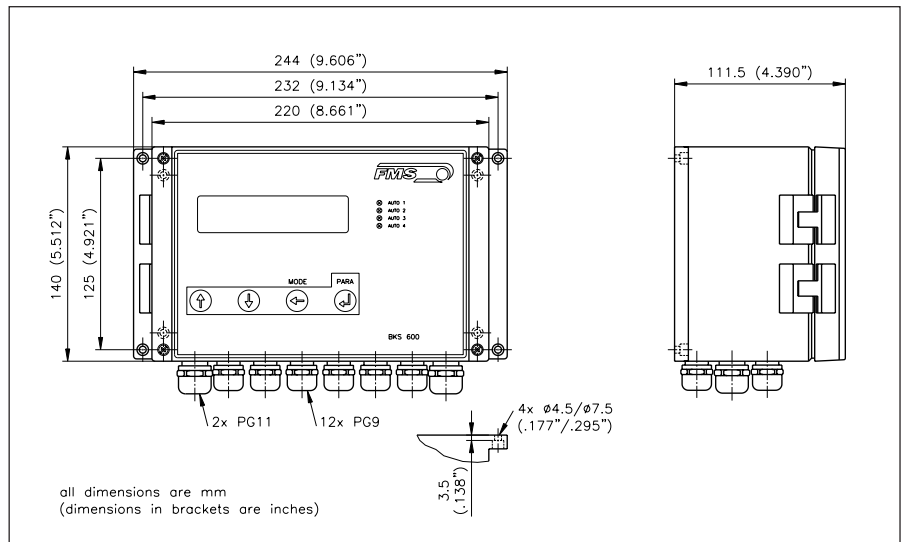


### Operation

The large backlit display with 2 x 16 characters, 4 LEDs and the large keys guarantee simple operation. All information is in plain text (the following languages are selectable: English, German, French or Italian). All functions may be parameterized. The reference value for the web position can be set via keys or the interfaces. The functions may be remotely controlled through digital inputs and outputs.

### Modular Design

The modular design allows the BKS600 series web guide controller to be matched to customer specific requirements. It can be equipped with up to four channels. This allows up to four steering frames to be controlled



with one electronic unit (see pages 18-19). The cycle time of 4ms provides precise control at high machine speeds. The robust and compact aluminum housing is impervious to external influences. Cable access to the screw terminals is from below via cable glands which are arranged conveniently in the cover.

### Design and Function

The BKS600 series internal circuits are galvanically isolated from the power supply. The controllers have an integrated power supply for the

sensors. The correction value directly controls a stepper motor. The lack of analog adjustments results in excellent temperature and long term stability.

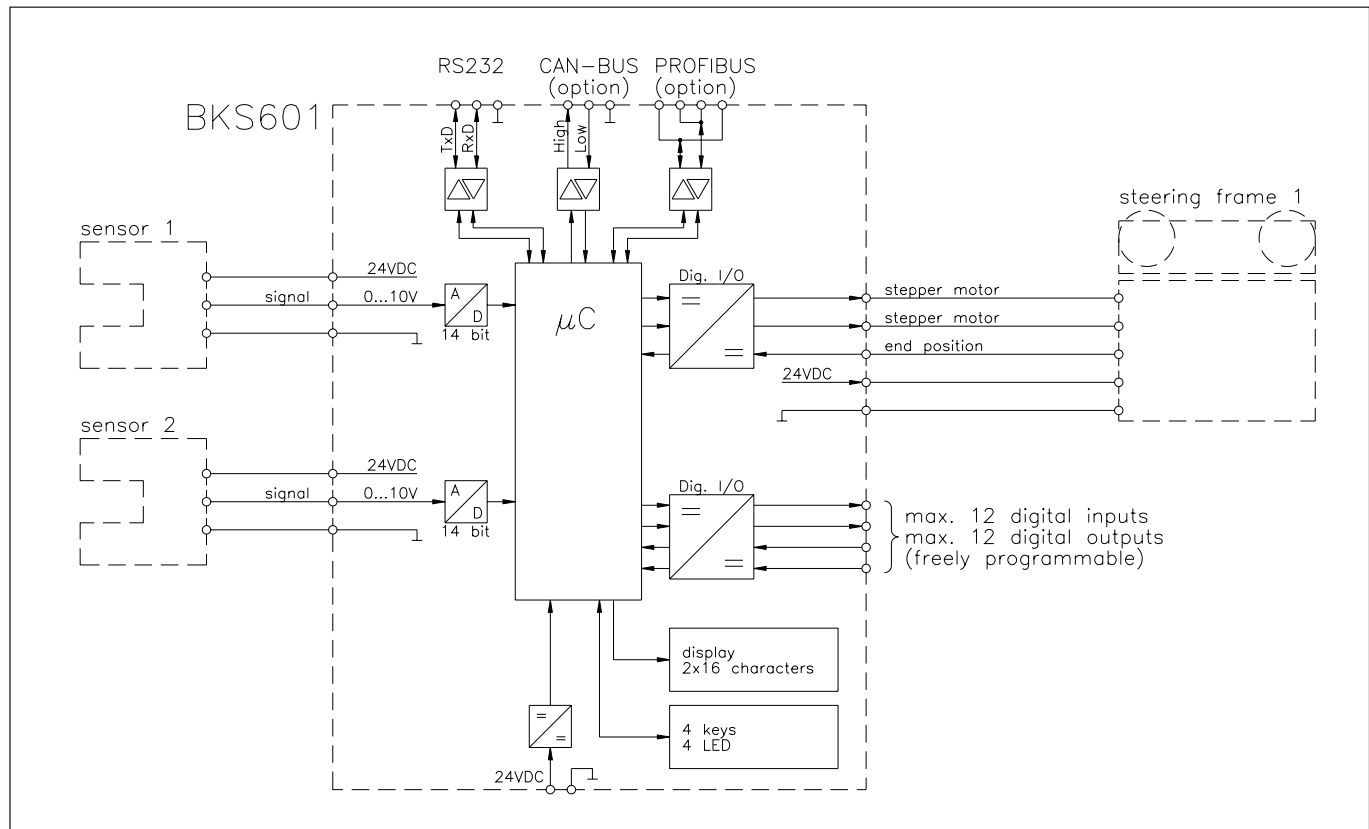
### Integration with Master Computer

The BKS600 web guide controllers have an RS232 interface as standard. Additional options available are PROFIBUS, CAN-Bus and DeviceNet interfaces.



All connection terminals are easily accessible in the cover.

# BKS600 Series Digital Web Guide Controller



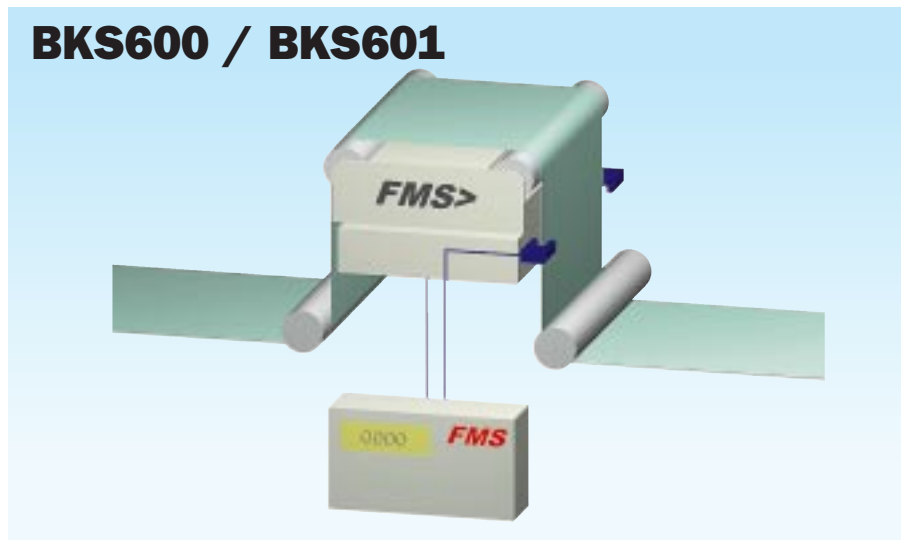
Type	BKS600	BKS600-2	BKS601 / BKS602	BKS603 / BKS604	BKS610	BKS611 / BKS612
Additional functions	--		--		chase and follow system	width measurement and control
Number of steering frames	1	2	1 / 2	3 / 4	1 / 2	0...2
Sensors per steering frame	1...2		1...2	1	1 / 2	2
Mot. sensor adjustment <sup>1)</sup>	1...2		1...2	--	2	2
Sensor power supply	24VDC					
Sensor signal input	0...10V (14 Bit)					
Control of steering frame	AC or DC motor		stepper motor 24V		stepper motor 24V	
Analog output	±10V or 0/4...20mA (12 Bit)		--		--	
Operation	4 keys, 4 LED, LCD display 2x16 characters 8mm (.31") height					
Reference position	adjustable in 0.1mm (.004") steps					
Dead band	adjustable in 0.1mm (.004") steps					
Interfaces	RS232, PROFIBUS DP (EN50170) <sup>1)</sup> , CAN-Bus <sup>1)</sup> , DeviceNet <sup>1)</sup>					
Digital inputs <sup>2)</sup>	freely programmable <sup>3)</sup> , 24VDC via opto-coupler					
Digital outputs <sup>2)</sup>	freely programmable <sup>4)</sup> , open collector or 24VDC					
Cycle time	2ms					
Power supply	24VDC (18...36VDC) / max. 1.5A					
Temperature range	0...45°C (32...139°F)					
Protection class	IP54					

<sup>1)</sup> Options <sup>2)</sup> galvanically isolated <sup>3)</sup> Select from: automatic, center position, reference-, reference+, start detection, sensor freerun, manual left, manual right <sup>4)</sup> Select from: automatic ok, edge missing, detection ok

## BKS600 Series Digital Web Guide Controller

### Web guide (1 channel)

The BKS600 / 601 web guide controller controls one steering frame. One or two analog sensors transmit the edge position to the control unit. If the deviation from the reference position is greater than a given value (dead band), the steering frame is adjusted. With one sensor the edge is controlled; two sensors allow center guiding. With motorized sensor adjustment, the sensors automatically find the web edge.



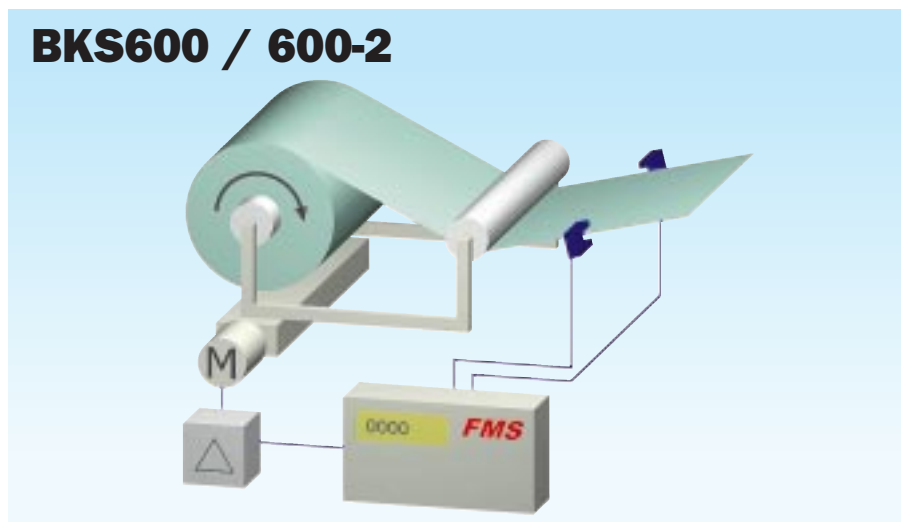
### Web guide (2...4 channels)

The BKS600-2 and BKS602 / 603 / 604 web guide controllers can independently control two, three or four steering frames. With the BKS600-2 and BKS602 the same possibilities are available for each steering frame as for the single channel web guide controller BKS600 / 601. With the BKS603 / 604 only one sensor per channel can be connected. These web guide controllers offer advantages for machines with several steering frames.



### Web guide with Analog Output (1...2 channels)

The BKS600 / 600-2 web guide controllers are equipped as standard with one analog output per channel. Therefore actuators with analog signals such as vector drives, hydraulic valves, etc. can be controlled. This configuration offers the same possibilities as when using steering frames with stepper motor drives.

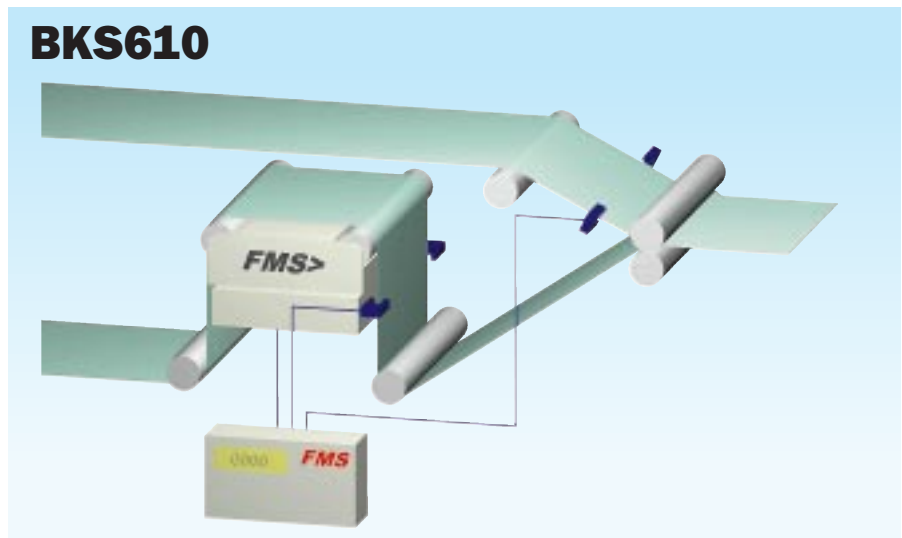


## BKS600 Series Digital Web Guide Controller

### Chase and follow system

The BKS610 web guide controller measures the position of a first web (master) and guide a second web (slave) so that both webs exactly match each other. The master web and slave web can each be equipped with one or two sensors. Therefore, edge or center guiding is possible.

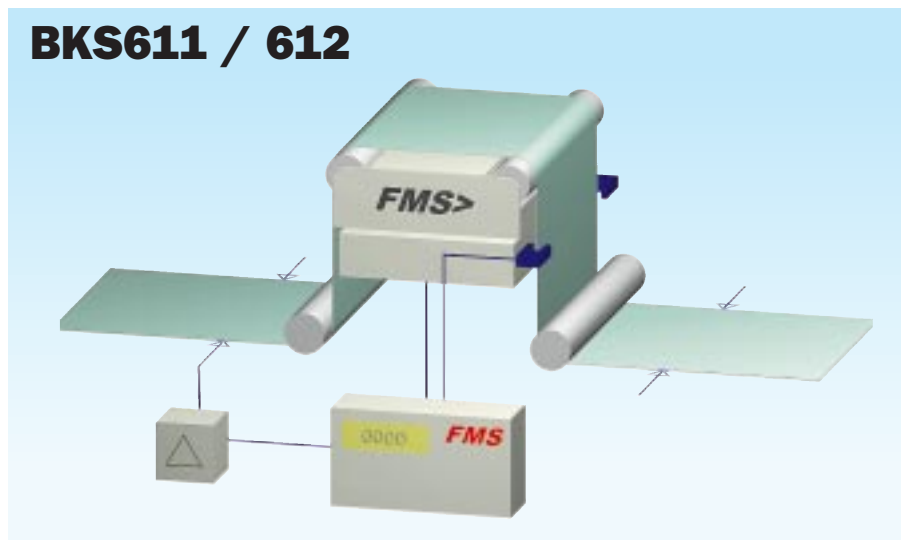
With motorized sensor adjustment, the sensors automatically find the web edge.



### Width Measurement Width Control

The BKS611 web guide controllers controls one steering frame. Two analog sensors transmit the left and right edge positions to the control unit giving a centre guide function. It controls the web position and also calculates the web width (width measurement). The output of the BKS612 can be used to control the width of a blown film extruder for example (width control).

The web width measurement / control can also be used without a steering frame.



### All-In-One Systems

The All-In-One Systems of the KMGZ600 series can provide control / measurement of nearly any combination of web tension measuring amplifiers, web tension controllers, and multiple web guiding systems. They are the answer to the industry's requirements for a higher level of integration. The modular design allows the KMGZ600 series to be matched to your specific requirements.

Ask for the separate KMGZ documentation!

